### Ram Frost Curriculum Vitae January 2022

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Year of birth: 1954

#### **Academic Education:**

1986 Ph.D. Department of Psychology, The Hebrew University, Israel.

1983 M.A. Cum Laude, Department of Psychology, The Hebrew University.

1980 B.A. Department of Psychology, The Hebrew University, Israel.

#### **Academic Appointments:**

1995-1999

2002-present Professor of Psychology, The Hebrew University, Israel

**1997-2002** Associate Professor, Department of Psychology, Hebrew U.

**1993-1997** Senior lecturer, Department of Psychology, The Hebrew University.

**1988-1993** Lecturer, Department of Psychology, The Hebrew University.

#### **Hebrew University and National Appointments:**

2006-2009	Chairperson of the Tenure and Promotion Committee, The Social Sciences and Humanities, The Hebrew University.
2002-2005	Chairperson, Department of Psychology, The Hebrew University.
1999-2005	Member of the Council for Higher Education Committee (MALAG) for Students with learning disabilities.
2000-2001	Member of the National Committee for Teaching Reading (The Shapira Committee. (Report submitted to the Knesset, June, 2001).

Chairperson of the academic committee for students with learning disabilities.

#### **Service in Other Academic and Research Institutions**

**2012-2019** ERC Panel Member for SH4-The Human Mind and its Complexity.

**2013-present** Research Associate of Basque Center for Cognition Brain and Language (BCBL),

San Sebastian, Spain.

1988-presen	Research Associate of <u>Haskins Laboratories</u> , New Haven, CT.	
2012-2013	Visiting Professor. Basque Center for Cognition Brain and Language (BCBL), San Sebastian, Spain.	
2005-2006	Visiting Professor, Laboratoire EMC, University of Lyon II, France	
1998-1999	Visiting Professor. Institute for Cognitive Studies, CNRS-Lyon, France, and University of Provence, Aix-en-Provence, France.	
1993-1994	Fulbright fellow at the Department of Psychology, University of Arizona.	
1986-1987	Visiting Lecturer, Department of Psychology, University of Connecticut.	
1986-1988	Post-Doctoral Fellow at Haskins Laboratories, New Haven, CT.	
esearch Grants		
2020-2025	Research grant from <b>The Israel Science Foundation</b> . Towards an information theory of cross-linguistic differences in reading. 375,000 \$.	

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2020-2025	Research grant from <b>The Israel Science Foundation</b> . Towards an information theory o cross-linguistic differences in reading. 375,000 \$.
2016-2021	Research grant from the <b>European Research Council (ERC advanced)</b> . Statistical learning and L2 literacy acquisition: Towards a neurobiological theory of assimilating novel writing systems. 2.5 M Euros.
2014-2019	Research grant from <b>The Israel Science Foundation</b> . Second language literacy acquisition: The interaction of linguistic dissimilarity and individual capacity in statistical learning. 230,000 \$.
2011-2016	Research grant from The National Institute of Health (NIH) (Neurocognitive

- Determinants of Second Language Literacy Acquisition). With Ken Pugh. 2 M \$.
- 2010-2014 Research grant from The Israel Science Foundation. Proficient Hebrew Reading: The acquisition and development of two lexical systems. 130,000 \$.
- Research grant from NIH (awarded to Haskins Laboratories). The nature and acquisition 1994-2016 of the speech code), 15,000 \$ a year.
- 2007-2010 Research grant from **The Israel Science Foundation**. The dynamic processing of morphological information in Hebrew. 135,000\$.
- 2005-2008 Research grant from **The Center for Complexity Science** (Brain Representation of Morphological Processes and Organization of the Mental Lexicon) with Gad Goelman, Hadassah Hebrew University Medical Center. 30,000\$.
- 2004-2007 Research grant from The Israel Science Foundation (Characteristics of Prelexical Phonological Computation in Hebrew Orthography at Different Time Courses). 100,000\$.
- 2000-2003 Research grant from The Israel Science Foundation (Morphological Processing and Lexical Access During Sentence Reading: Evidence from Hebrew) with Avital Deutsch, The School of Education, 90,000\$.

2000-2003 Research grant from **The Binational Science Foundation** (*Orthography and Morphology: How do They Shape Lexical Structure and Organization?*) with Ken Forster, The University of Arizona. 115,000\$.

- **1997-2000** Research grant from **The Israel Science Foundation** (*Phonological Computation of Print in Early Time Courses*). 90,000\$.
- 1997-1999 Research grant from AFIRST, Israel-France Ministry of Science (Perceiving Printed Words in the Left and Right Visual Field: Cerebral Dominance or Perceptual Learning) with Tatjana Nazir, Lyon, France. 30,000\$.
- 1996-1998 Research grant from **The Israeli Ministry of Education** (Developmental Aspects of Morphological Processing During Visual Word Recognition: Evidence from Proficient and Beginning Readers). 45,000 NIS.
- 1995-1998 Research grant from **The Binational Science Foundation** (*Mapping the Morphological Structure of the Mental Lexicon*) with Ken Forster, The University of Arizona. 96,000\$.
- **1992-1994** Research grant from **The Israeli Foundations Trustees** (*The Effect of Biasing Context on the Processing of Phonological and Semantic Ambiguity*).
- **1989-1991** Research grant from **The Israel Science Foundation** (*Visual and Auditory Interaction in Word Recognition*). 60,000\$.

