

**Linguistics 699**  
**Exemplar Theory: Perception, Acquisition and Change**

Tuesday + Thursday 12:30 - 1:45  
Social Sciences 836

Instructors

	Steve Winters	Suzanne Curtin	Robert Murray
Office:	SS 814	SS 842	SS 824
Office Hours:	3-4 TTh	TBD	TBD
Phone:	220-7230	220-7670	220-8109
e-mail:	swinters@	scurtin@	rwmurray@

Course web page: [https://webdisk.ucalgary.ca/~swinters/public\\_html/ling699/index.html](https://webdisk.ucalgary.ca/~swinters/public_html/ling699/index.html)

In this seminar, we will examine the concept of exemplar, or instance-based, categories and the application of this theory to problems in phonetics, phonology, speech perception, language acquisition and language change.

Course Requirements:

1. Present at least three (3) papers in class. You should present one paper for each of the three sections of the seminar (perception, acquisition and change). For each presentation, you should prepare a short summary of the reading for the class and be prepared to lead the class discussion on that reading. (Please note that auditors may be assigned to present papers in class.)
2. Seminar participants who are not leading discussion on a paper are required to send in--to the discussion leader--at least two (2) questions or criticisms for each reading. These questions/criticisms must be submitted at least twenty-four (24) hours before the class meets; we will set up a submission system on the blackboard page for the course. The discussion leader should collect these questions and incorporate them into his/her summary of the paper, to use as a starting point for the class discussion.
3. For a final paper, students should write a grant proposal for a project they would (in theory) like to undertake on the application of exemplar theory to a linguistic phenomenon in which they are interested. The content of this grant proposal should be no more than 10 pages, double-spaced.
4. In the final week of the semester, students will also present their grant proposal ideas to the rest of the class. At this point, class members should provide commentary and (helpful) feedback to the presenters on their preliminary ideas. The goal here is not only for everyone to learn from each other's expertise, but to get everybody thinking creatively--and constructively--about novel applications of the theory to data.

Please talk to one (or more!) of the instructors if you have any questions about a suitable topic for your proposal; we will discuss the final term projects in more detail as we progress through the semester.

These components of the coursework will be weighted as follows in determining your final grade:

Paper Presentations:	25%
Reading Questions/Criticisms:	25%
Final paper:	35%
Final presentation:	15%

The grading scale for the course will be as follows:

$98\% \leq A+$	$78 \leq C+ < 80$
$92 \leq A < 97$	$72 \leq C < 78$
$90 \leq A- < 92$	$70 \leq C- < 72$
$88 \leq B+ < 90$	$68 \leq D+ < 70$
$82 \leq B < 88$	$60 \leq D < 68$
$80 \leq B- < 82$	$F < 60$

## Course Schedule

Please note that this schedule is likely to undergo some changes throughout the course of the semester. All readings will be made available, in .pdf form, from the course website. Requests or suggestions for additional or alternative readings are also welcome and encouraged.

### **Exemplar Theory in Speech Perception and Speech Production**

1. T 9/14 Organizational meeting and introduction
2. R 9/16 Johnson (2005a)  
selections from Cherry (1966)
  
3. T 9/21 Hintzman (1986)
4. R 9/23 Palmeri, Goldinger and Pisoni (1993)  
Allen and Miller (2004)  
Winters (2010)
  
5. T 9/28 Goldinger (1996)  
Goldinger (1998)
6. R 9/30 Johnson (1997a)  
Johnson (1997b)
  
7. T 10/5 Nosofsky (1986)  
Kruschke (1992)
8. R 10/7 Kirchner (1999)  
Pierrehumbert (2001)

### **Exemplar Theory and Language Acquisition**

*(Note: during this portion of the seminar, class will only meet once a week, see below for days.)*

9. R 10/14 **Overview of infant speech development and nature of representations:**  
Werker and Curtin (2005)  
Newman (2008)
  
10. T 10/19 **Word Recognition:**  
Houston and Jusczyk (2000)  
Singh, Morgan and White (2004)  
McLennan (2006)  
Creel, Aslin and Tanenhaus (2008)  
Singh (2008)

11. T 10/26      **Dialect:**  
Schmale, Cristià, Seidl and Johnson (2010)  
Schmale and Seidl (2009)  
Phan and Houston (June, 2006)  
Best, Tyler, Gooding, Orlando and Quann (2009).
12. T 11/2      **Word Learning:**  
Stager and Werker (1997)  
Pater, Stager, and Werker (2004)  
Fikkert (in press)  
Curtin (2009)  
Yoshida, Fennell, Swingley and Werker (2009)  
Fennell and Waxman (in press)  
Curtin, Fennell, and Escudero (2009)

