



Universiteit  
Leiden  
The Netherlands

## Monitoring the coherence of texts : coherence-break detection across development

Helder, A.

### Citation

Helder, A. (2016, November 15). *Monitoring the coherence of texts : coherence-break detection across development*. Retrieved from <https://hdl.handle.net/1887/44256>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/44256>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/44256> holds various files of this Leiden University dissertation.

**Author:** Helder, A.

**Title:** Monitoring the coherence of texts : coherence-break detection across development

**Issue Date:** 2016-11-15

## **References**

## References

- Ackerman, B. P. (1984). The effects of storage and processing complexity on comprehension repair in children and adults. *Journal of Experimental Child Psychology*, 37(2), 303-334.
- Ackerman, B. P. (1986). Referential and causal coherence in the story comprehension of children and adults. *Journal of Experimental Child Psychology*, 41(2), 336-366.
- Adlof, S. M., Catts, H. W., & Little, T. D. (2006). Should the simple view of reading include a fluency component? *Reading and Writing*, 19(9), 933-958.
- Albrecht, J. E., & O'Brien, E. J. (1993). Updating a mental model: Maintaining both local and global coherence. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 19, 1061-1070.
- Arnett, J. J. (2014). *Adolescence and emerging adulthood*. Pearson Education Limited.
- Baddeley, A. (2003). Working memory and language: An overview. *Journal of Communication Disorders*, 36(3), 189-208.
- Baker, L. (1984). Children's effective use of multiple standards for evaluating their comprehension. *Journal of Educational Psychology*, 76(4), 588-597.
- Baker, L. (1985). How do we know when we don't understand? Standards for evaluations comprehension. In D. L. Forrest, G. E. MacKinnon, & T. G. Waller (Eds.), *Metacognition, cognition, and human performance* (pp. 155-205). New York: Academic Press.
- Baker, L., & Brown, A. L. (1984). Metacognitive skills in reading. In P. D. Pearson, M. Kamil, R. Barr, & P. Mosenthal (Eds.), *Handbook of reading research* (pp. 353-394). New York: Longman.
- Barth, A. E., Barnes, M., Francis, D., Vaughn, S., & York, M. (2015). Inferential processing among adequate and struggling adolescent comprehenders and relations to reading comprehension. *Reading and Writing*, 28(5), 587-609.
- Bauer, P. J. (2002). Long-term recall memory: Behavioral and neuro-developmental changes in the first 2 years of life. *Current Directions in Psychological Science*, 11, 137-141.
- Best, R. M., Floyd, R. G., & McNamara, D. S. (2008). Differential competencies contributing to children's comprehension of narrative and expository texts. *Reading Psychology*, 29, 137-164.
- Blakemore, S. J., Burnett, S., & Dahl, R. E. (2010). The role of puberty in the developing adolescent brain. *Human Brain Mapping*, 31(6), 926-933.
- Bird, C. M., Keidel, J. L., Ing, L. P., Horner, A. J., & Burgess, N. (2015). Consolidation of complex events via reinstatement in posterior cingulate cortex. *The Journal of Neuroscience*, 35(43), 14426-14434.
- Birn, R. M., Kenworthy, L., Case, L., Caravella, R., Jones, T. B., Bandettini, P. A., & Martin, A. (2010). Neural systems supporting lexical search guided by letter and semantic category cues: A self-paced overt response fMRI study of verbal fluency. *NeuroImage*, 49(1), 1099-1107.
- Bohn-Gettler, C. M., Rapp, D. N., van den Broek, P., Kendeou, P., & White, M. J. (2011). Adults' and children's monitoring of story events in the service of comprehension. *Memory & Cognition*, 39, 992-1011.
- Borella, E., Carretti, B., & Pelegrina, S. (2010). The specific role of inhibition in reading comprehension in good and poor comprehenders. *Journal of Learning Disabilities*, 43(6), 541-552.
- Bowyer-Crane, C., & Snowling, M. J. (2005). Assessing children's inference generation: What do tests of reading comprehension measure? *British Journal of Educational Psychology*, 75, 189-201.

