

# Mijke Rhemtulla

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CONTACT INFORMATION	Department of Psychology University of Amsterdam Weesperplein 4, Room 208 1018 XA Amsterdam, Netherlands	+31 063 641 2897 m.rhemtulla@uva.nl www.mijkerhemtulla.socsci.uva.nl
RESEARCH INTERESTS	Structural equation modeling; Methods and designs for missing data; Latent variable versus network models of psychological constructs; Early childhood cognitive development	
ACADEMIC APPOINTMENTS	<i>Assistant Professor, Psychological Methods</i> University of Amsterdam, Department of Psychology, Amsterdam, NL	07/2013 - Present
	<i>Banting Postdoctoral Fellow, Psychological Methods</i> University of Kansas, Center for Research Methods and Data Analysis, Lawrence, KS	06/2011 - 05/2013
	<i>Postdoctoral Fellow, Psychological Methods</i> University of Kansas, Center for Research Methods and Data Analysis, Lawrence, KS	08/2010 - 05/2011
	<i>Visiting Scholar</i> University of Texas, Department of Psychology, Austin, TX	01/2010 - 06/2010
EDUCATION	<i>PhD, Developmental Psychology</i> University of British Columbia, Department of Psychology, Vancouver, BC Minor: Quantitative Methods	06/2005 - 11/2010
	<i>MA, Developmental Psychology</i> University of British Columbia, Department of Psychology, Vancouver, BC	09/2003 - 05/2005
	<i>BA (Honours), Psychology</i> University of Alberta, Edmonton, AB	09/1997 - 05/2002
GRANTS AND FELLOWSHIPS	<i>Marie Curie Career Integration Grant</i> European Research Council (€100,000) Project Title: Application of model selection principles to distinguish network and latent variable models of psychological constructs	03/2014 - 02/2017
	<i>Banting Postdoctoral Fellowship</i> Social Sciences and Humanities Research Council of Canada (\$140,000) Project Title: Planned missing data designs for developmental research	05/2011 - 04/2013
	<i>SSHRC Postdoctoral Fellowship (declined)</i> Social Sciences and Humanities Research Council of Canada (\$76,000) Project Title: Gene by environment interactions affecting school readiness in early childhood	05/2011 - 04/2013
	<i>Sir James Lougheed Award of Distinction</i> Alberta Scholarship Programs (\$20,000) Project Title: Infants' use of causal properties to individuate objects	09/2008 - 08/2009

*UBC Graduate Fellowship* 09/2008 - 08/2009  
University of British Columbia (\$17,000)  
Project Title: Preschoolers' use of shared proper names in inductive inference

*Pacific Century /UBC Graduate Fellowship (declined)* 09/2007 - 08/2008  
University of British Columbia (\$16,000)  
Project Title: Children's use of fictional character identity in inductive inference

*Canada Graduate Scholarship* 09/2005 - 08/2007  
Natural Sciences and Engineering Research Council of Canada (\$70,000)  
Project Title: Infants' use of syntactic cues for object individuation

*PGS-2 Graduate Scholarship* 09/2005 - 08/2007  
Natural Sciences and Engineering Research Council of Canada (\$70,000)  
Project Title: Children's acquisition of adjective placement rules

ARTICLES UNDER  
REVIEW

Epskamp, S., Rhemtulla, M., & Borsboom, D. Generalized network psychometrics: Combining network and latent variable models. *Psychometrika*.

Rhemtulla, M., Fried, E. I., Aggen, S. H., Tuerlinckx, F., Kendler, K., & Borsboom, D. Network analysis of substance abuse and dependence symptoms. *Drug and Alcohol Dependence*.

Rhemtulla, M. Population performance of SEM parceling strategies under measurement and structural model misspecification. *Psychological Methods*.

Savalei, V., & Rhemtulla, M. Normal theory two-stage estimator for models with composites when data are missing at the item level. *Psychometrika*.

Harden, K. P., Rhemtulla, M., Briley, D., & Tucker-Drob, E. M. An integrative conceptual review of candidate gene and quantitative genetic studies of gene  $\times$  environment interaction: Toward a common theoretical framework. *Development and Psychopathology*.

PEER-REVIEWED  
PUBLICATIONS

Borsboom, D., Rhemtulla, M., Dolan, C., Cramer, A. O. J., Scheffer, M., & van der Maas, H. L. J. (in press). Kinds versus continua: A review of psychometric approaches to uncover the structure of psychiatric constructs. *Psychological Medicine*.

