

Personal

Name: Roel Willems
Address: Radboud University Nijmegen
Centre for Language Studies (CLS)
P.O. Box 9103 //4.01a
6500 HD Nijmegen
The Netherlands
Date of birth: 29-02-1980
Email: roel.willems@ru.nl
Website: www.rmwillems.nl

November 2015-present Associate professor Centre for Language Studies & Donders Institute for Brain, Cognition and Behaviour Radboud University Nijmegen, The Netherlands

December 2020 – present Confidential advisor Radboud University, Nijmegen

April 2011 – October 2015 Senior researcher Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen, The Netherlands & Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands

2014 -2015 Academic Leadership training program – Radboud University Nijmegen

April 2009 – April 2011

Post-Doctoral researcher Helen Wills Neuroscience Institute / Department of Psychology, University of California Berkeley, USA, funded by Dutch Science Foundation (NWO) Rubicon grant and the Niels Stensen Foundation

Sept 2007 – April 2009

Post-Doctoral researcher at Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen, The Netherlands in project *Neural basis of human communication*, funded by European Research Council, with Prof. Toni

Sept 2003 – Sept 2007

PhD studentship at Donders Centre for Cognitive Neuroimaging, Radboud University Nijmegen, The Netherlands in project *The neurophysiology of communication: The integration of gesture and speech*, funded by Dutch Science Foundation (NWO), with Prof. Hagoort and Prof. Özyürek. The PhD thesis was awarded with a *cum laude* judicium, which occurs only for the upper 10% of graduate theses in The Netherlands

Invited lectures (selection)

Willems, R. M. (2021). *The future will be relevant*. Future perspectives on the neurobiology of language workshop, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands

Willems, R. M. (2021). *De verhalende mens*. Conference Partners in Verstaan, Lunteren, The Netherlands

Willems, R. M. (2021). *Beyond the cognitive*. Donders Session, Donders Institute, Nijmegen, The Netherlands

Willems, R. M. (2021). *Narratives as a window onto the mind*. IGEL Keynote lecture, Liverpool (online), UK

Willems, R.M. (2020). *Combining computational language models and neuroimaging to understand prediction during language comprehension*. Hamburg, Annual meeting German Linguistics Society (DGFS).

Willems, R. M. (2020, postponed). *Narratives in Mind*, Keynote lecture International Society for the Empirical study of Literature, Liverpool, UK

Willems, R. M. (2019). Narratives for Neuroscience. *Society for Neuroscience annual meeting, Chicago, USA*

Willems, R.M. (2019, November 10). *De verhalende mens*. Amsterdam, Paradiso taallezingen 2019, 'Creatief met taal'.

Willems, R.M. (2019). *Literary narratives and cognitive neuroscience*. Amsterdam, Colloquium Brain and Cognition University of Amsterdam.

Willems, R.M. & Mak, H.M.L. (2019). *Narrative perspective in readers: The view from cognitive neuroscience*. Nijmegen, the Netherlands, Workshop 'Multiple perspectives'.

Willems, R.M. (2019). *Using cognitive neuroscience to understand readers' response to literary narratives*. Aachen, Colloquium Aachen Center for Cognitive and Empirical Literary Studies (ACCELS).

Willems, R.M. (2019). *Using cognitive neuroscience to understand readers' response to literary narratives*. Amsterdam, Brain Culture Interfaces Workshop.

Willems, R.M. (2019). *Using narratives to understand mental simulation during language comprehension*. York, Colloquium University of York.

Willems, R. M. (2019). Using cognitive neuroscience to understand readers' response to literary narratives, *Aachen Centre for Cognitive and Empirical Literary Sciences, Aachen, Germany*

Willems, R.M. (2018). *Language in narrative context*. University College London, Colloquium.

Willems, R.M. (2017). *Het meertalige brein*. Utrecht, Nederland vertaalt!.

Willems, R.M. (2017, February 6). *The narrative mind: Neurocognitive insights into literary reading*. Aarhus, Aarhus university invited colloquium.

