

**EDUCATION 58
LANGUAGE ACQUISITION AND DEVELOPMENT**

WINTER 2015

General Information

Class Meeting Times: (10A) T Th 10.00–11.50am
X-hour: W 3.00–3.50pm
Class Meeting Location: Moore B03

Professor: Sean Kang, Ph.D.
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Office Hours: T Th 12.00–1.30pm

Course Description

How do infants acquire language so quickly and effortlessly? Why is it relatively difficult to learn a new language as an adult? This course will explore the biological, social, familial, and educational factors that enable and contribute language acquisition and development from infancy to adolescence and beyond. We will examine both typical and atypical language development, and consider the implications of individual differences and language diversity for educational settings.

Course Goals

Upon completion of this course, you will be able to: (i) understand the developmental trajectories of various components of language and the factors that influence them, (ii) read and analyse scientific journal articles, (iii) summarise and integrate important research related to the course topics, and (iv) recognise the importance of language in the classroom, and discuss possible implications for educational practice and policy.

Required Readings

All the readings for this course are articles from scientific journals, and the PDFs are available on Canvas or electronic reserves.

Class Format

Class meetings will include lectures, videos, discussions, and quizzes. You are expected to be present. You will be responsible for all class material. X-periods will sometimes be used during this course, so please ensure you are available during those times. Your performance will be evaluated by 2 exams, 7 thought papers, 13 short quizzes, and your participation in class.

Methods of Assessment

1. Participation (10%)

There is ample evidence that active participation during the learning process leads to better retention than passive, receptive learning. To promote active learning and an enjoyable, interactive classroom environment, class participation is encouraged and the quality of your comments, questions, and responses will count towards your participation grade in the course.

2. Thought papers (18%; each worth 3%)

To promote analytical reading of the assigned journal articles, adequate preparation for each class, and cogent writing, you will submit a “thought paper” about once a week (7 times in total throughout the course). The thought paper should consist of your reflection on at least one of the assigned readings for the day, and could include: (i) a summary of the paper/study, (ii) your critique of the methodology/conclusions, (iii) ideas you might have about follow-up research, (iv) unanswered questions, and (v) connections you see between the current reading(s) and previously covered topics.

Your thought paper should be typed, double-spaced, and not exceed 500 words (please report the word count at the end of each paper). Thought papers should be submitted via Canvas by 5pm the day before class (e.g., if you are writing a thought paper for Thursday classes, the deadline for submission is Wednesday 5pm), so that I will have time to look through them before class. Each thought paper can earn a maximum score of 3 points. Only your 6 highest scoring thought papers will count towards your final grade (i.e., your lowest score on a thought paper will be dropped).

3. Daily quizzes (20%; each quiz worth 2%)

Research has shown that having many short study sessions (*distributed practice*) leads to better learning than few long study sessions (*massed practice*; AKA cramming). Moreover, information acquired through distributed learning persists for a long time, whereas information acquired through massed learning tends to be forgotten rapidly. To promote distributed learning, there will be a short quiz (~ 5min) at the start of virtually every class. Each quiz will consist of ~4 multiple-choice, short-answer, or true/false questions covering information presented during the *previous* class.

There will be a total of 13 quizzes. Only the best 10 scores will be counted for any individual. **There will be no makeup quizzes.** If you miss a quiz, your score will be 0 for that quiz.

4. Exams (50%; each exam worth 25%)

Because daily quizzes cannot address all the content of the course and do not permit more thoughtful, essay responses, there will be 2 written exams. These exams will consist of short essay questions, and will be held during normal class hours. The midterm exam will be on February 10 (Tuesday), and the final exam will be on March 10 (Tuesday). The final exam will be cumulative (i.e., covers material from the entire course). Please mark your calendars now to ensure that you are able to take the exams as scheduled.

5. Research participation (2%)

The goal of this assignment is to provide you with a firsthand perspective of participating in a research study. Volunteer to participate in one or more research studies conducted by any research lab in the Education Department, totaling two hours of participation (e.g., one 2-hour study or two 1-hour studies). Specific instructions on how to sign up for a research study are posted on Canvas. To get credit, you must hand in a signed EDUC58 Participant Confirmation Form (one signed copy for each study in which you participate) to me in class on or before Tuesday, Mar 10th. A copy of the form is posted on Canvas.

If you are unable to participate or uninterested in participating in a research study, you may write two 1-page critiques of the methods employed in two published research articles. First, locate two empirical articles that were not assigned for this course. Then, for

each study, you will write approximately half a page (double-spaced, 12pt font) describing aspects of the study procedure that you think the researchers could improve upon without sacrificing the scientific integrity of the study. Be sure to explain why this change is relevant to the authors' conclusions and/or to how the authors expect the results will generalise to other individuals or other situations that were not directly tested. Lastly, on the remainder of the page, briefly describe a research question that builds on the current study but that is not fully addressed by the current study. In other words, given the results of the current study, what is the next question you would like the researchers to address? Briefly outline the new methods that the researchers could use to address this question. Hand in your critique to me in class on or before Tuesday, Mar 10th. Attach a copy of the first page of the empirical article (including the abstract).

