University of Waterloo Department of Psychology PSYCH 320: Language Development

Fall 2015

Wednesday and Friday 11:30-12:50

Instructor and T.A. Information

Instructor: Katherine White

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Course Description

You may not realize it, because you are already a language expert, but human language is incredibly complex. Yet somehow infants learn their native language(s) in just a few short years! How do they do this? In this class, we will consider the steps that typically developing children take along the path to learning language, including how they learn about sounds, words, higher-level sentence structure, and how to communicate effectively. We will explore factors within the child and his/her environment that make this remarkable feat possible. We will also consider special populations of learners, whose differences and similarities can provide insight into the acquisition process. In addition to presenting important issues in the field of language development, the course aims to introduce students to the variety of methods that have been used to address child language development.

Required Text

There will be no required textbook for this course. Required Research articles and chapters from the list below will be available on the LEARN course website. If you would like further reading, copies of the previous course textbook, Language Development by Erika Hoff, are on reserve at Porter Library.

Readings Available on LEARN

- [1] Fromkin & Rodman (1998). What is language? Chapter in An Introduction to Language.
- [2] Werker, J. F. & Desjardins, R. N. (1995). Listening to speech in the 1st year of life: Experiential influences on phoneme perception. *Current Directions in Psychological Science*, 4, 76-81.

- [3] Burnham, D., Kitamura, C. & Vollmer-Conna, U. (2002). What's new, pussycat? On talking to babies and animals. *Science*, 296, 1435.
- [4] Fernald, A., McRoberts, G. W., & Swingley, D. (2001). Chapter: Infants' developing competence in recognizing and understanding words in fluent speech.
- [5] Saffran, J. R., Aslin, R. N., & Newport, E. L. (1996). Statistical learning by 8-month-old infants. *Science*, 274, 1926-1928.
- **[6]** Bloom, P. & Markson, L., (1998). Capacities underlying word learning. *Trends in Cognitive Sciences*, 2, 67-73.
- [7] Baldwin, D. (2000). Interpersonal understanding fuels knowledge acquisition. *Current Directions in Psychological Science*, 40-45.
- [8] Golinkoff, R. M. & Hirsh-Pasek, K. (2008). How toddlers begin to learn verbs. *Trends in Cognitive Sciences*, 12, 397-403.
- [9] Gomez, R. L. & Gerken, L. (2000). Infant artificial language learning and language acquisition. *Trends in Cognitive Sciences*, 4, 178-186.
- [10] Pinker, S. (1991). Rules of language. Science, 253, 530-535.
- [11] Tomasello, M. (2000). The item-based nature of children's early syntactic development. Trends in Cognitive Sciences, 4, 156-163.
- [12] Newport, E. L., Gleitman, H. & Gleitman, L. R. (1977). Chapter: Mother, I'd rather do it myself: some effects and non-effects of maternal speech style.
- [13] Call, J. & Tomasello, M. (2008). Does the chimpanzee have a theory of mind? 30 years later. *Trends in Cognitive Sciences*, 12, 187-192.
- [14] Kaminski, J. Call, J. & Fischer, J. (2004). Word learning in a domestic dog: Evidence for "Fast mapping". *Science*, 304, 1682-1683.
- [15] Elowson, A. M., Snowdon, C. T. & Lazaro-Perea, C. (1998). 'Babbling' and social context in infant monkeys: parallels to human infants. *Trends in Cognitive Sciences*, 2, 31-37.

- [16] Hickok, G., Bellugi, U. & Klima, E. S. (1998). The neural organization of language: evidence from sign language aphasia. *Trends in Cognitive Sciences*, 2, 129-136.
- [17] Newport, E. L. (1990). Maturational constraints on language learning. *Cognitive Science*, 14, 11-28.
- [18] Senghas, A. & Coppola, M. (2001). Children creating language: How Nicaraguan Sign Language Acquired a Spatial Grammar. *Psychological Science*, 12, 323-328.
- [19] Lenhoff, H. M., Wang, P. P., Greenberg, F. & Bellugi, U. (1997). Williams Syndrome and the brain. *Scientific American*, December, 68-73.
- [20] Marcus, G. F. & Fisher, S. E. (2003). FOXP2 in focus: what can genes tell us about speech and language? *Trends in Cognitive Sciences*, 7, 257-262.
- [21] Costa, A. & Sebastian-Galles, N. (2014). How does the bilingual experience sculpt the brain? Nature Perspectives, 15, 336-345.
- [22] Werker, J. F. & Byers-Heinlein, K. (2008). Bilingualism in infancy: first steps in perception and comprehension. *Trends in Cognitive Sciences*, 12, 144-151.
- [23] Premack, D. (2004). Is Language the Key to Human Intelligence? Science, 303, 318-320.
- [24] Mandler, J. M. (2004). Thought before language. Trends in Cognitive Sciences, 8, 508-513.
- [25] Clark, E.V. (2004). How language acquisition builds on cognitive development. *Trends in Cognitive Sciences*, 8, 472-478.