- Brett, M., Anton, J. L., Valabregue, R., & Poline, J.-B. (2002). Region of interest analysis using an SPM toolbox. *NeuroImage*, 16, abstract 497.
- Brown, A. L., Smiley, S. S., & Lawton, S. Q. (1978). The effects of experience on the selection of suitable retrieval cues for studying texts. *Child Development*, 829-835.
- Buchweitz, A., Mason, R. A., Tomitch, L., & Just, M. A. (2009). Brain activation for reading and listening comprehension: An fMRI study of modality effects and individual differences in language comprehension. *Psychology & Neuroscience*, 2(2), 111-123.
- Cain, K. (2006). Individual differences in children's memory and reading comprehension: An investigation of semantic and inhibitory deficits. *Memory*, 14, 553-569.
- Cain, K., & Oakhill, J. (2006). Profiles of children with specific reading comprehension difficulties. *The British Journal of Educational Psychology*, 76, 683-696.
- Cain, K., & Oakhill, J. (2007). Reading comprehension difficulties: Correlates, causes, and consequences. In K. Cain & J. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 41-75). New York: Guilford.
- Cain, K., Oakhill, J., & Bryant, P. (2004). Children's reading comprehension ability: Concurrent prediction by working memory, verbal ability, and component skills. *Journal of Educational Psychology*, 96(1), 31-42.
- Carretti, B., Borella, E., Cornoldi, C., & De Beni, R. (2009). Role of working memory in explaining the performance of individuals with specific reading comprehension difficulties: A meta-analysis. *Learning and Individual Differences*, 19(2), 246-251.
- Carretti, B., Cornoldi, C., De Beni, R., & Romanò, M. (2005). Updating in working memory: A comparison of good and poor comprehenders. *Journal of Experimental Child Psychology*, 91(1), 45-66.
- Carter, C. S., & Van Veen, V. (2007). Anterior cingulate cortex and conflict detection: An update of theory and data. *Cognitive, Affective, & Behavioral Neuroscience*, 7(4), 367-379.
- Casteel, M. A. (1993). Effects of inference necessity and reading goal on children's inferential generation. *Developmental Psychology*, 29, 346-357.
- Cataldo, M. G., & Cornoldi, C. (1998). Self-monitoring in poor and good reading comprehenders and their use of strategy. *British Journal of Developmental Psychology*, 16(2), 155-165.
- Catts, H. W., Adlof, S. M., & Weismer, S. E. (2006). Language deficits in poor comprehenders: A case for the simple view of reading. *Journal of Speech, Language, and Hearing Research*, 49, 278-293.
- Cavanna, A. E., & Trimble, M. R. (2006). The precuneus: A review of its functional anatomy and behavioural correlates. *Brain*, 129(3), 564-583.
- Chall, J. S. (1996). *Stages of reading development* (2nd ed.). Fort Worth, Texas: Harcourt Brace.
- Coelho, C., Lê, K., Mozeiko, J., Krueger, F., & Grafman, J. (2012). Discourse production following injury to the dorsolateral prefrontal cortex. *Neuropsychologia*, 50(14), 3564-3572.
- Connor, C. M., Radach, R., Vorstius, C., Day, S. L., McLean, L., & Morrison, F. J. (2015). Individual differences in fifth graders' literacy and academic language predict comprehension monitoring development: An eye-movement study. *Scientific Studies of Reading*, 19(2), 114-134.
- Conway, A. R. A., Kane, M. J., Bunting, M. F., Hambrick, D. Z., Wilhelm, O., & Engle, R. W. (2005). Working memory span tasks: A methodological review and user's guide. *Psychonomic Bulletin & Review*, 12, 769-786.
- Cook, A. E., Halloran, J. G., & O'Brien, E. J. (1998). What is readily available during reading? A memory-based view of text processing. *Discourse Processes*, 26(2-3), 109-129.

## References

- Cook, A. E., & O'Brien, E. J. (2014). Knowledge activation, integration, and validation during narrative text comprehension. *Discourse Processes, 51*(1-2), 26-49.
- Cook, A. E. & O'Brien, E. J. (2015). Passive activation and instantiation of inferences during reading. In E. J. O'Brien, A. E. Cook & R. F. Lorch (Eds.), *Inferences during reading* (pp. 19-41). New York, NY: Cambridge University Press.
- Cowan, N. (2010). Multiple concurrent thoughts: The meaning and developmental neuropsychology of working memory. *Developmental Neuropsychology, 35*, 447-474.
- Cragg, L., & Nation, K. (2008). Go or nogo? Developmental improvements in the efficiency of response inhibition in midchildhood. *Developmental Science, 11*(6), 819-827.
- Dahl, R. E. (2004). Adolescent brain development: A period of vulnerabilities and opportunities. Keynote address. *Annals of the New York Academy of Sciences, 1021*(1), 1-22.
- Daneman, M., & Carpenter, P. A. (1980). Individual differences in working memory and reading. *Journal of Verbal Learning and Verbal Behavior, 19*, 450-466.
- Demetriou, A., Christou, C., Spanoudis, G., & Platsidou, M. (2002). The development of mental processing: Efficiency, working memory, and thinking. *Monographs of the Society for Research in Child Development, 67*.
- Diamond, A. (2013). Executive functions. *Annual Review of Psychology, 64*, 135.
- de Jong, P. F., & van der Leij, A. (1999). Specific contributions of phonological abilities to early reading acquisition: Results from a Dutch latent variable longitudinal study. *Journal of Educational Psychology, 91*(3), 450.
- Duke, N. K., & Pearson, P. D. (2002). Effective practices for developing reading comprehension. In A. E. Farstrup & S. J. Samuels (Eds.), *What research has to say about reading instruction* (pp. 205-242). Newark, DE: International Reading Association.
- Duncan, J. (2010). The multiple-demand (MD) system of the primate brain: mental programs for intelligent behaviour. *Trends in Cognitive Sciences, 14*(4), 172-179.
- Egidi, G., & Caramazza, A. (2013). Cortical systems for local and global integration in discourse comprehension. *NeuroImage, 71*, 59-74.
- Ehri, L. C. (2005). Learning to read words: Theory, findings, and issues. *Scientific Studies of Reading, 9*(2), 167-188.
- Ehri, L. C., Nunes, S. R., Willows, D. M., Schuster, B. V., Yaghoub-Zadeh, Z., & Shanahan, T. (2001). Phonemic awareness instruction helps children learn to read: Evidence from the National Reading Panel's meta-analysis. *Reading Research Quarterly, 36*, 250-287.
- Ehrlich, M. F., Remond, M., & Tardieu, H. (1999). Processing of anaphoric devices in young skilled and less skilled comprehenders: Differences in metacognitive monitoring. *Reading and Writing, 11*(1), 29-63.
- Eme, E., Puustinen, M., & Coutelet, B. (2006). Individual and developmental differences in reading monitoring: When and how do children evaluate their comprehension? *European Journal of Psychology of Education, 21*(1), 91-115.
- Engle, R. W. (2002). Working memory capacity as executive attention. *Current Directions in Psychological Science, 11*(1), 19-23.
- Evers, G. (2008). *Programma voor berekening Cito LeesIndex voor het Basisonderwijs. P-CLIB versie 3.0*. Arnhem: Cito.

