

JULIE A. VAN DYKE

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ACADEMIC POSITIONS

Vice President of Research and Strategic Initiatives, Haskins Laboratories	09/2018 – Present
Senior Research Scientist, Haskins Laboratories	05/2006 – Present
Adjunct Professor, Department of Linguistics and Languages, McMaster University	03/2015 – Present
Adjunct Doctoral Faculty, Program in Speech-Language-Hearing Sciences, City University of New York Graduate Center	12/2015 – Present
Faculty affiliate, CT Institute for the Brain and Cognitive Sciences, UConn	09/2016 – Present
Research Associate, New York University	06/2008 – 4/2013

POST-DOCTORAL EXPERIENCE

Research Fellow, Department of Psychology, New York University NIH/NICHHD Individual Post-doctoral National Research Service Award Mentor: Brian McElree	2005 – 2006
Research Fellow, Haskins Laboratories NIH/NICHHD Institutional Post-doctoral National Research Service Award Mentor: Donald Shankweiler	2002 – 2005

EDUCATION

University of Pittsburgh, Ph.D., Cognitive Psychology Dissertation: Retrieval effects in sentence parsing and interpretation Advisors: Charles Perfetti, Richard L. Lewis	1997 – 2002
Carnegie Mellon University, M.Sc., Computational Linguistics Thesis: ESL-Soar: A processing account of learning definiteness in a second language Advisor: Jill Fain Lehman, Allen Newell	1993 – 1996
University of Delaware, Honors B. A., Cum Laude, Dean's Scholar Majors: Computer Science, Linguistics; Minors: Classics, History Thesis: Word Prediction for Disabled Users: Applying Natural Language Processing to Augmentative Communication Devices Advisor: Kathleen McCoy	1988 – 1991

RESEARCH SUMMARY

My research investigates individual differences in reading comprehension. In the United States, less than half of 4th and 8th grade students and adults over age 16 score at proficient levels on comprehension assessments (National Assessment of Educational Progress, 2015). Moreover, comprehension-related problems are particularly acute at or below poverty level (Charity et al., 2004). Informed by my training in computational modeling, my research investigates mechanisms that hinder the ability to retrieve linguistic information and assemble meaning representations, especially similarity-based interference, decay, poor lexical quality, and cognitive control. Primary research questions include:

- How do individual cognitive and linguistic differences influence readers' memory for and comprehension of text?
- What are the basic memory mechanisms that support sentence processing and comprehension?
- What are the cognitive bases for poor reading comprehension in the absence of decoding impairment?
- What aspects of texts make them difficult to understand, and how might this be anticipated and/or remediated?

I address these empirically using behavioral (eye tracking, reading time, speed-accuracy tradeoff), electrophysiological (event-related potentials, time-frequency), and neuroimaging (MRI) methods. Data collection occurs within a clinical format that combines extensive assessment of cognitive and linguistic ability via standardized measures and inclusion of community-based samples of young adults who are not enrolled in (and may not plan to obtain) post-secondary education. This both increases epidemiological validity and addresses a sizeable, but under-studied population. Experimental outcomes have been formalized into a computationally implemented Cue-Based Retrieval Model, which informs further study of comprehension difficulty in diverse populations, including skilled readers, dyslexics, individuals with Specific Language/Comprehension Impairment, and older adults. This systems approach is significant because it provides a unified framework for understanding causes of poor reading comprehension across populations, and points to novel approaches for remediation, particularly in young adults.

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GRANT SUPPORT (total costs)

Principal Investigator, subcontract, National Institutes of Health (R01) "Effects of age-related declines in working memory on syntactic comprehension," (D. Caplan, Mass General Hospital, PI), \$474,765	2015 – 2016
Principal Investigator, National Institutes of Health (R01) "Retrieval interference in skilled and unskilled reading comprehension", \$3,684,060	2012 – 2018
Co-Investigator, National Institutes of Health (P01) "Nature and Acquisition of the Speech Code and Reading" (Rueckl, J., Haskins/UConn, PI), \$9,056,307	2012 – 2017
Co-Investigator, National Institutes of Health (R01 HD-067364) "Second language literacy acquisition: Psycholinguistic and neuro-cognitive determinants" (Pugh, K., Haskins, PI), \$3,174,132	2011 – 2016
Principal Investigator, National Institutes of Health, (R21-HD-058944) "Individual differences in memory storage and retrieval during reading comprehension," \$465,666	2009 – 2012
Co-Investigator, National Institutes of Health, (R01-HD-056200) "Memory mechanisms in support of language comprehension" (McElree, NYU, PI), \$1,495,466	2008 – 2013
Principal Investigator, National Institutes of Health, Competitive Loan Repayment Grant, "The role of memory retrieval in reading and language comprehension," \$15,543	2007 – 2012
Co-Investigator, National Institutes of Health (R01-HD-040353), "Neurobehavioral Mechanisms in Reading Comprehension" (Shankweiler, Haskins/UConn, PI), \$2,147,803	2005 – 2011
Principal Investigator, Individual Post-Doctoral National Research Service Award (NIH F32-HD049215-01), "Interference effects in Memory and Sentence Processing," \$47,296	2004 – 2005
Awardee, Institutional Post-Doctoral National Research Service awarded to Haskins Laboratories (NIH T32-HD07548-01)	2002 – 2004

PENDING SUPPORT (total costs)

Principal Investigator, National Institutes of Health (R01-HD-093973), "The role of domain-general timing deficits in dysfluent reading comprehension." \$3,482,236	2019 – 2024
Principal Investigator, National Institutes of Health (R01-HD-091247), "The neural basis of combinatorial processing in comprehension disability." \$3,831,029	2019 – 2024
Principal Investigator, subcontract, National Institutes of Health (R01) "Joint effects of bilingualism and language impairment on cognitive control" (K. Marton, CUNY Graduate Center, PI). \$890,702	2019 – 2024

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MANUSCRIPTS IN PREPARATION

Schmidtke, D., **Van Dyke, J. A.**, & Kuperman, V. (2019, July 16). CompLex: An eye-movement database of compound word reading in English. Retrieved from osf.io/82p6x

Jäger, L. A., Mertzen, D., **Van Dyke, J. A.**, & Vasishth, S. (2019, April 10). Interference patterns in subject-verb agreement and reflexives revisited: A large-sample study. <https://doi.org/10.31234/osf.io/7c4gu>

Jahn, A., Matsuki, K., Molfese, P.J., **Van Dyke, J.A.**, (under revision). Application of the random forests statistical technique to diffusion tensor imaging data.

Van Dyke, J.A., Campanelli, L., Landi, N. (in preparation). Poor comprehenders' sensitivity to syntactic and semantic distractors during dependency formation.

Campanelli, L., **Van Dyke, J.A.** (in preparation). Individual differences in sensitivity to retrieval interference: Evidence from Diffusion Modelling.

Jahn, A., Jones, H.R., Johns, C.L., Kush, D., Bontrager, M., Frost, S.J., Mencl, W.E., **Van Dyke, J.A.** (in preparation). Neural basis of conflict resolution in encoding and retrieval interference.

Van Dyke, J.A. & Kuperman, V. (in preparation). Manual tapping as a predictor of reading comprehension in young adults.