#### **Editorial Work**

1996-1999 Associate Editor- Language and Cognitive Processes
1996- present Editorial board – Language, Cognition, and Neuroscience
2017-presnent Editorial board – Journal of memory and Language.

#### **Current Research:**

Visual word recognition, second language literacy acquisition, statistical learning Research focuses on the cognitive processes involved in visual word recognition, investigating what is universal in the reading process, and what is unique to each language's orthographic and morphological system. Recent research focuses on statistical learning as an individual ability, and its relation to second language literacy acquisition and reading expertise.

#### Recent Ph.D. students and post-docs:

Henry Brice (Thesis submitted 2021) Noam Siegelman (Thesis submitted 2018) Naomi Havron (Thesis submitted 2016) Boaz Tzur (Thesis submitted 2012) Hadas Velan (Thesis submitted 2011) Odelia Elkana (Thesis submitted 2011) Atira Bick (Thesis submitted 2010) Boaz Tzur (Thesis submitted 2012)

Naama Schwartz (in progress) Alex fine (post-doc), 2014-2015 Louisa Bogaerts (post-doc), 2016-2019 Raquel Alhama (post-doc), 2017 Craig Richter (post-doc), 2018 Dipanjan Ray (post-doc), 2020

# LIST OF PUBLICATIONS GS- 12,900 citations, H-Index-51, I10 index-90.

#### **Edited books and edited volumes:**

- **1. R. Frost**, & L. Katz (Eds.) (1992) *Orthography, Phonology, Morphology, and Meaning*. In Advances in Psychology, Holland: Elsevier.
- **2. R. Frost**, & J. Grainger (Eds.). (2000). *Cross-Linguistic Perspectives on Morphological Processing*. In: Special Issue of Language and Cognitive Processes. Hove, UK: Psychology Press.
- **3. R. Frost**, J. Grainger, & K. Rastle (Eds.). (2005). *Current Issues in Morphological Processing*. In: Special Issue of Language and Cognitive Processes. Hove, UK: Psychology Press.
- **4. R. Frost,** J. Grainger, & M. Carreiras (Eds.). (2008). *New directions in Morphological Processing*. In: Special Issue of Language and Cognitive Processes. Hove, UK: Psychology Press.
- **5.** Rueckl, J., Carreiras, M., & **Frost, R.** (Eds.). (2013). *New Advances in Morphological Processing. Special issue of Language and Cognitive Processes*. Hove, UK: Psychology Press.
- **6.** Armstrong, B., **Frost, R.**, & Christiansen M.H. (2017). *New Frontiers in Statistical Learning: Special Issue of Philosophical Transactions of the Royal Society: Biology.*
- 7. Frost, R., Bogaerts, L. & Christiansen M.H. (2020). Integrating Statistical Learning into Cognitive Science: Special Issue of Journal of Memory and Language.

#### Published papers in refereed journals and book chapters:

- **1. Frost, R.**, Katz, L., & Bentin, S. (1987). Strategies for visual word recognition and orthographical depth: A multilingual comparison. *Journal of Experimental Psychology: Human Perception and Performance*, 13, 104–115.
- **2.** Bentin, S., & **Frost, R.** (1987). Processing lexical ambiguity and visual word recognition in a deep orthography. *Memory & Cognition*, *15*, 13-23.
- **3.** Goldblum, N., & **Frost, R.** (1988). The crossword puzzle paradigm: The effectiveness of different word fragments as cues for the retrieval of words. *Memory & Cognition*, *16*, 158-167.
- **4. Frost, R.**, Repp, B.H. & Katz, L. (1988). Can speech perception be influenced by simultaneous presentation of print? *Journal of Memory & Language*, 27, 741-755. Repp, B.H., & **Frost, R.** (1988). Detectability of words and nonwords in two kinds of noise. *Journal of the Acoustical Society of America*, 84, 1929-1932.
- **5. Frost, R**., & Gati, I. (1989). Comparison of the geometric and the contrast models of similarity by presentation of visual stimuli to the left and the right visual fields. Brain & *Cognition*, 9, 1-15.
- **6. Frost, R.**, & Katz, L. (1989). Orthographic depth and the interaction of visual and auditory processing in word recognition. *Memory & Cognition*, 17, 302-311.
- **7. Frost, R.**, & Bentin, S. (1990). Processes of visual word perception in the Hebrew orthography. In: K. Binyaminy, A. Dolev, E. Cohen, M. Amir, & I. M. Schlesinger (Eds.) *Theories and Application*

