

LING155: Language and Cognition

meets: Tu/Th, 2-3:45pm, Crown 208
section: W 12:30 - 1:40pm Thimann Lab 101 (A) (NB: section starts week 2)
W 3:30 - 4:40pm Soc Sci 1 149 (B)

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About the Course

The work of Noam Chomsky first made its impact with the publication of *Syntactic Structures* in 1957. That book provoked an immediate and dramatic upheaval in the discipline of linguistics. More importantly, the effects of that intellectual upheaval were felt, and continue to be felt more than fifty years later, far beyond the field they transformed and for questions far beyond the technical. It is not an exaggeration to say that that the lines of thought that Chomsky's proposals initiated have had profound effects on all of the disciplines which try to understand the 'mental life' of human beings. In the broadest sense, this course tries to chart the central lines of this research-program and map the ways in which it has influenced other areas of thought. It will try to clarify what the puzzles and observations are which lead to the Chomskyan view of language, to sketch in broad outline what that view is, and to investigate what new puzzles and mysteries arise when those views are taken seriously. It will also try to ask what the implications are when the general program is extended beyond the realm of language-ability and deals with other aspects of our mental life.

We will approach these issues in several units. First, in **Foundations** (Weeks 1-3), we will closely read *Syntactic Structures* and place it in the context of other contemporary documents (Bloomfield's *Language* and Skinner's *Verbal Behavior*). *Aspects of the Theory of Syntax*, Chomsky's second major work, published in 1965, will serve as our entrée into thinking about the relationship between **Competence and Performance** (Weeks 3-4). Having taken the plunge into the complexity and abstractness of mental life left in the wake of the cognitive upheaval of the 1950s-60s, we will address one of the core question of generative linguistics, **Acquisition** (Weeks 5-6). In Weeks 7-8, we will look at the **Interfaces** between language and other facets of cognition, including (broadly) our store of concepts generally and the way we think and reason, and (narrowly) numerical and spatial cognition. Finally, in

Weeks 9-10, we confront the **Frontiers**, moving beyond humans to investigate animal communication and beyond human lifespans to consider the most treacherous question: evolution.

Requirements

The work in this course is a combination of class discussion and reading. Both are equally important. For that reason, there are three kinds of requirements for the course.

I. Reading.

Readings will be made available throughout the quarter—some obligatory and some optional. It will be extremely important that you do your reading in a regular way and keep up with it. This is especially so because much of the reading is quite challenging (primary sources for the most part and not textbooks). The materials will be made available in PDF format at this password-protected URL:

<http://babel.ucsc.edu/~wagers/ling155>

The password is provided in class in Week 1. With a few exceptions, all electronic materials are available through the library, and the PDFs we provide are a convenience. We always provide the full citation - so if you cannot find the reading you're looking for at the URL above, you will be expected to have consulted the library databases (or <http://scholar.google.com>) before emailing the instructional staff. Familiarize yourself with off-campus access: <http://library.ucsc.edu/services/off-campus-access-faq>.

II. Written work.

You will submit a sequence of seven reading summaries, roughly one per week, 2 to 3 pages each in length, in which you will be asked to: (i) demonstrate that you have read and understood the required reading; (ii) integrate what you find in the reading with what happens in class discussion. We will provide detailed guidelines and also some models to guide you in doing this.

You will also submit two longer 'response papers' (5 to 6 pages in length). One will be due around the mid-point of the quarter and the second during exam-week. These two short papers are different from the reading summaries in that they should develop a critical response to one of the issues considered either in the first half of the course or in the second. We will give you guidance and help on this closer to the time.

Late work policy. Late papers can be accepted only if some prior arrangement is made or in cases of (real and documentable) emergency.

III. Attendance.

Finally, since the class is a collaborative effort, it is most important that you be present, awake, and engaged for each meeting. If it seems, as work goes on, that people are not taking this requirement seriously we will begin to take roll in a formal way. Hopefully, though, it will not come to that.