Johns, C. L., Campanelli, L., Kush, D., Landi, N., & **Van Dyke, J. A.** (2019, February 19). Individual differences in combinatorial semantic processing: Skilled comprehension facilitates complement coercion during sentence comprehension. <https://doi.org/10.31219/osf.io/zn2mf>

Lewis, A., Kush, D., Jahn, A., Campanelli, L., Johns, C.L., & **Van Dyke, J.A.** (in preparation). Active antecedent search in cataphora processing: Insights from neural oscillations.

Gong, T., Johns, C., Magnuson, J.S., Tabor, W., **Van Dyke, J.A.**, Shankweiler, D.P., Braze, D. (in preparation). Interactions between Lexical Properties and Skill Differences in Eye-movement Patterns during Online Sentence Reading.

PUBLICATIONS

Li, M.Y.C., Braze, D., Kukona, A., Johns, C.L., Tabor, W., **Van Dyke, J.A.**, Mencl, W.E., Shankweiler, D. P., Pugh, K.R., Magnuson, J.S., (2019). Individual differences in subphonemic sensitivity and phonological skills. *Journal of Memory and Language*, 107, 195-215. <https://doi.org/10.1016/j.jml.2019.03.008>. PMC Journal In Process

Ryherd, K., Jasinska, K., **Van Dyke, J.A.**, Hung, Y.-H., Baron, E., Mencl, W.E., Cutting, L.E., Zevin, J., Landi, N. (2018). Cortical Regions Supporting Reading Comprehension Skill for Single Words and Discourse. *Brain and Language*, 186, 32-43. <https://doi.org/10.1016/j.bandl.2018.08.001>. PMID: 30212746 PMCID: PMC6447036.

Kuperman, V., Matsuki, K., & **Van Dyke, J.A.** (2018). Contributions of reader- and text-level characteristics to eye-movement patterns during passage reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. <https://doi.org/10.1037/xlm0000547> PMCID: [PMC6234076](https://pubmed.ncbi.nlm.nih.gov/PMC6234076/)

Kush, D., Johns, C. L., & **Van Dyke, J. A.** (2018). Prominence-sensitive pronoun resolution: New evidence from the speed-accuracy tradeoff procedure. *Journal of Experimental Psychology: Learning, Memory, and Cognition*. <https://doi.org/10.1037/xlm0000646>. PubMed PMID: 30047771; PMCID: PMC Journal In Process

Campanelli, L., **Van Dyke, J.A.**, Marton, K. (2018). The Modulatory Effect of Expectations on Memory Retrieval During Sentence Comprehension. In Proceedings of the 40th Annual Conference of the Cognitive Science Society (pp. 1434-1439). Austin, TX: Cognitive Science Society.

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- Johns, C.L., Jahn, A.A., Jones, H.R., Kush, D., Molfese, P.J., **Van Dyke, J.A.**, Magnuson, J.S., Tabor, W., Mencl, W.E., Shankweiler, D.P., Braze, D. (2018). Individual differences in decoding skill, print exposure, and cortical structure in young adults. *Language, Cognition, and Neuroscience*.
<https://doi.org/10.1080/23273798.2018.1476727>, PMID: [PMC6258201](https://pubmed.ncbi.nlm.nih.gov/311145018/)
- Henry, R., Van Dyke, J. A., & Kuperman, V. (2018). Oculomotor planning in RAN and reading: A strong test of the visual scanning hypothesis. *Reading and Writing*, 31(7), 1619-1643.
<https://doi.org/10.1007/s11145-018-9856-3>
- Schmidtke, D., **Van Dyke, J.A.**, & Kuperman, V. (2018). Individual variability in the semantic processing of English compound words. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 44(3), 421-439. <https://doi.org/10.1037/xlm0000442>.
- Tan, Y., Martin, R.C., **Van Dyke, J.A.** (2017). Semantic and syntactic interference in sentence comprehension: A Comparison of Working Memory Models. *Frontiers in Psychology*, 8, 198.
<http://dx.doi.org/10.3389/fpsyg.2017.00198>.
- Parker, D., Shvartsman, M., **Van Dyke, J.A.** (2017). The cue-based retrieval theory of sentence comprehension: New findings and new challenges. In Escobar, L., Torrens, V., Parodi, T. (Eds.) *Language Processing and Disorders*. Newcastle: Cambridge Scholars Publishing.
- Kukona, A., Braze, D., Johns, C.L., Mencl, W.E., **Van Dyke, J.A.**, Magnuson, J.S., Pugh, K.R., Shankweiler, D.P., & Tabor, W. (2016). The real-time prediction and inhibition of linguistic outcomes: Effects of language and literacy skill. *Acta Psychologica*, 171, 72-84. <http://dx.doi.org/10.1016/j.actpsy.2016.09.009>. PubMed PMID: 27723471; PubMed Central PMCID: PMC5138490.
- Breen, M., Kaswer, L., **Van Dyke, J.A.**, Krivokapić, J. & Landi, N. (2016). Imitated prosodic fluency predicts reading comprehension ability in good and poor high school readers. *Frontiers in Psychology*, 7, 1026.<http://dx.doi.org/10.3389/fpsyg.2016.01026> PubMed PMID: 27486409; PubMed Central PMCID: PMC4949254.
- Sekerina, I.A., Campanelli, L., **Van Dyke, J.A.** (2016). Using the Visual World Paradigm to Study Retrieval Interference in Spoken Language Comprehension. *Frontiers in Psychology*, 7, 873.
<http://dx.doi.org/10.3389/fpsyg.2016.00873>. PubMed PMID: 27378974; PubMed Central PMCID: PMC4905981.
- Kuperman, V., **Van Dyke, J.A.**, Henry, R. (2016). Eye-movement control in RAN and Reading. *Scientific Studies of Reading*, 20(2), 173-188. <http://dx.doi.org/10.1080/10888438.2015.1128435> PubMed PMID: 27667915; PubMed Central PMCID: PMC5033253.
- Matsuki, K., Kuperman, V., **Van Dyke, J.A.** (2016) The Random Forests statistical technique as applied to the study of reading disability. Invited submission for special issue of *Scientific Studies of Reading*, 20(1), 20-33. <http://dx.doi.org/10.1080/10888438.2015.1107073> PubMed Central PMCID:PMC4710485
- Braze, D., Katz, L., Magnuson, J., Mencl, W.E., Tabor, W., **Van Dyke, J.A.**, Gong, T., Johns, C., Shankweiler, D.P. (2016). Vocabulary does not complicate the simple view of reading. *Reading and Writing*. <http://dx.doi.org/10.1007/s11145-015-9608-6> PMID: 26941478; PubMed Central PMCID: PMC4761369.
- Van Dyke, J.A.**, & Landi, N. (2016). The development of reading comprehension skill: Processing and Memory. In E. Bavin & L. Naigles (Eds.) *Handbook of Child Language*, Cambridge University Press (pp. 740-762).

