

Seminar in Language Science: Bilingualism Across the Lifespan

Spring 2021: Thursday, 11:45-1:45, by zoom

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Summary

This course will introduce the concept of bilingualism/multilingualism and major relevant theoretical models. The principal methodological approaches in the study of multilingual people will be reviewed, including psycholinguistic and neurolinguistics studies. Topics covered will include bilingual/multilingual language development, heritage language users, language processing in typical and atypical populations, and the relation between language and cognition in bilingual/multilingual people.

Learning objectives

At the end of the course students will be able to:

- discuss the definitions of bilingualism/multilingualism
- explain the main models of bilingual/multilingual language processing
- identify typical and atypical behaviors of bilingual/multilingual children and adults
- write a well-justified research proposal

Modules

- I. Introduction: Definition, methods, models (class 1-2)
- II. Language processing in bilingual/multilingual adult populations (class 2-3)
- III. Critical/sensitive period of first and second language acquisition (class 3-4)
- IV. Student-led discussion and presentations (class 7-12)
- V. Attitudes, identity, and inclusion (class 14)

Assessment

- Read papers assigned for each class and active class participation (10%)
- Submit one written paper summary for each class (in bullet points, including one positive and one negative critique) (5%)
- Submit two paper critiques (due class 4 and class 8) (10%)
- Present on a selected topic in class and lead a discussion (during classes 7-12) (20%)
- Submit an abstract for final paper (due by week 10) (for topic approval)
- Submit a final paper: Research proposal (due 5/20) (55%)

Regarding the class presentation, the abstract, and the final paper:

Students will work in pairs. Each pair will select a topic of their interest, with input from the instructors. They will find relevant articles to read and to include in their presentation and in the

paper (and assign 4 papers for the class to read). They will present their topic of interest during one class and will lead a discussion on the topic during that class. The final paper will be a research proposal. The paper will include a background section concluding in a research question and predictions, a methods section, a potential results and implication section, and references. The papers should be double spaced 10 to 25 pages (excluding references). We expect the papers to be proofread (spelling and grammar checked).

Potential topics include:

- ❖ Speech perception and production in L2 users
- ❖ Sentence processing in multilingualism
- ❖ Reading and reading impairment in L2 and multilingualism
- ❖ Typical bilingual/multilingual language development
- ❖ Child language disorders in bilingual/multilingual populations (DLD, Autism)
- ❖ Language mixing
- ❖ Adult disorders in bilingual/multilingual populations (aphasia, dementia)
- ❖ Language and cognition in multilingual/multilingual people; Language/cognitive control
- ❖ Heritage speakers
- ❖ Cultural aspects of multilingualism

Required readings

Class 2 Feb 11:

Cargnelutti, E., Tomasino, B., & Fabbro, F. (2019). Language brain representation in bilinguals with different age of appropriation and proficiency of the second language: a meta-analysis of functional imaging studies. *Frontiers in Human Neuroscience*.
<https://doi.org/10.3389/fnhum.2019.00154>

Dijkstra, A., Van Jaarsveld, H., & Ten Brinke, S. (1998). Interlingual homograph recognition: Effects of task demands and language intermixing. *Bilingualism: Language and Cognition*, 1, 51-66. <https://doi.org/10.1017/S1366728998000121>

Marian, V. (2008). Bilingual research methods. In: Altarriba, J. & Heredia, R. (Eds.) *An Introduction to Bilingualism*. (pp 13-34). Routledge.

Tessel, C.A., Levy, E.S., Gitterman, M., & Shafer, V.L. (2018). Neurophysiological indices of the effect of cognates on vowel perception in late Spanish-English bilinguals. *Journal of Phonetics*, 68, 117-137. <https://doi.org/10.1016/j.wocn.2018.03.004>

Class 3 Feb 18:

Costa, A., & Santesteban, M. (2004). Lexical access in bilingual speech production: Evidence from language switching in highly proficient bilinguals and L2 learners. *Journal of Memory and Language*, 50, 491-511. <https://doi.org/10.1016/j.jml.2004.02.002>

Kroll, J.F.K., Bobb., S.C., & Wodniecka, Z. (2006). Language selectivity is the exception, not the rule: Arguments against a fixed locus of language selection in bilingual speech. *Bilingualism: Language and Cognition*, 9, 119-135. doi:10.1017/S1366728906002483

Lemhöfer, K., Spalek, K., & Schriefers, H. (2008). Cross-language effects of grammatical gender in bilingual word recognition and production. *Journal of Memory and Language*, 59(3), 312-330.