Willems, R. M. (2016). The untapped potential of studying literature for cognitive neuroscientists. *International Association for Empirical Aesthetics meeting, Vienna, Austria*

Willems, R. M. (2016). Neuroimaging of Literary Reading: Potentials and Pitfalls. *Cognitive Futures in the Humanities, Helsinki, Finland*

Willems, R. M. (2015). Mental simulation during literary reading. *Language in Context, an Ecological Turn to Embodied Language, University College London, UK*

Willems, R. M. (2015). How does experience with fiction influence connectivity in the neural language and mentalizing networks? *IGEL symposium Literature and Empathy, Goettingen, Germany*

Willems, R. M. (2014). A neurobiology of naturalistic language use? *Society for the Neurobiology of Language meeting, Amsterdam, The Netherlands*

Academic Service

Academic editor *Collabra*. 2016-present

Senior editor *Neurobiology of Language* – 2018 - present

Confidential advisor Radboud University. 2020 – present

Lab committee Centre for Language Studies. 2016-present

Scientific Board *Healthy Brain Study*, 2018 – present

CLS external colloquium committee, 2019 – present

Member *exam committee* Research MSc program Cognitive Neuroscience, Radboud University Nijmegen, 2014-present

Member *Scientific Integrity Board* for Donders Centre for Cognitive Neuroimaging. Raise awareness about scientific integrity and serve as a first contact point for employees for issues related to scientific integrity; 2012-2016

Journal committee International Association for the Empirical Study of Literature (IGEL)

Member grant committee *TopTalent* grants, Radboud University Nijmegen, 2012, 2013

PhD mentor of approximately 25 PhD candidates at Donders Institute. I functioned as an ombudsperson for PhD students, monitoring their progress and serving as a contact point for advice, 2012-2014

Member Employee Council (OC) Donders Institute, 2012-2014

Review editor *Frontiers in Human Neuroscience*, 2014-present

Expert Interviewee *EU report Neurodevices*, Rathenau Institute, Den Haag, The Netherlands, 2011

Committee member *Data Archiving and Lab Protocols taskforce*, Max Planck Institute for Psycholinguistics, Nijmegen, 2011-2016

Organizer *Donders Beyond Borders* lecture series. In this lecture series I invited Nijmegen scholars from the Humanities and from the Natural Sciences to give a lecture at the Donders Institute, 2012-2016

Grants

ERC ITN Grant *ELIT: Empirical study of Literature Innovative Training Network*, 2020

CLS Internal PhD grant, 2018, 2020

Stichting Lezen grant on *Digital literary reading*, 2020

NWO *Vidi* grant (5 years), *Effects of sensori-motor and emotional simulation on aesthetic appreciation of literary narratives*, 2015

Language in Interaction PhD grant, *Encoding and decoding of language comprehension*, 2015

NWO *Rubicon* grant (2 years), 2009

Niels Stensen Foundation research grant (1 year), 2009

Fellowship *Sage Summer Institute Cognitive Neuroscience*, Santa Barbara, USA, 2009

NWO poster prize for best poster in *Cognition* program, 2006

Fellowship workshop *Conceptual Neuroscience*, Para Limes Institute, Wageningen, The Netherlands, 2007

Fellowship Hertie Foundation winterschool *Brain Basis of Social Interaction, from Concepts to Imaging*, Kitzbuehl, Austria, 2006

Fellowship workshop *Phylogeny and Ontogeny of Human Communication*, Ferrara, Italy, 2005

Supervision

Alex Titus (PhD CLS Nijmegen, 2024)

Beatrice Schofield (PhD CLS Nijmegen, 2023)

Lynn Eekhof (PhD CLS Nijmegen, 2022)

Marloes Mak (PhD CLS Nijmegen, 2021)

Alessandro Lopopolo (PhD CLS Nijmegen, 2021)

Thijs Trompenaars (PhD CLS Nijmegen, 2021)