### **Exemplar Theory and Language Change**

13. T 11/9      **Sound change overview:**  
Murray 2009.  
Murray 2010; section 3.  
Murray In press; section 3.4.
14. R 11/11      **Remembrance Day: No Meeting**
15. T 11/16      **The failure (?) of structuralism/generativism:**  
Labov 1981.  
Blevins 2004; chapter 10.
16. R 11/18      continued...
17. T 11/23      **19th century exemplar theory (ET):**  
Hermann 1880[=tba]  
Schuchardt 1885[=Vennemann 1972]
18. R 11/25      **ET meets Schuchardt:**  
Bybee 2002.
19. T 11/30      **Lexical diffusion of gradual change:**  
Phillips 2004; chapter 3.
20. R 12/2      **ET à la Bybee:**  
Bybee 2001; chapters 1, 2, 3
21. T 12/7      Student Presentations
22. R 12/9      Student Presentations

**Final papers due: Friday, December 17<sup>th</sup>, 5:00 pm**

## Reading List

- Allen, J.S. and Miller, J.L. (2004). Listener sensitivity to individual talker differences in voice-onset time. *Journal of the Acoustical Society of America*, 115, 3171-3183.
- Best, C. T., Tyler, M. D., Gooding, T. N., Orlando, C. B., & Quann, C. A. (2009). Development of phonological constancy: Toddlers' perception of native- and Jamaican-accented words. *Psychological Science*, 20, 539-542.
- Blevins, Juliette. 2004. *Evolutionary phonology*. Cambridge: Cambridge University Press.
- Bybee, Joan. 2001. *Phonology and language use*. Cambridge: Cambridge University Press.
- Bybee, Joan. 2002. Lexical diffusion in regular sound change. *Sound and systems. Studies in structure and change. A Festschrift for Theo Vennemann*, ed. by David Restle & Dietmar Zaefferer, 59–74. Berlin: Mouton de Gruyter.
- Cherry, C. (1966) *On Human Communication*. Cambridge, MA: MIT Press. 2<sup>nd</sup> edition.
- Creel, S. C, Aslin, R. N., & Tanenhaus, M. K. Heeding the voice of experience: The role of talker variation in lexical access. *Cognition*, 106, 633-664.
- Curtin, S. (2009). Twelve-month-olds learn word-object associations differing only in stress patterns. *Journal of Child Language*, 36, 1157-1165.
- Curtin, S., Fennell, C., & Escudero, P. (2009). Weighting of acoustic cues explains patterns of word-object associative learning. *Developmental Science*. 12,725-731.
- Fennell, C.T. & Waxman, S.R., (in press). What paradox? Referential cues allow for infant use of phonetic detail in word learning. *Child Development*.
- Fikkert, P. (in press). Developing representations and the emergence of phonology: evidence from perception and production. *Laboratory Phonology*, 10.
- Goldinger, S.D. (1996) Words and Voices: Episodic traces in spoken word identification and recognition memory. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 22, 1166-1183.
- Goldinger, S.D. (1998) Echoes of echoes? An episodic theory of lexical access. *Psychological Review*, 105, 251-279.
- Hintzman, D. (1986) "Schema abstraction" in a multiple-trace memory model. *Psychological Review*, 93, 411-428.
- Houston, D., & Jusczyk, P. (2000). The role of talker-specific information in word segmentation by infants. *JEP: HPP*, 26, 1570-1582.
- Johnson, K.A. (2005a) Decisions and mechanisms in exemplar-based phonology. *UC Berkeley Phonology Lab Annual Report 2005*, 289-311.
- Johnson, K.A. (1997a) Speech perception without speaker normalization. In *Talker Variability in Speech Processing* (K. Johnson & J. Mullennix, eds.), 145-165. San Diego: Academic Press.
- Johnson, K.A. (1997b) The auditory/perceptual basis for speech segmentation. *Ohio State University Working Papers in Linguistics*, 50, 101-113.
- Kirchner, R. (1999) Preliminary thoughts on "phonologization" within an exemplar-based speech processing model. *UCLA Working Papers in Phonology*, 2, 207-231.
- Kruschke, J. (1992) ALCOVE: An exemplar-based connectionist model of category learning. *Psychological Review*, 99, 22-44.
- Labov, William. 1981. Resolving the neogrammarian controversy. *Language* 57. 267–308.
- McLennan, C. T. (2006). The time course of variability effects in the perception of spoken language: Changes across the lifespan. *Language and Speech*, 49, 113-125.
- Murray, Robert W. 2009. Review of Phillips 2004. *Language* 85. 487–490.

