**Erasmus University Rotterdam CSC PhD 2014**

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| School/  Department | Faculty of Social Sciences, Institute of Psychology |
| Project Title: | An innovative approach to cognitive experimental psychology using latent variable models |
| Abstract: | Generally stated, the research of our group (consisting of Phd students and master students) focusses on understanding the cognitive mechanisms that underlie true and false memory as well as forgetting. We have been working on this general them within the context of a number of well-known cognitive psychological phenomena,  such as the spacing effect (i.e., the finding that spaced study leads to better memory than massed study), the testing effect (i.e., the finding that retrieval practice leads to better retention than restudy), the production effect (the finding that words that have been read aloud during study are better remembered than words read silently), and the DRM-illusion (the false-memory illusion found in associated words lists). Moreover, we investigate these phenomena from a theory-driven perspective using latent variable models, such as latent class analysis and item response theory. This approach has been very successful as evidenced by cum laude dissertations of dr. Bouwmeester and dr. Verkoeijen, and by several publications in high impact journals like *Journal of Experimental Psychology: General,* *Journal of Memory and Language, Psychological Science, Journal of Experimental Child psychology*. Moreover parts of our research have been funded by The Netherlands Organization for Scientific Research, the Erasmus University and Municipality of Rotterdam.  In one of our current research projects we aim to investigate the bifurcation model of the testing effect (see e.g. Halamish & Björk, 2011) using a latent variable approach. One possibility for a PhD student is to work on this project, but it is also possible for a PhD student to join other ongoing projects. |
| Requirements of a Candidate | Background: the applicant should have a strong background in statistics and methodologies and in experimental psychology. Moreover, knowledge of cognitive psychological research is required.  Master degree: Yes  Ielts grade: 7.0 (minimal 6 per component)  or  Toefle: 100 (minimal 20 per component) |

Contact **If you are interested, please contact our Main Representative in China, Ms. Yaxian Wu:** [**y.wu@abd.eur.nl**](mailto:y.wu@abd.eur.nl)

List of Publications

In press

Goodbole, N. R., Delaney, P.F. & **Verkoeijen, P.P.J.L.** (in press). The spacing effect in immediate and delayed free recall. *Memory.*.

Koppenol-Gonzalez, G.V., **Bouwmeester, S.** & Vermunt, J.K. (in press). Short term memory for serial order: Unraveling individual differences in the use of processes and changes across tasks. *Frontiers in Cognition.*

Engelen, J.A.A., **Bouwmeester, S**., Bruin, A.B.H. de & Zwaan, R.A. (in press) Eye Movements Reveal Differences in Children's Referential Processing during Narrative Comprehension Journal of Experimental Child Psychology. *Journal of Experimental Child Psychology.*

Goossens, N. A. M. C., Camp, G., **Verkoeijen, P. P. J. L**., & Tabbers, H. K. (in press). The effect of retrieval practice in primary school vocabulary learning. *Applied Cognitive Psychology.*

**Verkoeijen, P. P. J. L., & Bouwmeester, S.** (in press). Is spacing really “the friend of induction”? *Frontiers in Psychology.*

2013

Peter, M., Schuurmans, H, Vingerhoets, A.J.J.M., Smeets, G., **Verkoeijen, P.P.J.L**. & Arntz, A. (2013). Borderline Personality disorder and Emotional Intelligence. *Journal of Nervous and Mental Disease, 201*(2), 99-104.

**Verkoeijen**, P.P.J.L. & Tabbers, H.K. (2013). Good research requires productive theories and guidelines. *Medical Education, 47*(9), 863-865.

Vandeberg, L., **Bouwmeester, S**., Bocanegra, B. R., & Zwaan, R. A. (2013). Detecting cognitive interactions through eye movement transitions. *Journal of Memory and Language*, 69, 445-460.

Remmerswaal, D, Huijding J, **Bouwmeester, S**, Brouwer, M, Muris, P. (2013). [Cognitive bias in action: Evidence for a reciprocal relation between confirmation bias and fear in children.](http://www.ncbi.nlm.nih.gov/pubmed/23933089) *Journal of Behavioral Therapy in Experimental Psychiatry.* 45, 26-32.

2012

Zwaan, R.A., van der Stoep, N, Guadalupe, T.M. & **Bouwmeester, S.** (2012). Language comprehension in the balance: the robustness of the action-compatibility effect (ACE). *PLoS One, 7*(2).

**Verkoeijen, P.P.J.L. & Bouwmeester, S.** (2012). Gist processing in free recall and recognition: Latent variable modeling of children’s and adults’ true and false memories. *Journal of Cognitive Psychology, 24*(6), 633-646.