Yke Schotanus (PhD Utrecht University, 2020)
Rene Terporten (Postdoc, Donders Institute Nijmegen, 2020)
Stefanie Ramacher (Postdoc, CLS Nijmegen, 2018)
Franziska Hartung (PhD MPI Nijmegen, 2016)
Richard Kunert (PhD MPI Nijmegen, 2016)
Flora Vanlangendonck (PhD Donders Institute Nijmegen, 2016)
Kristijan Armeni (ReMa Nijmegen, 2016)
Sophie de Grauwé (PhD Donders Institute Nijmegen, 2015)
Juan de Pablo (ReMa Tilburg, 2015)
Emiel van den Hoven (ReMa Tilburg, 2014)
Dalya Samur (ReMa Nijmegen, 2013)
Peter de Best (ReMa Utrecht, 2013)
Annabel Nijhof (ReMa Nijmegen, 2013)
Laura Kaltwasser (ReMa Berlin / Berkeley, 2011)
Martin Laverman (ReMa Utrecht, 2009)
Miriam de Boer (ReMa Nijmegen, 2008)
I have served on many PhD reading committees, in Nijmegen, Aarhus and Cambridge

Peer review

I am a reviewer for: Acta Psychologica, Brain and Language, Brain, Brain and Cognition, Brain Research, Cerebral Cortex, Cognition, Cognitive Science, Cortex, Developmental Science, Discourse Processes, Experimental Brain Research, Frontiers in Neuroscience, Frontiers in Psychology, Gesture, Human Brain Mapping, Journal of Cognitive Neuroscience, Journal of Experimental Psychology, The Journal of Neuroscience, Journal of Nonverbal Behaviour, Language and Cognition, Language and Linguistics Compass, Neurobiology of Language, Neuroimage, Neuropsychologia, PLoS ONE, Psychophysiology, Social Cognitive and Affective Neuroscience

List of publications

H-index: 36

Hartung, F., Wang, Y., Mak, M., Willems, R.M., & Chatterjee, A. (2021). Aesthetic appraisals of literary style and emotional intensity in narrative engagement are neurally dissociable. *Communications Biology*, 4(1), 1–17. <https://doi.org/10.1038/s42003-021-02926-0>

Mak, M., & Willems, R. M. (2021). Eyelit: Eye Movement and Reader Response Data During Literary Reading. *Journal of Open Humanities Data*, 7: 25, pp. 1–6. DOI: <https://doi.org/10.5334/johd.49>

Eekhof, L. S., van Krieken, K., Sanders, J., & Willems, R. M. (2021). Reading Minds, Reading Stories: Social-Cognitive Abilities Affect the Linguistic Processing of Narrative Viewpoint. *Frontiers in Psychology*, 12, 4195. <https://doi.org/10.3389/fpsyg.2021.698986>

Willems, R. M., & Peelen, M. V. (2021). How context changes the neural basis of perception and language. *IScience*, 24(5), 102392. <https://doi.org/10.1016/j.isci.2021.102392>

Eekhof, L. S., Kuijpers, M. M., Faber, M., Gao, X., Mak, M., Hoven, E. van den, & Willems, R. M. (2021).

Lost in a Story, Detached from the Words. *Discourse Processes*, 1–22.
<https://doi.org/10.1080/0163853X.2020.1857619> [link]

Mak, H.M.L. & Willems, R.M. (2021): Eyelit: Eye-movement and reader response data during literary reading. DANS. <https://doi.org/10.17026/dans-zqk-zmqs> [dataset]

Lopopolo, A., van den Bosch, A., Petersson, K.-M., & Willems, R. M. (2020). Distinguishing syntactic operations in the brain: Dependency and phrase-structure parsing. *Neurobiology of Language*, 1–64.
https://doi.org/10.1162/nol_a_00029

Willems, R. M., Nastase, S. A., & Milivojevic, B. (2020). Narratives for Neuroscience. *Trends in Neurosciences*, 43(5), 271–273. <https://doi.org/10.1016/j.tins.2020.03.003>

Lopopolo, A., Schoffelen, J. M., van den Bosch, A., & Willems, R. M. (2020). Words in context: Tracking context-processing during language comprehension using computational language models and MEG.
BioRxiv, 2020.06.19.161190. <https://doi.org/10.1101/2020.06.19.161190>

