

# AMY PERFORS

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## Research Interests

- Higher-order cognition and social reasoning: language, category and concept learning, and decision making; hypothesis testing and generation; computational (particularly Bayesian) approaches to these issues; language acquisition; word learning; induction; linguistic and cultural evolution

## Career

- **University of Melbourne School of Psychological Sciences (2017-present)**
  - Associate Professor and Deputy Director of the Complex Human Data Hub
- **University of Adelaide School of Psychology (2008 - 2017)**
  - Hired as Lecturer; Senior Lecturer in 2012; Associate Professor in 2016
- **Ph.D., MIT Department of Brain and Cognitive Sciences (2003 - 2008)**
  - Thesis title: *Learnability, representation, and language: A Bayesian approach.*
- **Santa Fe Institute, Complex Systems Summer School (2002)**
  - Coursework in the mathematics of nonlinear dynamical systems and applications of complexity theory. Included independent research work.
- **Peace Corps of America (2000-2001)**
  - Homoine, Mozambique. Secondary school teacher and health educator (English and biology).
- **M.A., Stanford University Department of Linguistics (1999 - 2000)**
  - Thesis title: *Simulated evolution of communication: The emergence of meaning.*
- **B.S., Stanford University (1995 - 1999)**
  - Major: Symbolic systems (with distinction, with honours); Minor: Physics
  - Thesis title: *Slow and steady doesn't win the race: The relation between infant information processing skills and language comprehension.*

## Grants

- 2018: Defence Science Technology Group, worth \$887,593. Chief Investigator. Title: *Understanding information and trust: From the individual to the population.* Strategic Research Initiative, Modelling Complex Human Systems Under Uncertainty
- 2018: Defence Science Technology Group, worth \$93,495. Chief Investigator. Title: *Modelling and studying information and influence in human populations.* Strategic Research Initiative pilot
- 2018 - 2021: ARC Discovery Project DP180103600, worth \$290,011. Chief Investigator. Title: *Where do inductive biases come from? A Bayesian investigation.* 15-20% funding rate.
- 2014 - 2017: ARC Discovery Project DP150103280, worth \$301,300. Chief Investigator. Title: *Learning from others: Inductive reasoning based on human-generated data.* 15-20% funding rate.
- 2016 - University of Adelaide Small Grant Scheme, worth \$20,000. Partner investigator. Title: *Decision-making in a high-risk, uncertain scenario: The case of vaccination.* 20% funding rate.

- 2011 - 2015: ARC Discovery Early Career Researcher Award (DECRA) DE120102378, worth \$375,000. Chief investigator. Title: *What shapes the structure of language? An experimental and computational investigation*. 15-20% funding rate.
- 2010 - 2014: ARC Discovery Project DP110104949, worth \$454,995. Chief investigator. Title: *How are beliefs altered by data? Robust Bayesian models for human inductive learning*. 15-20% funding rate.
- 2007 - 2008: National Science Foundation (NSF) Graduate Research Fellowship: full tuition plus \$30,000 annual living stipend for two years, earned in 2004, deferred until 2007; 10% funding rate
- 2004 - 2006: National Defense Science and Engineering Graduate (NDSEG) Fellowship: full tuition plus \$30,000 annual living stipend for three years; 7% funding rate

## Honours and Awards

- 2019 - *Behaviour Research Methods*: Best Paper Award, De Deyne et al (2019)
- 2016 - *COLING*: Best Paper Award, De Deyne et al (2016)
- 2016 - *Language Learning & Development*: Peter Jusczyk Best Paper Award Winner, Perfors (2016)
- 2016 - Cognitive Science Conference: Marr Award for Best Student Paper, Vong et al (2016)
- 2011 - Executive Dean's Prize for Excellence in Teaching (University of Adelaide), awarded to five out of 700+ staff in the Faculty of Health Sciences
- 2007, 2006 - Walle Nauta Award for Continuing Dedication to Teaching (MIT)
- 2005 - Angus MacDonald Award for Excellence in Undergraduate Teaching (MIT)
- 2003 - Centennial TA Award, given to the top TA in each department (Stanford)
- 2000 - Center for Teaching and Learning Award for Excellence in Teaching (Stanford)
- 1999 - Firestone Medal for Excellence in Undergraduate Research (top 10% of honors theses)
- 1999 - Dean's Award for Academic Excellence, Stanford's most prestigious academic honor, annually awarded to eight undergraduates in the entire university

## Book

1. Chater, N., Clark, A., Goldsmith, J., Perfors, A. (2015) *Empiricism and language learnability*. Oxford University Press. Author order determined alphabetically.