Kossakowski, J. J., Epskamp, S., Kieffer, J. M., van Borkulo, C. D., Rhemtulla, M., & Borsboom, D. (in press). The application of a network approach to health-related quality of life: Introducing a new method for assessing HRQoL in healthy adults and cancer patients. *Quality of Life Research*.

Costantini, G., Richetin, J., Borsboom, D., Fried, E. I., Rhemtulla, M., & Perugini, M. (in press). Development of indirect measures of conscientiousness: Combining a facets approach and network analysis. *European Journal of Personality*. doi: 10.1002/per.2014

Wu, W., Jia, F., Rhemtulla, M., & Little, T. D. Search for efficient complete and missing data designs for analysis of change. *Behavior Research Methods*. doi: 10.3758/s13428-015-0629-5

Boschloo, L., van Borkulo, C. D., Rhemtulla, M., Keyes, K. M., Borsboom, D., & Schoevers, R. A. (in press). The network structure of symptoms of the diagnostic and statistical manual of mental disorders. *PLoS ONE*.

Rhemtulla, M., van Bork, R., & Borsboom, D. (2015). Calling models with causal indicators measurement models implies more than they can deliver. *Measurement*, 13, 59-62.

- Howard, W. J., Rhemtulla, M., & Little, T. D. (2015). Using principal components as auxiliary variables in missing data estimation. *Multivariate Behavioral Research, 50*, 285-299.
- Wiers, R., Houben, K., Fadardi, J. S., van Beek, P., Rhemtulla, M., & Cox, W. M. (2015). Alcohol cognitive bias modification training for problem drinkers over the web. *Addictive Behaviors, 40*, 21-26.
- Rhemtulla, M., Savalei, V., & Little, T. D. (2014). On the asymptotic relative efficiency of planned missingness designs. *Psychometrika*. doi: 10.1007/s11336-014-9422-0
- Rhemtulla, M., Jia, F.\*, Wu, W., & Little, T. D. (2014). Planned missing designs to optimize the efficiency of latent growth parameter estimates. *International Journal of Behavioral Development, 38*, 5, 423-434.
- Garnier Villarreal, M.\*, Rhemtulla, M., & Little, T. D. (2014). Two-method planned missing designs for longitudinal research. *International Journal of Behavioral Development, 38*, 5, 411-422.
- Jorgensen, T. D., Rhemtulla, M., Schoemann, A., McPherson, B., Wu, W., & Little, T. D. (2014). Optimal assignment methods in three-form planned missing data designs for longitudinal panel studies. *International Journal of Behavioral Development, 38*, 5, 397-410.
- Hogue, C., Pornprasertmanit, S., Fry, M. D., Rhemtulla, M., & Little, T. D. (2013). Planned Missing Data Designs for Spline Growth Models in Salivary Cortisol Research. *Measurement in Physical Education and Exercise Science, 17*, 310-325. doi: 10.1080/1091367X.2013.831766
- Hall, D. G., & Rhemtulla, M. (2013). Young children's use of contrast in word learning: The case of proper names. *Journal of Cognition and Development*. doi: 10.1080/15248372.2013.784976
- Little, T. D., & Rhemtulla, M. (2013). Planned missing data designs for developmental researchers. *Child Development Perspectives, 7*, 199-204. doi: 10.1111/cdep.12043
- Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy neednt be one. *Psychological Methods, 18*, 285-300. doi: 10.1037/a0033266
- Savalei, V., & Rhemtulla, M. (2013). The performance of robust test statistics with categorical data. *British Journal of Mathematical and Statistical Psychology, 66*, 201-223.
- Rhemtulla, M., & Little, T. D. (2012). Planned missing data designs for research in cognitive development. *Journal of Cognition and Development, 13*, 425-438.
- Rhemtulla, M., Brosseau-Liard, P., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under sub-optimal conditions. *Psychological Methods, 17*, 354-373.
- Savalei, V., & Rhemtulla, M. (2012). Teachers Corner: On obtaining estimates of the fraction of missing information from FIML. *Structural Equation Modeling, 19*, 477-494.
- Shariff, A., & Rhemtulla, M. (2012). Divergent effects of beliefs in heaven and hell on national crime rates. *PLoS One, 7*, e39048.
- Yoshida, K., Rhemtulla, M., & Vouloumanos, A. (2012). Exclusion constraints facilitate statistical word learning. *Cognitive Science, 36*, 933-947.
- Rhemtulla, M., & Tucker-Drob, E. M. (2012). Gene-by-socioeconomic status interaction on school

readiness. *Behavior Genetics*, 42, 549-558.