Mak, M., Vries, C. D., & Willems, R. M. (2020). The Influence of Mental Imagery Instructions and Personality Characteristics on Reading Experiences. *Collabra: Psychology*, 6(1), 43.
<https://doi.org/10.1525/collabra.281> [link]

Martinez-Conde, S., Alexander, R. G., Blum, D., Britton, N., Lipska, B. K., Quirk, G. J., Swiss, J. I., Willems, R. M., & Macknik, S. L. (2019). The Storytelling Brain: How Neuroscience Stories Help Bridge the Gap between Research and Society. *Journal of Neuroscience*, 39(42), 8285–8290.
<https://doi.org/10.1523/JNEUROSCI.1180-19.2019> [pdf]

Gao, X., Dera, J., Nijhof, A. D., & Willems, R. M. (2019). Is less readable liked better? The case of font readability in poetry appreciation. *PLoS ONE*, 14(12), e0225757.

<https://doi.org/10.1371/journal.pone.0225757>

Armeni, K., Willems, R. M., van den Bosch, A., & Schoffelen, J.-M. (2019). Frequency-specific brain dynamics related to prediction during language comprehension. *NeuroImage*.

<https://doi.org/10.1016/j.neuroimage.2019.04.083> [[link](#)]

Lopopolo, A., Frank, S.L., van den Bosch, A., Willems, R. M. (2019) Dependency parsing with your eyes: Dependency structure predicts eye regressions during reading - Proceedings of the Workshop on Cognitive Modeling [[link](#)]

Mak, M., & Willems, R. M. (2019). Mental simulation during literary reading: Individual differences revealed with eye-tracking. *Language, Cognition and Neuroscience*, 34(4), 511–535.

<https://doi.org/10.1080/23273798.2018.1552007>

Vries, C. de, Reijnierse, W. G., & Willems, R. M. (2018). Eye movements reveal readers' sensitivity to deliberate metaphors during narrative reading. *Scientific Study of Literature*, 8(1), 135–164.

<https://doi.org/10.1075/ssol.18008.vri> [[link](#)]

Hasson, U., Egidi, G., Marelli, M., & Willems, R. M. (2018). Grounding the neurobiology of language in first principles: The necessity of non-language-centric explanations for language comprehension. *Cognition*, 180, 135–157. <https://doi.org/10.1016/j.cognition.2018.06.018> [[link](#)]

Willems, R. M. & van Gerven, M. (2018). New fMRI methods for the study of language. In: Rueschemeyer, S.-A., & Gaskell, M. G. (Eds.). (2018). *The Oxford Handbook of Psycholinguistics* (Second Edition). Oxford, New York: Oxford University Press.

Vanlangendonck, F., Takashima, A., Willems, R. M., & Hagoort, P. (2018). Distinguishable memory retrieval networks for collaboratively and non-collaboratively learned information. *Neuropsychologia*, 111, 123-132. doi:10.1016/j.neuropsychologia.2017.12.008 [[link](#)]

Eekhof, L. S., Eerland, A., & Willems, R. M. (2018). Readers' Insensitivity to Tense Revealed: No Differences in Mental Simulation During Reading of Present and Past Tense Stories . *Collabra: Psychology* , 4 (1) , 16 . DOI: <http://doi.org/10.1525/collabra.121> [[link](#)]

Hartung, F., Withers, P., Hagoort, P., & Willems, R. M. (2017). When Fiction Is Just as Real as Fact: No Differences in Reading Behavior between Stories Believed to be Based on True or Fictional Events. *Frontiers in Psychology*, 8. [[link](#)]

Willems, R. M., & Hartung, F. (preprint). Engaging regularly with fiction influences connectivity in cortical areas for language and mentalizing. *PsyArXiv* [[link](#)]

Armeni, K., Willems, R. M., & Frank, S. L. (2017). Probabilistic language models in cognitive neuroscience: Promises and pitfalls. *Neuroscience and Biobehavioral Reviews*.
<https://doi.org/10.1016/j.neubiorev.2017.09.001>

Hartung, F., Hagoort, P., & Willems, R. M. (2017). Readers select a comprehension mode independent of pronoun: Evidence from fMRI during narrative comprehension. *Brain and Language*, 170, 29–38.
<https://doi.org/10.1016/j.bandl.2017.03.007> [[link](#)]