## Journal articles

2. De Deyne, S., Navarro, D., Perfors, A., Brysbaert, M., Storms, G. (2019) The "Small World of Words" English word association norms for over 12,000 cue words. *Behaviour Research Methods* 51: 987-1006
3. Hendrickson, A., Perfors, A. (2019) Cross-situational learning in a Zipfian environment. *Cognition* 189: 11-22
4. Hendrickson, A., Perfors, A., Navarro, D., Ransom, K. (2019) Sample size, number of categories and sampling assumptions: Exploring some differences between categorization and generalization. *Cognitive Psychology* 111: 80-102
5. Pryor, C., Perfors, A., Howe, P. (2019) Conformity to the descriptive norms of people with opposing political or social beliefs. *PLoS ONE* 14(7): e0219464

6. Kashima, Y., Bain, P., Perfors, A. (2019) The psychology of cultural dynamics: What is it, what do we know, and what is yet to be known? *Annual Review of Psychology* 70: 499-529
7. Vong, W.K., Hendrickson, A., Navarro, D., Perfors, A. (2019) Do additional features help or hurt category learning? The curse of dimensionality in human learners *Cognitive Science* 43: e12724
8. Pryor, C., Perfors, A., Howe, P. (2019) Even arbitrary norms influence moral decision-making *Nature Human Behaviour* 3: 57-62
9. Navarro, D., Perfors, A., Kary, A., Brown, S., Donkin, C. (2018) When extremists win: Cultural transmission via iterated learning when populations are heterogeneous. *Cognitive Science* 42: 2108-2149
10. Howe, P., Perfors, A. (2018) Commentary: An argument for how (and why) to incentivise replication: Commentary. *Brain and Behavioural Sciences* 41: E135
11. Pryor, C., Perfors, A., Howe, P. (2018) Reversing the endowment effect. *Judgment and Decision Making* 13(3): 275-286
12. Langsford, S., Perfors, A., Hendrickson, A., Navarro, D., Kennedy, L. (2018) Quantifying sentence acceptability measures: Reliability, bias, and variability. *Glossa: A Journal of General Linguistics* 3(1): 37
13. Kennedy, L., Navarro, D., Perfors, A., Briggs, N. (2017) Not every credible interval is credible: Evaluating robustness in the presence of contamination in Bayesian data analysis. *Behavioral Research Methods* 49(6): 2219-2234
14. Perfors, A. (2017) Commentary: On simplicity and emergence. *Psychonomic Bulletin and Review* 24(1): 175-176
15. Smith, K., Perfors, A., Feher, O., Samara, A., Swoboda, K., Wonnacott, E. (2017) Language learning, language use, and the evolution of linguistic variation. *Philosophical Transactions of the Royal Society B: Biological Sciences* 372(1711)
16. Tauber, S., Navarro, D., Perfors, A., Steyvers, M (2017) Bayesian models of cognition revisited: Setting optimality aside and letting data drive psychological theory. *Psychological Review* 124(4): 410-441
17. Perfors, A. (2016) Adult regularization of inconsistent input depends on pragmatic factors. *Language Learning & Development* 12: 138-155 **\*Peter Jusczyk Best Paper Award Winner\***
18. Ransom, K., Perfors, A., Navarro, D. (2016) Leaping to conclusions: Why premise relevance affects argument strength. *Cognitive Science* 40(7): 1775-1796
19. Perfors, A. (2016) Piaget, probability, causality, and contradiction. *Human Development* 59: 26-33
20. De Deyne, S., Navarro, D., Perfors, A., Storms, G. (2016) Structure at every scale: A semantic network account of the similarities between very unrelated concepts. *Journal of Experimental Psychology: General* 145(9): 1228-1254
21. Gökaydin, D., Navarro, D., Ma-Wyatt, A., Perfors, A. (2016) The structure of sequential effects. *Journal of Experimental Psychology: General* 145: 110-123
22. Hendrickson, A., Navarro, D., Perfors, A. (2016) Sensitivity to hypothesis size during information search. *Decision* 3: 62-80
23. Vong, W.K., Perfors, A., Navarro, D. (2016) The helpfulness of category labels in semi-supervised learning depends on category structure. *Psychonomic Bulletin & Review* 23: 230-238
24. Voorspoels, W., Navarro, D., Perfors, A., Ransom, K., Storms, G. (2015) How do people learn from negative evidence? Non-monotonic generalizations and sampling assumptions in inductive reasoning. *Cognitive Psychology* 81: 1-25