- Evers-Vermeul, J., & van der Hoeven, J. (2015). Tekstcomplexiteit en tekststructuur in een doorgaande leeslijn. In D. Schram (Ed.), *Hoe maakbaar is de lezer?* (pp. 79-96). Stichting Lezen: Eburon.
- Ferreira, F., Bailey, K. G. D., & Ferraro, V. (2002). Good-enough representations in language comprehension. *Current Directions in Psychological Science*, 11, 11-15.
- Ferstl, E. C. (2010). Neuroimaging of text comprehension: Where are we now. *Italian Journal of Linguistics*, 22(1), 61-88.
- Ferstl, E. C. (2015). Inferences during text comprehension: What neuroscience can (or cannot) contribute. In E. J. O'Brien, A. E. Cook & R. F. Lorch (Eds.), *Inferences during reading* (pp. 230-259). New York, NY: Cambridge University Press.
- Ferstl, E. C., Neumann, J., Bogler, C., & von Cramon, D. Y. (2008). The extended language network: A meta-analysis of neuroimaging studies on text comprehension. *Human Brain Mapping*, 29(5), 581-593.
- Ferstl, E. C., Rinck, M., & von Cramon, D. Y. (2005). Emotional and temporal aspects of situation model processing during text comprehension: An event-related fMRI study. *Journal of Cognitive Neuroscience*, 17(5), 724-739.
- Ferstl, E. C. & von Cramon, D. Y. (2001). The role of coherence and cohesion in text comprehension: An event-related fMRI study. *Cognitive Brain Research*, 11, 325-340.
- Fletcher, P. C., Happe, F., Frith, U., Baker, S. C., Dolan, R. J., Frackowiak, R. S., & Frith, C. D. (1995). Other minds in the brain: A functional imaging study of "theory of mind" in story comprehension. *Cognition*, 57, 109-128.
- Fox, M. D., Snyder, A. Z., Vincent, J. L., Corbetta, M., Van Essen, D. C., & Raichle, M. E. (2005). The human brain is intrinsically organized into dynamic, anticorrelated functional networks. *Proceedings of the National Academy of Sciences of the United States of America*, 102(27), 9673-9678.
- Frankland, P. W., & Bontempi, B. (2005). The organization of recent and remote memories. *Nature Reviews Neuroscience*, 6(2), 119-130.
- Friedman, N. P., & Miyake, A. (2005). Comparison of four scoring methods for the reading span test. *Behavior Research Methods*, 37(4), 581-590.
- Galván A., Van Leijenhorst, L., & McGlennen K. M. (2012). Considerations for imaging the adolescent brain. *Developmental Cognitive Neuroscience*, 2, 293-302.
- Garner, R. (1981). Monitoring of passage inconsistency among poor comprehenders: A preliminary test of the "piecemeal processing" explanation. *Journal of Educational Research*, 74, 159-162.
- Gathercole, S. E., Pickering, S. J., Ambridge, B., & Wearing, H. (2004). The structure of working memory from 4 to 15 years of age. *Developmental Psychology*, 40(2), 177-190.
- Genovese, C. R., Lazar, N. A., & Nichols, T. (2002). Thresholding of statistical maps in functional neuroimaging using the false discovery rate. *NeuroImage*, 15(4), 870-878.
- Gernsbacher, M. A. (1991). Cognitive processes and mechanisms in language comprehension: The structure building framework. In G. H. Bower (Ed.), *The psychology of learning and motivation* (pp. 217-263). New York: Academic Press.
- Gernsbacher, M. A., Varner, K. R., & Faust, M. (1990). Investigating differences in general comprehension skill. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 16, 430-445.

## References

- Gerrig, R. J., & O'Brien, E. J. (2005). The scope of memory-based processing. *Discourse Processes*, 39, 225-242.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6-10.
- Grabe, M., Antes, J., Kahn, H., & Kristjanson, A. (1991). Adult and adolescent readers' comprehension monitoring performance: An investigation of monitoring accuracy and related eye movements. *Contemporary Educational Psychology*, 16(1), 45-60.
- Graesser, A., Singer, M., & Trabasso, T. (1994). Constructing inferences during narrative comprehension. *Psychological Review*, 101, 371-395.
- Hacker, D. J. (1997). Comprehension monitoring of written discourse across early-to-middle adolescence. *Reading and Writing*, 9, 207-240.
- Hannon, B. (2012). Understanding the relative contributions of lower-level word processes, higher-level processes, and working memory to reading comprehension performance in proficient adult readers. *Reading Research Quarterly*, 47, 125-152.
- Hasson, U., Nusbaum, H. C., & Small, S. L. (2007). Brain networks subserving the extraction of sentence information and its encoding to memory. *Cerebral Cortex*, 17, 2899-2913.
- Helder, A., van den Broek, P., Van Leijenhorst, L., & Beker, K. (2013). Sources of comprehension problems during reading. In B. Miller, L. Cutting, & P. McCardle, (Eds.) *Unraveling the behavioral, neurobiological, & genetic components of reading comprehension* (pp. 43-53). Baltimore MD: Paul Brookes Publishing.
- Helder, A., Van Leijenhorst, L., & van den Broek, P. (2016). Coherence monitoring by good and poor comprehenders in elementary school: Comparing offline and online measures. *Learning and Individual Differences*, 48, 17-23.
- Helder, A., Van Leijenhorst, L., & van den Broek, P. (in preparation). Children's online coherence monitoring performance in an implicit and explicit inconsistency detection task.
- Hogan, T. P., Adlof, S. M., & Alonso, C. N. (2014). On the importance of listening comprehension. *International Journal of Speech-Language Pathology*, 16(3), 199-207.
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing*, 2 (2), 127-160.
- Huizinga, M., Dolan, C. V., & van der Molen, M. W. (2006). Age-related change in executive function: Developmental trends and a latent variable analysis. *Neuropsychologia*, 44(11), 2017-2036.
- Hulme, C., & Snowling, M. J. (2009). *Developmental disorders of language, learning and cognition*. Chichester, England: Wiley-Blackwell.
- Hulme, C., & Snowling, M. J. (2011). Children's reading comprehension difficulties: Nature, causes, and treatments. *Current Directions in Psychological Science*, 20, 139-142.
- Isberner, M.-B., & Richter, T. (2014a). Comprehension and validation: Separable stages of information processing? A case for epistemic monitoring in language comprehension. In D. N. Rapp & J. Braasch (Eds.), *Processing inaccurate information: Theoretical and applied perspectives from cognitive science and the educational sciences*. (pp. 245-276). Boston, MA: MIT Press.
- Isberner, M.-B., & Richter, T. (2014b). Does validation during language comprehension depend on an evaluative mindset? *Discourse Processes*, 51(1-2), 7-25.
- Just, M. A., & Carpenter, P. A. (1992). A capacity theory of comprehension: Individual-differences in working memory. *Psychological Review*, 99, 122-149.
- Kendeou, P., Bohn-Gettler, C., White, M. J., & van den Broek, P. (2008). Children's inference generation across different media. *Journal of Research in Reading*, 31, 259-272.