Jacobs, A. M., & Willems, R. M. (2017). The Fictive Brain: Neurocognitive Correlates of Engagement in Literature. *Review of General Psychology*, <https://doi.org/10.1037/gpr0000106> [link]

Willems, R. M. (2017). Book review of 'Ridley, Rosalind. 2016. Peter Pan and the Mind of J. M. Barrie: An Exploration of Cognition and Consciousness', *Evolutionary Studies in Imaginative Culture*, 1(1) [pdf]

Lopopolo, A., Frank, S. L., van den Bosch, A., & Willems, R. M. (2017). Using stochastic language models (SLM) to map lexical, syntactic, and phonological information processing in the brain. *PLoS One*, 12(5), e0177794. [link]

Frank, S. L., & Willems, R. M. (2017). Word predictability and semantic similarity show distinct patterns of brain activity during language comprehension. *Language, Cognition and Neuroscience*, 32, 1192–1203. [link]

Willems, R. M., & Cristia, A. (2017). Hemodynamic methods: fMRI and fNIRS. In A. de Groot & P. Hagoort (Eds.), *Research Methods in Psycholinguistics and the Neurobiology of Language: A Practical Guide*. Oxford: Wiley-Blackwell.

Hoven, E. van den, Hartung, F., Burke, M., & Willems, R. (2016). Individual Differences in Sensitivity to Style During Literary Reading: Insights from Eye-Tracking. *Collabra: Psychology*, 2(1).
<https://doi.org/10.1525/collabra.39>

Kunert, R., Willems, R. M., & Hagoort, P. (2016). An Independent Psychometric Evaluation of the PROMS Measure of Music Perception Skills. *PLoS One*, 11(7), e0159103.

<https://doi.org/10.1371/journal.pone.0159103> [link]

Hartung, F., Burke, M., Hagoort, P., & Willems, R. M. (2016). Taking Perspective: Personal Pronouns Affect Experiential Aspects of Literary Reading. *PLOS ONE*, 11(5), e0154732.

<https://doi.org/10.1371/journal.pone.0154732> [link]

Vanlangendonck, F., Willems, R. M., Menenti, L., & Hagoort, P. (2016). An early influence of common ground during speech planning. *Language, Cognition and Neuroscience*, 31(6), 741–750.

<https://doi.org/10.1080/23273798.2016.1148747>

Willems, R. M., & Jacobs, A. M. (2016). Caring About Dostoyevsky: The Untapped Potential of Studying Literature. *Trends in Cognitive Sciences*, 20(4), 243–245. <https://doi.org/10.1016/j.tics.2015.12.009>

Kunert, R., Willems, R. M., & Hagoort, P. (2016). Language influences music harmony perception: Effects of shared syntactic integration resources beyond attention. *Royal Society Open Science*, 3(2), 150685.

<https://doi.org/10.1098/rsos.150685>

Willems, R. M., Frank, S. L., Nijhof, A. D., Hagoort, P., & van den Bosch, A. (2016). Prediction During Natural Language Comprehension. *Cerebral Cortex*, 26(6), 2506–2516.

<https://doi.org/10.1093/cercor/bhv075>

De Nooijer, J. A., & Willems, R. M. (2016). What can we learn about cognition from studying handedness? Insights from cognitive neuroscience. In F. Loffing, N. Hagemann, B. Strauss, & C.

MacMahon (Eds.), *Laterality in sports: Theories and applications* (pp. 135-153). Amsterdam: Elsevier.

Samur, D., Lai, V. T., Hagoort, P., & Willems, R. M. (2015). Emotional context modulates embodied metaphor comprehension. *Neuropsychologia*, 78, 108–114.