25. Perfors, A. (2014) Commentary: Representations, approximations, and limitations within a computational framework for cognitive science. *Physics of Life Reviews* 11 : 369-370
26. Perfors, A., Navarro, D. (2014) Language evolution can be shaped by the structure of the world. *Cognitive Science* 38 (4): 775-793
27. Navarro, D., Perfors, A., Vong, W.K. (2013) Learning time-varying categories. *Memory and Cognition* 41 : 917-927
28. Perfors, A. (2012) When do memory limitations lead to regularization? An experimental and computational investigation. *Journal of Memory and Language* 67: 486-506
29. Perfors, A. (2012) Bayesian models of cognition: What's built in after all? *Philosophy Compass* 7 (2): 127-138
30. Shafto, P., Eaves, B., Perfors, A., Navarro, D. (2012) Epistemic trust: Modeling children's reasoning about others' knowledge and intent *Developmental Science* 15 (4): 436-447
31. Perfors, A. (2012) Levels of explanation and the workings of science. *Australian Journal of Psychology* 64: 52-59
32. Navarro, D., Perfors, A. (2011) Commentary: Enlightenment grows from fundamentals. *Behavioral and Brain Sciences* 34: 207-208
33. Perfors, A., Tenenbaum, J.B., Griffiths, T., Xu, F. (2011) A tutorial introduction to Bayesian models of cognitive development. *Cognition* 120: 302-321
34. Navarro, D., Perfors, A. (2011) Hypothesis generation, hypothesis testing, and the emergence of the positive test strategy. *Psychological Review* 118: 120-134
35. Perfors, A., Tenenbaum, J.B., Regier, T. (2011) The learnability of abstract syntactic principles. *Cognition* 118 (3): 306-338
36. Griffiths, T., Chater, N., Kemp, C., Perfors, A., Tenenbaum, J. (2010) Probabilistic models of cognition: Exploring representations and inductive biases. *Trends in Cognitive Sciences* 14 (8): 357-364
37. Navarro, D., Perfors, A. (2010) Similarity, feature discovery, and the size principle. *Acta Psychologica* 133: 256-268
38. Perfors, A., Tenenbaum, J., Wonnacott, E. (2010) Variability, negative evidence, and the acquisition of verb argument constructions. *Journal of Child Language* 37: 607-642
39. Foraker, S., Regier, T., Khetarpal, N., Perfors, A., Tenenbaum, J.B. (2009) Indirect evidence and the poverty of the stimulus: The case of anaphoric one. *Cognitive Science* 33 (2): 287-300
40. Kemp, C., Perfors, A., Tenenbaum, J.B. (2007) Learning overhypotheses with hierarchical Bayesian models. *Developmental Science* 10 (3): 307-321
41. Fernald, A., Perfors, A., Marchman, V. (2006) Picking up speed in understanding: How increased efficiency in on-line speech processing relates to lexical and grammatical development in the second year. *Developmental Psychology* 42 (1): 98-116
42. Perfors, A. (2002) Simulated evolution of language: A review of the field. *Journal of Artificial Societies and Social Simulation* 5 (2)

### Peer-reviewed conference publications

43. Perfors, A., Navarro, D. (2019) Why do echo chambers form? The role of trust, population heterogeneity, and objective truth. In A Goel, C Seifert, and C Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society