- in Psychology, Jerusalem: Magnes. (in Hebrew).
- **8.** Frost, R., Feldman, L.B., & Katz, L. (1990). Phonological ambiguity and lexical ambiguity: Effects on visual and auditory word recognition. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 16, 569-580.
- **9.** Frost, R. (1990). Orthographies and word perception. *Psychologia*, 1, 5-11. (in Hebrew).
- **10. Frost, R.** (1991). Phonetic recoding of print and its effect on the detection of speech in amplitude modulated noise. *Cognition*, *39*, 195-214.
- **11. Frost, R.** (1991). Orthographic depth and Psychological reality: A reply to Yossef Shimron. *Psychologia*, 2, 189-191. (In Hebrew).
- **12. Frost, R.** (1992). Orthography and Phonology: The psychological reality of orthographic depth. In M. Noonan, P. Downing, & S. Lima (Eds.). *The Linguistics of Literacy*. (pp 255-274). Amsterdam/Philadelphia: John Benjamins.
- **13.** Frost, R., & Bentin, S. (1992). Processing phonological and Semantic Ambiguity: Evidence from semantic priming at different SOAs. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 18, 58-68.
- **14.** Katz, L., & **Frost, R.** (1992). Orthography, phonology, Morphology, and Meaning: an overview. In: R. Frost, & L. Katz (Eds.) *Orthography, Phonology, Morphology, and Meaning*. (pp 1-8). In Advances in Psychology, Holland: Elsevier.
- **15.** Frost, R. & Bentin, S. (1992). Reading consonants and guessing vowels: Visual word recognition in Hebrew orthography. In: R. Frost, & L. Katz (Eds.). *Orthography, Phonology, Morphology, and Meaning*. (pp. 27-44). In Advances in Psychology, Holland: Elsevier.
- **16.** Katz, L. & **Frost, R.** (1992). Reading in different orthographies: the orthographic depth hypothesis. In: R. Frost, & L. Katz (Eds.). *Orthography, Phonology, Morphology, and Meaning*. (pp. 67-84). In Advances in Psychology, Holland: Elsevier.
- **17.** Repp, B.H., **Frost, R.**, & Zsiga, E. (1992). Lexical mediation between sight and sound in speechreading. *Quarterly Journal of Experimental Psychology*, 45A, 1-20.
- **18.** Frost, R. & Kampf, M. (1993). Phonetic recoding of phonologically ambiguous printed words. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 19, 23-33.
- **19. Frost, R.** (1994). Prelexical and postlexical strategies in reading: Evidence from a deep and a shallow orthography. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 20, 116-129.
- **20.** Bentin, S., & Frost, R. (1994). Morphological factors in visual word identification in Hebrew. In L. Feldman (Ed.) Morphological aspects of language processing. (pp. 271-292). N.J., USA: Erlbaum.

- **21.** Feldman, L.B., **Frost, R.**, & Pnini, T. (1995). Decomposing words into their constituent morphemes: evidence from English and Hebrew. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *21*, 947-960.
- **22.** Ben-Dror, I., Bentin, S., & **Frost, R.** (1995). Semantic, phonological, and morphological skills in children with reading disabilities and normally achieving readers: Evidence from perception and production of spoken Hebrew words. *Reading Research Quarterly*, *30*, 876-893.
- **23.** Frost, R. (1995). Phonological computation and missing vowels: Mapping lexical involvement in reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *21*, 398-408.
- **24.** Ben-Dror, I., **Frost**, **R.**, & Bentin, S. (1995). Orthographic representation and phonemic segmentation in skilled readers: a cross-language comparison. *Psychological Science*, 6, 176-178.
- **25.** Ben Shakhar, G., **Frost**, **R.**, Gati, I., & Kersh, Y. (1996). Is an apple a fruit? Semantic relatedness as reflected by psychophysiological responsivity. *Psychophysiology*, *33*, 671-679.
- **26.** Gronau, N., & **Frost, R.** (1997). Prelexical Phonologic Computation in a Deep Orthography: Evidence from Backward Masking in Hebrew. *Psychonomic Bulletin & Review*, *4*, 107-112.
- **27.** Gollan, T., Forster, K.I., & **Frost, R.** (1997). Translation priming with different scripts: Masked priming with cognates an noncognates in Hebrew-English bilinguals. *Journal of Experimental Psychology: Learning Memory, & Cognition*, 23, 1122-1139.
- **28.** Frost, R. (1997). Principles of reading acquisition in Hebrew: Analysis of the Psycholinguistic Method. *Psycholinguistic studies in Israel: language acquisition, reading, and writing*. J. Shimron (Ed.), pp 290-307. Jerusalem: Magnes. (in Hebrew).
- **29.** Berent, I. &, **Frost, R.** (1997). The inhibition of polygraphic consonants in spelling Hebrew: evidence for a recurrent assembly of spelling and phonology in visual word recognition. In C.A. Perfetti, L. Rieben, & M. Fayol (Eds.). *Learning to Spell.* (pp 195-220). NJ, USA: Lawrence Erlbaum Associates.
- **30.** Frost, R., Forster, K.I., & Deutsch, A. (1997). What can we learn from the morphology of Hebrew: a masked priming investigation of morphological representation. *Journal of Experimental Psychology: Learning Memory, & Cognition*, 23, 829-856.
- **31.** Frost, R. (1998). Towards a strong phonological theory of visual word recognition: True issues and false trails. *Psychological Bulletin*, *123*, 71-99.
- **32.** Deutsch, A., **Frost, R.**, & Forster, K.I. (1998). Verbs and nouns are organized and accessed differently in the mental lexicon: Evidence from Hebrew. *Journal of Experimental Psychology: Learning Memory*, & Cognition, 24, 1238-1255.
- **33. Frost, R.**, Deutsch, A., Gilboa, O., Tannenbaum, M., & Marslen-Wilson, W. (2000). Morphological priming: Dissociation of phonological, semantic, and morphological factors. *Memory & Cognition*, 28, 1277-1288.