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- Johns, C.L., Matsuki, K. & **Van Dyke, J.A.** (2015). Poor readers' retrieval mechanism: Efficient access is not dependent on reading skill. *Frontiers in Psychology—Language Sciences*, 6:1552. <http://dx.doi.org/10.3389/fpsyg.2015.01552> PMID: PMC4607860
- Kush, D. Johns, C.L., **Van Dyke, J.A.** (2015) Identifying the role of phonology in sentence-level reading difficulty. *Journal of Memory and Language*, 79-80, 18-29. <http://dx.doi.org/10.1016/j.jml.2014.11.001> PMID: PMC4755489
- Van Dyke, J.A.**, & Johns, C.L. Kukona, A. (2014). Low working memory capacity is only spuriously related to poor reading comprehension, *Cognition*, 131(3), 373-403. <http://dx.doi.org/10.1016/j.cognition.2014.01.007> PubMed PMID:PMC3988267
- Glaser, Y.G., Martin, R.C., **Van Dyke, J.A.**, Hamilton, A.C., Tan, Y. (2013). Neural basis of semantic and syntactic interference resolution in sentence comprehension. *Brain and Language*, 126, 314-326. <http://dx.doi.org/10.1016/j.bandl.2013.06.006> PubMed PMID: 23933471; PubMed Central PMID: PMC3816580
- Kuperman, V., & **Van Dyke, J.A.** (2013). Reassessing word frequency as a determinant of word recognition for skilled and unskilled readers. *Journal of Experimental Psychology: Human Performance and Perception*, 39(3), 802-823. <http://dx.doi.org/10.1037/a0030859> PubMed PMID: 23339352; PubMed Central PMID: PMC3719867.
- Van Dyke, J.A.** & Shankweiler, D. (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). Routledge, Taylor & Francis Group.
- Clark, N.B., McRoberts. G.W., **Van Dyke, J.A.**, and Braze, D. (2012). Immediate memory for pseudowords and phonological awareness are associated in adults and pre-reading children. *Clinical Linguistics & Phonetics*, 26(7), 577-596. <http://dx.doi.org/10.3109/02699206.2012.673045> PMID: 22690715; PMID: [PMC4766584](http://pubmed.ncbi.nlm.nih.gov/PMC4766584/)
- Van Dyke, J.A.** & Johns, C.L. (2012). Memory interference as a determinant of language comprehension. *Language and Linguistic Compass*, 6(4), 193-211. <http://doi.wiley.com/10.1002/lnc3.330> PMID:PMC3389825
- Van Dyke, J.A.** (2012). The role of memory in language and communication. In R. Peach & L. Shapiro (Eds.) *Cognition and Acquired Language Disorders: A Process-Oriented Approach*. (pp. 94-120). St. Louis: Mosby Elsevier.
- Van Dyke, J.A.** & McElree, B. (2011). Cue-dependent interference in comprehension. *Journal of Memory and Language*. 65. 247-263. <http://dx.doi.org/10.1016/j.jml.2011.05.002> PMID: [PMC3171743](http://pubmed.ncbi.nlm.nih.gov/PMC3171743/)
- Magnuson, J. S., Kukona, A., Braze, B., Johns. C.L., **Van Dyke, J.A.**, Tabor, W., Mencl, E., Pugh, K.R., & Shankweiler, D. (2011). Phonological instability in young adult poor readers: Time course measures and computational modeling. In P. McCardle, B. Miller, J.R. Lee, & O. Tseng, *Dyslexia Across Languages: Orthography and the Brain-Gene-Behavior Link*, pp. 184-201. Baltimore: Paul Brookes Publishing.
- Purdy, M. & **Van Dyke, J.A.** (2011). Multimodal Communication Training in Aphasia: A Pilot Study. *Journal of Medical Speech-Language Pathology*, 19(3), 45-53. PMID: PMC3927416
- Braze, D., Mencl, W.E., Tabor, W., Pugh, K., Constable, R.T., Fulbright, R.K., Magnuson, J.S., **Van Dyke, J.A.**, Shankweiler, D.P. (2011). Unification of sentence processing via Ear and Eye: An fMRI study. *Cortex*, 47, 416-431, <http://dx.doi.org/10.1016/j.cortex.2009.11.005>. PMID: PMC2889140
- Kuperman, V., & **Van Dyke, J.A.** (2011a). Effects of individual differences in verbal skills on eye-movement patterns during sentence reading. *Journal of Memory and Language*, 65(1), 42-73. <http://dx.doi.org/10.1016/j.jml.2011.03.002> PMID: PMC3119501

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- Kuperman, V. & **Van Dyke, J.A.** (2011b). Individual differences in visual comprehension of morphological complexity. In Proceedings of the 33rd Annual Conference of the Cognitive Science Society. Austin: TX: Cognitive Science Society.
- Shankweiler, D., Palumbo, L.C., Fulbright, R.K., Mencl, W.E., **Van Dyke, J.A.**, Kollia, B., Thornton, R., Crain, S., Harris, K.S., (2010). Testing the limits of language production in long-term survivors of major stroke: A psycholinguistic and anatomic study. *Aphasiology*, 24(11), 1455-1485.
- Van Dyke, J.A.** (2007). Interference effects from grammatically unavailable constituents during sentence processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 33(2), 407-430. PMID: PMC2077343
- Lewis, R.L., Vasishth, S., **Van Dyke, J.A.** (2006). Computational Principles of Working Memory in Sentence Comprehension. *Trends in Cognitive Science*, 10(10), 447-454. PMID: PMC2239011
- Van Dyke, J.A.** & McElree, B. (2006). Retrieval interference in sentence processing. *Journal of Memory and Language*, 55, 157-166. PMID: PMC2206541
- Shankweiler, D., Palumbo, L.C., Ni, W., Mencl, W.E., Fulbright, R., Pugh, K.R., Constable, R.T., Harris, K.S., Kollia, B., **Van Dyke, J.A.** (2004). Unexpected recovery of language function after massive left-hemisphere infarct: Coordinated psycholinguistic and neuroimaging studies. *Brain and Language*, 91(1), 181-182.
- Van Dyke, J.A.** & Lewis, R.L. (2003). Distinguishing effects of structure and decay on attachment and repair: A retrieval interference theory of recovery from misanalyzed ambiguities. *Journal of Memory and Language*, 49(3), 285-316. PMID: 18079972
- Perfetti, C.A., **Van Dyke, J.A.**, & Hart, L. (2001). The Psycholinguistics of Basic Literacy. In M. McGroarty (Ed.) *Annual Review of Applied Linguistics*, 21, 127-149
- Voss, J.F. & **Van Dyke, J.A.** (2001). Argumentation in Psychology. *Discourse Processes*, 32(2&3), 89-111.
- Voss, J.F. & **Van Dyke, J.A.** (2001). Narrative Structure, Information Certainty, Emotional Content, and Gender as Factors in A Pseudo Jury Decision Making Task. *Discourse Processes*, 32(2&3), 215-243.
- Britt, M.A., Perfetti, C.A., **Van Dyke, J.A.**, & Gabrys, G. (2000). The Sourcer's Apprentice: A Tool for Document-Supported History Instruction. In P. Stearns, P. Seixas, and S. Weinberg (Eds.), *Knowing, Teaching, and Learning History: National and International Perspectives* (pp. 437-469). New York: New York University Press.
- Van Dyke, J.A.** & Lehman, J. (1997). An Architectural Account of Errors in Second Language Learning. In M. Shafto and P. Langley (Eds.), *Proceedings of the 19th Annual Conference of the Cognitive Science Society* (p. 781-786). Mahwah, N.J.: Lawrence Erlbaum.
- Lehman, J.F., **Van Dyke, J.A.**, & Green, N. (1995). Reactive Natural Language Processing: Comprehension and Generation in the Air Combat Domain. Abstract in *Proceedings of the 1995 AAAI Fall Symposium on Embodied Language*.
- Lehman, J.F., **Van Dyke, J.A.**, & Rubinoff, R. (1995). Natural Language Processing for IFORs: Comprehension and Generation in the Air Combat Domain. Abstract in *Proceedings of the Fifth Conference on Computer Generated Forces and Behavioral Representation*.
- Laird, J., Johnson, W.J., Jones, R., Koss, F., Lehman, J.F., Nielsen, P.E., Rosenbloom, P.S., Rubinoff, R., Schwamb, K., Tambe, M., **Van Dyke, J.A.**, van Lent, M., Wray, R. E. (1995). Simulated intelligent forces for air: The SOAR/IFOR project 1995. Abstract in *Proceedings of the Fifth Conference on Computer Generated Forces and Behavioral Representation*.
- Van Dyke, J.A.**, McCoy, K., & Demasco, P. Using syntactic knowledge for word prediction. Presented at ISAAC-92. Abstract appears in *Augmentative and Alternative Communication*, 8, 1992.