44. Ransom, K., Perfors, A. (2019) Exploring the role that encoding and retrieval play in sampling effects. In A Goel, C Seifert, and C Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
45. Mehrotra, S., Perfors, A. (2019) Generic noun phrases in child speech. In A Goel, C Seifert, and C Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
46. Khoe, Y.H., Hendrickson, A., Perfors, A. (2019) Modeling individual performance in cross-situational word learning. In A Goel, C Seifert, and C Freksa (Eds.) *Proceedings of the 41st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
47. De Deyne, S., Perfors, A., Navarro, D. (2018) Learning word meaning with little means: An investigation into the inferential capacity of paradigmatic information. In C Kalish, M Rau, J Zhu and T Rogers (Eds.) *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
48. Perfors, A., Van Dam, N. (2018) Human decision making in black swan situations. In C Kalish, M Rau, J Zhu and T Rogers (Eds.) *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
49. Perfors, A., Navarro, D., Shafto, P. (2018) Stronger evidence isn't always better: A role for social inference in evidence selection and interpretation. In C Kalish, M Rau, J Zhu and T Rogers (Eds.) *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
50. Ransom, K., Hendrickson, A., Perfors, A., Navarro, D. (2018) Representational and sampling assumptions drive individual differences in single category generalisation. In C Kalish, M Rau, J Zhu and T Rogers (Eds.) *Proceedings of the 40th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society
51. De Deyne, S., Perfors, A., Navarro, D. (2017) Predicting human similarity judgments with distributional models: The value of word associations. *Proceedings of the 26th International Joint Conference on Artificial Intelligence*. 4806-4810, Melbourne, Australia
52. Langsford, S., Hendrickson, A., Perfors, A., Navarro, D. (2017) When do learned transformations influence similarity and categorization? In G Gunzelmann, A Howes, T Tenbrink, and E Davelaar (Eds.) *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. 2530-2535. Austin, TX: Cognitive Science Society
53. Navarro, D., Perfors, A., Kary, A., Brown, S., Donkin, C. (2017) When extremists win: On the behavior of iterated learning chains when priors are heterogeneous. In G Gunzelmann, A Howes, T Tenbrink, and E Davelaar (Eds.) *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. 847-852. Austin, TX: Cognitive Science Society
54. Ransom, K., Voorspoels, W., Perfors, A., Navarro, D. (2017) A cognitive analysis of deception without lying. In G Gunzelmann, A Howes, T Tenbrink, and E Davelaar (Eds.) *Proceedings of the 39th Annual Conference of the Cognitive Science Society*. 992-997. Austin, TX: Cognitive Science Society
55. De Deyne, S., Perfors, A., Navarro, D. (2016) Predicting human similarity judgments with distributional models: The value of word associations. *26th International Conference on Computational Linguistics (COLING 2016)*, Osaka, Japan: 1861-1870 **\*Best Paper Award Winner\***
56. Vong, W.K., Hendrickson, A., Perfors, A., Navarro, D. (2016) Do additional features help or harm during category learning? An exploration of the curse of dimensionality in human learners. In A Papafragou, D Grodner, D Mirman and JC Trueswell (Eds.) *Proceedings of the 38th Annual Conference of the Cognitive Science Society*. 2471-2476. Austin, TX: Cognitive Science Society. **\*Marr Prize Winner for Best Student Paper\***

57. De Deyne, S., Verheyen, S., Perfors, A., Navarro, D. (2015) Evidence for widespread thematic structure in the mental lexicon. In R. Dale, C. Jennings, P. Maglio, T. Matlock, D. Noelle, A. Warlaumont, J. Yoshimi (Eds.) *Proceedings of the 37th Annual Conference of the Cognitive Science Society*. 518-523. Austin, TX: Cognitive Science Society.
58. Perfors, A., Ransom, K., Navarro, D. (2014) People ignore token frequency when deciding how far to generalize. In P. Bellow, M. Guarini, M. McShane, B. Scassellati (Eds.) *Proceedings of the 36th Annual Conference of the Cognitive Science Society*: 2759-2764. Austin, TX: Cognitive Science Society.
59. Hendrickson, A., Navarro, D., Perfors, A. (2014) Adaptive information source selection during hypothesis testing. In P. Bellow, M. Guarini, M. McShane, B. Scassellati (Eds.) *Proceedings of the 36th Annual Conference of the Cognitive Science Society*: 607-612. Austin, TX: Cognitive Science Society.
60. Langsford, S., Hendrickson, A., Perfors, A., Navarro, D. (2014) People are sensitive to hypothesis sparsity during category discrimination. In P. Bellow, M. Guarini, M. McShane, B. Scassellati (Eds.) *Proceedings of the 36th Annual Conference of the Cognitive Science Society*: 2531-2536. Austin, TX: Cognitive Science Society.
61. Vong, W.K., Perfors, A., Navarro, D. (2014) The relevance of labels in semi-supervised learning depends on category structure. In P. Bellow, M. Guarini, M. McShane, B. Scassellati (Eds.) *Proceedings of the 36th Annual Conference of the Cognitive Science Society*: 1718-1723. Austin, TX: Cognitive Science Society.
62. Vong, W.K., Hendrickson, A., Perfors, A., Navarro, D. (2013) The role of sampling assumptions in generalization with multiple categories. In M. Knauff, M. Pauen, N. Sebanz, & I. Wachsmuth (Eds.) *Proceedings of the 35th Annual Conference of the Cognitive Science Society*: 3699-3704. Austin, TX: Cognitive Science Society.
63. Perfors, A. (2012) Probability matching vs. over-regularization in language: Participant behavior depends on their interpretation of the task. In Miyake, N., Peebles, D., & Cooper, R. (eds) *Proceedings of the 34th Annual Conference of the Cognitive Science Society*: 845-850. Austin, TX: Cognitive Science Society.
64. Perfors, A., Ong, J. (2012) Musicians are better at learning non-native sound contrasts even in non-tonal languages. In Miyake, N., Peebles, D., & Cooper, R. (eds) *Proceedings of the 34th Annual Conference of the Cognitive Science Society*: 839-844. Austin, TX: Cognitive Science Society.
65. De Deyne, S., Navarro, D., Perfors, A., Storms, G. (2012) Strong structure in weak semantic similarity: A graph based account. In Miyake, N., Peebles, D., & Cooper, R. (eds) *Proceedings of the 34th Annual Conference of the Cognitive Science Society*: 1464-1469. Austin, TX: Cognitive Science Society.
66. Navarro, D., Perfors, A. (2012) Anticipating changes: Adaptation and extrapolation in category learning. In Miyake, N., Peebles, D., & Cooper, R. (eds) *Proceedings of the 34th Annual Conference of the Cognitive Science Society*: 809-814. Austin, TX: Cognitive Science Society.
67. Perfors, A., Navarro, D. (2011) Language evolution is shaped by the structure of the world: An iterated learning analysis. In Carlson, L., Hölscher, C., & T. Shipley (eds) *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*: 477-482. Austin, TX: Cognitive Science Society.
68. Perfors, A. (2011) Memory limitations alone do not lead to over-regularization: An experimental and computational investigation. In Carlson, L., Hölscher, C., & T. Shipley (eds) *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*: 3274-3279. Austin, TX: Cognitive Science Society.
69. Gökyaydin, D., Ma-Wyatt, A., Navarro, D., Perfors, A. (2011) Humans use different statistics for sequence analysis depending on the task. In Carlson, L., Hölscher, C., & T. Shipley (eds) *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*: 543-548. Austin, TX: Cognitive Science Society.