Course Requirements and Assessment

Assessment	Weighting
Midterm 1	27%
Midterm 2	27%
Midterm 3	27%
Assignment 1	8%
Assignment 2	8%
In class worksheets	1%
Research participation/article summaries	2%
Total	100%
Additional Research participation/article summaries	up to 2% bonus

Exams

There will be three non-cumulative in-class midterms, as well as an optional final exam during finals period. Each in-class midterm will cover material from 1/3 of the course. The exams will be a combination of multiple choice, fill-in-the-blank, and short answer questions. They will cover in-class lectures, as well as readings and other supplemental material, such as videos. The optional final can be used in place of the lowest scoring test during the semester. The optional final will be cumulative and longer than the midterms during the semester.

Assignments

There will be two homework assignments (worth 8 points each) and two in-class worksheets (worth .5 points each). The goal of these assignments is to give students more exposure to primary source literature and child language data. Assignments are due at the *beginning* of class on the assigned date. An electronic version must be submitted by the start of class through the LEARN website. Additionally, a typed hard copy should be submitted either in class or to the TAs during the same calendar day.

Course Outline

Week	Date	Topic	Readings Due
1	Wed 9/16	Introduction. What is language?	
1	Fri 9/18	Speech	[1]
2	Wed 9/23	Early speech perception	[2] [3]
2	Fri 9/25	Early speech production	
3	Wed 9/30	Phonological development, first words	[4] In-class worksheet
3	Fri 10/2	Lexical development: Segmentation	[5]
4	Wed 10/7	Lexical development: Words and concepts	[6], [7]
4	Fri 10/9	Lexical development: Wrap up	[8] Assignment 1 due
5	Wed 10/14	MIDTERM 1	
5	Fri 10/16	Grammar	[9]
6	Wed 10/21	Early grammatical development	In-class worksheet
6	Fri 10/23	Nature of grammatical knowledge	[10]
7	Wed 10/28	Nature of grammatical knowledge	[11]
7	Fri 10/30	Input and grammar	[12]
8	Wed 11/4	Communication	
8	Fri 11/6	MIDTERM 2	
9	Wed 11/11	Language and biology	[13, 14, 15, 16]
9	Fri 11/13	Critical periods (movie)	
10	Wed 11/18	Critical periods	[17, 18]
10	Fri 11/20	Special learner populations 1	
11	Wed 11/25	Special learner populations 2	[19, 20] Assignment 2 due
11	Fri 11/27	Bilingualism	[21, 22]
12	Wed 12/2	Language and thought	[23, 24, 25]
12	Fri 12/4	MIDTERM 3	

Late Work

Assignments submitted after the start of class, but the same calendar day, will receive a 1-point deduction from the total score (i.e., maximum score of 7 out of 8). Assignments submitted after the due date will receive a zero, except in the case of personal illness or family emergency (see below).

UW Policy on Missed Assignments and Tests

Students are entitled to a rescheduling of tests or an extension of deadlines for legitimate medical reasons. It is your responsibility to inform the instructor of your illness and provide documentation in a timely manner. If there is undue delay, the instructor reserves the right to refuse an extension or makeup. The timing of the extension or makeup will be at the discretion of the instructor.

Students who are requesting accommodation for course requirements (assignments, midterm tests, final exams, etc.) due to illness should do the following:

*(Preferably) inform the instructor **by the due date** for the course requirement that you will be unable to meet the deadline and that documentation will be forthcoming

*Seek medical treatment as soon as possible and obtain a completed UW Verification of Illness Form: https://uwaterloo.ca/health-services/student-medical-clinic/services/verification-illness. Please be aware that a note on a prescription pad is not an acceptable medical certificate.

*Submit the UW Verification of Illness Form to the instructor within 48 hours of the due date

In the case of a missed assignment deadline or midterm test, the instructor will either:

*Waive the course component and re-weight remaining term work as she deems fit according to circumstances and the goals of the course OR *Provide an extension

<u>In the case of a missed final exam</u>, the instructor and student will negotiate an extension for the final exam which will typically be written as soon as possible, but no later than the next offering of the course.

In the case of bereavement, the instructor will provide similar accommodations to those for illness. Appropriate documentation to support the request will be required.

If you miss an assignment deadline or test for a reason other than serious personal illness or family emergency (documentation required in both cases), you will not be granted an extension or be permitted to take a make-up test.

Students who are experiencing extenuating circumstances should inform their academic advisors regarding their personal difficulties.

Official version of the course outline

If there is a discrepancy between the hard copy outline (i.e., if students were provided with a hard copy at the first class) and the outline posted on LEARN, the outline on LEARN will be deemed the official version. Outlines on LEARN may change as instructors develop a course, but they become final as of the first class meeting for the term.