Nicoladis, E., & Rhemtulla, M. (2011). Childrens acquisition of word order depends on semantic/syntactic role: Evidence from adjective-noun order. *First Language*, 32, 479-493.

Rhemtulla, M., & Tucker-Drob, E. M. (2011). Correlated longitudinal changes across linguistic, achievement, and psychomotor domains in early childhood: Evidence for a global dimension of development. *Developmental Science*, 14, 1245-1254.

Tucker-Drob, E. M., Rhemtulla, M., Harden, K. P., Turkheimer, E., & Fask, D. (2011). Emergence of a gene-by-socioeconomic status interaction in infant mental ability from 10 months to 2 years. *Psychological Science*, 22, 125-133.

Rhemtulla, M., & Hall, D. G. (2009). Monkey business: Children's use of character identity to infer shared properties. *Cognition*, 113, 167-176.

Rhemtulla, M., & Hall, D. G. (2009). Basic-level kinds and object persistence. *Memory & Cognition*, 27, 292-301.

Hall, D. G., Corrigan, K., Rhemtulla, M., Donegan, E., & Xu, F. (2008). Infants use of lexical-category-to-meaning links in object individuation. *Child Development*, 79, 1432-1443.

Rhemtulla, M., & Xu, F. (2007). Sortal concepts and causal continuity: Comment on Rips, Blok, & Newman (2006). *Psychological Review*, 114, 1087-1094.

Rhemtulla, M., & Xu, F. (2007). Postscript: Comment on Rips, Blok, & Newman (2006). *Psychological Review*, 114, 1095.

Nicoladis, E., & Rhemtulla, M. (2006). What is the Nature of Young Children's Implicit Grammatical Knowledge? Evidence from Adjective-Noun Constructions. In Sun, R. (ed.) Proceedings of the 28th Annual Conference of the Cognitive Science Society (pp.1875-1880) Mahwah, NJ: Erlbaum.

Xu, F. & Rhemtulla, M. (2005). In defense of psychological essentialism. In B.G. Bara, L. Barsalou, and M. Bucciarelli (eds.), Proceedings of the 27th Annual Conference of the Cognitive Science Society (pp.2377-2380). Mahwah, NJ: Erlbaum.

Westbury, C., Buchanan, L., Sanderson, S., Rhemtulla, M., & Phillips, L. (2003). Using genetic programming to discover non-linear variable interactions. *Behavior Research Methods, Instruments, and Computers*, 35, 202-216.

BOOK CHAPTERS Little, T. D., Lang, K. M., Wu, W., & Rhemtulla, M. (2016). Missing Data. In D. Cicchetti (Ed.) *Developmental Psychopathology: Theory and Method* (3rd Edition). Wiley.

Rhemtulla, M. (2014). Statistics in Psychology. In H. L. Miller (Ed.) *Encyclopedia of Theory in Psychology*. Thousand Oaks, CA: SAGE Publications.

Schoemann, A. M., Rhemtulla, M., & Little, T. D. (2014). Multilevel and longitudinal modeling. In Reis, H. T., & Judd, C. M. (Eds.) *Handbook of Research Methods in Personality and Social Psychology*. Cambridge University Press.

Rhemtulla, M. & Little, T. D. (2013). Planned Missing Data Designs for Longitudinal Organizational Research. In M. Raukko & E. Paavilainen-Mntymki (Eds.) *Handbook of Longitudinal Research Methods in Organization and Business Studies*. Edward Elgar Publishing.

CONFERENCE  
PRESENTATIONS &  
INVITED TALKS

van Bork, R.\*, Rhemtulla, M., & Borsboom, D. (2015, July). Latent variable and network model implications for (partial) correlation structures. Paper presented at the International Meetings of the Psychometric Society, Beijing, China.

Epskamp, S., Rhemtulla, M., & Borsboom, D. (2015, July). Residual interaction modeling: Unifying SEM and network modeling. Paper presented at the International Meetings of the Psychometric Society, Beijing, China.

Savalei, V., & Rhemtulla, M. (2015, July). Treating item-level missing data in SEMs when indicators are parcels. Paper presented at the International Meetings of the Psychometric Society, Beijing, China.

Rhemtulla, M. (2015, February). Item parcels in structural equation modeling. Invited talk, Department of Psychology, University of Edinburgh, Edinburgh, Scotland.