Willems, R. M. (2015). Literatuur en brein: liefde op het tweede gezicht? *Cultuur + Educatie* [[pdf](#)]

Lai, V. T., Willems, R. M., & Hagoort, P. (2015). Feel between the Lines: Implied Emotion in Sentence Comprehension. *Journal of Cognitive Neuroscience*, 1–14. https://doi.org/10.1162/jocn_a_00798

Kunert, R., Willems, R. M., Casasanto, D., Patel, A. D., & Hagoort, P. (2015). Music and Language Syntax Interact in Broca's Area: An fMRI Study. *PLoS ONE*, 10(11), e0141069. [[link](#)]

Willems, R. M. (Ed.). (2015). *Cognitive Neuroscience of Natural Language Use*. Cambridge, UK: Cambridge University Press. [[link](#)]

Nijhof, A. D., & Willems, R. M. (2015). Simulating Fiction: Individual Differences in Literature Comprehension Revealed with fMRI. *PLoS ONE*, 10(2), e0116492. [[link](#)]

Willems R.M. and Francks C. (2014) Your left-handed brain. *Front. Young Minds*. 2:13. doi: 10.3389/frym.2014.00013 [[link](#)]

Guadalupe, T., Willems, R. M., Zwiers, M. P., Arias Vasquez, A., Hoogman, M., Hagoort, P., ... Francks, C. (2014). Differences in cerebral cortical anatomy of left- and right-handers. *Frontiers in Cognition*, 5, 261.

doi:10.3389/fpsyg.2014.00261 [[link](#)]

Willems, R. M., van der Haegen, L., Fisher, S. E., & Francks, C. (2014). On the other hand: including left-handers in cognitive neuroscience and neurogenetics. *Nature Reviews Neuroscience*.

doi:10.1038/nrn3679 [[pdf](#)]

De Grauwe, S., Willems, R. M., Rüschemeyer, S.-A., Lemhöfer, K., & Schriefers, H. (2014). Embodied language in first- and second-language speakers: Neural correlates of processing motor verbs.

Neuropsychologia. Advance online publication. doi:10.1016/j.neuropsychologia.2014.02.003. [[link](#)]

Willems, R. M. (2013). Can literary studies contribute to cognitive neuroscience? *Journal of Literary Semantics* [[pdf](#)]

de Boer, M., Toni, I., & Willems, R. M. (2013). What drives successful verbal communication? *Frontiers in Human Neuroscience*, 7, 622. <https://doi.org/10.3389/fnhum.2013.00622>

Kaltwasser, L., Ries, S., Sommer, W., Knight, R. T., & Willems, R. M. (2013). Independence of valence and reward in emotional word processing: electrophysiological evidence. *Frontiers in psychology*, 4, 168.

doi:10.3389/fpsyg.2013.00168

Willems, R. M. & Francken, J. C. (2012). Embodied Cognition: Taking the next step. *Frontiers in Psychology*, 3, 582.

Peeters, D., Vanlangendonck, F., & Willems, R. M. (2012). Bestaat er een talenknobbel? Over taal in ons

brein. In M. Boogaard, & M. Jansen (Eds.), De taalcanon: Alles wat je altijd al wilde weten over taal (pp. 41-43). Amsterdam: Meulenhoff. (very nice site with general information about language, in Dutch)

Willems, R. M. (2011). Re-appreciating the why of cognition: 35 years after Marr and Poggio. *Frontiers in Psychology*, 2, 224

Willems, R. M., Benn, Y., Hagoort, P., Toni, I. & Varley, R. (2011). Communicating without a functioning language system: Implications for the role of language in mentalizing. *Neuropsychologia*, 49(11), 3130-3135.

Willems, R. M. & Casasanto, D. (2011). Flexibility in embodied language understanding. *Frontiers in Psychology*, 2, 116

Willems, R. M., Labruna, L., D'Esposito, M., Ivry, R. & Casasanto, D. (2011). A functional role for the motor system in language understanding: Evidence from theta burst TMS. *Psychological Science*, 22(7), 849-854

Willems, R. M. & Varley, R. A. (2010). Neural insights into the relation between language and communication. *Frontiers in Human Neuroscience*, 4:203 [link](#)

Willems, R. M., Clevis, K.. & Hagoort, P. (2011). Add a picture for suspense: neural correlates of the interaction between language and visual information in the perception of fear. *Social Cognitive and Affective Neuroscience*, 6(4), 404-416