- Kendeou, P., Papadopoulos, T. C., & Spanoudis, G. (2012). Processing demands of reading comprehension tests in young readers. *Learning and Instruction*, 22, 354-367.
- Kendeou, P., Savage, R., & van den Broek, P. (2009). Revisiting the simple view of reading. *British Journal of Educational Psychology*, 79(2), 353-370.
- Kendeou, P., Smith, E. R., & O'Brien, E. J. (2013). Updating during reading comprehension: Why causality matters. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 39(3), 854-865.
- Kendeou, P., & van den Broek, P. (2007). The effects of prior knowledge and text structure on comprehension processes during reading of scientific texts. *Memory & Cognition*, 35, 1567-1577.
- Kendeou, P., van den Broek, P., Helder, A., & Karlsson, J. (2014). A cognitive view of reading comprehension: Implications for reading difficulties. *Learning Disabilities Research & Practice*, 29(1), 10-16.
- Kendeou, P., van den Broek, P., White, M. J., & Lynch, J. S. (2009). Predicting reading comprehension in early elementary school: The independent contributions of oral language and decoding skills. *Journal of Educational Psychology*, 101, 765-778.
- Kendeou, P., White, M. J., van den Broek, P., & Lynch, J. S. (2009). Predicting reading comprehension in early elementary school: The independent contributions of oral language and decoding skills. *Journal of Educational Psychology*, 101(4), 765-778.
- Kinnunen, R., & Vauras, M. (1995). Comprehension monitoring and the level of comprehension in high-and low-achieving primary school children's reading. *Learning and Instruction*, 5(2), 143-165.
- Kintsch, W. (1988). The role of knowledge in discourse comprehension: A construction-integration model. *Psychological Review*, 95, 163-182.
- Kintsch, W. (1998). *Comprehension: A paradigm for cognition*. New York: Cambridge University Press.
- Kintsch, W., & Van Dijk, T. A. (1978). Toward a model of text comprehension and production. *Psychological Review*, 85(5), 363-394.
- Krinzinger, H., Koten, J. W., Hennemann, J., Schueppen, A., Sahr, K., Arndt, D., Konrad, K., & Willmes, K. (2011). Sensitivity, reproducibility, and reliability of self-paced versus fixed stimulus presentation in an fMRI study on exact, non-symbolic arithmetic in typically developing children aged between 6 and 12 years. *Developmental Neuropsychology*, 36(6), 721-740.
- Language and Reading Research Consortium (2015). Learning to read: Should we keep things simple? *Reading Research Quarterly*, 50, 151-169.
- Lemarié, J., Lorch, R. F., Jr., Eyrolle, H., & Virbel, J. (2008). A text-based and reader-based theory of signaling. *Educational Psychologist*, 43, 27-48.
- Linderholm, T., & van den Broek, P. (2002). The effects of reading purpose and working memory capacity on the processing of expository text. *Journal of Educational Psychology*, 94(4), 778.
- Linderholm, T., Virtue, S., van den Broek, P., & Tzeng, Y. (2004). Fluctuations in the availability of information during reading: Capturing cognitive processes using the landscape model. *Discourse Processes*, 37, 165-186.
- Locascio, G., Mahone, E. M., Eason, S. H., & Cutting, L. E. (2010). Executive dysfunction among children with reading comprehension deficits. *Journal of Learning Disabilities*, 43, 441-454.