- **34.** Deutsch A, **Frost**, **R.**, Pollatsek A., & Rayner, K. (2000). Early morphological effects in word recognition in Hebrew: Evidence from parafoveal preview benefit. *Language and Cognitive Processes*, *15*, 487-506.
- **35.** Frost, R., & Grainger, J. (2000). Cross-linguistic Perspectives on Morphological Processing: An Introduction. *Language & Cognitive Processes*, *15*, 321-328.
- **36.** Frost, R., Deutsch, A. & Forster, K.I. (2000). Decomposing Morphologically Complex Words in a Nonlinear Morphology. *Journal of Experimental Psychology: Learning Memory, & Cognition*, 26, 751-765.
- **37.** Gollan T., & **Frost**, **R.** (2001). Two routes to grammatical gender: Evidence from Hebrew. *Journal of Psycholinguistic Research*, *30*, 627-651.
- **38.** Frost, R., & Yogev, O. (2001). Orthographic and phonological computation in visual word recognition: Evidence from backward masking in Hebrew. *Psychonomic Bulletin & Review*, 8, 524-530.
- **39.** Bentin, S., & **Frost**, **R.** (2001) Linguistic theory and psychological reality: A reply to Budelaa and Marslen-Wilson. *Cognition*, *81*, 113-118.
- **40.** Deutsch, A., & **Frost, R.** (2003). Lexical organization and lexical access in a non-concatenated morphology: Mapping the mental lexicon. In Y. Shimron (Ed.) *Language processing and acquisition in Languages of Semitic, Root Based Morphology*. Amsterdam/ Philadelphia: John Benjamins.
- **41. Frost, R.** (2003) The robustness of phonological effects in fast priming. In: S. Kinoshita and S. J. Lupker (Eds.). *Masked Priming the State of the Art*. The Macquarie Monographs in Cognitive Science, Hove, UK: Psychology Press. (pp. 173-192).
- **42.** Deutsch, A., **Frost, R.**, Peleg, S, Pollatsek, A., & Rayner, K. (2003) Early morphological effects in reading: Evidence from parafoveal preview benefit in Hebrew. *Psychonomic Bulletin & Review*, 10, 415-422.
- **43. Frost, R.**, Ahissar, M., Gottesman, R, & Tayeb, S. (2003). Are phonological effects fragile? The effect of luminance and exposure duration on form priming and phonological priming. *Journal of Memory and Language*, 48, 346-378.
- **44.** Nazir, T., ben-Boutayab, N., Decoppet, N., Deutsch, A., & **Frost, R.** (2004). Reading habits, perceptual learning, and the recognition of printed words. *Brain and Language*, 88, 294-311.
- **45. Frost, R.** Grainger, J. & Rastle, K. (2005). Current issues in morphological processing: An introduction. *Language and Cognitive Processes*, 20, 1-5.
- **46.** Deutsch, A., **Frost, R.**, Pollatsek, A., & Rayner, K. (2005). Morphological Parafoveal Preview Benefit Effects in Reading: Evidence from Hebrew. *Language and Cognitive Processes*, 20, 341-371.

- **47.** Velan, H., **Frost, R.**, Deutsch, A., & Plaut, D. (2005). The processing of root morphemes in Hebrew: Contrasting localist and distributed accounts. *Language and Cognitive Processes*, 29, 169-206.
- **48.** Frost, R. (2005). Orthographic Systems and Skilled Word Recognition Processes in Reading. In C. Hulme, M. Snowling (Eds.). *The Science of Reading: A Handbook*. Mass: Blackwell. (pp.272-295).
- **49.** Moscoso, F., Deutsch, A., **Frost, R.**, Schreuder, R., de Jong, N.H. & Baayen, H. (2005). Changing Places: A cross-language perspective of frequency and family size in Dutch and Hebrew. *Journal of Memory & Language*, *53*, 496-512.
- **50.** Frost, R., Kugler, T., & Forster, K.I. (2005). Orthographic structure versus morphological structure: principles of lexical organization in a given language. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 31, 1293-1326.
- **51. Frost, R.** (2006). Becoming Literate in Hebrew: The Grain-Size Hypothesis and Semitic Orthographic Systems. *Developmental Science*, *9*, 439-441
- **52.** Tzur, H. & **Frost**, **R.** (2007). SOA does not Reveal the Absolute Time Course of Cognitive Processing in Fast Priming Experiments. *Journal of Memory and Language*, *56*, 336-356.
- **53.** Frost, R. & Ziegler, J. (2007). Speech and Spelling Interaction: The Interdependence of Visual and Auditory Word Recognition. In G. Gaskell (Ed.). *Oxford Handbook of Psycholinguistics*. Oxford: Oxford University Press. (pp. 107-118).
- **54.** Velan, H. & **Frost, R.** (2007). Cambridge University Vs. Hebrew University: The impact of letter transposition on reading English and Hebrew. *Psychonomic Bulletin & Review, 14*, 913-918.
- **55.** Bick, A. Goelman, G., & **Frost, R**. (2008). Neural Correlates of Morphological Processes in Hebrew. *Journal of Cognitive Neuroscience*, 20, 406-420.
- **56.** Frost, R., Grainger, J., & Carreiras, M. (2008). Advances in morphological processing: An introduction. *Language and Cognitive Processes*, *23*, 933-941.
- **57. Frost, R.** (2009). Reading in Hebrew vs. reading in English: is there a qualitative difference? Pugh, K. & McCardle, P. (Eds.) *How Children Learn To Read: Current Issues and New Directions in the Integration of Cognition, Neurobiology and Genetics of Reading and Dyslexia Research and <i>Practice*. Psychology Press (pp 235-254).
- **58.** Velan, H., & **Frost, R**. (2009) Letter-transposition effects are not universal: The impact of transposing letters in Hebrew. *Journal of Memory and Language*, *61*, 285-302.
- **59.** Bick, A.S., **Frost**, **R.**, & Goelman, G. (2010). Imaging Implicit Morphological Processing: Evidence in Hebrew. *Journal of Cognitive Neuroscience*, 22, 1955-1969.
- **60.** Elkana, O., Frost, R. Kramer, U. Ben-Bashat, D. Handler, T., Schmidt, & Schweiger, A. in (2011). Cerebral reorganization as a function of linguistic recovery in children: An fMRI