Rhemtulla, M., & Borsboom, D. (2014, June). How tigers can teach us about depression: Psychometric construct models parallel theories of kind concepts. Poster presented at the 40th Annual Meeting of the Society for Philosophy and Psychology, Vancouver, BC.

Rhemtulla, M., Tucker-Drob, E., & Harden, K. P. (2013, April). Testing the Ordinality of Latent Gene-by-Environment Interactions. Poster presented at the Biennial Meeting of the Society for Research on Child Development, Seattle, WA.

Rhemtulla, M. (2013, January). Power in planned missing data designs. Quantitative Forum, Department of Psychology, University of North Carolina, Chapel Hill, NC.

Crowe, K. S., Moore, E. W., Rhemtulla, M., & Little, T. D. (2012, July). Leveraging planned missing data designs to increase information and efficiency. Poster presented at the International Meetings of the Psychometric Society, Lincoln, NE.

Rhemtulla, M., & Savalei, V. (2012, May). Power in planned missingness designs. Paper presented at Modern Modeling Methods (M3) Conference, Storrs, CT.

Schoemann, A. M., Little, T. D., Rhemtulla, M., & Pornprasertmanit, S. (2012, May). From discrete conditions to continuous factors: Rethinking methodological simulations. Paper presented at Modern Modeling Methods (M3) Conference, Storrs, CT.

Rhemtulla, M. (2012, May). Planned Missing Data Designs for Longitudinal Research. Invited talk given to the Quantitative Methods Program in Educational Psychology and the Meadows Center for Preventing Educational Risk at the University of Texas, Austin, TX.

Rhemtulla, M., Little, T. D., Moore, W. G., Gibson, K., & Wu, W. (2012, March). Planned missing designs for longitudinal research. Poster presented at the Biennial Meeting of the Society for Research on Adolescence, Vancouver, Canada.

Rhemtulla, M. (2011, August). Missing data mechanisms and techniques. Talk given at the 2011 meeting of the American Psychological Association, Washington, DC.

Rhemtulla, M., Schoemann, A., & Preacher, K. (2011, May). A multilevel SEM approach to examine dyadic correlations. Talk given at the 2011 Modern Modeling Methods conference, Storrs, CT.

Rhemtulla, M., & Hall, D. G. (2011, April). Preschoolers' attention to authenticity in inductive inference. Talk given at the 2011 meeting of the Society for Research in Child Development, Montreal, QC.

Brosseau-Liard, P. ., Rhemtulla, M., & Savalei, V. (May, 2010). How many categories are sufficient to use continuous data methods in structural equation modelling? Poster presented at the 2010 meeting of the Association for Psychological Science, Boston, MA.

Rhemtulla, M., & Hall, D. G. (2009, April). Childrens use of character identity to infer shared properties. Poster presented at the 2009 meeting of the Society for Research in Child Development, Denver, CO.

Rhemtulla, M., & Hall, D. G. (2007, November). Childrens use of proper names as the basis of inductive inference. Poster presented at the 5th Biennial Meeting of the Cognitive Development Society, Santa Fe, NM.

Hall, D. G., Rhemtulla, M., Martel, E. C., Lin, T., & Kim, J. (2007, November). Young childrens use of comparison to learn proper names. Poster presented at the 5th Biennial Meeting of the Cognitive Development Society, Santa Fe, NM.

Rhemtulla, M., & Hall, D. G. (2007, March). Toy Story revisited: Childrens understanding of fictional characters and their representations. Talk given at the 2007 meeting of the Society for Research in Child Development, Boston, MA.

Rhemtulla, M., Hall, D. G., Martel, E. C., Lin, T., Gerlitz, J., & Kim, J. J. S. (2007, March). Preschoolers use of within- and between-kind comparisons in word learning. Poster presented at the 2007 meeting of the Society for Research in Child Development, Boston, MA.

Corrigall, K., Hall, D. G., Rhemtulla, M., & Xu, F., (2007, March). Young childrens use of lexical category-to-meaning links to individuate objects. Poster presented at the 2007 meeting of the Society for Research in Child Development, Boston, MA.

Rhemtulla, M., Corrigall, K., Hall, D. G., & Xu, F. (2005, November). Infants use of syntactic cues to individuate objects: Evidence from a manual search task. Invited talk given at Ludwig-Maximilians-Universitt Mnchen, Munich, Germany.

Rhemtulla, M., & Hall, D. G. (2005, June). Concepts of individuals do not allow identity maintenance within the basic level. Poster presented at the 2005 meeting of the Society for Philosophy and Psychology, Wake Forest, NC.