70. Yuan, S., Perfors, A., Xu, F., Tenenbaum, J. (2011) Learning individual words and learning about words simultaneously. In Carlson, L., Hölscher, C., & T. Shipley (eds) *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*: 3280-3285. Austin, TX: Cognitive Science Society.
71. Montague, R., Navarro, D., Perfors, A., Shafto, P. (2011) To catch a liar: The effects of truthful and deceptive testimony on inferential learning. In Carlson, L., Hölscher, C., & T. Shipley (eds) *Proceedings of the 33rd Annual Conference of the Cognitive Science Society*: 1312-1317. Austin, TX: Cognitive Science Society.
72. Maurits, L., Perfors, A., Navarro, D. (2010) Why are some word orders more common than others? A uniform information density account. *Advances in Neural Information Processing Systems* 23: 1585-1593. Cambridge, MA: MIT Press.
73. Perfors, A., Burns, N. (2010) Adult language learners under cognitive load do not over-regularize like children. In R. Camtrabone & S. Ohlsson (eds) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 2524-2529.
74. Perfors, A., Dunbar, D. (2010) Phonetic training makes word learning easier. In R. Camtrabone & S. Ohlsson (eds) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1613-1618.
75. Perfors, A., Navarro, D. (2010) How does the presence of a label affect attention to other features? In R. Camtrabone & S. Ohlsson (eds) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1834-1839.
76. Stephens, R., Perfors, A., Navarro, D. (2010) Social context effects on the impact of category labels. In R. Camtrabone & S. Ohlsson (eds) *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1411-1416.
77. Perfors, A., Navarro, D. (2009) Confirmation bias is rational when hypotheses are sparse. In N. Taatgen, H. van Rijn, L. Schomaker, & J. Nerbonne (eds). *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 2471-2476.
78. Maurits, L., Perfors, A., Navarro, D. (2009) Joint acquisition of word order and word reference. In N. Taatgen, H. van Rijn, L. Schomaker, & J. Nerbonne (eds). *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1728-1733.
79. Navarro, D., Perfors, A. (2009) Learning time-varying categories. In N. Taatgen, H. van Rijn, L. Schomaker, & J. Nerbonne (eds). *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 419-424.
80. Perfors, A., Tenenbaum, J.B. (2009) Learning to learn categories. In N. Taatgen, H. van Rijn, L. Schomaker, & J. Nerbonne (eds). *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 136-141.
81. Ejova, A., Navarro, D., Perfors, A. (2009) When to walk away: The effect of variability on keeping options viable. In N. Taatgen, H. van Rijn, L. Schomaker, & J. Nerbonne (eds). *Proceedings of the 31st Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1258-1263.
82. Foraker, S., Regier, T., Khetarpal, N., Perfors, A., Tenenbaum, J.B. (2007) Indirect evidence and the poverty of the stimulus: The case of anaphoric one. In D. McNamara & J. Trafton (eds.) *Proceedings of the 29th Annual Conference of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 275-281.
83. Perfors, A., Tenenbaum, J., Regier, T. (2006) Poverty of the stimulus? A rational approach. In R. Sun & N. Miyake (eds.) *Proceedings of the 28th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 663-668.
84. Kemp, C., Perfors, A., Tenenbaum, J. (2006) Learning overhypotheses. In R. Sun & N. Miyake (eds.) *Proceedings of the 28th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 417-422.