Tomoschuk, B., Ferreira, V., & Gollan, T. (2019). When a seven is not a seven: Self-ratings of bilingual language proficiency differ between and within language populations. *Bilingualism: Language and Cognition*, 22, 516–536. doi:10.1017/S1366728918000421

Class 4 Feb 25:

Birdsong, D., & Molis, M. (2001). On the evidence for maturational constraints in second language acquisition. *Journal of Memory and Language*, 44(2), 235-249.
doi:10.1006/jmla.2000.2750

Hartshorne, J.K., Tenenbaum, J.B., Pinker, S. (2018). A critical period for second language acquisition: Evidence from 2/3 million English speakers. *Cognition*, 177, 263-277.
<https://doi.org/10.1016/j.cognition.2018.04.007>

Johnson, J.S., & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21(1), 60–99.

Knudsen, E.I., (2004). Sensitive periods in the development of the brain and behavior. *Journal of Cognitive Neuroscience*, 16(8), 1412-1425.

Class 5 March 4:

Best, C.T. & Tyler, M. (2007). Non-native and second language speech perception: Commonalities and complementarities. In *Language experience in second language speech learning: In honor of James Emil Flege*.

Dijkstra, T., & Van Heuven, W.J.B. (2002). The architecture of the bilingual word recognition system: From identification to decision. *Bilingualism: Language and Cognition*, 5, 175-197.
DOI: 10.1017/S1366728902003012

Grosjean, F. (2001). The bilingual's language modes. In Nicol, J. (Ed.). *One Mind, Two Languages: Bilingual Language Processing* (pp. 1-22). Oxford: Blackwell.

Kroll, J.F. & Stewart, E. (1994). Category interference in translation and picture naming: Evidence for asymmetric connections between bilingual memory representations. *Journal of Memory and Language*, 33, 149–174.

Class 6 March 11:

Papers related to your selected topic

Classes 7-12:

Papers assigned by students presenting

Class 13 May 6:

TBD

Class 14 May 13:

Garcia, O., & Alvis, J. (2019). The decoloniality of language and translanguaging: Latinx knowledge-production. *Journal of Postcolonial Linguistics*, 1, 26-40.

Grosjean, F. (2015). Bicultural bilinguals. *International Journal of Bilingualism*, 19(5), 572-586.
DOI: 10.1177/1367006914526297

- Schroeder, S.R., Lam, T.Q., & Marian, V. (2017). Linguistic predictors of cultural identification in bilinguals. *Applied Linguistics*, 38, 463-488. doi:10.1093/applin/amv049
- Waltermire, M. (2010). Variants of intervocalic /d/ as markers of sociolinguistic identity among Spanish-Portuguese bilinguals. *Spanish in Context*, 7, 279-304. doi 10.1075/sic.7.2.06wal

