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LING 472.01: Generative Syntax and (Formal) Semantics

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LING 472 Generative Syntax and (Formal) Semantics

Linguistics 472
Generative Syntax
Fall 2013
TR 12:40 to 2:00, GBB L11

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“Creativity is predicated on a system of rules and forms, in part determined by intrinsic human capacities. Without such constraints, we have arbitrary and random behavior, not creativity.”

Noam Chomsky, *Reflections on Language*, p. 133

COURSE DESCRIPTION

Creativity constituted the earliest notions (mid 1950s) of generativity, or the ability of all humans to create (i.e., generate) both infinite numbers of novel sentences and sentences of infinite length. This property of all languages served as evidence for a *generative* syntax that became known as Transformational Grammar (TG), a reaction against behavioral theories of language learning and the structuralist theories of language knowledge used to complement behaviorism (circa 1957). The leading advocate for TG at the time, Noam Chomsky, argued persuasively that behaviorists relied too much on language experience to explain development and therefore could not explain the human mind’s capability for creating utterly unique sentences never experienced before, revealing a generative capacity. The mind, according to generative grammars, includes *a priori* (prior to experience of language) a finite body of language knowledge. Such knowledge takes the form of syntactic structures (properties of a mental computational system). These structures function as the source of innovative and conceivably endless phrases and clauses that are derived from basic phrasal and clausal constructions altered by certain transformational rules (thus TG).

In the initial theory, transformational rules affected the structural description (SD) of a sentence (SDs are formal objects defined mathematically as combinatorial computations) and, as a result, caused a structural change (SC) that gets realized by moving, adding, deleting or substituting structural material. A decade later, a glut of transformational rules grew too unwieldy to account for development, so other generative theories evolved from TG: First, the Standard Theory, which assumed that a component dedicated exclusively to language knowledge (or competence) is independent from language use (or performance); then, the Extended Standard Theory, which assumed that a lexicon (mental dictionary) functions independently of the component generating computational combinations; and, finally, the Revised Extended Standard Theory, which assumed that rules reflect an interaction of deeper, more abstract principles of generativity (we will study this theory by building up to it through relevant features of former theories). All theories evolving from TG preserve the notion of transformational rule in some form, yet the concept *generative* no longer refers to its original sense of seemingly unlimited creativity but now denotes instead with a degree of mathematical precision “how sentences of the language are in fact characterized by the grammar” (Chomsky, *Rules and Representations*, p. 220). Most currently, the term refers to how principles controlling the computational system (a universal grammar, UG) routinely gain access to features in the lexicon (constituting extremely restricted language-specific parameters).

COURSE MATERIALS

Aarts, Bas. 2008. English Syntax and Argumentation, 3rd Ed. New York: Palgrave.
Poole, Geoffrey. 2002. Syntactic Theory. New York: Palgrave.

COURSE ATTENDANCE, ASSIGNMENTS, OBJECTIVES

In order to enjoy a degree of success in the course (not to mention mastery of course content), you should, at the very most, attend every class meeting, and, at the very least, miss no more than **two** class meetings (it is a difficult course, but half the students in it in the past have earned As).

To pass this course, you must complete the midterm and final exams. Plus, you must turn in your completed problem-sets assigned as the homework in class (due dates to be announced).

Becoming proficient in grammatical analysis is, like anything else, a matter of practice. Therefore, you will earn nearly one-half of your final grade by completing weekly problem-sets: Usually on Thursdays, I assign a number of exercises from the texts or handouts, and exercises will be due on the following Tuesday when we meet for class (unless I state otherwise in class).

The exercises often take the form of 'tree diagrams' that represent the syntactic structure of the sentences analyzed. A tree diagram is technically referred to as a Phrase Structure Marker because it is a formal description of the phrase structure rules that were once argued to generate syntactic structures and their terminal nodes filled by lexical elements. Other kinds of exercises focus on issues or topics related to grammatical rules or principles pertaining to phrase structure.

Exercises must be completed cleanly and legibly to receive full credit (neatness counts!). Please have them ready to be turned in to me at the beginning of class on the day they are due (late assignments cannot receive full credit; when turned in on the due date after a lecture begins, an assignment is reduced by 11% of full credit: full credit = 9 points).

Completing exercises neatly and thoroughly helps you earn full credit for exercises and also prepare for the midterm and final exams (take-home or sit-down format to be announced). Also, each set of exercises builds on the previous set, so it's important to do all the exercises and attend all classes, where concepts and analysis for the exercises will be discussed.

Objectives: understanding propositional content, recognizing parts-of speech, identifying lexical categories, discriminating between lexical and functional categories, analyzing sentences according to phrase-structure rules, applying the principles of the language faculty for perceiving abstract structure (movement of constituents, properties of agreement and case, empty categories).

COURSE DUE DATES AND LATE POLICY

All assignments are due on the day listed in the course outline or announced during class. Late assignments are reduced by 22% if they are one day late (33% if more than one day late, and I can't ensure that these late assignments will be evaluated and handed back to you as the others). Any assignment not turned in for a grade receives zero. Absences will not be considered excuses for turning in assignments late or for failing to turn them in at all, unless the absences are related to situations that are urgent. Urgent situations (e.g., severe illness, major non-medical emergency) are the only valid excuses, and I will require from you authentic documentation for these excuses (a certification from a physician, for example).