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- Van Dyke, J.A.**, (1991). A Syntactic Predictor to Enhance Communication for Disabled Users. Technical Report, Computer Science Department, University of Delaware.
- Van Dyke, J.A.**, (1991). Tagging guide for the X' Theory grammar. Technical Report, Center for Applied Science and Engineering, A.I. DuPont Institute.
- Van Dyke, J.A.**, (1991). An annotated test suite for the X' Theory grammar. Technical Report, Center for Applied Science and Engineering, A.I. DuPont Institute.
- Van Dyke, J.A.**, (1991). Word Prediction for Disabled Users: Applying Natural Language Processing to Enhance Communication. Honors B.A. Thesis, University of Delaware.

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INVITED COLLOQUIA

Keynote speaker, 26th Annual Conference on Architectures and Mechanisms of Language Processing, September 2020.

Invited talk at the Language Science Colloquium on Information Density and Linguistic Encoding, Saarland University, November 2019.

Workshop on the Relationship between Executive Functions and Language Processing, Massachusetts Institute of Technology, May 2017.

An interference approach to syntactic processing and comprehension impairment. Department of Neuropsychology, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany. May, 2016.

A new approach to investigating ability and disability in reading comprehension. George State University, Language and Literacy Initiative, November 3, 2014.

A new approach to investigating ability and disability in reading comprehension. Temple University, Department of Speech and Communication Disorders, October 29, 2014.

Working Memory and Sentence Comprehension: A New Perspective. Invited talk presented at the Seminar on Language and Cognition, Columbia University, May 1, 2014.

A new approach to investigating ability and disability in reading comprehension. University of Pittsburgh, December 16, 2013.

Individual differences in language comprehension: A cue-based retrieval approach. Invited talk presented at a Symposium entitled "Reading Comprehension: From theory to practice". Bar Ilan University, Ramat-Gan, Israel. Sponsored by the Israel Science Foundation and Bar Ilan University, April 28th, 2013.

A new framework for understanding sources of comprehension difficulty in bilinguals. *Workshop on Second Language acquisition: from brain plasticity to cognition*, Hebrew University, Jerusalem, May 15-18, 2012.

Individual differences in language comprehension: A cue-based retrieval approach. Department of Speech and Communication Disorders Colloquium, CUNY Graduate Center, New York, NY, March 21, 2012.

Individual differences in language comprehension: A cue-based retrieval approach. Linguistics Department Colloquium, Yale University, New Haven, CT, February 20, 2012.

Working Memory and Sentence Comprehension: A New Perspective. Invited talk and discussant at the 30th European Workshop on Cognitive Neuropsychology, Bressanone, Italy, January 22-27, 2012.

Working Memory, Retrieval Interference, and Sentence Comprehension Deficits in Aphasia. (With Martin, R.C., & Tan, Y.) Invited talk presented during a Symposium on Sentence Processing Deficits and Memory Retrieval, 49th Annual meeting of the Academy of Aphasia, Montréal, Québec, Canada, October 15-18, 2011.

Sentence Comprehension in Poor vs. Good Readers: A Cue Based Retrieval Approach. Invited talk presented during a Symposium on Sentence Processing Deficits and Memory Retrieval, 49th Annual meeting of the Academy of Aphasia, Montréal, Québec, Canada, October 15-18, 2011.

Memory Interference as a determinant of poor language comprehension. Department of Language and Linguistics, McMaster University, Hamilton, Ontario (CANADA), September 21, 2011.

Computational properties of memory retrieval during language comprehension, Psychology Colloquium, University of Massachusetts, Amherst, September 17, 2008.

Retrieval Interference in Sentence Processing, Psycholinguistics Supper Club, Department of Linguistics, City University of New York, October 31, 2006.

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- Encoding and Retrieval Interference in Sentence Processing. Workshop on probabilistic versus cognitively motivated explanations for human sentence processing. Potsdam, Germany, December 6, 2004.
- Interference effects in Sentence processing. Psycholinguistics lab meeting, New York University, January 29, 2004
- Cue-based Retrieval Effects in Sentence Processing. Workshop on Computational Models of Sentence Processing, Saarbruecken, Germany, July 2-4, 2003.
- Memory Retrieval Effects in Parsing and Reanalysis. Linguistics Colloquium, University of Massachusetts, Amherst. May 20, 2003.
- Complexity effects are memory retrieval effects. Psycholinguistics Supper Club, Department of Linguistics, City University of New York. April 8, 2003.
- Complexity effects are memory retrieval effects. Psychology Department Colloquium, University of Connecticut. April 7, 2003.
- Intelligent tutoring meets the history domain: New challenges and a new concept of tutoring. Talk presented (with Charles Perfetti) at the Center for Interdisciplinary Research on Constructive Learning Environments (CIRCLE) Seminar series, Learning Research and Development Center, University of Pittsburgh, March 1, 2000.
- Is the learning paradox really a paradox? Talk presented at the Graduate Student Seminar, Computational Linguistics Program, Carnegie Mellon University: February 23, 1995
- Using Natural Language Processing to Enhance Communication. Talk presented at the Undergraduate Research Symposium, Honors Program, University of Delaware: May 13, 1991.
- Applying Government and Binding Syntax to Natural Language Processing. Talk presented at the Artificial Intelligence Seminar, Computer Science Department, University of Delaware: May 9, 1991.