Optional readings

- Abutalebi, J., & Green, D. (2007). Bilingual language production: The neurocognition of language representation and control. *Journal of Neurolinguistics*, 20(3), 242–275. <https://doi.org/10.1016/j.jneuroling.2006.10.003>
- Baker, W., Trofimovich, P., Flege, J.E., Mack, M., & Halter, R. (2008). Child-adult differences in second-language phonological learning: The role of cross-language similarity. *Language and Speech*, 51(Pt 4), 317–342.
- Byers-Heinlein, K., Morin-Lessard, E., & Lew-Williams, C. (2017). Bilingual infants control their languages as they listen. *Proceedings of the National Academy of Sciences of the United States of America*, 114(34), 9032–9037. <https://doi.org/10.1073/pnas.1703220114>
- Datta, H., Hestvik, A., Vidal, N., Tessel, C., Hisagi, M., Wróbleski, M., & Shafer, V. (2020). Automaticity of speech processing in early bilingual adults and children. *Bilingualism (Cambridge, England)*, 23(2), 429-445. <https://doi.org/10.1017/s1366728919000099>
- Finkbeiner, M., Gollan T.H., & Caramazza, A. (2006). Lexical access in bilingual speakers: What's the (hard) problem? *Bilingualism: Language and Cognition*, 9, 153–166.
- Flege, J.E., Frieda, E.M., & Nozawa, T. (1997). Amount of native-language (L1) use affects the pronunciation of an L2. *Journal of Phonetics*, 25(2), 169–186. <https://doi.org/10.1006/jpho.1996.0040>
- Giussani, C., Roux, F.-E., Lubrano, V., Gaini, S. M., & Bello, L. (2007). Review of language organisation in bilingual patients: What can we learn from direct brain mapping? *Acta Neurochirurgica*, 149(11), 1109–1116. <https://doi.org/10.1007/s00701-007-1266-2>
- Gollan, T.H., Montoya, R.I., & Werner, G. (2002). Semantic and letter fluency in Spanish–English bilinguals. *Neuropsychology*, 16, 562–576.
- Goral, M., & Lerman, A. (2020). Variables and mechanisms affecting response to language treatment in multilingual people with aphasia. *Behavioral Sciences*, 10(9), 144. <https://doi.org/10.3390/bs10090144>
- Green, D.W. (1998). Mental control of the bilingual lexico-semantic system. *Bilingualism: Language and Cognition*, 1(2), 67–81.
- Green, D.W., & Abutalebi, J. (2013). Language control in bilinguals: The adaptive control hypothesis. *Journal of Cognitive Psychology*, 25 (5), 515-530.
- Haman, E., Wodniecka, Z., Marecka, M., Szewczyk, J., Białecka-Pikul, M., Otwinowska, A., Mieszkowska, K., Łuniewska, M., Kołak, J., Miękisz, A., Kacprzak, A., Banasik, N., & Foryś-Nogala, M. (2017). How does L1 and L2 exposure impact L1 performance in bilingual children? Evidence from Polish-English migrants to the United Kingdom. *Frontiers in Psychology*, 8, 1444. <https://doi.org/10.3389/fpsyg.2017.01444>
- Hoff, E., Core, C., Place, S., Rumiche, R., Señor, M., & Parra, M. (2012). Dual language exposure and early bilingual development. *Journal of Child Language*, 39(1), 1–27. <https://doi.org/10.1017/S0305000910000759>
- Jia, G., & Fuse, A. (2007). Acquisition of English grammatical morphology by native mandarin-speaking children and adolescents: Age-related differences. *Journal of Speech, Language, and Hearing Research: JSLHR*, 50(5), 1280–1299. [https://doi.org/10.1044/1092-4388\(2007\)090](https://doi.org/10.1044/1092-4388(2007)090)