Nicoladis, E., Kwong See, S., & Rhemtulla, M. (2005, June). Are mutual exclusivity violations guided by childrens assumptions about peoples word knowledge? Paper presented at the Jean Piaget Society Meeting 2005, Vancouver, BC.

Rhemtulla, M., Hall, D. G., & Xu, F. (2004, May). Infants Use of Syntactic Cues to Individuate Objects. Poster presented at the 14th International Conference on Infant Studies, Chicago, IL.

Rhemtulla, M. (2003, May). Switching strategies: Childrens use of mutual exclusivity across languages. Talk given at the 4th International Symposium on Bilingualism, Arizona State University.

Sanderson, M., Rhemtulla, M., Phillips, L. & Westbury, C. (2002, April). Using evolutionary programming to design psychometric tests. Poster presented at the Annual Joseph R. Royce Research Conference, University of Alberta, Edmonton, AB.

## TEACHING

*Multivariate Analysis*

2014

University of Amsterdam, Graduate course, 6 ECTS credits

*Structural Equation Modeling*

2014-2015

	University of Amsterdam, Graduate course, 6 ECTS credits	
	<i>Statistics for the Life Sciences</i>	2014-2015
	University of Amsterdam, Undergraduate course, 6 ECTS credits	
	<i>Advanced Structural Equation Modeling</i>	2013
	KU Summer Institutes in Statistics, 5-day course	
	Co-taught with Wei Wu, Alexander Schoemann, and Kristopher Preacher	
	<i>Modern Missing Data Methods</i>	2011-2012
	KU Summer Institutes in Statistics, 5-day workshop	
	Co-taught with Wei Wu	
	<i>Structural Equation Modeling</i>	2011
	University of Kansas, Graduate course	
	Co-taught with Alexander Schoemann	
	<i>Making missing data work: Theory and application of planned missing designs for developmental research</i>	2012
	Workshop given at the Society for Research in Child Development: Developmental Methods Conference, Tampa, FL. Co-taught with Wei Wu	
GRADUATE STUDENT MENTORSHIP	* <i>Riet van Bork</i> (Master's research internship; PhD student), UvA, 2014 - present <i>Boris Stapel</i> (Master's research internship), UvA, 2015 <i>Mae Nuijs</i> (Master's research internship), UvA, 2014 <i>Fan Xia</i> (graduate student research project), KU, 2013 <i>Mauricio Garnier-Villareal</i> (graduate student research project), KU, 2013 *recipient of the Award for best master's thesis in Psychology at UvA	
UNDERGRADUATE STUDENT MENTORSHIP	Directed study projects 2004 - 2012 <i>Candace Brown, Elaine Co, Kelly Crowe, Kelly Hamilton, Kellie Lok, Maryam Noghondarian, Sophie Ty</i>	
	Undergraduate theses 2003 - 2014 * <i>Katie Corrigan, Jayme Heininger, Bennett Kleinberg, Graham Lavender</i> *recipients of the Belkin Award for best honours thesis in Psychology at UBC	
PEDAGOGICAL TRAINING	<i>Instructional Skills Workshop</i>	2008
	1-day workshop, University of British Columbia	
	<i>Teaching and Designing Your Teaching</i>	2014
	3-day workshop, University of Amsterdam	
STATISTICAL CONSULTING	<i>UvA Department of Psychology</i>	2013-present
	<i>KU Center for Research Methods and Data Analysis</i>	2010-2013
	<i>Canadian Electroconvulsive Therapy Survey</i>	2009-2010
	<i>Dr. Barbara Purves, UBC Department of Linguistics</i>	2009
	<i>Dr. Lynn Miller, UBC Department of Education</i>	2008
	<i>UBC Department of Psychology</i>	2008

AD HOC  
REVIEWING *Behavior Research Methods*  
*British Journal of Mathematical and Statistical Psychology*  
*Child Development*  
*Cognitive Linguistics*  
*Developmental Psychology*  
*Developmental Science*  
*Educational Research Review*  
*Educational Measurement: Issues and Practice*  
*Infancy*  
*International Journal of Behavioral Development*  
*The Journal of Experimental Education*  
*Multivariate Behavioral Research*  
*Philosophical Psychology*  
*PLOS one*  
*Psychological Methods*  
*Psychological Review*  
*Structural Equation Modeling*

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PROFESSIONAL  
MEMBERSHIPS Interuniversity Graduate School of Psychometrics and Sociometrics  
Association for Psychological Science