You are welcome to combine these two options (i.e., participate in one 1-hr study and write a critique of one published study).

Late Policy

Thought papers that are submitted after the deadline (5pm the day before class) but before the start of class will have 0.5 points deducted from the score (e.g., if the paper earns 2 points, you will end up with 1.5 points for the late submission). Thought papers that are submitted after the start of class will be awarded 0 points.

Special Accommodations

1. Students with disabilities

Students with disabilities enrolled in this course and who may need disability-related accommodations are encouraged to see me privately as early as possible in the term. Students requiring disability-related accommodations must register with the Student Accessibility Services (SAS) office. Once SAS has authorized accommodations, students must show the originally signed SAS Services and Consent Form and/or a letter on SAS letterhead to me. As a first step, if students have questions about whether they qualify to receive accommodations, they should contact the SAS office. All inquiries and discussions about accommodations will remain confidential.

2. Religious observances

Some students may wish to take part in religious observances that occur during this academic term. Should you have a religious observance that conflicts with your participation in the course, please meet with me before the end of the second week of the term to discuss appropriate accommodations.

Academic Honour Principle

You are expected to familiarise yourself with and uphold all aspects of the Academic Honour Principle. See <http://www.dartmouth.edu/~uja/honor> for the official statement. You may not receive or provide assistance on any quiz or exam. Anything turned in with your name on it must be solely your own work, and submitted only for this class. Plagiarism is the submission or presentation of work, in any form, that is not your own, without acknowledgment of the source. You must cite all sources according to the formal APA guidelines. I take the Academic Honour Principle seriously and expect you to do the same.

Final Note on How to Excel in this Course

I want you to do well in this class. Therefore, there are multiple chances for assessment. Please use these opportunities as an incentive to keep up with the class material.

You are encouraged to engage in active reading of the assigned articles. The purpose of the lectures is to explain, demonstrate, and amplify the core content. There will be some overlap between the readings and the lectures, but there will be a substantial amount of material that is unique to each. Your understanding of each lecture will be best if you have done the assigned readings before each class. Also, come to class ready to discuss the readings, so that your classmates and I can gain from your insights. If you find yourself not understanding the assigned readings and lectures, please set up an appointment with me or drop by during my office hours.

COURSE SCHEDULE

Note: Readings are to be completed by the indicated class date. The schedule is subject to change. All articles are available through Canvas.

WEEK	DATE	TOPIC	READINGS
1	Jan 6	Overview of the course; Introduction to the field	
	Jan 7 (X)	How to read a scientific journal article? (optional)	
		FOUNDATIONS OF LANGUAGE DEVELOPMENT	
	Jan 8	Foundations of Language Development (Social, Perceptual)	<ol style="list-style-type: none"> Roseberry, S., Hirsh-Pasek, K. and Golinkoff, R.M. (2014). Skype me! Socially contingent interactions help toddlers learn language. <i>Child Development</i>, 85, 956–970. Rowe, M.L., & Goldin-Meadow, S. (2009). Differences in early gesture explain SES disparities in child vocabulary size at school entry. <i>Science</i>, 323, 951–953. Kuhl, P.K. (2004). Early language acquisition: Cracking the speech code. <i>Nature Reviews Neuroscience</i>, 5, 831–843. Kuhl, P.K., et al. (2006). Infants show a facilitation effect for native language phonetic perception between 6 and 12 months. <i>Developmental Science</i>, 9, F13–F21.
2	Jan 13	Foundations of Language Development (Cognitive, Environmental) 1 st quiz	<ol style="list-style-type: none"> Saffran, J.R. (2003). Statistical language learning: Mechanisms and constraints. <i>Current Directions in Psychological Science</i>, 12, 110–114. Marcus, G.F., Vijayan, S., Bandi Rao, S., & Vishton, P.M. (1999). Rule learning by seven-month-old infants. <i>Science</i>, 283, 77–80. Kuhl, P.K., et al. (1997). Cross-language analysis of phonetic units in language addressed to infants. <i>Science</i>, 277, 684–686. Bohannon, J.N., & Stanowicz, L. (1988). The issue of negative evidence: Adult responses to children’s language errors. <i>Developmental Psychology</i>, 24, 684–689.
	Jan 14 (X)	Watch documentary on Genie (<i>Secret of the Wild Child</i>)	
	Jan 15	Biological Bases of Language (Part 1) 2 nd quiz	<ol style="list-style-type: none"> Fromkin, V., Krashen, S., Curtiss, S., Rigler, D., & Rigler, M. (1974). The development of language in Genie: a case of language acquisition beyond the “critical period.” <i>Brain and Language</i>, 1, 81–107. Dehaene-Lambertz, G., Hertz-Pannier, L., & Dubois, J. (2006). Nature and nurture in language acquisition: Anatomical and functional brain-imaging studies in infants. <i>Trends in Neurosciences</i>, 29, 367–373. Friederici, A.D. (2005). Neurophysiological markers of early language acquisition: From syllables to sentences. <i>Trends in Cognitive Sciences</i>, 9, 481–488.
3	Jan 20	Biological Bases of	1. Friederici, A.D. (2009). Pathways to language:

		Language (Part 2) 3 rd quiz	Fiber tracts in the human brain. <i>Trends in Cognitive Sciences</i> , 13, 175–181. 2. Terrace, H.S., Petitto, L.A., Sanders, R.J., & Bever, T.G. (1979). Can an ape create a sentence? <i>Science</i> , 206, 891–902. 3. Gauthier, K., & Genesee, F. (2011). Language development in internationally adopted children: A special case of early second language learning. <i>Child Development</i> , 82, 887–901.
	Jan 21 (X)	Watch docu-movie <i>Project Nim</i> , part 1	
		DEVELOPMENT OF LANGUAGE (COMPONENTS)	
	Jan 22	Phonological Development (Part 1) 4 th quiz	1. De Boysson-Bardies, B., Sagart, L., & Durand, C. (1984). Discernable differences in the babbling of infants according to target language. <i>Journal of Child Language</i> , 11, 1–15. 2. Goldstein, M.H., & Schwade, J.A. (2008). Social feedback to infants' babbling facilitates rapid phonological learning. <i>Psychological Science</i> , 19, 515–523. 3. Werker, J.F., & Yeung, H.H. (2005). Infant speech perception bootstraps word learning. <i>Trends in Cognitive Sciences</i> , 9, 519–527.
4	Jan 27	Phonological Development (Part 2) and Lexical Development (Part 1) 5 th quiz	1. Caravolas, M., et al. (2012). Common patterns of prediction of literacy development in different alphabetic orthographies. <i>Psychological Science</i> , 23, 678–686. 2. Xu, F., Cote, M., & Baker, A. (2005). Labeling guides object individuation in 12-month-old infants. <i>Psychological Science</i> , 16, 372–377. 3. Smith, L., & Yu, C. (2008). Infants rapidly learn word-referent mappings via cross-situational statistics. <i>Cognition</i> , 106, 1558–1568.
	Jan 28 (X)	Watch docu-movie <i>Project Nim</i> , part 2	
	Jan 29	Lexical Development (Part 2) 6 th quiz	1. Golinkoff, R.M., & Hirsh-Pasek, K. (2008). How toddlers begin to learn verbs. <i>Trends in Cognitive Sciences</i> , 12, 397–403. 2. Hoff, E., & Tian, C. (2005). Socioeconomic status and cultural influences on language. <i>Journal of Communication Disorders</i> , 38, 271–278. 3. Nippold, M.A., Hegel, S.L., Sohlberg, M.M., & Schwarz, I.E. (1998). Defining abstract entities: Development in pre-adolescents, adolescents, and young adults. <i>Journal of Speech, Language, and Hearing Research</i> , 42, 473–481. 4. Sun, L., & Nippold, M.A. (2012). Narrative writing in children and adolescents: Examining the literate lexicon. <i>Language, Speech, and Hearing Services in Schools</i> , 43, 2–13.
5	Feb 3	Development of Syntax / Morphology (Part 1) 7 th quiz	1. Berko, J. (1958). The child's learning of English morphology. <i>Word</i> , 14, 150–177. 2. Gertner, Y., Fisher, C., & Eisengart, J. (2006). Learning words and rules: Abstract knowledge of