- Murray, Robert W. 2010. Language and space. The neogrammarian tradition. *Language and space. An international handbook of linguistic variation*, ed. by Peter Auer & Jürgen Erich Schmidt, 70–87. Berlin: De Gruyter Mouton.
- Murray, Robert W. In press. An early history of historical phonology. *The Handbook of Historical Phonology*, edited by Patrick Honeybone & Joseph C. Salmons. Oxford: Oxford University Press
- Newman, R. S. (2008) The level of detail in infants' word learning. *Current Directions in Psychological Science*, 17, 229-232.
- Nosofsky, R.M. (1986) Attention, similarity and the identification-categorization relationship. *Journal of Experimental Psychology: General*, 115, 39-57.
- Palmeri, T.J., Goldinger, S.D., and Pisoni, D.B. (1993) Episodic encoding of voice attributes and recognition memory for spoken words. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 19, 309-328.
- Pater, J., Stager, C.L., & Werker, J.F. (2004). The lexical acquisition of phonological contrasts. *Language*, 80(3), 361-379.
- Paul, Hermann. 1920[1880]. *Prinzipien der Sprachgeschichte*, 5th ed. Halle/Saale: Max Niemeyer. [English excerpt to be made available.]
- Phan J, & Houston DM. (June, 2006). Infant dialect discrimination. Poster presented at the XVth Biennial International Conference on Infant Studies, Kyoto, Japan.
- Phillips, Betty S. 2004. *Word frequency and lexical diffusion*. New York, NY: Palgrave.
- Pierrehumbert, J. (2001) Exemplar dynamics: word frequency, lenition and contrast. In *Frequency Effects and the Emergence of Linguistic Structure* (J. Bybee and P. Hopper, eds.), 137-157. Benjamins: Amsterdam.
- Schuchardt, Hugo. 1885[1972]. *Über die Lautgesetze. Gegen die Junggrammatiker*. Berlin: Robert Oppenheim. [Translation in Vennemann & Wilbur 1972, 49–72.]
- Schmale, R, Cristià, A., Seidl, A., and Johnson, E. (2010). Developmental changes in infants' ability to cope with dialect variation in word recognition. *Infancy*.
- Schmale, R., and Seidl, A. (2009). Accommodating Variability in Voice and Foreign Accent: Flexibility of Early Word Representations. *Developmental Science*, 12, 583-601.
- Singh, L. (2008). Influences of high and low variability on infant word recognition. *Cognition*, 106, 833-870.
- Singh, L., Morgan, J. L., & White, K. S. (2004). Preference and processing: The role of speech affect in early spoken word recognition. *Journal of Memory & Language*, 51, 173-189.
- Stager, C.L., & Werker, J.F. (1997). Infants listen for more phonetic detail in speech perception than in word learning tasks. *Nature*, 388, 381-382.
- Vennemann, Theo. 1972. Hugo Schuchardt's theory of phonological change. *Schuchardt, the neogrammarians, and the transformational theory of phonological change*, ed. by Theo Vennemann & Terence Wilbur, 115–179. Frankfurt: Athenäum.
- Werker, J. F., & Curtin, S. (2005). PRIMIR: A developmental framework of infant speech processing. *Language Learning and Development*, 1(2), 197-234.
- Winters, S. (2010) Long-term storage of non-native phonetic properties in the identification of voices across languages. Manuscript.
- Yoshida, K., Fennell, C. T., Swingle, D. & Werker, J. F. (2009). Fourteen-month-old infants learn similar sounding words. *Developmental Science*, 12(3), 412-418.

## **GENERAL COURSE/UNIVERSITY INFORMATION FOR ALL STUDENTS**

### **LINGUISTICS STUDENT ADVISING**

For any questions regarding the linguistics major or minor, the organization of your program, or the selection of courses, you can see the linguistics **undergraduate advisor/coordinator**:

Dr. Suzanne Curtin

SS 842

403-220-3927

[linggrad@ucalgary.ca](mailto:linggrad@ucalgary.ca)

### **FACULTY of ARTS PROGRAM ADVISING and STUDENT INFORMATION**

For questions about interdisciplinary programs, to see an Associate Dean, to inquire about COOP, or for general information, please visit the new Faculty of Arts Program Information Centre located in Social Science, Room 110. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate>.