Willems, R. M., Peelen, M. & Hagoort, P. (2010). Cerebral lateralization of face-selective and body-selective visual areas depends on handedness. *Cerebral Cortex*, 20(7), 1719-1725

Willems, R. M., Toni, I., Hagoort, P. & Casasanto, D. (2010). Neural dissociations between action verb understanding and motor imagery. *Journal of Cognitive Neuroscience*, 22, 10, 2387-2400

Willems, R. M., De Boer, M., De Ruiter, J.P., Noordzij, M. L, Hagoort, P. & Toni, I. (2010). A cerebral dissociation between linguistic and communicative abilities in humans. *Psychological Science*, 21(1), 8-14

Willems, R. M., Hagoort, P. & Casasanto, D. (2010). Body-specific representations of action verbs: Neural evidence from right- and left-handers. *Psychological Science*, 21(1), 67-74

Willems, R. M., Özyürek, A., & Hagoort, P. (2009). Differential roles for pSTS and LIFG in neural integration of action and language information. *NeuroImage* 47(4) 1994-2002

Willems, R. M., Toni, I., Hagoort, P. & Casasanto, D. (2009). Body-specific motor imagery of hand actions: Neural evidence from right- and left-handers *Frontiers in Human Neuroscience*, 3:39

Hagoort, P., Baggio, G., & Willems, R. M. (2009). Semantic unification. In Gazzaniga (Ed.) *The cognitive neurosciences IV*, Cambridge, MA: MIT press

Willems, R.M. & Hagoort, P. (2011). Cortical motor contributions to language understanding. To appear in Hermer, L. (Ed.) *Contributions of primary sensory and motor cortices to higher cognitive processes*: Research Signpost press.

Willems, R. M. & Hagoort, P. (2009). Broca's region: Battles are not won by ignoring half of the facts.

Trends in Cognitive Sciences, 13(3), 101. [Comment on Grodzinsky & Santi, *TICS*]

Willems, R. M., & Hagoort, P. (2009). Hand preference influences neural correlates of action observation. *Brain Research* 1269, 90-104

Willems, R. M., Oostenveld, R., & Hagoort, P. (2008). Early decreases in alpha and gamma band power distinguish linguistic from visual information during spoken sentence comprehension. *Brain Research*

Rueschemeyer, S.-A., van Rooij, D., Lindemann, O., Willems, R. M., & Bekkering, H. (2010). The function of words: Distinct neural correlates for words denoting differently manipulable objects. *Journal of Cognitive Neuroscience*

de Lange F. P., Spronk M., Willems R. M., Toni I., Bekkering H. (2008). Complementary systems for understanding action intentions. *Current Biology* 18(6), 454-457

Willems, R. M., Özyürek, A., & Hagoort, P. (2008). Seeing and Hearing Meaning: ERP and fMRI Evidence of Word versus Picture Integration into a Sentence Context. *Journal of Cognitive Neuroscience*, 20(7), 1235-1249

Willems, R. M., Özyürek, A., & Hagoort, P. (2007). When language meets action: The neural integration of gesture and speech. *Cerebral Cortex*, 17(10) 2322-2333 [[pdf](#)]

Özyürek, A., Willems, R. M., Kita, S., & Hagoort, P. (2007). On-line integration of semantic information from speech and gesture: Insights from event-related brain potentials. *Journal of Cognitive Neuroscience* 19(4), 605-616

Willems, R. M., & Hagoort, P. (2007). Neural evidence for the interplay between language, gesture and action: A review. *Brain and Language*, 101(3), 278-298.