PROFESSIONAL SERVICE

Ad hoc reviewer:

(a) American Journal of Speech-Language Pathology; (b) Brain Sciences; (c) Frontiers in Human Neuroscience; (d) Frontiers in Psychology- Language Sciences; (e) Journal of Cognitive Neuroscience; (f) Journal of Experimental Psychology: General; (g) Journal of Experimental Psychology: Learning, Memory, and Cognition (h) Journal of Memory and Language; (i) Language; (j) Language and Cognitive Processes; (k) Language, Cognition, and Neuroscience; (l) Memory & Cognition; (m) Psychonomics Bulletin and Review; (n) Quarterly Journal of Experimental Psychology; (o) Reading and Writing; (p) Scientific Studies of Reading

Grant review panels:

(a) Language and Communication (LCOM) special emphasis panel, National Institutes of Health; (b) Linguistics Program, National Science Foundation; (c) Research Grants Council of Hong Kong; (d) Austrian Academy of Sciences; (e) Swiss National Science Foundation; (f) Israel Science Foundation

Editing:

Guest Editor, Special issue of the Journal of Scientific Studies of Reading, <i>"Mechanisms of Reading Comprehension: Contrasting integrative processes vs products" To appear, January 2021</i>	Dec 2018 – Present
Editor, Language and Linguistics Compass	Sep 2014 – Present
Associate Editor, Journal of Experimental Psychology: General	Jan 2016 – Present
Editorial Board, Scientific Studies of Reading	May 2018 – Present
Editorial Board, Discourse Processes	Sep 2015 – Present

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Editorial Board, Frontiers in Artificial Intelligence,
Language and Computation Section Sep 2018 – Present
Editorial Board, Journal of Experimental Psychology: General Jan 2011 – Dec 2015
Editorial Board, Language and Linguistics Compass Feb 2011 – Aug 2014

Committee work:

Steering Committee Member, Haskins Laboratories May 2012 – Present;
May 2006 – Aug 2008
Strategic Planning Committee Member, Haskins Laboratories Mar 2014 – Sep 2014;
Jun 2008 – Sep 2009
Infrastructure Improvement Committee Member, Haskins Laboratories May 2008 – Sep 2009
Organizer, Reading Seminar, Haskins Laboratories Jan 2008 – Jun 2010
Organizer, Aphasia Working Group, Haskins Laboratories Sep 2008 – Sep 2010

Conference Organizing:

Organizer, Symposium entitled “Multimodal explorations of linguistic processes July 2017
in poor comprehenders”, 24th Annual Meeting of the Society for the Scientific
Study of Reading, Halifax, Nova Scotia.
Organizer, Symposium entitled “Mechanisms of Integration in Reading July 2015
Comprehension”, 22nd Annual Meeting of the Society for the Scientific Study
of Reading, Kona, Hawaii.
Program Committee, CUNY Conference on Sentence Processing Jan 2002– Present
Review Committee, Conference on Architectures and Mechanisms
for Language Processing (AMLaP) Apr 2008 – Present
Review Committee, Annual Meeting of the Cognitive Science Society Mar 2016 – Present

MEMBERSHIPS

Fellow, Psychonomics Society
Member, Society for the Scientific Study of Reading
Member, Society for the Neurobiology of Language

AWARDS

Individual National Research Service Award Fellowship (6th percentile) granted to Dave Kush for 3 years of
mentored research in my lab, July 2014.
University of Michigan Department of Psychology Dissertation Fellowship, 2001– 2002
Tim Post Award for Research Excellence, University of Pittsburgh, \$500, 2001– 2002
Student Fellowship, Linguistics Institute, Linguistics Society of America, 1991
Outstanding Achievement in Software Engineering, Computer Science Department, University of
Delaware, 1991
University Honors Program Research Fellowship, University of Delaware, 1991
President’s Outstanding Academic Achievement Award, University of Delaware, 1987– 1991

TEACHING EXPERIENCE

Adjunct Associate Professor, Yeshiva University Spring 2014
Neural Basis of Language
Adjunct Associate Professor, Yale University Fall 2010
Introduction to Cognitive Science
Adjunct Associate Professor, Pace University Fall 2005, Fall 2006
Cognitive Psychology, Independent Study in Psycholinguistics

JULIE A. VAN DYKE

Teaching Fellow, University of Pittsburgh Introduction to Psychology	Fall 2000
Teaching Fellow, University of Pittsburgh Learning and Cognition Research Methods	Fall 1998; Spr 1999
Directed Study Supervisor, University of Pittsburgh Topics: Psycholinguistics, Emotional Factors in Jury Decision Making, Classical Reasoning in Practice, Text Learning in History.	Spr 1999, Fall 2000
Instructor, Institute of English Philology, University of Lodz, Poland Linguistics, English Composition, English Translation, Listening Comprehension	1991-1993
Writing Fellow, University of Delaware English Composition, Creative Writing, Editing	1989-1991
Student Coordinator of Writing Fellows	1991

TEACHING TOPICS

Cognitive Psychology	Memory and Language
Cognitive Science	Neural Basis of Language
Computational Models of Language Processing	Psycholinguistics
Introduction to Psychology	Reading and Language Disabilities

MENTORING

Current Ph.D. Students and their affiliation:

Luca Campanelli (CUNY Graduate Center, PhD co-advisor, expected 2019)

Current Postdoctoral Fellows and their PhD institutions:

Dan Klienman (co-mentor, Beckman Institute, University of Illinois, Urbana-Champlain)

Former Ph.D. Students and Postdoctoral Fellows (current affiliation)

Daniel Schmidtke (Postdoctoral Fellow, McMaster University, Canada)

Kazunaga Matsuki (Associate, BEworks Management Consulting)

Regina Henry (personal leave for illness)

Clinton L. Johns (Pearson)

Dave Kush (Associate Professor, Norwegian University of Science and Technology, Norway)

Ashley Lewis (Donders Institute, Radboud University, Netherlands)

Andrew Jahn (Neuroimaging Specialist, University of Michigan)

Former Research Assistants (current affiliation)

Hannah Jones (University of Rochester)

Heidi Sarles-Whittlesey (University of Georgia)

Undergraduate Interns (Undergraduate University)

Emma Chepya (Southern CT State University)

Simon Cozzens (Yale University)

Kathleen O'Carroll (Yale University)

Margaret Ott (Yale University)

Alekya Menta (Tufts University)

Eva Montas (Southern CT State University)

Dovid Muller (Yeshiva University)

JULIE A. VAN DYKE

CONSULTING

Kiesense, Inc. Hartford, CT

2008 – 2010

Technical consultant in development of PriText, a patented technology to enable rapid and error-tolerant text input on mobile devices and limited-channel input devices, including scroll wheels, knobs, joysticks and directional keys. Supervised optimization of English and development of Spanish and Finnish language capabilities. Company was sold to Nuance, Inc. in 2010.

WORK EXPERIENCE

Graduate Research Assistant

2000 – 2001

Early Reading Initiative Decodability Study, Learning Research and Development Center, Pittsburgh, PA and Center for Academic and Reading Skills, Houston, TX

Project manager for Pittsburgh subcontract of multi-site grant investigating acquisition of word representation in normal and disabled readers. Designed experimental protocol to test effects of context on decoding skill and acquisition of word form; tested children of various skill levels from four Houston elementary schools.

Graduate Research Assistant

1997 – 2000

Sourcer's Apprentice Document-based history tutor, Learning Research and Development Center, University of Pittsburgh, Pittsburgh, PA

Sourcer's Apprentice is a Java-based tool designed to facilitate students' critical use of primary sources for learning history. Responsible for tutor development and in-school deployment & evaluation in Pittsburgh City High Schools, including extensive data collection, essay coding, and tutor evaluation.

Research Computer Programmer, ACT-R Algebra Tutoring project
School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.

1996 – 1997

Developed natural language interface to enhance student-tutor communication in ACT-R Algebra tutors.

Research Computer Programmer, NL-Soar project
School of Computer Science, Carnegie Mellon University, Pittsburgh, PA.