- Kroll, J.F., Van Hell, J.G., Tokowicz, N., & Green, D.W. (2010). The Revised Hierarchical Model: A critical review and assessment. *Bilingualism: Language and Cognition*, 13(03), 373–381.
- Libben, M., & Titone, D. (2009). Bilingual lexical access in context: Evidence from eye movements during reading. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 35(2), 381–390. <https://doi.org/10.1037/a0014875>
- Manchon, M., Buetler, K., Colombo, F., Spierer, L., Assal, F., & Annoni, J.M. (2014). Impairment of both languages in late bilinguals with dementia of Alzheimer type. *Bilingualism: Language and Cognition*, 18, 90–100. doi: 10.1017/S1366728914000194
- Marian, V., Blumenfeld, H. K., & Kaushanskaya, M. (2007). The language experience and proficiency questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech, Language and Hearing Research*, 50, 940–967.
- Misra, M., Guo, T., Bobb, S.C., & Kroll, J.F. (2012). When bilinguals choose a single word to speak: Electrophysiological evidence for inhibition of the native language. *Journal of Memory and Language*, 67, 224–237.
- Montrul, S. (2002). Incomplete acquisition and attrition of Spanish tense/aspect distinctions in adult bilinguals. *Bilingualism: Language and Cognition*, 5(1), 39–68. doi: 10.1017/S1366728902000135
- Orena, A.J., Byers-Heinlein, K., & Polka, L. (2020). What do bilingual infants actually hear? Evaluating measures of language input to bilingual-learning 10-month-olds. *Developmental Science*, 23(2), e12901. <https://doi.org/10.1111/desc.12901>
- Paradis, M. (2004). *A Neurolinguistic Theory of Bilingualism*. Amsterdam: John Benjamins. doi: 10.1075/sibil.18
- Perani, D., Paulesu, E., Galles, N. S., Dupoux, E., Dehaene, S., Bettinardi, V., Cappa, S. F., Fazio, F., & Mehler, J. (1998). The bilingual brain: Proficiency and age of acquisition of the second language. *Brain: A Journal of Neurology*, 121 (Pt 10), 1841–1852. <https://doi.org/10.1093/brain/121.10.1841>
- Piske, T., Flege, J.E., MacKay, I.R.A., & Meador, D. (2002). The production of english vowels by fluent early and late Italian-English bilinguals. *Phonetica*, 59(1), 49–71. <https://doi.org/56205>
- Prior, A., & Gollan, T. H. (2011). Good language switchers are good task-switchers: Evidence from Spanish–English and Mandarin–English bilinguals. *The Journal of the International Neuropsychological Society*, 17, 682–691. doi: 10.1017/S1355617711000580
- Rinker, T., Shafer, V.L., Kiefer, M., Vidal, N., & Yu, Y.H. (2017). T-complex measures in bilingual Spanish-English and Turkish-German children and monolingual peers. *PLOS ONE*, 12(3), e0171992. <https://doi.org/10.1371/journal.pone.0171992>
- Schmid, M.S., & Köpcke, B. (2009). L1 attrition and the mental lexicon. In *The Bilingual Mental Lexicon: Interdisciplinary Approaches*; Pavlenko, A. (Ed.) Multilingual Matters: Clevedon, UK pp. 209–238.
- Schulz, P., & Grimm, A. (2018). The Age factor revisited: Timing in acquisition interacts with age of onset in bilingual acquisition. *Frontiers in Psychology*, 9, 2732. <https://doi.org/10.3389/fpsyg.2018.02732>
- Shafer, V.L., Yan, H.Y., & Datta, H. (2011). The development of English vowel perception in monolingual and bilingual infants: Neurophysiological correlates. *Journal of Phonetics*, 39(4), 527–545.
- Strange, W. (2011). Automatic selective perception (ASP) of first and second language speech: A working model. *Journal of Phonetics*, 39(4), 456–466. <https://doi.org/10.1016/j.wocn.2010.09.001>
- Strange, W., & Shafer, V.L. (2008). Speech perception in second language learners: The re-education of selective perception. *Phonology and Second Language Acquisition*, 153–191.

- Sulpizio, S., Del Maschio, N., Fedeli, D., & Abutalebi, J. (2020). Bilingual language processing: A meta-analysis of functional neuroimaging studies. *Neuroscience and Biobehavioral Reviews*, *108*, 834–853. <https://doi.org/10.1016/j.neubiorev.2019.12.014>
- Vanhove, J. (2013). The critical period hypothesis in second language acquisition: A statistical critique and a reanalysis. *PloS One*, *8*(7), e69172. <https://doi.org/10.1371/journal.pone.0069172>
- Wu, Y.J., & Thierry, G. (2012). Unconscious translation during incidental foreign language processing. *NeuroImage*, *59*, 3468-3473. <https://doi.org/10.1016/j.neuroimage.2011.11.049>
- Yu, Y.H., Tessel, C., Han, H., Campanelli, L., Vidal, N., Gerometta, J., Garrido-Nag, K., Datta, H., & Shafer, V.L. (2019). Neural Indices of Vowel Discrimination in Monolingual and Bilingual Infants and Children. *Ear and Hearing*, *40*(6), 1376–1390. <https://doi.org/10.1097/AUD.0000000000000726>