Koppenol-Gonzalez, G.V., **Bouwmeester, S**. & Vermunt, J.K. (2012). The development of verbal and visual working memory processes: A latent variable approach. *Journal of Experimental Child Psychology, 111*, 439-454.

**Bouwmeester, S.,** Vermunt, J. K. & Sijtsma, K. (2012). Comparing theories on transitive reasoning with respect to length using latent variable models. *Cognitive Development, 27*, 168-180.

**Bouwmeester, S. & Verkoeijen, P.P.J.L.** (2012). Multiple Representations in Number Line Estimation: a Developmental Shift or Classes of Representations? *Cognition and Instruction, 30*(3), 246-260.

**Verkoeijen, P.P.J.L., Bouwmeester, S.** & Camp, G. (2012). A short term testing effect in cross-language recognition. *Psychological Science, 23*(6), 567-571.

2011

Goossens, N.A.M.C., Camp, G., **Verkoeijen, P.P.J.L**., Tabbers, H.K. & Zwaan, R.A. (2012). Spreading the words: A spacing effect in vocabulary learning. *Journal of Cognitive Psychology, 24*(8), 965-971.

**Verkoeijen, P.P.J.L. & Bouwmeester**, S. (2012). Gist processing in free recall and recognition: Latent variable modeling of children’s and adults’ true and false memories. *Journal of Cognitive Psychology, 24*(6), 633-646.

Schaap, L., Schmidt, H.G. & **Verkoeijen, P.P.J.L**. (2012). Assessing knowledge growth in a psychology curriculum: Which students improve most? *Assessment and Evaluation in Higher Education : an international journal, 37*(7), 875-887.

**Bouwmeester, S. & Verkoeijen,** P.P.J.L. (2011). The effect of instruction method and relearning on Dutch spelling performance of third- through five-graders. *European Journal of Psychology of Education, 26*(1), 61-74.

Engelen, J.A.A., **Bouwmeester, S.,** Bruin, A.B.H. de & Zwaan, R.A. (2011). Perceptual simulation in developing language comprehension. *Journal of Experimental Child Psychology, 110*(4), 659-675.

Broeren, S.M.L., Muris, P.E.H.M**., Bouwmeester, S**., Field, A.P. & Voerman, J.S. (2011). Developmental patterns in information-processing bias in anxious and non-anxious children. *Journal of Experimental Psychopathology*.

**Bouwmeester, S. & Verkoeijen, P.P.J.L. (2011).** Why do some children benefit more from testing than others? Gist trace processing to explain the testing effect. *Journal of Memory and Language, 65*, 32-41.

**Bouwmeester, S.,** Rijen, E.H.M. van & Sijtsma, K. (2011). Understanding Phoneme Segmentation Performance by Means of an Analysis of Abilities and Word Properties. *European Journal of Psychological Assessment, 2345*.

Coppens, L.C., **Verkoeijen, P.P.J.L.** & Rikers, R.M.J.P. (2011). Learning Adinkra symbols: The effect of testing. *Journal of Cognitive Psychology, 23*(3), 351-357.

**Verkoeijen, P.P.J.L**., Tabbers, H.K. & Verhage, M. L. (2011). Comparing the Effects of Testing and Restudying on Recollection in Recognition Memory. *Experimental Psychology, 58*(6), 490-498.

Langerak, N.G., Hillier, S.L., **Verkoeijen, P.P.J.L.,** Peter, J.C., Fieggen, A.G. & Vaughan, C.L. (2011). Level of activity and participation in adults with spastic diplegia 17 to 26 years after selective dorsal rhizotomy. *Journal of Rehabilitation Medicine, 43*, 330-337.

2010

Delaney, P. F., **Verkoeijen, P.P.J.L.** & Spirgel, A. (2010). Spacing and testing effects: A deeply critical, lengthy, and at times discursive review of the literature. *Psychology of Learning and Motivation-Advances in Research and Theory, 53*, 63-148.

Heiden, C. van der, Melchior, K., Muris, P.E.H.M., **Bouwmeester, S**., Bos, A.E.R. & Molen, H.T. van der (2010). A hierarchical model for the relationships between general and specific vulnerability factors and symptom levels of generalized anxiety disorder. *Journal of Anxiety Disorders, 24*(2), 284-289.

Koppenol-Gonzalez, G.V., **Bouwmeester, S.** & Boonstra, A.M. (2010). Understanding planning ability measured by the Tower of London: an evaluation of its internal structure by latent variable modeling. *Psychological Assessment, 22*(4), 923-934.

**Bouwmeester, S. & Verkoeijen**, P.P.J.L. (2010). Latent variable modeling of cognitive processes in true and false recognition of words: A developmental perspective. *Journal of Experimental Psychology-General, 139*(2), 365-381.