## References

- Long, D. L., & Chong, J. L. (2001). Comprehension skill and global coherence: A paradoxical picture of poor comprehenders' abilities. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 27*, 1424–1429.
- Long, D. L., Seely, M. R., & Oppy, B. J. (1997). Individual differences in readers' sentence- and text-level representations. *Journal of Memory and Language, 36*, 129-145.
- Lorch, R. F., Jr., Lemarié, J., & Grant, R. A. (2011). Signaling hierarchical and sequential organization in expository text. *Scientific Studies of Reading, 15*, 267–284.
- Luna, B., Garver, K. E., Urban, T. A., Lazar, N. A., & Sweeney, J. A. (2004). Maturation of cognitive processes from late childhood to adulthood. *Child Development, 75*(5), 1357-1372.
- Lynch, J. S., & van den Broek, P. (2007). Understanding the glue of narrative structure: Children's on- and off-line inferences about characters' goals. *Cognitive Development, 22*(3), 323-340.
- Lynch, J. S., van den Broek, P., Kremer, K. E., Kendeou, P., White, M. J., & Lorch, E. P. (2008). The development of narrative comprehension and its relation to other early reading skills. *Reading Psychology, 29*(4), 327-365.
- Ma, W. J., Husain, M., & Bays, P. M. (2014). Changing concepts of working memory. *Nature Neuroscience, 17*(3), 347-356.
- Mandler, J. M., & Johnson, N. S. (1977). Remembrance of things parsed: Story structure and recall. *Cognitive Psychology, 9*, 111-151.
- Markman, E. M. (1979). Realizing that you don't understand: Elementary school children's awareness of inconsistencies. *Child Development, 64*3-655. doi: 10.2307/1128929
- Mason, R. A. , & Just, M. A. (2006). Neuroimaging contributions to the understanding of discourse processes. In M. Traxler & M. A. Gernsbacher (eds.), *Handbook of Psycholinguistics* (pp. 765-799). Amsterdam: Elsevier.
- McKoon, G. & Ratcliff, R. (1992). Inference during reading. *Psychological Review, 99*, 440–466.
- McMaster, K. L., van den Broek, P., Espin, C. A., White, M. J., Rapp, D. N., Kendeou, P., Bohn-Gettler, C. M., & Carlson, S. (2012). Making the right connections: Differential effects of reading intervention for subgroups of comprehenders. *Learning and Individual Differences, 22*(1), 100-111.
- McNamara, D. S., Graesser, A. C., & Louwerse, M. M. (2012). Sources of text difficulty: Across genres and grades. In J. P. Sabatini, E. R. Albro, & T. O'Reilly (Eds.). *Measuring up: Advances in how to assess reading ability* (pp 89-116). Lanham, MD: Rowman & Littlefield Education.
- McNamara, D. S., & Magliano, J. (2009). Toward a comprehensive model of comprehension. In B. Ross (Ed.), *The psychology of learning and motivation* (pp. 297-384). New York: Elsevier.
- Meyer, B. J., & Freedle, R. O. (1984). Effects of discourse type on recall. *American Educational Research Journal, 21*(1), 121-143.
- Meyer, B. J., & Ray, M. N. (2011). Structure strategy interventions: Increasing reading comprehension of expository text. *International Electronic Journal of Elementary Education, 4*(1), 127-152.
- Miyaki, A., Friedman, N. P., Emerson, M. J., Witzki, A. H., Howerter, A., & Wagner, T. D. (2000). The unity and diversity of executive functions and their contributions to complex 'frontal lobe' tasks: A latent variable analysis. *Cognitive Psychology, 41*(1), 49-100.
- Myers, J. L., & O'Brien, E. J. (1998). Assessing the discourse representation during reading. *Discourse Processes, 26*(2-3), 131-157. doi: 10.1080/01638539809545042
- National Center for Education Statistics (2011). The nation's report card: Reading 2011. Retrieved August 29, 2012, from <http://nces.ed.gov/nationsreportcard/pubs/main2011/2012457.asp>

- Newman, S. D., Malaia, E., Seo, R., & Cheng, H. (2013). The effect of individual differences in working memory capacity on sentence comprehension: An fMRI study. *Brain Topography*, 26(3), 458-467.
- Niendam, T. A., Laird, A. R., Ray, K. L., Dean, Y. M., Glahn, D. C., & Carter, C. S. (2012). Meta-analytic evidence for a superordinate cognitive control network subserving diverse executive functions. *Cognitive, Affective, & Behavioral Neuroscience*, 12(2), 241-268.
- O'Brien, E. J. (1987). Antecedent search processes and the structure of text. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13(2), 278-290.
- O'Brien, E. J., & Albrecht, J. E. (1992). Comprehension strategies in the development of a mental model. *Journal of Experimental Psychology*, 18, 777-784.
- O'Brien, E. J., Cook, A. E., & Gueraud, S. (2010). Accessibility of outdated information. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 36, 979-991.
- O'Brien, E. J., Cook, A. E., & Lorch, R. F. (Eds.). (2015). *Inferences during reading*. New York: Cambridge University Press.
- O'Brien, E. J., & Myers, J. L. (1987). The role of causal connections in the retrieval of text. *Memory & Cognition*, 15(5), 419-427.
- O'Brien, E. J., Rizzella, M. L., Albrecht, J. E., & Halleran, J. G. (1998). Updating a situation model: A memory-based text processing view. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 24, 1200-1210.
- Oakhill, J. (1982). Constructive processes in skilled and less skilled comprehenders' memory for sentences. *British Journal of Psychology*, 73, 13-20.
- Oakhill, J., & Cain, K. (2007). Introduction to comprehension development. In K. Cain & J. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 3-40). New York: Guilford.
- Oakhill, J., & Cain, K. (2012). The precursors of reading ability in young readers: Evidence from a four-year longitudinal study. *Scientific Studies of Reading*, 16, 91-121.
- Oakhill, J., Hartt, J., & Samols, D. (2005). Levels of comprehension monitoring and working memory in good and poor comprehenders. *Reading and Writing*, 18, 657-686.
- Organisation for Economic Co-operation and Development (OECD) (2009). PISA 2009 assessment framework - Key competencies in reading, mathematics and science. Paris: Author. Retrieved from <http://www.oecd.org/pisa/pisaproducts/pisa2009assessmentframeworkkeycompetenciesinreadingmathematicsandscience.htm>
- OECD (2014). *PISA 2012 results: what students know and can do (Volume 1, Revised edition, February 2014): Student performance in Mathematics, Reading and Science*. Paris, France: OECD Publishing.
- Okon-Singer, H., Lichtenstein-Vidne, L., & Cohen, N. (2013). Dynamic modulation of emotional processing. *Biological Psychology*, 92(3), 480-491.
- Perfetti, C. A. (1985). *Reading Ability*. New York: Oxford University Press.
- Perfetti, C. A. (2007). Reading ability: Lexical quality to comprehension. *Scientific Studies of Reading*, 11, 357-383.
- Perfetti, C. A., & Hart, L. (2002). The lexical quality hypothesis. In L. Verhoeven, C. Elbro & P. Reitsma (Eds.), *Precursors of Functional Literacy* (pp. 189-213). Amsterdam: John Benjamins Publishing Company.