85. Perfors, A., Kemp, C., Tenenbaum, J. (2005) Modeling the acquisition of domain structure and feature understanding. In B. Bara, L. Barsalou, & M. Bucciarelli (eds.) *Proceedings of the 27th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 1720-1725.
86. Kemp, C., Perfors, A., Tenenbaum, J. (2004) Learning domain structures. In K. Forbus, D. Gentner, & T. Regier (eds.) *Proceedings of the 26th Annual Meeting of the Cognitive Science Society*. Austin, TX: Cognitive Science Society: 672-677.

## Invited chapters

87. Perfors, A. (2014) Induction in language learning. In P. Brooks & V. Kempe (eds). *Encyclopedia of Language Development*. Sage Publications. 281-283
88. Perfors, A. (2014) Bayesian inference in word learning. In P. Brooks & V. Kempe (eds). *Encyclopedia of Language Development*. Sage Publications. 46-49
89. Perfors, A., Navarro, D. (2012) What Bayesian modelling can tell us about statistical learning: What it requires and why it works. In P. Rebuschat & J. Williams (eds). *Statistical learning and language acquisition*. Mouton de Gruyter. 383-408.
90. Perfors, A., Wonnacott, E. (2011) Bayesian modeling of sources of constraint in language acquisition. In I. Arnon & E. Clark (eds). *Experience, Variation, and Generalization: Learning a first language*. John Benjamins Publishing Company. 277-294
91. Perfors, A. (2011) Simplicity and fit in grammatical theory. In E. Bender & J. Arnold (eds). *Language from a cognitive perspective: Grammar, usage, and processing*. CSLI Publications: Stanford University. 99-120
92. Perfors, A., Tenenbaum, J.B., Gibson, E., Regier, T. (2010) How recursive is language? A Bayesian exploration. In H. van der Hulst (ed). *Recursion and Human Language*. Berlin: Mouton de Gruyter: 159-175.
93. Xu, F., Dewar, K., Perfors, A. (2009) Induction, overhypotheses, and the shape bias: Some arguments and evidence for rational constructivism. In B. Hood & L. Santos (eds.) *The origins of object knowledge*. Oxford University Press: 263-284.
94. Wasow, T., Perfors, A., Beaver, D. (2005) The puzzle of ambiguity. In O. Orgun and P. Sells (eds) *Morphology and the Web of Grammar: Essays in Memory of Steven G. Lapointe*. CSLI Publications: 265-282.



## Teaching

- **Complex Human Data Summer School (2018-present)**
  - Co-organiser and founder, with Charles Kemp and Danielle Navarro
  - Week-long introduction to data analysis, R, and online experiments
  - 74 students, all-day intensive. Overall rating of 8.6 out of 10
- **University of Melbourne (student evaluations out of 5)**
  - 2019: Honours Developmental Psychology, Honours year, ~80 students.  
No student evaluations for just me available
  - 2018-present: Developmental Psychology, 2nd year, ~800 students.  
Student evaluation: 92% positive, mean: 4.33, median: 4
  - 2018-present: Advanced Research Methods in Psychology ~120 students.  
Student evaluation: 100% positive, mean: 4.92, median: 5
  - 2018-present: Research Methods in Clinical Psychology, Clinical Masters, ~25 students.  
No student evaluations for just me available
  - 2018-present: Capstone, 3rd year, ~20 students.  
No student evaluations for just me available
- **University of Adelaide (student evaluations out of 7)**
  - 2016-2017: Doing Research in Psychology: Intro to Statistics. 2nd year, ~300 students.  
Student evaluation: 92% positive, mean: 6.4, median: 7
  - 2008-2017: Foundations of Perception & Cognition. 2nd year, ~300 students.  
Student evaluation: 94% positive, mean: 6.7, median: 7
  - 2009-2014: Perception & Cognition. 3rd year, ~200 students:  
Student evaluation: 94% positive, mean: 5.8, median: 6
  - 2010-2014: Computational Cognitive Science. 3rd year, ~15 students.  
Student evaluation: 100% positive, mean: 5.9, median: 6
  - 2010-2011: Doing Research in Psychology: Advanced Statistics. 3rd year, ~200 students.  
Student evaluation: 100% positive, mean: 6.2, median: 6
  - 2009-2011: Statistics and critical issues. Honours, ~50 students.  
Student evaluation: 100% positive, mean: 6.0, median: 6
  - 2008-2011: Introduction to Psychology. 1st year, ~500 students.  
Student evaluation: 94% positive, mean: 5.9, median: 6
- **Massachusetts Institute of Technology**
  - 2005-2008: Guest lecturer  
Cognitive science lab (graduate level)  
Language and Mind (upper level undergraduate)  
Psycholinguistics (upper level undergraduate)
  - Teaching assistant  
2007: Core class in cognitive science (9.012, graduate level)  
2005: Computational cognitive science (9.66, graduate level)  
2004: Introduction to Psychology (9.00, 1st year)
- **Stanford University**
  - Department of Human Biology  
2002-2003: Head course assistant, Human Biology Core (2nd year)  
1999-2000: Course assistant, Human Biology Core (2nd year)
- **Peace Corps (Mozambique)**
  - 2000-2001: Secondary School Biology and English Teacher  
Taught 450+ students per semester (in Portuguese); lived nearby in the village.  
Spearheaded an initiative to begin construction of a community library.

