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The material in this book is not independent of our publications in the cognitive science literature. Sometimes, an article was turned into a book chapter; at other times, a book chapter spawned an article. Here we would like to acknowledge our published articles that contain text and figures resembling, to varying degrees, those used in this book. These articles often may be consulted for a more extensive and formal exposition of the material at hand.

Chapter 1: The basics of Bayesian analysis

 Wagenmakers, E.-J., Lodewyckx, T., Kuriyal, H., & Grasman, R. (2010). Bayesian hypothesis testing for psychologists: A tutorial on the Savage–Dickey method. Cognitive Psychology, 60, 158–189.

Chapter 6: Latent-mixture models

Ortega, A., Wagenmakers, E.-J., Lee, M. D., Markowitsch, H. J., & Piefke, M. (2012).
 A Bayesian latent group analysis for detecting poor effort in the assessment of malingering. Archives of Clinical Neuropsychology, 27, 453–465.

Chapter 7: Bayesian model comparison

 Scheibehenne, B., Rieskamp, J., & Wagenmakers, E.-J. (2013). Testing adaptive toolbox models: A Bayesian hierarchical approach. *Psychological Review*, 120, 39–64. Wagenmakers, E.-J., Lodewyckx, T., Kuriyal, H., & Grasman, R. (2010). Bayesian hypothesis testing for psychologists: A tutorial on the Savage–Dickey method. Cognitive Psychology, 60, 158–189.

Chapter 8: Comparing Gaussian means

Wetzels, R., Raaijmakers, J. G. W., Jakab, E., & Wagenmakers, E.-J. (2009). How
to quantify support for and against the null hypothesis: A flexible WinBUGS implementation of a default Bayesian t test. Psychonomic Bulletin & Review, 16,
752–760.

Chapter 9: Comparing binomial rates

 Wagenmakers, E.-J., Lodewyckx, T., Kuriyal, H., & Grasman, R. (2010). Bayesian hypothesis testing for psychologists: A tutorial on the Savage-Dickey method. *Cognitive Psychology*, 60, 158–189.

Chapter 10: Memory retention

 Shiffrin, R. M., Lee, M. D., Kim, W., & Wagenmakers, E.-J. (2008). A survey of model evaluation approaches with a tutorial on hierarchical Bayesian methods. Cognitive Science, 32, 1248–1284.

Chapter 11: Signal detection theory

- Lee, M. D. (2008). BayesSDT: Software for Bayesian inference with signal detection theory. Behavior Research Methods, 40, 450–456.
- Lee, M. D. (2008). Three case studies in the Bayesian analysis of cognitive models.
 Psychonomic Bulletin & Review, 15, 1–15.

Chapter 13: Extrasensory perception

- Wagenmakers, E.-J. (2012). Can people look into the future? Contribution in honor of the University of Amsterdam's 76th lustrum.
- Wagenmakers, E.-J., Wetzels, R., Borsboom, D., van der Maas, H. L. J., & Kievit, R. A. (2012). An agenda for purely confirmatory research. *Perspectives on Psy-chological Science*, 7, 627–633.

Chapter 14: Multinomial processing trees

Matzke, D., Dolan, C. V., Batchelder, W. H., & Wagenmakers, E.-J. (in press).
 Bayesian estimation of multinomial processing tree models with heterogeneity in participants and items. *Psychometrika*.

Chapter 15: The SIMPLE model of memory

 Shiffrin, R. M., Lee, M. D., Kim, W., & Wagenmakers, E.-J. (2008). A survey of model evaluation approaches with a tutorial on hierarchical Bayesian methods. *Cognitive Science*, 32, 1248–1284.

Chapter 16: The BART model of risk taking

 van Ravenzwaaij, D., Dutilh, G., & Wagenmakers, E.-J. (2011). Cognitive model decomposition of the BART: Assessment and application. *Journal of Mathematical Psychology*, 55, 94–105.

Chapter 17: Generalized context model

- Lee, M. D. & Wetzels, R. (2010). Individual differences in attention during category learning. In R. Catrambone & S. Ohlsson (Eds.), *Proceedings of the 32nd Annual Conference of the Cognitive Science Society*, pp. 387–392. Austin, TX: Cognitive Science Society.
- Bartlema, A., Lee, M. D., Wetzels, R., & Vanpaemel, W. (2012). Bayesian hierarchical mixture models of individual differences in selective attention and representation in category learning. Manuscript submitted for publication.

Chapter 18: Heuristic decision-making

 Lee, M. D. & Newell, B. R. (2011). Using hierarchical Bayesian methods to examine the tools of decision-making. Judgment and Decision Making, 6, 832–842.

Chapter 19: Number concept development

- Lee, M. D. & Sarnecka, B. W. (2010). A model of knower-level behavior in numberconcept development. Cognitive Science, 34, 51–67.
- Lee, M. D. & Sarnecka, B. W. (2011). Number knower-levels in young children: Insights from a Bayesian model. *Cognition*, 120, 391–402.