For program planning and advice, contact the Student Success Centre (formerly the Undergraduate programs Office) at (403) 220-5881 or visit us at the 4<sup>th</sup> Floor of MacEwan Student Centre.

For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at (403) 210-ROCK [7625] or visit us in the MacKimmie Library Block.

### **ACADEMIC ACCOMMODATION**

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

### **FREEDOM OF INFORMATION AND PRIVACY ACT (FOIP)**

The Freedom of Information and Protection of Privacy Act was enacted by the Alberta Legislature on June 1, 1994. The Act is intended first of all to allow any person the right of access to the records in the custody and under the control of a public body although this right is subject to limited and specific exceptions. The Act also includes a strong right to privacy component, allowing individuals to control the manner in which a public body collects personal information, to control the use that a public body may make of the information, and to control the disclosure of that information by a public body. It also allows individuals the right of access to personal information about themselves held by a public body and the right to request corrections to that information.

For more information on FOIP, please visit: <http://www.ucalgary.ca/secretariat/privacy>  
Or contact Jo-Anne Munn Gafuik at (403) 220-3602 or by email: [munnngafu@ucalgary.ca](mailto:munnngafu@ucalgary.ca)

### **PLAGIARISM AND ACADEMIC MISCONDUCT**

Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course, when, in fact, it is not. Most commonly plagiarism exists when:

1. the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),
2. parts of the work are taken from another source without reference to the original author,
3. the whole work (e.g. an essay) is copied from another source, and/or
4. a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.

While it is recognized that scholarly work often involves reference to the ideas, data and

conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Students are encouraged to work together in preparing homework assignments. However, unless noted otherwise in writing, students must write up their own answers for submission of the assignment. Failure to do so constitutes plagiarism.

Plagiarism is an extremely serious academic offence. Possible penalties for plagiarism include; failing the assignment, failing the course, disciplinary probation, suspension, or expulsion. Any student who voluntarily and consciously aids another student in the commission of plagiarism is also guilty of academic misconduct.

For more information on academic misconduct and related UofC regulations please consult the Student Misconduct web pages in the on-line University Calendar. These can be found at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

### **EMERGENCY EVACUATION / ASSEMBLY POINTS**

The University of Calgary is committed to creating a safe and healthy living and learning environment. The health and safety of our employees, students and the general public are the highest priority of the University of Calgary's Emergency Management Program. During times of emergency, Assembly Points have been identified across campus. These areas have been selected as they are large enough to hold a significant number of people and will provide an evacuated population access to washroom facilities and protection from the elements. Assembly points are also designed to establish a location for information updates:

- from the emergency responders to the evacuees; and
- from the evacuated population to the emergency responders.

**Please familiarize yourself with the Emergency Assembly Points listed here:**

<http://www.ucalgary.ca/emergencyplan/assemblypoints>

**And the Emergency Instructions listed here:** <http://www.ucalgary.ca/emergencyplan/node/28>

### **SAFE WALK INFORMATION**

Twenty four hours a day and seven days a week Safewalk volunteers walk people safely to their destination on campus. This service is free and available to students, staff and campus visitors.

**Requesting Safewalk volunteers to walk with you is easy!**

- Call 403-220-5333 (24 hours a day/seven days a week, 365 days a year)
- Use the Help Phones (they are not just for emergencies)
- Approach an on-duty Safewalker and request a walk

**For more information** call the Safewalk office at 403-220-4750 or email [safewalk@ucalgary.ca](mailto:safewalk@ucalgary.ca).

### **STUDENT REPRESENTATIVE INFORMATION**

The Students' Union in partnership with the University of Calgary and the Graduate Students' Association (GSA) offers students a key advocacy resource to assist in addressing concerns and issues they encounter at the university with the Office of the Student Ombuds.

Students in undergraduate programs, please contact the Student's Union:

<http://www.su.ucalgary.ca/home/contact.html>

Students in graduate programs, please contact the GSA: <http://www.ucalgary.ca/gsa/>

Student Ombudsman: <http://www.su.ucalgary.ca/services/student-services/student-rights.html>