- investigation. Cortex, 47, 202-216.
- **61.** Bick, A.S., Goelman, G. & **Frost, R.** (2011). Hebrew Brain vs. English Brain: Language modulates the way it is processed. *Journal of Cognitive Neuroscience*, 23, 2280-2290.
- **62.** Velan, H. & **Frost, R.** (2011). Words with and without internal structure: what determines the nature of orthographic and morphological processing? *Cognition*, 118, 141-156.
- **63. Frost, R**. (2011). Looking across orthographies. In P. McCardle, J. R. Lee, O. J. L. Tzeng, & B. Miller (Eds.), *Dyslexia across languages: Orthography and the brain-gene-behavior link*. Baltimore, MD: Brookes Publishing.
- **64.** Frost, R. (2012). Towards a universal model of reading. Target article, *Behavioral and Brain Sciences*, *35*, 263-279.
- **65. Frost, R.,** (2012). A universal approach to modelling visual word recognition and reading: Not only possible, but also inevitable. *Behavioral and Brain Sciences*, *35*, 310-329.
- **66.** Elkana, O., **Frost, R**. Kramer, U. Ben-Bashat, B. Handler, T., Schmidt, & Schweiger. (2013). Cerebral language reorganization in the chronic stage of recovery: a longitudinal fMRI study. *Cortex*, 49, 71-81.
- **67.** Velan, H., Deutsch, A., & **Frost, R**. (2013). The flexibility of letter-position flexibility: evidence from eye-movements in reading Hebrew. *Journal of Experimental Psychology. Human Perception & Performance*, *39*, 1143-1152.
- **68.** Frost, R. Siegelman, N, Narkiss, A., & Afek, L. (2013). What predicts successful literacy acquisition in a second language? *Psychological Science*, 24, 1243-1252.
- **69. Frost, R.**, & Keuleers, E. (2013). What can we learn from monkeys about orthographic processing in humans? A reply to Ziegler et al. *Psychological Science*, 24, 1870-1871.
- **70.** Carreiras, M., Armstrong, B., Perea, M., & **Frost, R**., (2014). The What, Where, When, and How of visual word recognition. *Trends in Cognitive Science*, *18*, 90-98.
- **71.** Lerner, I., Armstrong, B.C., & **Frost**, **R**. (2014). What can we learn from learning models about sensitivity to letter-order in visual word recognition? *Journal of Memory and Language*, 77, 40-58.
- **72.** Frost, R. (2015). Cross-linguistic perspectives on letter-order processing- Empirical findings and theoretical considerations. In A. Pollatsek, & R. Treiman (Eds.). *The Oxford Handbook of Reading*. Oxford University Press.
- **73. Frost, R.**, Armstrong, B.C., Siegelman, N., & Christiansen, M.H. (2015). Domain generality vs. modality specificity: The paradox of statistical learning. *Trends in Cognitive Science*, 19, 117-125.
- **74. Frost, R.**, Ileana Quiñones, Maria Veldhuizen, Jose-Iñaki Alava, Dana Small, & Manuel Carreiras. (2015). What can the brain teach us about winemaking? An fMRI study of alcohol level preferences. PLOS ONE | DOI:10.1371/journal.pone.0119220