## Supervision

- **Postdoctoral associates**
  - Current: Simon De Deyne (previous DECRA award winner)  
Vanessa Ferdinand  
Keith Ransom
  - Former: Andrew Hendrickson (now Lecturer at Tilburg University)  
Sean Tauber (now postdoctoral associate at UNSW, Sydney)  
Wouter Voorspoels (now postdoctoral associate at University of Leuven)
- **PhD students**
  - Current: Elle Pattenden (secondary)  
Campbell Pryor (secondary)  
Jess Marris (secondary)
  - Former: Keith Ransom (now postdoctoral associate with me)  
Steven Langsford (now postdoctoral associate at University of Michigan)  
Lauren Kennedy (now lecturer at Monash University)  
Wai Keen Vong (now postdoctoral associate at NYU)  
Dinis Gökaydin (now unknown)  
Luke Maurits (now postdoctoral associate in Finland)  
Rachel Stephens (now lecturer at University of Adelaide)
- **Honours students**
  - 2019: Priscilla Samuel, Rachel Yam, Michaela Peters-Vranic
  - 2018: Winky Lee (1st), Angelina Zha (1st)
  - 2017: Jing Qian (1st), Peter Davies (1st), Micah Cearns (1st)
  - 2014: Zhe Khor (1st)
  - 2013: Hazel Craig (1st), Lauren Kennedy (1st)
  - 2012: Angela Vause (2nd), Wai Keen Vong (1st)
  - 2011: Natalie May (1st), Tin Yim Chuk (1st), Joey Ong (1st), Erica Behrens (2nd)
  - 2010: Alexandra Christopher (1st), Pamela Lee (1st)
  - 2009: David Dunbar (1st), Melissa de Vel (1st), Nick Colebatch (2nd), Xin Wei Sim (2nd)
- **Undergraduates and interns**
  - 2019: Joshua White
  - 2018: Cheng Chua, Vanessa Thompkins, Samarth Mehrotra
  - 2015: Siok Ling Chin
  - 2012: Lauren Kennedy, Beatrice Speck, Angela Vause, Timothy Larden, Daniel Carabellese
  - 2011: Kym McCormick, Tin Yim Chuk
  - 2009-2010: Wai Keen Vong, Natalie May, Joey Ong
  - 2008: Wylie Li

## Professional Activities

- **Editorial**
  - 2019: Action editor at *Open Mind*
  - 2015-2018: Action editor at *Cognitive Science*
  - 2015-present: Editorial board of *Cognition*
  - 2016-2019: Editorial board of *Open Mind*
  - 2015-present: Program committee for *Cognitive Science Conference*
- **Reviewing**

- Grants: Review for grant agencies in five countries (Australia, UK, US, Netherlands, Israel)
- Journals: Review for 25+ journals including some of the best ones in the field like *Brain & Behavioral Sciences*, *Cognitive Psychology*, *Developmental Science*, *Trends in Cognitive Sciences*, *PNAS*, and *Psychological Review*.
- Conferences: Review for eight conferences in cognitive science, computational linguistics, language evolution, and machine learning

- **External advising**

- 2019: Dissertation external member for Jon Carr, University of Edinburgh
- 2018: Dissertation external member for Babette Rae, University of Newcastle
- 2017: Dissertation external member for Gabriel Tillman, University of Newcastle
- 2016: Dissertation external member for Pragati Vasuki, Macquarie University
- 2014: Dissertation external member for Vanessa Ferdinand, University of Edinburgh
- 2014: Dissertation external member for Ben Borschinger, Macquarie University
- 2010: Dissertation external member for Magdalena Dimitru, Macquarie University