1994 – 1997

Developed language comprehension and generation capability in NL-Soar, a language module built within the Soar cognitive architecture. Supervised deployment of NL-Soar as the natural language component of TacAir-Soar, a tactical air simulator designed for US Air Force pilot training.

Research Assistant
Applied Science and Engineering Labs, A.I. DuPont Institute, Wilmington, DE.

1990 – 1991

Developed grammar model, lexicon, and automated part of speech tagger to support Word Compaction. This system was an Augmentative Communication device that allowed motor-disabled individuals to communicate via icons or two-letter abbreviations typed into a specialized keyboard. The system applied natural language techniques to decode the client's input into contextually appropriate text that was then synthesized as speech.

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CONFERENCE PRESENTATIONS

- Campanelli, L., **Van Dyke, J.A.**, Marton, K., (2018). The modulatory effect of expectations on memory retrieval during sentence comprehension. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing. Berlin, Germany, Sept 6-8.
- Campanelli, L., Landi, N., **Van Dyke, J.A.** (2018). Syntactic and Semantic processing in poor comprehenders: Evidence from eye-tracking and computational modeling. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing. Berlin, Germany, Sept 6-8.
- Lewis, A., Kush, D., Jahn, A., Campanelli, L., Johns, C., **Van Dyke, J.A.** (2018). Active Antecedent Search in Cataphora Processing: Insights from Neural Oscillations. Poster presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing. Berlin, Germany, Sept 6-8.
- Jaeger, L., Mertzen, D., **Van Dyke, J.A.**, Vasishth, S. (2018). Contrasting facilitation profiles for agreement and reflexives revisited: A large-scale empirical evaluation of the cue-based retrieval model. Paper presented at the 24th Annual Conference on Architectures and Mechanisms for Language Processing, Berlin, Germany, Sept 6-8.
- Campanelli, L., **Van Dyke, J.A.**, & Marton, K. (2018). The modulatory effect of expectations on memory retrieval during sentence comprehension. Presented at the 40th Annual Conference of the Cognitive Science Society, Madison, Wisconsin, July 25-28.
- Landi, N. Kaswer, L.Ryherd, K., Campanelli, L., **Van Dyke, J.A.**, Krivocapic, J. & Breen, M. (2018). Use of prosodic cues is impaired in poor comprehenders. Poster presented at the 25th Annual Meeting of the Society for the Scientific Study of Reading, Brighton, UK, July 18-21.
- Li, M., Braze, D., Kukona, A., Shankweiler, D.P., Tabor, W.A., **Van Dyke, J.A.**, Mencl, W.E., Johns, C.L., Pugh, K.R., Magnuson, J.S. (2017). Individual differences in subphonemic sensitivity and reading ability. Poster presented at the 9th Annual meeting of the Society for the Neurobiology of Language, Baltimore, MD, Nov 8-10.
- Jahn, A., Kush, D., Lewis, A., & Van Dyke, J.A. (2017). Prediction-related activity in the medial prefrontal cortex reflects processing of cataphor cues. Poster presented at the 9th Annual meeting of the Society for the Neurobiology of Language, Baltimore, MD, Nov 8-10.
- Johns, CL., Jahn, A., Jones, H., Kush, D., Molfese, P., Van Dyke, JA., Magnuson, JS., Tabor, W., Mencl, WE, Shankweiler, DP & Braze, D. (2017). Performance differences on reading skill measures are related to differences in cortical grey matter structure in young adults. Poster presented at the 9th Annual meeting of the Society for the Neurobiology of Language, Baltimore, MD, Nov 8-10.
- Ryherd, K., Johns, C., Jahn, A., **Van Dyke, J.A.**, & Landi, N. (2017). Structural brain differences in good and poor comprehenders identified through a regression-based quantitative method. Poster presented at the 9th Annual meeting of the Society for the Neurobiology of Language, Baltimore, MD, Nov 8-10.
- Lewis, A. G., **Van Dyke, J.A.** (2017). Ability to ignore syntactic and semantic distractors during sentence reading: Evidence from neural oscillations. Spoken paper presented at 24th Annual Meeting of the Society for Scientific Study of Reading, Halifax, Nova Scotia, Canada, July 12-15.
- Van Dyke, J.A.**, Matsuki, K., Landi, N. (2017). Ability to ignore syntactic and semantic distractors during sentence reading: Evidence from neural oscillations. Spoken paper presented at 24th Annual Meeting of the Society for Scientific Study of Reading, Halifax, Nova Scotia, Canada, July 12-15.
- Johns, C.L., Lewis, A.G., **Van Dyke, J.A.**, Landi, N. (2017). Mechanisms of discourse coherence in poor and good comprehenders. Spoken paper presented at 24th Annual Meeting of the Society for Scientific Study of Reading, Halifax, Nova Scotia, Canada, July 12-15.

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- Breen, M., Kaswer, L., **Van Dyke, J.A.**, Landi, N. (2017). Imitated prosodic fluency predicts reading comprehension ability in good and poor high school readers. Spoken paper presented at 24th Annual Meeting of the Society for Scientific Study of Reading, Halifax, Nova Scotia, Canada, July 12-15.
- Ryherd, K., Breen, M., **Van Dyke, J.A.**, & Landi, N. (2017). Prosodic comprehension in specific reading comprehension deficit. Poster presented at the 8th University of Connecticut Language Festival, Storrs, CT, April.
- Lewis, A. G., **Van Dyke, J.A.** (2017). Oscillatory neural signatures of syntactic and semantic retrieval interference. Poster presented at CUNY Sentence Processing Conference 2017, MIT, Cambridge, MA, March 29-31.
- Kush, D., & **Van Dyke, J.A.** (2016). Ordered access to prominence on antecedent retrieval: new SAT evidence. Poster presented at 22nd Annual Conference on Architectures and Mechanisms for Language Processing, Bilbao, Spain, Sept 1-3.
- Kuperman, V., Henry, R., & **Van Dyke, J.A.** (2016). When eyes RAN. Presentation at the Developmental Eye-Movements Workshop. Southampton, UK, August.
- Campanelli, L., **Van Dyke, J.A.**, & Marton, K. (2016). Investigating the modulatory effect of expectations on memory retrieval during sentence comprehension. Poster presented at the 29th Annual CUNY Conference on Human Sentence Processing, Gainesville, FL, March 13-15.
- Kush, D., & **Van Dyke, J.A.** (2016). The effect of prominence on antecedent retrieval: new SAT evidence. Poster presented at the 29th Annual CUNY Conference on Human Sentence Processing, Gainesville, FL, March 13-15.
- Van Dyke, J.A.**, Matsuki, K., Jones, H.R., Molfese, P.J., Jahn, A., Johns, C.L., Kush, D., Bontrager, M.L. (2015). A random forests analysis of the relationship between reading-related skills and white matter tractography. Poster presented at the 7th Annual meeting of the Society for the Neurobiology of Language, Chicago, IL, October 15-17.
- Jahn, A., Jones, H.R., Johns, C.L., Kush, D., Bontrager, M.L., Frost, S.J., **Van Dyke, J.A.** (2015). Neural basis of conflict resolution in encoding and retrieval interference. Poster presented at the 7th Annual meeting of the Society for the Neurobiology of Language, Chicago, IL, October 15-17.
- Parker, D., Shvartsman, M., **Van Dyke, J.A.** (2015). Agreement illusions are selective: Evidence from eye-tracking and modeling. Talk presented at the Experimental Psycholinguistics Conference, Madrid, Spain, October 7-9.
- Parker, D., Shvartsman, M., **Van Dyke, J.A.** (2015). Agreement Attraction is Selective: Evidence from Eye-tracking. Poster presented at the Annual Meeting of AMLaP: Architectures and Mechanisms for Language Processing, Malta, September 3-5.
- Kuperman, V., Matsuki, K., **Van Dyke, J.A.** (2015). Relative importance of text and reader characteristics for eye-movements in reading comprehension. Talk presented at the 18th European Conference on Eye Movements, Vienna, Austria, August 16-21.
- Schmidtke, D., **Van Dyke, J.A.**, Kuperman, V., (2015). The role of semantic transparency on the processing of English compound words: insights from individual differences. Poster presented at the 18th European Conference on Eye Movements, Vienna, Austria, August 16-21.
- Henry, R., Kuperman, V., **Van Dyke, J.A.** (2015). The contribution of executive function components varies across the timeline of reading. Poster presented at the 18th European Conference on Eye Movements, Vienna, Austria, August 16-21.