Willems, R. M. (2007). The neural construction of a Tinkertoy. *Journal of Neuroscience* 27(7), 1509-1510
['Journal club' review]

In the media / Public Outreach

Swipe voor literatuur! *Drongo taalfestival* (2020) (Onze Taal Drongo Award)
'Snellezen, hoe werkt dat in het brein?', *Drongo taalfestival* (2020)
'Vinden we eenvoudige gedichten mooier? Zo simpel is het niet', *Radboud Recharge* (2020) [[link](#)]
'Boeken herlezen', *Bibliotheek Marienburg*, Nijmegen (2020)
'Verhalen maken denken makkelijker. De Nijmeegse bibliotheek van Jerome Bruner', *Neerlandistiek* (2020) [[link](#)]
Verhalen in *Paradiso Hart van Nijmegen* (2020)
'Creatief met Taal', *Paradiso, Amsterdam* (2019)
'Linkshandigheid', *Zomer met Art, RTL4* (2019)
'Leren voor de toets: De linkshandigheid van onze tijd' (2019) [[link](#)]
'Waarom is maar tien procent linkshandig?', *Metro Nieuws* (2019) [[link](#)]
'Linkshandigendag: Feiten (en fabels) op een rij', *Kijk* (2019) [[link](#)]
'Wetenschappers pleiten voor meer taalonderzoek in natuurlijke context', *Onze Taal* (2018) [[link](#)]
'Schrijvers straks werkeloos? Computer kan ook schrijven' Omroep Gelderland, NOS (2017) [[link](#)]
'Gedichten voor de wetenschap', Nijmeegse Vierdaagsefeesten Festival op 't Eiland (2017)
'Meeste mensen zoeken naar rechts', *Kijk Magazine* (2017) [[link](#)]
Maken kinderen studiekeuze op basis van een hersenscan? EOS wetenschap (2017)
Radio 1 de Taalstaat: 'Poëzie en wetenschap' (2017)
Music Meeting festival: 'Lees een gedicht, help de wetenschap' (2017)
Nederland vertaalt! dag: 'Het meertalige brein' (2017)
'Writers in the cloud' – Kunstinstallatie Erasmusgebouw Radboud Universiteit Nijmegen (2017)
Brain Awareness week Dominicus college Nijmegen (2017)
BNR nieuwsradio: 'Wat zien we als we lezen?' (2016)
Losser Cuscoo 'Linkshandigheid' (2016)
'Moeilijke grammatica beïnvloedt muziekbeleving' ru.nl [[link](#)] [[English](#)]
BNR nieuwsradio: 'Wat zien we als we lezen?' (2016)

'Word je een beter mens van boeken lezen?' Het talige brein blog (2015)
Interview Radio 1: Verhalen in het brein (2015)
'Elk brein reageert anders op verhalen', De Volkskrant
'Linkshandigheid' KIJK Live event, Beurs van Berlage Amsterdam (2014)
'Bij linkshandigen is veel meer te ontdekken dan we doorhebben'. Interview KIJK Magazine (2014)
'Forschung mit Rechtsdrall' Interview Neue Zuricher Zeitung (2014)
'Left out', Nature Podcast (2014)
'Negeer linkshandige niet langer', Telegraaf, de Stentor, Eindhovens Dagblad, de Gelderlander (2014)
'Grunberg en creativiteit', Nederlands Dagblad (2013)
'Linkshandigen', Radio 1 (2013)
'De voor- en nadelen van linkshandigheid', de Volkskrant (2013)
'Knuffelen ging vooraf aan praten', de Volkskrant (2012)
Pavlov (NTR, national TV science program), on dyslexia (2012)
'De kettingvraag', HoeZo NTR radio (2012)
Pavlov (NTR, national TV science program), on music and the brain (2012)
'Meten met een badmuts vol gaatjes', Dagblad Trouw on Brain Awareness Week masterclass (2012)
Quest Psychologie (science magazine): Left-handedness (2011)
Bio-wetenschappen en Maatschappij, Issue 'Mens 2.0' *Robot moet niet leren praten, maar communiceren* (2011)
Het Belang van Limburg (Belgian newspaper): Left-handedness (2011)
Evers staat op (Radio show) on left-handedness (2010)
The Observer: Embodied meaning (2010)
De Volkskrant (national newspaper): Taal en gebaar zijn goede vrienden (2009) [on gesture]
De Pers, de Volkskrant, NRC, de Gelderlander, de Standaard (national newspapers):
'Linkshandigen hebben echt andere hersenen' (2009) [on left-handedness]
Scientific American (science magazine): Language and gestures (2007)
Teleac 'De Kettingvraag' (Radio show) (2007)