- **75.** Siegelman, N., & **Frost**, **R**. Statistical learning as an individual ability. (2015). *Journal of Memory and Language*, 81, 105-120.
- **76.** Samuel, A.G., & **Frost, R.** (2015). Lexical support for phonetic perception during non-native spoken word recognition. *Psychonomic Bulletin & Review*, 22, 1746-1752.
- 77. Rueckl, J., et al. & Frost, R. (2015). A universal brain signature of proficient reading: Evidence from four contrasting languages. *Proceedings of the National Academy of Science*, 112, 15510-15515. doi: 10.1073/pnas.1509321112
- **78.** Bogaerts, L., Siegelman, N., & **Frost, R**. (2016). Splitting the variance of statistical learning performance; A parametric investigation of exposure duration and transitional probabilities. *Psychonomic Bulletin & Review*, 23, 1250-1256.
- **79.** Siegelman, N., Bogaerts, L., & **Frost, R**. (2016). Measuring individual differences in statistical learning: Current pitfalls and possible solutions. *Behavioural Research Methods*. doi:10.3758/s13428-016-0719-z
- **80.** Armstrong, B.C., **Frost, R**., & Christiansen, M.H. (2017). The long road of statistical learning: past, present, and future. *Philosophical Transactions of the Royal Society: Biology*, *372*, 20160047.
- **81.** Siegelman, N., Bogaerts, L., Christiansen, M.H., & **Frost, R**. (2017). Towards a theory of individual differences in statistical learning: *Philosophical Transactions of the Royal Society: Biology*, *372*, 20160059.
- **82.** Baart, M., Armstrong, B.C., Martin, C.D., **Frost, R**., & Carreiras, M. (2017). Cross-modal noise compensation in audiovisual words. *Scientific Reports*. Doi:10.1038/srep42055
- **83.** Siegelman, N., Bogaerts, L., Kronenfeld, O., & **Frost, R.** (2017). Redefining learning in statistical learning: What does online tracking reveal about the learning of quasi regularities, *Cognitive Science*, 42, 692-727.
- **84.** Bogaerts, L., Siegelman, N., & **Frost, R.** (2018). Is the Hebb repetition task a reliable measure of individual differences in sequence learning? *Quarterly Journal of Experimental Psychology*, 71, 892-905.
- **85.** Brice, H., Mencl, W. E., Frost, S. J., Bick, A. S., Rueckl, J. G., Pugh, K. R., & **Frost, R.** (2019). Neurobiological signatures of L2 proficiency: Evidence from a bi-directional cross-linguistic study. *Journal of Neurolinguistics*, *50*, 7-16.
- **86.** Siegelman, N., Bogaerts, L., Elazar, A., Arciuli, J., & **Frost, R.** (2019). Linguistic entrenchment: Prior knowledge impacts statistical learning performance. *Cognition*, *177*, *198-213*.
- **87.** Siegelman, N., Bogaerts, L., Armstrong. B., & Frost, R. (2019). What exactly is learned in visual statistical learning? Insights from Bayesian modeling. Cognition, 192.

- **88.** Frost, R., Armstrong, B.C., & Christiansen, M.H. (2019). Statistical learning research: A critical review and possible new directions. *Psychological Bulletin*, *145*, 1128–1153.
- **89.** Siegelman, N., Bogaerts, L., & **Frost, R.** (2019). What determines visual statistical learning performance? Insights from information theory. *Cognitive Science*. https://doi.org/10.1111/cogs.12803
- **90.** Bogaerts, L., **Frost**, **R**., & Christiansen, M.H. (2020). Integrating statistical learning in cognitive science. *Journal of Memory and Language*, *115*, *104167*.
- **91.** Bogaerts, L. Richter, C., Landau, A., & **Frost**, **R**. (2020). Beta-band activity is a signature of statistical learning". *Journal of Neuroscience*, 40, 7523-7530.
- **92.** Bogaerts, L., Siegelman, N., & **Frost, R**. (2021). Statistical learning and language impairments: Towards more precise theoretical accounts *Perspectives on Psychological Science*, 16, 319-337.
- **93.** Brice, H., Frost, S.J, Bick, A, Molfese, P.J, Rueckl, J., Pugh, K.R & **Frost, R**. (2021). Tracking second language immersion across time: Evidence from a bi-directional longitudinal cross-linguistic fMRI study. *Neuropsychologia*, 154, 107776.
- **94.** Brice, H., Siegelman, N., van den Bunt, M., Frost, S.J., Rueckl, J., Pugh, K.R & **Frost, R**. (2021). Individual differences in L2 literacy acquisition: Predicting reading skill from sensitivity to regularities between orthography, phonology and semantics. *Studies in Second Language Acquisition*, 44, 737-758.
- **95.** Bogaerts, L., Siegelman, N., Christiansen, M.H. & **Frost**, **R**. (2022). Is there such a thing as a "good statistical learner"? *Trends in Cognitive Science*, 26, 25-37.
- **96.** Siegelman, N., ...**Frost, R**., et al. (2022). Expanding horizons of cross-linguistic research on reading: The Multilingual Eye-movement Corpus (MECO). *Behavioral Research Methods*.
- **97.** Kuperman, V., Siegelman, N., ... **Frost, R.,** et al. (2022). Text reading in English as a second language: Evidence from the Multilingual Eye-movement Corpus (MECO). *Studies in Second Language Acquisition*.
- **98.** Elazar, A., Alhama, R.G., Bogaerts, L., Siegelman, N., Baus, C, & **Frost, R**. (in press). When the "tabula" is anything but "rasa": what determines performance in the auditory statistical learning task? *Cognitive Science*, 46, e13012.

## SELECTED PAPERS PRESENTED AT SCIENTIFIC CONFERENCES, INVITED PRESENTATIONS, AND KEYNOTE SPEECHES:

- **Frost, R.**, & Katz, L. Interactive processes in visual and auditory word perception. Paper presented at the Twenty-Eight Annual Meeting of the Psychonomic Society, Seattle, WA, November 1987.
- **Frost, R.**, & Repp, B.H. Can simultaneous presentation of print influence the detection of speech in noise? Paper presented at the 115th Meeting of the Acoustical Society of America, Seattle, WA, May 1988.

