This seminar is on the use of experimentation to assess the nature of phonological knowledge. Methods we will discuss include grammaticality judgments, wug-testing, artificial language learning, the study of loanwords, and perceptual experiments. We will focus on how these methods can be used to address the following issues in current phonological theory.

1. Gradient vs. categorical knowledge of phonotactics
2. The connection between phonotactics and alternation
3. The role of substance (“naturalness”) in phonology
4. The role of phonology in perception

As well as familiarizing ourselves with some of the issues and results, the other aim of this course is to develop our ability to carry out experiments. To that end, every participant will complete two major assignments:

1. A search of an electronic corpus or dictionary using perl scripting (due 10/20)
2. A pilot experimental study (presentation 12/8 - 12/12, paper due 12/22)

The content of the first part of the course has partly been chosen to provide examples of types of experiments that can feasibly be done as pilot studies in this course (grammaticality judgments, wug tests, artificial language learning). In addition, designing these experiments will often involve determining lexical frequency of structures; you can use the first assignment for that purpose. You should begin thinking about what you’d like to do for your experiment as soon as possible. To that end, the required readings, and some related ones, will be made available at the following location within the next week: http://people.umass.edu/pater/ling730.html.

The schedule of the second part of the course is more flexible – there are other issues we could address depending on interest (e.g. testing phonetic grounding, the use of language games to assess productivity and claims about structure, other issues in acquisition).

You are expected to do the assigned reading before class, and participate in class discussion. From time to time through the semester, study questions will be provided in connection with the readings.

There will also be tutorials in methodology (schedule TBA): basic perl scripting, use of experimental design software (psyscope, e-prime), using excel for basic data analysis and presentation

**Topics and readings**
Course Overview Thurs. 9/6

Background: “Experimental Phonology” and “Laboratory Phonology”

Tues. 9/13 Ohala (1986), Beckman and Kingston (1990)
Supplemental reading: Pierrehumbert et al. (2002)

On phonotactic knowledge

Thurs. 9/15 Coleman and Pierrehumbert 1997
Supplementary: Pertz and Bever 1975, Frisch et al. 2000

Gradient phonotactics in OT

Tues. 9/20 Coetzee and Pater 2005
Supplemental reading: Frisch et al. 2004, Frisch 2004

Gradient well-formedness in stochastic OT

Thurs. 9/22 Boersma and Hayes 2001, Boersma 2004

Gradient phonotactics: word-likeness experiments

Tues. 9/27 Frisch and Zawaydeh 2001
Thurs. 9/29 Coetzee 2005

Gradient phonotactics and acceptability: other approaches

Tues. 10/4 Bailey and Hahn 2001

Phonotactics and alternations: Artificial language learning

Thurs. 10/6 Pater and Tessier 2005

Naturalness and acquireability

Tues. 10/11 Wilson 2005
Supplementary reading: Newport and Aslin 2004

Testing OT

Thurs. 10/13 Guest et al. 2000
Tues. 10/18  TBA

*Wug-testing and productivity*

Tues. 10/20  Pierrehumbert *to appear*
Thurs. 10/25  Hayes and Londe 2005
Tues. 10/27  Albright and Hayes 2003

*Loanword phonology*

Thurs. 10/29  Kenstowicz 2005
Tues. 11/1  Peperkamp to appear
Thurs. 11/3  La Charité and Paradis 2005

*Phonology in perception: phonotactics*

Tues. 11/8  Moreton 2002
Thurs. 11/10  Dupoux *et al.* 1999
Tues. 11/15  Vitevich and Luce 1999

*Phonology in perception: alternation*

Thurs. 11/17  Lahiri and Marslen-Wilson 1991
Tues. 11/22  Gaskell and Marslen-Wilson 1996
Thurs. 11/24  Thanksgiving
Tues. 11/29  Darcy *et al.* 2004

*Development of phonological knowledge*

Thurs. 11/31  Hayes 2004
Tues. 12/6  Jusczyk *et al.* 2002

*Presentations of results*

Thurs. 12/8
Tues. 12/12

*References*

Boersma, Paul. 2004. A Stochastic OT account of paralinguistic tasks such as grammaticality and prototypicality judgments. Ms, University of Amsterdam.

Coetzee, Andries. 2005. Grammar is both categorical and gradient. Ms, University of Michigan.

Coetzee, Andries and Joe Pater. 2005. Gradient phonotactics in Muna and Optimality Theory. Ms, University of Michigan and University of Massachusetts, Amherst.


Hayes, Bruce and Zsuzsa Cziráky Londe. 2005. Stochastic Phonological Knowledge: The Case of Hungarian Vowel Harmony. Ms, UCLA.


Pater, Joe and Anne-Michelle Tessier. 2005. L1 Phonotactic Knowledge and the L2 Acquisition of Alternations. Ms, University of Massachusetts, Amherst.