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- Kush, D., **Van Dyke, J.A.** (2015). Remembering where words were: Influences of memory for order on reading and comprehension. Talk presented at the 22nd Annual Meeting of the Society for the Scientific Study of Reading, Kona, Hawaii, July 15-18.
- Gong, T., Braze, D., Magnuson, J., Mencl, E., Tabor, W., **Van Dyke, J.A.**, Shankweiler, D. (2015). Eye-movement patterns reveal effects of reading skills on online language processing. Talk presented at the 22nd Annual Meeting of the Society for the Scientific Study of Reading, Kona, Hawaii, July 15-18.
- Matsuki, K., Kuperman, V., **Van Dyke, J.A.** (2015). The random forests statistical technique as applied to the study of reading disability. Talk presented at the 22nd Annual Meeting of the Society for the Scientific Study of Reading, Kona, Hawaii, July 15-18.
- Schmidtke, D., Kuperman, V., **Van Dyke, J.A.** (2015). It's all going to pieces: The role of individual differences and emotion in complex word recognition. Talk presented at the 22nd Annual Meeting of the Society for the Scientific Study of Reading, Kona, Hawaii, July 15-18.
- Braze, D., Katz, L., Magnuson, J.S., Mencl, E., Tabor, W., **Van Dyke, J.A.**, Shankweiler, D. (2015). Word knowledge and the Simple View of Reading. Poster presented at the 22nd Annual Meeting of the Society for the Scientific Study of Reading, Kona, Hawaii, July 15-18.
- Gong, T., Braze, D., Magnuson, J., Mencl, E., Tabor, W., **Van Dyke, J.A.**, Shankweiler, D., (2015). Reading Skills and On-Line Language Processing: Toward Constraints on Theory. Poster presented at the 28th Annual CUNY conference on Human Sentence Processing, University of Southern California, March, 19-21.
- Kush, D., & **Van Dyke, J.A.** (2015). When the gap-filling gets tough. Poster presented at the 28th Annual CUNY conference on Human Sentence Processing, University of Southern California, March, 19-21.
- Whitlock, J. Caplan, D., **Van Dyke, J.A.**, Ostrowski, A., Matsuki, K. (2014). SAT Dynamics in Early Closure Sentences. Poster presented at the 55th Annual Meeting of the Psychonomic Society, Long Beach, CA, November 20-23.
- Van Dyke, J.A.**, Jones, H.R., Frost, S.J., Molfese, P.J., Johns, C.L., Kush, D., Bontrager, M., Mencl, W.E. (2014). Neural basis of sensitivity to interference during sentence comprehension. Poster presented at the 6th Annual Meeting of the Society for the Neurobiology of Language, Amsterdam, NL, August 27-29.
- Johns, C., & **Van Dyke, J.A.** (2014). A new approach to understanding the role of memory in fluent reading. Talk presented at the 21st Annual Meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico, July 16-19, 2014.
- Kush, D., Johns, C., **Van Dyke, J.A.** (2014). Phonological interference and its effect on sentence-level reading difficulty. Poster presented at the 21st Annual Meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico, July 16-19, 2014.
- Henry, R., Kuperman, V., Ally, P., **Van Dyke, J.A.** (2014). What the fingers and the eyes can tell us about reading skill. Poster presented at the 21st Annual Meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico, July 16-19, 2014.
- Van Dyke, J.A.**, Matsuki, K., Gumkowski, N. (2014). Sensitivity to Stroop interference predicts semantic integration ability during sentence comprehension. Talk presented at the 21st Annual Meeting of the Society for the Scientific Study of Reading, Santa Fe, New Mexico, July 16-19, 2014.
- Johns, C.L., Braze, D., Molfese, P.M., **Van Dyke, J.A.**, Kush, D., Magnuson, J.S., Tabor, W., Mencl, W.E., Jones, H.R., & Shankweiler, D.P. (2014). Structural MRI reveals correlations between individual differences in language-related cognitive abilities and thickness of language-relevant cortical areas. Poster presented at the 21st annual meeting of the Cognitive Neuroscience Society, 5 April.