## References

- Perfetti, C. A., Landi, N., & Oakhill, J. (2005). The acquisition of reading comprehension skill. In M. J. Snowling & C. Hulme (Eds.), *The science of reading: A handbook* (pp. 227-247). Oxford: Blackwell.
- Perfetti, C. A., & Stafura, J. Z. (2014). Word knowledge in a theory of reading comprehension. *Scientific Studies of Reading, 18*(1), 22-37.
- Perfetti, C. A., & Stafura, J. Z. (2015). Comprehending implicit meanings in text without making inferences. In E. J. O'Brien, A. E. Cook & R. F. Lorch (Eds.), *Inferences during reading* (pp. 1-18). Cambridge, UK: Cambridge University Press.
- Phelps, E. A., & LeDoux, J. E. (2005). Contributions of the amygdala to emotion processing: From animal models to human behavior. *Neuron, 48*(2), 175-187.
- Prat, C. S., Keller, T. A., & Just, M. A. (2007). Individual differences in sentence comprehension: A functional magnetic resonance imaging investigation of syntactic and lexical processing demands. *Journal of Cognitive Neuroscience, 19*(12), 1950-1963.
- Pressley, M., & McCormick, C. (1995). *Cognition, teaching, and assessment*. New York: Harper Collins College Publishers.
- Rapp, D. N., van den Broek, P., McMaster, K. L., Kendeou, P., & Espin, C. A. (2007). Higher-order comprehension processes in struggling readers: A perspective for research and intervention. *Scientific Studies of Reading, 11*, 289-312.
- Raven, J., Raven, J. C., & Court, J. H. (1998). *Manual for Raven's Progressive Matrices and Vocabulary Scales. Section 1: General Overview*. San Antonio, TX: Harcourt Assessment.
- Ray, M. N., & Meyer, B. J. (2011). Individual differences in children's knowledge of expository text structures: A review of literature. *International Electronic Journal of Elementary Education, 4*(1), 67-82.
- Richardson, M. P., Strange, B. A., & Dolan, R. J. (2004). Encoding of emotional memories depends on amygdala and hippocampus and their interactions. *Nature Neuroscience, 7*(3), 278-285.
- Robertson, D. A., Gernsbacher, M. A., Guidotti, S. J., Robertson, R. R., Irwin, W., Mock, B. J., Campana, M. E. (2000). Functional neuroanatomy of the cognitive process of mapping during discourse comprehension. *Psychological Science, 11*, 255-260.
- Seigneuric, A., & Ehrlich, M.-F. (2005). Contribution of working memory capacity to children's reading comprehension: A longitudinal investigation. *Reading and Writing, 18*, 617-656.
- Sesma, H. W., Mahone, E. M., Levine, T., Eason, S. H., & Cutting, L. E. (2009). The contribution of executive skills to reading comprehension. *Child Neuropsychology 15*(3), 232-246.
- Singer, M. (2013). Validation in reading comprehension. *Current Directions in Psychological Science, 22*, 361-366.
- Singer, M., & Doering, J. C. (2014). Exploring individual differences in language validation. *Discourse Processes, 51*(1-2), 167-188.
- Slavin, R. E., Lake, C., Chambers, B., Cheung, A., & Davis, S. (2009). Effective reading programs for the elementary grades: A best-evidence review. *Review of Educational Research, 79*, 1391-1466.
- Spear, L. P. (2000). The adolescent brain and age-related behavioral manifestations. *Neuroscience & Biobehavioral Reviews, 24*(4), 417-463.
- Staphorsius, G., & Krom, R. (1998). *Toetsen begrijpend lezen [Reading comprehension tests]*. Arnhem, the Netherlands: CITO.
- Stein, N., & Glenn, C. (1979). An analysis of story comprehension in elementary school children. In R. D. Freedle (Ed.), *Advances in discourse processes: New directions in discourse processing* (pp. 53-119). Norwood, NJ: Ablex.

- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, 9(2), 69-74.
- Swanson, H. L., & Berninger, V. (1995). The role of working memory in skilled and less skilled readers' comprehension. *Intelligence*, 21(1), 83-108.
- Swanson, H. L., Cochran, K. F., & Ewers, C. A. (1989). Working memory in skilled and less skilled readers. *Journal of Abnormal Child Psychology*, 17(2), 145-156.
- Sweet, A. P., & Snow, C. E. (Eds.). (2003). *Rethinking reading comprehension*. New York: Guilford Press.
- Taylor, S. J., Barker, L. A., Heavey, L., & McHale, S. (2013). The typical developmental trajectory of social and executive functions in late adolescence and early adulthood. *Developmental Psychology*, 49(7), 1253-1265.
- Thompson, J. G., & Myers, N. A. (1985). Inferences and recall at ages four and seven. *Child Development*, 56, 1134-1144.
- Trabasso, T., Secco, T., & van den Broek, P. (1984). Causal cohesion and story coherence. In H. Mandl, N. L. Stein & T. Trabasso (Eds.), *Learning and comprehension of text* (pp. 83-111). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Trabasso, T., & van den Broek, P. W. (1985). Causal thinking and the representation of narrative events. *Journal of Memory and Language*, 24, 612-630.
- Trabasso, T., van den Broek, P. W., & Suh, S. Y. (1989). Logical necessity and transitivity of causal relations in stories. *Discourse Processes*, 12, 1-25.
- Tzourio-Mazoyer, N., Landeau, B., Papathanassiou, D., Crivello, F., Etard, O., Delcroix, N., ... & Joliot, M. (2002). Automated anatomical labeling of activations in SPM using a macroscopic anatomical parcellation of the MNI MRI single-subject brain. *NeuroImage*, 15(1), 273-289.
- van den Broek, P. (1994). Comprehension and memory of narrative texts: Inferences and coherence. In M. A. Gernsbacher (Ed.), *Handbook of Psycholinguistics* (pp. 539-588). New York: Academic Press.
- van den Broek, P. (1997). Discovering the cement of the universe: The development of event comprehension from childhood to adulthood. In P. van den Broek, P.W. Bauer & T. Bourg (Eds.), *Developmental spans in event comprehension and representation* (pp. 321-342). Mahwah, NJ: Lawrence Erlbaum Associates.
- van den Broek, P. (2010). Using texts in science education: Cognitive processes and knowledge representation. *Science*, 328(5977), 453-456.
- van den Broek, P., Beker, K., & Oudega, M. (2015). Inference generation in text comprehension: Automatic and strategic processes in the construction of a mental representation. In E. J. O'Brien, A. E. Cook & R. F. Lorch (Eds.), *Inferences during reading* (pp. 94-121). Cambridge, UK: Cambridge University Press.
- van den Broek, P., Bohn-Gettler, C., Kendeou, P., Carlson, S., & White, M. J. (2011). When a reader meets a text: The role of standards of coherence in reading comprehension. In M. T. McCrudden, J. Magliano & G. Schraw (Eds.), *Relevance instructions and goal-focusing in text learning* (pp. 123-140). Greenwich, CT: Information Age Publishing.
- van den Broek, P. W., & Espin, C. A. (2012). Connecting cognitive theory and assessment: Measuring individual differences in reading comprehension. *School Psychology Review*, 41 (3), 315-325.

## References

- van den Broek, P. W., Helder, A., & Van Leijenhorst, L. (2013). Sensitivity to Structural Centrality: Developmental and individual differences in reading comprehension skills. In M. A. Britt, S. R. Goldman & J-F Rouet (Eds.), *Reading: From words to multiple texts* (pp. 132-146). New York: Routledge, Taylor & Francis Group.
- van den Broek, P., & Kendeou, P. (2008). Cognitive processes in comprehension of science text: The role of co-activation in confronting misconceptions. *Applied Cognitive Psychology*, 22, 335-351.
- van den Broek, P., Kendeou, P., Lousberg, S., & Visser, G. (2011). Preparing for reading comprehension: Fostering text comprehension skills in preschool and early elementary school children. *International Electronic Journal of Elementary Education*, 4, 259-268.
- van den Broek, P., Lorch, R., Linderholm, T., & Gustafson, M. (2001). The effects of readers' goals on inference generation and memory for texts. *Memory & Cognition*, 29(8), 1081-1087.
- van den Broek, P., Rapp, D. N., & Kendeou, P. (2005). Integrating memory-based and constructionist processes in accounts of reading comprehension. *Discourse Processes*, 39, 299-316.
- van den Broek, P. W., & Risden, K. & Fletcher, C. R. & Thurlow, R. (1996). A 'landscape' view of reading: Fluctuating patterns of activation and the construction of a stable memory representation. In: Britton, B.K. & Graesser, A.C. (Eds.), *Models of understanding text*, 165-187. Hillsdale, NJ: Erlbaum.
- van den Broek, P., Risden, K., & Husebye-Hartmann, E. (1995). The role of readers' standards for coherence in the generation of inferences during reading. In R. F. Lorch & E. J. O'Brien (Eds.), *Sources of coherence in reading* (pp. 353-373). Hillsdale, NJ: Erlbaum.
- van den Broek, P., Young, M., Tzeng, Y., & Linderholm, T. (1999). The landscape model of reading. In H. van Oostendorp & S. R. Goldman (Eds.), *The construction of mental representations during reading* (pp. 71-98). Mahwah, NJ: Erlbaum.
- van der Schoot, M., Reijntjes, A., & van Lieshout, E. C. (2012). How do children deal with inconsistencies in text? An eye fixation and self-paced reading study in good and poor reading comprehenders. *Reading and Writing*, 25(7), 1665-1690.
- Van Dyke, J. A., & Shankweiler, D. P. (2013). From verbal efficiency theory to lexical quality: The role of memory processes in reading comprehension. In M. A. Britt, S. R. Goldman & J-F Rouet (Eds.), *Reading: From words to multiple texts* (pp. 115-131). New York: Routledge, Taylor & Francis Group.
- Van Leijenhorst, L., Helder, A., Karlsson, J., & van den Broek, P. (April, 2014). *Neural correlates of coherence monitoring during narrative comprehension in children and young adults*. Poster presented at the annual meeting of Cognitive Neuroscience Society, Boston, USA.
- Vaughn, S., Fletcher, J. M., Francis, D. J., Denton, C. A., Wanzenk, J., Wexler, J., ...Romain, M. A. (2008). Response to intervention with older students with reading difficulties. *Learning and Individual Differences*, 18, 338-345.
- Verhoeven, L. (1995). *Drie-Minuten-Toets [Three Minutes Test]*. Arnhem, the Netherlands: CITO.
- Vincent, J. L., Kahn, I., Snyder, A. Z., Raichle, M. E., & Buckner, R. L. (2008). Evidence for a frontoparietal control system revealed by intrinsic functional connectivity. *Journal of Neurophysiology*, 100(6), 3328-3342.
- Virtue, S., Haberman, J., Clancy, Z., Parrish, T., & Beeman, M. J. (2006). Neural activity of inferences during story comprehension. *Brain Research*, 1084, 104-114.
- Vosniadou, S., Pearson, P. D., & Rogers, T. (1988). What causes children's failure to detect inconsistencies in text? Representation versus comparison difficulties. *Journal of Educational Psychology*, 80, 328-346.