Grading. Grades on written work use the evaluative adjective scale, familiar in Linguistics: *excellent - very good - good - fair - weak - not passing*; these are accompanied by specific feedback. The course grade is holistically determined by the instructional staff based on the overall quality of your written work, its trajectory of improvement, and the ways in class and section that you demonstrate your preparation and engagement.

You must do passing work on all of the papers to pass the course. If you receive a 'not passing' grade on any submitted assignment, you will be given options at the discretion of the instructor for how to address that grade.

Academic Honesty. As always, the work you submit for this course must be your own work and must meet basic standards of honesty. Specifically: if you do work in a group, you must be sure to write up your work independently and alone, consistent with the university's policies on academic honesty. In addition, if you work in a group, please indicate who you worked with and be sure to give credit to others if you use ideas or observations that they come up with. This is a simple matter of fairness and courtesy.

If you use material from the Internet or from other published sources, you are required to say what those sources were and what you took from them. Failing to do this is immoral and is a violation of the university's policies on Academic Integrity.

The following site contains helpful information on citation and plagiarism:

<http://library.ucsc.edu/help/research/cite-your-sources>

We will treat any violations of these requirements very severely indeed.

DRC Accommodations. If you qualify for classroom accommodations because of a disability, please get an Accommodation Authorization from the Disability Resource Center (DRC) and submit it to me in person outside of class (e.g., office hours) within the first two weeks of the quarter. Contact DRC at 459-2089 (voice), 459-4806 (TTY), or <http://drc.ucsc.edu> for more information on the requirements and or the process.

Many thanks to Professors Jim McCloskey and Pranav Anand for sharing information and materials on previous versions of this course, which have greatly influenced the shape of its present instantiation.

Unit I: Foundations

April 1-17, LING155 Language and Cognition

April 1	Introduction	
3	Syntactic Structures, I - Finite state models of lg; Phrase structure = Chomsky (1957/2002) pp. iii - 33 (Intro., Preface, ch. 1-4) ° Reading response prompt 1 distributed in class	
8	Syntactic Structures, II - Problems for PS; Transformations = Chomsky (1957/2002) pp. 34 - 91 (ch. 5-8)	+Lees review
10	Behaviorism = Chomsky (1959), Bloomfield (1933) ch. 2 + Skinner (1957; ch. 1-3) + Miller (2003) ° Reading response 1 due in class	
15	Contemporary responses to the structure-dependence claim = Crain & Nakayama (1987), Ambridge, Rowland & Pine (2008) + Realı & Christiansen (2005), Kam et al. (2008)	
17	Aspects of the Theory of Syntax = Chomsky (1965) ch. 1	= required reading + optional reading ° assignment note

- Ambridge, B., Rowland, C., Pine, J. (2008). Is structure dependence an innate constraint? New experimental evidence from children's complex-question production. *Cognitive Science*, 32, 222-255.
- Bloomfield, L. (1933). *Language*. Chicago: University of Chicago Press.
- Chomsky, N. (1957/2002). *Syntactic Structures* (2nd ed.). Berlin: Mouton de Gruyter.
- Chomsky, N. (1959). [Review of the book *Verbal Behavior*, by B. F. Skinner]. *Language*, 35, 26-58.
- Chomsky, N. (1965). *Aspects of the Theory of Syntax*. Cambridge, MA: MIT Press.
- Crain, S. & Nakayama, M. (1987). Structure dependence in grammar formation. *Language*, 63, 522-543.
- Lees, Robert B. (1957). [Review of the book *Syntactic Structures*, by N. Chomsky]. *Language*, 33, 375-408.
- Miller, G. A. (2003). The cognitive revolution: a historical perspective. *Trends in Cognitive Sciences*, 7, 141-144.
- Realı, F., & Christiansen, M. H. (2005). Uncovering the richness of the stimulus: Structure dependence and indirect statistical evidence. *Cognitive Science*, 29, 1007-1028.
- Skinner, B.F. (1957). *Verbal behavior*. New York: Appleton-Century-Crofts, Inc.
- Kam, X.-N. C., Stoyneřka, I., Tornyova, L., Fodor, J. D. and Sakas, W. G. (2008), Bigrams and the Richness of the Stimulus. *Cognitive Science*, 32, 771-787.