Academic Integrity

Academic Integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo are expected to promote honesty, trust, fairness, respect and responsibility.

Discipline: A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to Policy 71 - Student Discipline.

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read <u>Policy 70 - Student</u> Petitions and Grievances, Section 4.

Appeals: A student may appeal the finding and/or penalty in a decision made under Policy 70 - Student Petitions and Grievances (other than regarding a petition) or Policy 71 - Student Discipline if a ground for an appeal can be established. Read <u>Policy 72 - Student Appeals</u>.

Other sources of information for students

Academic integrity (Arts) Academic Integrity Office (uWaterloo)

Accommodation for Students with Disabilities

Note for students with disabilities: The AccessAbility Services office, located in Needles Hall Room 1132, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

Concerns About the Course or Instructor (Informal Stage)

We in the Psychology Department take great pride in the high quality of our program and our instructors. Though infrequent, we know that students occasionally find themselves in situations of conflict with their instructors over course policies or grade assessments. If such a conflict arises, the Associate Chair for Undergraduate Studies (Richard Eibach from July 1, 2015 through June 30, 2016) is

available for consultation and to mediate a resolution between the student and instructor. Contact information is as follows:

Richard Eibach Email: reibach@uwaterloo.ca; Ph 519-888-4567 ext 38790

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. See Policy 70 and 71 below for further details.

Research Experience Marks Information and Guidelines

Experiential learning is considered an integral part of the undergraduate program in Psychology. Research participation is one example of this, article review is another. A number of undergraduate courses have been expanded to include opportunities for Psychology students to earn grades while gaining research experience.

Since experiential learning is highly valued in the Department of Psychology, students may earn up to 2% of their final mark in this course through research experience (i.e., course work will make up 98% of the final mark and research experience will make up the other 2% for a maximum grade of 100%). In addition, for those students who wish to sample a wider range of these experiences, a further "bonus" of up to 2% may be earned and will be added to the final grade if/as needed to bring your final grade up to 100%. In total, students may add up to 4% to their final grade.

The two options for earning research experience grades (participation in research and article review) are described below. Students may complete any combination of these options to earn research experience grades.

Option 1: Participation in Psychology Research

Research participation is coordinated by the Research Experiences Group (REG). Psychology students may volunteer as research participants in lab and/or online (web-based) studies conducted by students and faculty in the Department of Psychology. Participation enables students to learn first-hand about psychology research and related concepts. Many students report that participation in research is both an educational and interesting experience. Please be assured that all Psychology studies have undergone prior ethics review and clearance through the Office of Research Ethics.

Educational focus of participation in research

To maximize the educational benefits of participating in research, students will receive feedback information following their participation in each study detailing the following elements:

- Purpose or objectives of the study
- Dependent and independent variables
- Expected results
- References for at least two related research articles
- Provisions to ensure confidentiality of data
- Contact information of the researcher should the student have further questions about the study
- Contact information for the Director of the Office of Research Ethics should the student wish to learn more about the general ethical issues surrounding research with human participants, or specific questions or concerns about the study in which s/he participated.

Participation in LAB studies has increment values of 0.5 participation credits (grade percentage points) for each 30-minutes of participation. Participation in ONLINE studies has increment values of .25 credits for each 15-minutes of participation. Researchers will record student's participation, and at the end of the term the REG Coordinator will provide the course instructor with a credit report of the total credits earned by each student.

How to participate?

Study scheduling, participation and grade assignment is managed using the SONA online system. All students enrolled in this course have been set up with a SONA account. You must get started early in the term.

For instructions on how to log in to your SONA account and for a list of important dates and deadlines please, as soon as possible go to:

Participating/SONA information: How to log in to Sona and sign up for studies

*** Please do not ask the Course Instructor or REG Coordinator for information unless you have first thoroughly read the information provided on this website.***

More information about the REG program in general is available at: REG Participants' Homepage

Option 2: Article Review as an alternative to participation in research

Students are not required to participate in research, and not all students wish to do so. As an alternative, students may opt to gain research experience by writing short reviews (2 pages) of research articles relevant to the course. The course instructor will specify a set of approved articles for this course. Each review article counts as one percentage point. To receive credit, you must follow specific guidelines. The article review must:

- Be submitted before the <u>last day of lectures</u>. Late submissions will NOT be accepted under ANY circumstances.
- Be typed
- Fully identify the title, author(s), source and date of the article.
- Identify the psychological concepts in the article and indicate the pages in the textbook that are applicable. Critically evaluate the application or treatment of those concepts in the article. If inappropriate or incorrect, identify the error and its implications for the validity of the article. You may find, for example, misleading headings, faulty research procedures, alternative explanations that are ignored, failures to distinguish factual findings from opinions, faulty statements of cause-effect relations, errors in reasoning, etc. Provide examples whenever possible.
- Clearly evaluate the application or treatment of those concepts in the article.
- Keep a copy of your review in the unlikely event we misplace the original.