- **Frost, R.**, Feldman, L.B., & Katz, L. Phonological ambiguity and Lexical ambiguity: Effects on visual and auditory Word Recognition. Paper presented at the Workshop on Word Recognition, Zadar, Yugoslavia, August 1989.
- **Frost, R.**, & Bentin, S. Phonologic Ambiguity and Semantic Ambiguity: Effects of Semantic Priming at Short and Long SOA. Paper presented at the 30th Annual Meeting of the Psychonomic Society, Atlanta, November 1989.
- **Frost, R.** Phonetic recoding of printed words and its effect on the detection of speech. Paper presented at the 4th Meeting of the European Society for Cognitive Psychology, Como, Italy, September 1990.
- **Frost, R.** Phonetic recoding of phonologically ambiguous printed words. Paper presented at the 32th Annual Meeting of the Psychonomic Society, San Francisco, November 1991.
- **Frost, R.** Naming in a shallow orthography is mainly prelexical: Evidence from Hebrew. Paper presented at the 5th Meeting of the European Society for Cognitive Psychology, Paris, September 1992.
- **Frost, R.** Lexical and prelexical computation of phonology: Evidence from unpointed Hebrew. Paper presented at the 34th Annual Meeting of the Psychonomic Society, Washington D.C, November 1993.
- **Frost, R.**, Forster, K.I., & Deutsch, A. Morphological representation in Hebrew: A masked priming investigation. Paper presented at the 34th Annual Meeting of the Psychonomic Society, St. Louis, November 1994.
- **Frost, R.**, Forster, K.I. & Deutsch, A. Morphological processing and semantic processing, which comes first? Paper presented at the 8th Meeting of the European Society for Cognitive Psychology, Rome, September 1995.
- **Frost, R.**, Forster, K.I. & Deutsch, A. Morphological processing precedes semantic processing. Paper presented at the 36th Annual Meeting of the Psychonomic Society, Los Angeles, November 1995.
- **Frost, R.**, & Gronau, N. Prelexical phonologic computation in a deep orthography: Evidence from backward masking in Hebrew. Paper presented at the 9th Meeting of the European Society for Cognitive Psychology. Wurzburg, Germany, September 1996.
- **Frost, R.**, Deutsch, A., & Forster, K.I. Verbs and nouns are represented differently in the mental lexicon. Paper presented at the 38th Annual Meeting of the Psychonomic Society, Philadelphia, November 1997.
- **Frost, R.**, Deutsch, A., & Forster, K.I. Morphological decomposition is governed by representation of formal structure rather than co-occurrence of sublexical units. Paper presented at the 39th Annual Meeting of the Psychonomic Society, Dallas, November 1998.
- **Frost, R.** & Kugler, T. What can form priming tell us about the morphological organization of the mental lexicon? Paper presented at the 40th Annual Meeting of the Psychonomic Society, Los-Angeles, November 1999.
- **Frost, R.**, Ahissar, M., Gottesman, R., & Tayeb, S. Are phonological effects fragile? Paper presented at the 12th Meeting of the European Society for Cognitive Psychology. Edinburgh, September 2001.

- **Frost, R.**, Kugler, K., Deutsch, A., & Forster, K.I. Orthographic structure versus morphologica. structure. Principles of lexical organization in a given language. Paper presented at the 40th Annual Meeting of the Psychonomic Society, Orlando, November 2001.
- **Frost, R.**, Tzur, B., & Ahissar, M. SOA does not reveal the absolute time course of cognitive processing in fast priming experiments. Paper presented at the 43trd Annual Meeting of the Psychonomic Society, Vancouver, November 2003.
- **Frost, R.** & Velan, H. Morphological processing in Hebrew & English: Are the differences quantitative or qualitative? Paper presented at the 45th Annual Meeting of the Psychonomic Society, Toronto, November 2005.
- **Frost, R.** Learning to Read in a Semitic language: The case of Hebrew writing system. Invited speaker at the OECD workshop on reading acquisition. Cambridge, England, September 2006.
- **Frost, R.** Reading in English vs. reading in Hebrew, is there a difference? Invited speaker at the 25th European workshop on Cognitive Neuropsychology, Bressanone, Italy. January 2007.
- **Frost, R.** Reading in English and Hebrew, are the differences qualitative? Invited speaker at the Extraordinary Brain Symposium, The Dyslexia Foundation, Campos do Jordao, Brazil, June 2007.
- **Frost, R.** Cross-linguistic differences in normal and dyslexic reading. From behavioral data to the brain. Invited speaker at the OECD meeting, Helsinki, Finland, September 2007.
- **Frost, R.** From orthographic depth to morphological depth. Invited speaker at the Institute of Cognitive neuroscience, National Central University, Taipei, Taiwan, April 2008.
- **Frost, R.**, & Velan, H. Processing morphologically complex and morphologically simple words in Hebrew. Evidence for two independent lexical systems. Paper presented at the 49th Annual Meeting of the Psychonomic Society, Chicago, November 2008.
- **Frost, R.** Towards an ecological theory of visual word recognition. Invited speaker at the Basque Center for Brain and Language, San Sebastian, Spain, May 2010.
- **Frost, R.**, Narkiss, A., Velan H., & Deutsch, A. Learning to read Hebrew as a second language: Acquiring "Semitic" markers of reading. Paper presented at the 51st Annual Meeting of the Psychonomic Society, Saint Louis, November 2010.
- **Frost, R.** Cross-linguistic research on morphology: what does it tell us about how to construct (or rather NOT to construct) computational models of reading. Paper presented at the 7<sup>th</sup> international. San Sebastian, June 2011.
- **Frost, R.** Two decades of reading research in Hebrew: What did we learn from it about reading in English. Invited paper. Multidisciplinary Studies of Lexical Processing. A workshop for William Marslen-Wilson. Cambridge, July 2011.
- **Frost., R.,** Narkiss, A., Afek., L., & Siegelman, N. What predicts faster literacy acquisition in a second language? Paper presented at the 51st Annual Meeting of the Psychonomic Society, Saint Louis, November 2011.
- **Frost, R.** What determines processes of word recognition and lexical structure: Evidence from cross-linguistic research. Invited speaker at the first NetWords workshop. "Understanding the Architecture of the Mental Lexicon. Integration of existing approaches". Pisa, Italy, November 2011.