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- Johns, C.L., **Van Dyke, J.A.**, Kush, D. (2014). A speed-accuracy tradeoff study of poor readers' memory mechanisms. Poster presented at the 27th Annual CUNY conference on Human Sentence Processing, The Ohio State University, March 13-15, 2014.
- Kush, D., Johns, C.L., **Van Dyke, J.A.** (2014). Sensitivity to phonological interference in encoding, but not retrieval. Poster presented at the 27th Annual CUNY conference on Human Sentence Processing, The Ohio State University, March 13-15, 2014.
- Henry, R., Kuperman, V., & **Van Dyke, J.A.** (2013). RAN eye-movements are predictive of reading ability. Abstract submitted to the 17th European Conference on Eye Movements, August 11-16, 2013, Lund, Sweden.
- Kuperman, V., Ally, P., & **Van Dyke, J.A.** (2013). Finger tapping predicts text comprehension. Abstract submitted to the 17th European Conference on Eye Movements, August 11-16, 2013, Lund, Sweden.
- Kuperman, V., **Van Dyke, J.A.**, Henry, R. (2012). The visuo-oculomotor component of RAN is a strong predictor of eye-movements in reading. Presentation at the 19th Annual Conference of the Society for the Scientific Study of Reading, Montreal, Canada, July 11-14, 2012.
- Kuperman, V. & **Van Dyke, J.A.** (2011). Individual differences in visual comprehension of morphological complexity. Talk presented at the 33rd Annual Conference of the Cognitive Science Society, July 20-23, Boston, MA.
- Guo, Y., Martin, R.C., Hamilton, A.C., **Van Dyke, J.A.**, Tan, Y. (2011). Neural basis of semantic and syntactic interference resolution in sentence comprehension. Poster submitted to the 17th Annual Meeting of the Organization on Human Brain Mapping, June 26-30, Quebec City, Canada.
- Guo, Y., Martin, R., **Van Dyke, J.A.**, & Hamilton, C. (2010). Interference effects in sentence comprehension- An fMRI study. In S. Ohlsson & R. Catrambone (Eds.), Proceedings of the 32nd Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society.
- Van Dyke, J.A.**, Johns, C.L., Kukona, A. A retrieval interference account of poor sentence comprehension in young adult readers. Talk presented at the Conference of the Society for the Scientific Study of Reading, Berlin, Germany, July 7-10, 2010.
- Kuperman, V., & **Van Dyke, J.A.** Test of reading skills predict individual differences in eye-movements among non-college-bound adolescent readers. Talk presented at the Conference of the Society for the Scientific Study of Reading, Berlin, Germany, July 7-10, 2010.
- Van Dyke, J.A.**, Johns, C.L., Kukona, A. Individual differences in sentence comprehension: A retrieval interference approach. Talk presented at the 23rd Annual CUNY conference on Human Sentence Processing, New York University, March 16-20, 2010.
- Magnuson, J. S., Kukona, A., Braze, D., Johns, C., **Van Dyke, J.A.**, Tabor, W., Mencl, W. E., Pugh, K. R., & Shankweiler, D. Simulating Acquisition and Deficits in Human and Computer Models. Talk given at The Dyslexia Foundation "Extraordinary Brain" Symposium. Taipei, Taiwan, January, 2010.
- Conway-Palumbo, L., Fulbright, R., Mencl, W.E., **Van Dyke, J.A.**, Kollia, B., Thornton, R., Shankweiler, D. Word and sentence production after destruction of Broca and Wernicke Regions. Academy of Aphasia 47th Annual Meeting, Boston, MA, October 18-20, 2009.
- Shankweiler, D. P., Braze, D., Mencl, W. E., Tabor, W., Pugh, K. R., Constable, R. T., Fulbright, R. K., Magnuson, J. S., & **Van Dyke, J.A.** (2009, October 15). Cerebral convergence of sentence processing in speech and reading: Effects of differences in reading skill. Poster presented at the 1st Neurobiology of Language Conference. Chicago, IL.
- Purdy, M., & **Van Dyke, J.A.** (2009). Intermodal training to facilitate communication in aphasia: A pilot study. Poster presented at the Clinical Aphasiology Conference, Keystone, CO, May 26-30.

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- Braze, D., Kukona, A., Magnuson, J., Mencl, E., Pugh, K., Tabor, W., **Van Dyke, J.A.**, Shankweiler, D. (2009). Vocabulary makes an independent contribution to reading comprehension in young adults' reading skills. Poster presented at the 16th Annual Meeting of the Society for the Scientific Study of Reading, Boston, MA, June 25-27.
- Van Dyke, J.A.**, & McElree, B. (2007). Interference reduces the probability of retrieving non-local constituents. Poster presented at the 20th annual CUNY conference on Human Sentence Processing, University of California, San Diego: March 27-29.
- Van Dyke, J.A.**, Shankweiler, D., Tabor, W. (2005). Reading skill predicts sensitivity to semantic and syntactic distractors. Talk presented at the Conference of the Society for the Scientific Study of Reading, Toronto, Canada, June 24-26, 2005.
- Shankweiler, D., Palumbo, L.C., Ni, W., Mencl, W.E., Fulbright, R., Pugh, K.R., Constable, R.T., Harris, K.S., Kollia, B., **Van Dyke, J.A.** (2004). Unexpected recovery of language function after massive left-hemisphere infarct: Coordinated psycholinguistic and neuroimaging studies. Poster presented at the 41st Annual Meeting of the Academy of Aphasia. Chicago, October 2003.
- Van Dyke, J.A.** Complexity effects are working memory retrieval effects. Poster presented at the 16th Annual CUNY Conference on Human Sentence Processing. Massachusetts Institute of Technology, March 27-29, 2003.
- Bolger, D.J., **Van Dyke, J.A.**, Landi, N., Perfetti, C.A., Foorman, B. What errors can tell us about representation and process: Investigating a quantitative theory of reading acquisition. Poster presented at the Conference of the Society for the Scientific Study of Reading, Chicago, IL, June 27-30, 2002.
- Landi, N., **Van Dyke, J.A.**, Perfetti, C.A., Foorman, B. Causes and consequences of predictability. Poster presented at the Conference of the Society for the Scientific Study of Reading, Chicago, IL, June 27-30, 2002.
- Voss, J.F. & **Van Dyke, J.A.** (2002). Processing syllogisms and enthymemes in relation to their logical and pragmatic functions. Proceedings of the 5th International Conference on Argumentation, Amsterdam, June 25-28, 2002.
- Van Dyke, J.A.**, Bolger, D.J., Landi, N., Perfetti, C.A., Foorman, B. Contributions of Word Decodability and Text Predictability in First Grade Oral Reading and Printed Word Learning. Talk presented at the Conference of the Society for the Scientific Study of Reading, Boulder, CO. June 1-3, 2001.
- Van Dyke, J.A.**, Landi, N., Bolger, D.J., Perfetti, C.A. Decodability as a Text Factor: Alternative Approaches to Characterizing Word Predictability. Poster presented at the Conference of the Society for the Scientific Study of Reading, Boulder, CO. June 1-3, 2001.
- Van Dyke, J.A.** Syntactic and referential effects in processing complex sentences. Poster presented at the 14th annual CUNY conference on Human Sentence Processing, University of Pennsylvania, March 15-17, 2001.
- Van Dyke, J.A.**, Perfetti, C.A., Britt, A. Socratic's Apprentice: Facilitating Document-Supported History Instruction in the Classroom Talk presented at the 10th Annual meeting of the Society for Text and Discourse, Lyon, France. July 19-21, 2000.
- Voss, J.F. & **Van Dyke, J.A.** The use of narrative in argumentation. Talk presented at the 10th Annual meeting of the Society for Text and Discourse, Lyon, France. July 19-21, 2000.
- Van Dyke, J.A.**, & Lewis, R.L. Distinguishing effects of decay and interference on attachment and reanalysis in temporarily ambiguous sentences. Poster presented at the 13th annual CUNY conference on Human Sentence Processing, UC San Diego, March 29-April 1, 2000.

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- Britt, A., **Van Dyke, J.A.**, & Perfetti, C.A. Sourcer's Apprentice: A tool for document-supported history instruction. Talk presented at American Educational Research Association (AERA) Conference, Montreal, Canada, April 22, 1999.
- Van Dyke, J.A.**, & Lewis, R.L. The role of interference in Recovery from Misanalysis of Garden Path Sentences. Poster presented at the 11th annual CUNY conference on Human Sentence Processing, Rutgers University, March 19-21, 1998.
- Van Dyke, J.A.** An architectural account of errors in second language learning. Talk presented at the Conference of the Cognitive Science Society, Stanford, CA, August 7-11, 1997.
- Van Dyke, J.A.** ESL-Soar: An architectural account of errors in foreign language learning." Talk presented at the 17th Soar Workshop, Ohio State University, June 29, 1997.
- Van Dyke, J.A.** Towards a more robust semantics for NL-Soar. Talk presented at the 15th Soar Workshop, Carnegie Mellon University, September 17, 1995.
- Van Dyke, J.A.** Using Syntactic Knowledge for Word Prediction. Talk presented at the Fifth Biennial Conference of the International Society for Augmentative and Alternative Communication (ISAAC), Philadelphia, PA: August 8, 1992.