			word order in early sentence comprehension. <i>Psychological Science</i> , 17, 684–691.
	Feb 5	Development of Syntax / Morphology (Part 2) + Review / Catch-up 8 th quiz	1. Crowhurst, M., & Piche, G.L. (1979). Audience and mode of discourse effects on syntactic complexity in writing at two grade levels. <i>Research in the Teaching of English</i> , 13, 101–109. 2. Cingel, D.P., & Sundar, S.S. (2012). Texting, techspeak, and tweens: The relationship between text messaging and English grammar skills. <i>New Media & Society</i> , 14, 1304–1320.
6	Feb 10	Mid-term exam (during regular class time)	
	Feb 12	Communicative Development (Part 1)	1. Beal, C.R. (1987). Repairing the message: Children’s monitoring and revision skills. <i>Child Development</i> , 58, 401–408. 2. Crowhurst, M. (1987). Cohesion in argument and narration at three grade levels. <i>Research in the Teaching of English</i> , 21, 185–201. 3. Gertner, B.L., Rice, M.L., & Hadley, P.A. (1994). Influence of communicative competence on peer preferences in a preschool classroom. <i>Journal of Speech and Hearing Research</i> , 37, 913–923.
7	Feb 17	Communicative Development (Part 2) 9 th quiz	1. Wagner, L., Greene-Havas, M., & Gillespie, R. (2010). Development in children’s comprehension of linguistic register. <i>Child Development</i> , 81, 1678–1686. 2. Leman, P.J., Ahmed, S., & Ozarow, L. (2005). Gender, gender relations, and the social dynamics of children’s conversations. <i>Developmental Psychology</i> , 41, 64–74. 3. Kinzler, K.D., & DeJesus, J.M. (2013). Northern = smart and Southern = nice: The development of accent attitudes in the United States. <i>Quarterly Journal of Experimental Psychology</i> , 66, 1146–1158. 4. Laserna, C. M., Seih, Y. T., & Pennebaker, J. W. (2014). Um... who like says you know: Filler word use as a function of age, gender, and personality. <i>Journal of Language and Social Psychology</i> , 33, 328–338.
	Feb 19	Influence of Language Development on Cognition 10 th quiz	1. Ettliger, M., Lanter, J., & Van Pay, C. K. (2014). Learning to remember by learning to speak. <i>Developmental Psychology</i> , 50, 431–438. 2. Pica, P., Lemer, C., Izard, V., & Dehaene, S. (2004). Exact and approximate arithmetic in an Amazonian Indigene Group. <i>Science</i> , 306, 499–503. 3. Harris, P.L., de Rosnay, M., & Pons, F. (2005). Language and children’s understanding of mental states. <i>Current Directions in Psychological Science</i> , 14, 69–73. 4. Vukovic, R. K., & Lesaux, N. K. (2013). The language of mathematics: Investigating the ways language counts for children’s mathematical development. <i>Journal of Experimental Child</i>

			<i>Psychology, 115, 227–244.</i>
		LANGUAGE DIVERSITY AND BILINGUALISM	
8	Feb 24	Language Diversity & Bilingual Education 11 th quiz	<ol style="list-style-type: none"> 1. Byers-Heinlein, K., Burns, T.C., & Werker, J.F. (2010). The roots of bilingualism in newborns. <i>Psychological Science, 21, 343–348.</i> 2. Hakuta, K., Bialystok, E., & Wiley, E. (2003). Critical evidence: A test of the critical-period hypothesis for second-language acquisition. <i>Psychological Science, 14, 31–38.</i> 3. Hoff, E., et al. (2012). Dual language exposure and early bilingual development. <i>Journal of Child Language, 39, 1–27.</i> 4. Slavin, R.E., Madden, N., Calderon, M., Chamberlain, A., & Hennessy, M. (2011). Reading and language outcomes of a multiyear randomized evaluation of transitional bilingual education. <i>Educational Evaluation and Policy Analysis, 33, 47–58.</i>
	Feb 26	Learning a Second Language 12 th quiz	<ol style="list-style-type: none"> 1. Martensson, J., et al. (2012). Growth of language-related brain areas after foreign language learning. <i>Neuroimage, 63, 240–244.</i> 2. Schlegel, A.A., Rudelson, J.J., & Tse, P.U. (2012). White matter structure changes as adults learn a second language. <i>Journal of Cognitive Neuroscience, 24, 1664–1670.</i> 3. Sholl, A., Sankaranarayanan, A., & Kroll, J.F. (1995). Transfer between picture naming and translation: A test of asymmetries in bilingual memory. <i>Psychological Science, 6, 45–49.</i> 4. Hartsuiker, R.J., Pickering, M.J., & Veltkamp, E. (2004). Is syntax separate or shared between languages? <i>Psychological Science, 15, 409–414.</i>
9	Mar 3	Cognitive Consequences of Bilingualism 13 th quiz	<ol style="list-style-type: none"> 1. Goodenough, F.L. (1926). Racial differences in the intelligence of school children. <i>Journal of Experimental Psychology, 9, 388–397.</i> 2. Yoshioka, J.G. (1929). A study of bilingualism. <i>Pedagogical Seminary and Journal of Genetic Psychology, 36, 473–479.</i> 3. Engel de Abreu, P.M.J., et al. (2012). Bilingualism enriches the poor: Enhanced cognitive control in low-income minority children. <i>Psychological Science, 23, 1364–1371.</i> 4. Gold, B.T., Kim, C., Johnson, N.F., Kryscio, R.J., & Smith, C.D. (2013). Lifelong bilingualism maintains neural efficiency for cognitive control in aging. <i>Journal of Neuroscience, 33, 387–396.</i>
	Mar 5	Review / Catch-up	
10	Mar 10	FINAL EXAM (during regular class time)	