- **Service**

- 2018-present: Member, Data, Systems and Society Research Network (Univ. Melbourne)
- 2018-present: Associate Investigator, Centre of Excellence for the Dynamics of Language
- 2018-present: Deputy Director of Teaching & Learning (Univ. Melbourne)
- 2018: Member, Level C/D search committee, Social Psychology (Univ. Melbourne)
- 2017: Member, Advisory committee, Australasian Society for Philosophy and Psychology
- 2017: Main organiser, 1st Australian Computational Social Science Workshop
- 2017-present: Deputy Director of Complex Human Data Hub (Univ. Melbourne)
- 2017: Member, Level B search committee, School of Mathematics & Statistics (Univ. Adelaide)
- 2016-2017: Member, Faculty of Health Sciences research committee (Univ. Adelaide)
- 2015-2017: Convenor and Chair, School research committee (Univ. Adelaide)
- 2009-2011, 2015-2017: Organiser, School seminar (Univ. Adelaide)
- 2010-2011: Member, School infrastructure support committee (Univ. Adelaide)
- 2008-2009: Member, School Occupational Health & Safety Committee (Univ. Adelaide)
- 2005-2006: Member, Dept of Brain & Cognitive Sciences Faculty Search Committee (MIT)
- 2004-2005: Graduate student representative, Dept of Brain & Cognitive Sciences (MIT)

### Selected invited talks (does not include department colloquia, conferences, or symposia)

1. *Understanding information and trust: From individuals to populations*. Plenary, 6th ASOR National Conference for the Australian Society of Operations Research and Defence Operations Research Symposium. December 2018
2. *What makes us smart? On human and artificial intelligence*. Public lecture, University of Melbourne School of Psychological Sciences May Lecture series. May 2018
3. *Trust and pragmatics in language learning and evolution*. Plenary, Centre of Excellence for the Dynamics of Language summer school. December 2017
4. *Probabilistic approaches to human cognition: What can the math tell us?* University of Adelaide School of Mathematics and Statistics. June 2017
5. *Human decision making and information transmission: vaccination and extremism*. University of New South Wales. June 2017
6. *Data, language, and the mind: How people (and computers) learn, communicate, and reason about a complex world*. University of Rochester and UC Irvine. January 2017

7. *Who said that, and why? How assumptions about socially-generated data drive human learning.* Rational Inferences Workshop, CCD Developing Mind Series. Macquarie University. October 2016
8. *An exploration of when adults regularise, when they don't, and why.* Language Evolution and Computation Group, University of Edinburgh, UK. July 2014
9. *Levels of representation.* NeuroCog collective, Coffs Harbour. June 2014
10. *On the informational value of negative evidence.* Stanford workshop on Gradience in Grammar, Stanford University. January 2014
11. *Acquisition of linguistic structure and regularity: What can the models tell us?* Mayfest conference on the role of computational models in linguistic theory, University of Maryland. May 2012
12. *Language acquisition, representation, and use: What can we learn from computational and experimental evidence?* Harvard-Australia Workshop on Language, Learning, and Logic, Macquarie University. Aug 2011
13. *Comparing adult and child learners: The case of over-regularisation* Stanford University Computational Language Group, Stanford University University. July 2011
14. *Language evolution is shaped by the structure of the world* Language Evolution and Computation Group, University of Edinburgh, UK. July 2011
15. *For better or for worse? Exploring the source of differences between adult and child language acquisition* Macquarie Centre for Cognitive Science, Macquarie University. October 2010
16. *What's innate, and how much input is enough?* Probabilistic Models of Cognitive Development Workshop, Banff, Canada. May 2009
17. *Learnability in language acquisition* Berkeley Workshop on Connectionist and Probabilistic Models of Cognition, Berkeley, CA. August 2008
18. *Word learning: Bayes, labels, and inductive constraints.* Workshop on New Directions in Word Learning, York, UK. April 2008
19. *A Bayesian approach to the poverty of the stimulus.* Machine Learning and Cognitive Science of Language Acquisition Workshop, University College London. June 2007
20. *Hierarchical phrase structure and recursion: A Bayesian exploration of learnability.* Recursion in Human Languages Workshop, Normal, IL. April 2007

## Miscellaneous

- **Family**  
Mother to two children, Sam and Luke, born in October 2012 and July 2015
- **Citizenship**  
Australian, American
- **Rugby**  
Old Collegian's Women's Rugby Team (2009-2010), Adelaide  
MIT Women's Rugby Team (2003-2006); flanker/scrumhalf and captain (2005)  
San Francisco Women's Rugby Club (captain and MVP) (2000, 2002)  
Stanford Women's Rugby: Division I National Champions (1999) and runners-up (1998)