- Wechsler, D. (1981). *Wechsler Adult Intelligence Scale - Revised*. New York, NY: The Psychological Corporation.
- Wigfield, A., & Guthrie, J. T. (1997). Relations of children's motivation for reading to the amount and breadth of their reading. *Journal of Educational Psychology, 89*, 420–432.
- Wiley, J., & Myers, J. L. (2003). Availability and accessibility of information and causal inferences from scientific text. *Discourse Processes, 36*(2), 109-129.
- Williams, J. P. (1993). Comprehension of students with and without learning disabilities: Identification of narrative themes and idiosyncratic text representations. *Journal of Educational Psychology, 85*, 631–641.
- Williams, J. P., Hall, K. M., & Lauer, K. D. (2004). Teaching expository text structure to young at-risk learners: Building the basics of comprehension instruction. *Exceptionality, 12*(3), 129-144.
- Whitney, C., Huber, W., Klann, J., Weis, S., Krach, S., & Kircher, T. (2009). Neural correlates of narrative shifts during auditory story comprehension. *NeuroImage, 47*(1), 360-366.
- Xu, J., Kemeny, S., Park, G., Frattali, C., Braun, A. (2005). Language in context: Emergent features of word, sentence, and narrative comprehension. *NeuroImage, 25*, 1002-1015.
- Yarkoni, T., Speer, N. K., & Zacks, J. M. (2008). Neural substrates of narrative comprehension and memory. *Neuroimage, 41*(4), 1408-1425.
- Zabrusky, K., & Ratner, H. H. (1986). Children's comprehension monitoring and recall of inconsistent stories. *Child Development, 57*, 1401-1418.
- Zabrusky, K., & Ratner, H. H. (1989). Effects of reading ability on children's comprehension evaluation and regulation. *Journal of Literacy Research, 21*, 69-83.
- Zabrusky, K., & Ratner, H. H. (1992). Effects of passage type on comprehension monitoring and recall in good and poor readers. *Journal of Reading Behavior, 24*, 373-391.
- Zwaan, R. A., Langston, M. C., & Graesser, A. C. (1995). The construction of situation models in narrative comprehension: An event-indexing model. *Psychological Science, 6*, 292–297.

List of publications

## List of publications

- Helder, A., Van Leijenhorst, L., & van den Broek, P. (2016). Coherence monitoring by good and poor comprehenders in elementary school: Comparing offline and online measures. *Learning and Individual Differences*, 48, 17-23.
- Van den Broek, P., Espin, C. A., McMaster, K., & Helder, A. (in press). Developing reading comprehension skills: Perspectives from theory and practice. In E. Segers & P. van den Broek (Eds.), *Continuities in language and literacy development*. Amsterdam: John Benjamins.
- Helder, A.\* , Kraal, A.\* , & van den Broek, P. (2015). De ontwikkeling van begrijpend lezen: Oorzaken van succes en falen vanuit een cognitief perspectief. In D. Schram (Ed.), *Hoe maakbaar is de lezer?* (pp. 59-78). Stichting Lezen: Eburon.
- Kendeou, P., van den Broek, P., Helder, A., & Karlsson, J. (2014). A cognitive view of reading comprehension: Implications for reading difficulties. *Learning Disabilities Research & Practice*, 29(1), 10-16.
- Helder, A., van den Broek, P., Van Leijenhorst, L., & Beker, K. (2013). Sources of comprehension problems during reading. In B. Miller, L. Cutting & P. McCardle (Eds.), *Unraveling the behavioral, neurobiological, and genetic components of reading comprehension* (pp. 43-53). Baltimore, MD: Paul Brookes Publishing.
- van den Broek, P. W., Helder, A., & Van Leijenhorst, L. (2013). Sensitivity to Structural Centrality: Developmental and individual differences in reading comprehension skills. In M. A. Britt, S. R. Goldman & J-F Rouet (Eds.), *Reading: From words to multiple texts* (pp. 132-146). New York: Routledge, Taylor & Francis Group.

\*shared first authorship

Curriculum Vitae

## **Curriculum Vitae**

Anne Helder was born on May 24, 1984 in Hoorn, the Netherlands. After graduating from secondary school (Martinus College, Grootebroek), Anne obtained her Bachelor's degree in Psychology in 2007 and her Master's degree in Clinical Neuropsychology in 2009 at the Vrije Universiteit in Amsterdam. During two years of clinical work at Glaudé Dyslexie, a center for diagnosis and treatment for children with learning disorders, she developed an interest in the cognitive neuroscience of reading.

In November 2010 Anne started her PhD project at the Department of Educational Studies at the Institute of Education and Child Studies. Under the supervision of Prof. dr. Paul van den Broek and Dr. Linda Van Leijenhorst she worked on several research projects, including those reported in this dissertation. In addition, Anne was involved in various teaching activities, including developing and coordinating the Bachelor thesis for students enrolled in the Academic Teacher Training Program (Academische PABO; ACPA) in Leiden and obtained her University Teaching Qualification (Basiskwalificatie Onderwijs; BKO).

During her time as PhD student, Anne spent four months at the Learning Research and Development Center (LRDC) at the University of Pittsburgh. In collaboration with Prof. dr. Charles Perfetti she set up a research project with the aim to examine the interaction of lexical-level and discourse-level processes in reading comprehension. She will continue working on this collaborative project between the Brain and Education Lab at Leiden University and the Perfetti Lab at LRDC as a postdoc at the University of Pittsburgh.