- **Frost, R,** & Noam Siegelman. Statistical learning and L2 learning: many questions and a few answers. Paper presented at the International workshop on Second Language Literacy Acquisition. Taiwan, May, 2013.
- Lerner, I., Armstrong, B., & **Frost, R.** What can we learn from learning models about sensitivity to letter-order in visual word recognition. Paper presented at the 53rd Annual Meeting of the Psychonomic Society, Toronto, November 2013.
- **Frost, R.** Statistical learning and reading abilities. Invited Keynote speech at the International Symposium on the Biological Foundations of Language. Chinese University of Hong Kong. Hong Kong, November, 2014.
- **Frost, R.,** What do Semitic languages teach us about reading and cognition? Invited Keynote speech at the NYU Abu Dhabi Conference on Experimental Approaches to Arabic and other understudied Languages. Abu Dhabi, January 2016.
- **Frost, R.** Towards a theory of statistical learning individual capacity. Invited Keynote speech at the 5<sup>th</sup> Implicit Learning Conference. Lancaster, UK, June 2016.
- **Frost, R.** Explaining visual statistical learning performance: insights from information theory. Invited speaker at the Princeton-Geneva Implicit Learning Workshop. Geneva, Switzerland, January, 2017.
- **Frost, R.** Domain generality vs. domain specificity: the interaction of modality and input characteristics. *Symposium presented at the International Convention of Psychological Science*, Vienna, Austria, March, 2017.
- **Frost, R.** Statistical learning and writing systems. Learning to read a novel orthography. *Paper presented at the meeting of the Experimental Psychology Society*. Reading, UK, July, 2017
- **Frost, R.**, Siegelman, N., & Bogaerts, L. Domain generality vs. domain specificity in statistical learning: new evidence, new perspectives. *Keynote at the 20th Conference of the European Society for Cognitive Psychology*, Potsdam, September 2017.
- Bogaerts, L., Siegelman, N., & **Frost, R**. Re-thinking domain generality vs. domain specificity: The role of prior knowledge in statistical learning. *Paper presented at the 58th Annual meeting of the Psychonomic Society*. Vancouver, November, 2017
- **Frost, R.,** Visual statistical learning and writing systems: learning to read a novel orthography. *Keynote Speech at the annual meeting of the Taiwan Society of Cognitive Neuroscience*, Taiwan, January, 2018.
- **Frost, R.** Visual statistical learning and writing systems: An information theory of reading in a given orthography. *Paper presented at Trinity College*, Dublin, March 2018.
- **Frost, R.**, Siegleman, N., Alhama, R. Bogarets, L., & Armstrong, B.C. What can we learn from information theory about cross-linguistic differences in learning to read in L1 and L2: theoretical perspectives and empirical evidence. *Paper presented in CoNSAll, Bangore, UK, September 2018*.
- **Frost, R.,** & Bogaerts, L. Neurobiological signatures of regularity learning. *Paper present in Ximen, China, July 10th, 2018*
- **Frost, R.** What can we learn from information theory about cross-linguistic differences in reading: theoretical perspectives and empirical evidence. *Paper present at the Department of Psychology, The University of Connectiut, December 2018.*

- **Frost, R.** Reading, statistical learning, and information theory: Past perspectives and future directions. *Paper presented at The NTNU workshop, Taipei, October 2019.*
- **Frost, R.** The statistical reader: reading, prediction, and information theory. Paper presented at the symposium on *Statistical learning: how does the brain learn and predict the sensory world?* Amsterdam, March 2021.
- **Frost, R.** From decoding to prediction: A 35 years perspective on reading research. *Invited keynote Speech at TEX2022 The Trieste Encounter on Cognitive Science*, Trieste, Italy, July, 2022.
- **Frost, R.** Where is reading research going: a 35 years perspective. *Invited Keynote Speech at the 8<sup>th</sup> International Workshop on Advanced Learning Sciences (IWALS) annual meeting of the Taiwan Society of Cognitive Neuroscience*, Taipei, October, 2022.