COURSE GRADES

I evaluate final grades based on the exams and the assignments. Your final grade equals 45% for the assignments, 25% for the midterm and 30% for final. I assess your final grade based on the points that you accrue from assignments and exams. I gauge these points in several ways: according to a percentage (the points that you earn divided by the total amount of available points), a percentile (the points earned by each student, which are compared and measured on a "curve"), and a quartile (the points earned by each student, which are compared and distributed in fourths, e.g., top 25%, bottom 25%, etc.). These three measurements help me make a course assessment represented by traditional letter grades with +/-.

COURSE OUTLINE

The class schedule is subject to change according time constraints. You will be responsible for any schedule changes, even if you are absent for announcements made in the classroom.

Week One

Aug. 28 Read Poole (Ch. 1) and Aarts (Ch. 1 & 2): Generative grammar as the science of human language and its natural development; human language as a system of knowledge (competence) rather than a system of communication (performance); generative and competing approaches in accounting for language development; the model that is commonly accepted by linguists as most explanatorily adequate; rendering logically possible human languages as implausible due to constraints inherent to the human faculty for language, considering other excellent arguments for an existing generative grammar in the mind/brain (e.g., a polyglot savant who is developmentally disabled, children who develop adult-like language knowledge before they are school-age even though the input they receive underdetermines the knowledge they exhibit; in other words, some of the knowledge they create about their language is not directly observable in the language used around them - the Poverty of the Stimulus or the Logical Problem of Language Acquisition)

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Aug. 30 Aarts (Ch. 3 & 14): A minor role for traditional concepts (i.e., parts-of-speech and grammatical relations) in generative syntax; those parts-of-speech that function as lexical categories and thus serve as the heads of phrases; phrases as constituents generated from phrase structure rules (PSRs); PSRs generating sentence structure; relations of phrases via dominance and precedence represented by tree diagrams; beginning to practice basics in tree diagramming and its relationship to constituency

Week Two

Sept. 4 Aarts (Ch. 4 & 5): Exploring the varying degrees of analyzing syntactic structure
& in order to understand the distinction between word, phrase, clause and sentence;
6 grasping matters related to modality, traditionally known as grammatical mood (declarative, interrogative, imperative, plus the exclamative); a context-free model of sentence-formation (in one sense, pragmatically straightforward, but also, and more importantly, in the sense that the building of syntactic structure comes about without making direct reference to information stored in the lexicon); looking into tree diagrams acutely, as a computational object derived by mathematical formula

Week Three

11 Poole (Ch. 2, sections 2.0 to 2.4) and Aarts (Ch. 10 & 11, intro, pp. 189-190;
& sections 11.1, subsection 11.1.1 & 11.1.1.1, pp. 190-192 on topicalization; and
13 section 11.2, subsection 11.2.1, pp. 201-203 on substitution up to example 73):
Reviewing the most basic component to Generative Syntax, the PSR component; the relationship between PSRs and constituency; constituency tests that involve movement and substitution; PSRs, structure building, and hierarchical structure (i.e., dominance and precedence) in Generative Syntax as an improved account for traditional grammatical relations such as subject and object

Week Four

18 Poole (Ch. 2, section 2.5) and Aarts (Ch. 11, subsection 11.1.1.2, pp. 192-197 and subsection 11.2.1 starting from example 73, and subsection 11.2.2, pp. 203-213): PSRs as a set of structure-building instructions and the generation of flat-structure tree diagrams (multiply branching nodes); the failure of flat-structure to capture some significant substitution and movement operations (transformational rules) modifying the structural descriptions (deep structure) of constituency relations; more successful structural descriptions provided by binary-structure tree diagrams to account for transformations responsible for *one*-substitution and VP-preposing; reviewing both dominance and precedence relations and their role in determining the constituency of phrase structure

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20 Poole (Ch. 2, sections 2.6 to 2.8) and Aarts (Ch. 7): Taking one last look at PSRs and considering the advantages of reducing a PSR component with copious rules to three basic X-bar structure-building rules; realizing the structural uniformity that obtains across all phrasal constituents and recognizing the lack of uniformity between phrasal constituents and clausal/sentential constituents; using X-bar rules to distinguish between adjunct constituents and complement constituents and relating this distinction to the notion of subcategorization and lexical information

Week Five

25 Poole (Ch. 4, sections 4.0 to 4.2, excluding 4.2.1 and 4.2.2) and Aarts (Ch. 6): Relating syntactic structures generated by a new PSR component (referred to as X-bar Theory) to the lexicon (a mental dictionary comprised of parts-of-speech, or words, which function as ultimate constituents that are immediately dominated by terminal nodes represented as zero-level syntactic categories, i.e., heads); continuing coverage of subcategorization restrictions v. selectional restrictions; the formal semantics of argument structure and the peculiarities of Theta theory; the central concept of Locality and its critical role in theta-role assignment and approaching implications for other components comprising generative grammar (e.g., movement theory and case theory, which start becoming more important during Week Seven, and government theory and binding theory, which will not become important until after the midterm examination)

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27 Aarts (Ch. 8): Reviewing X-bar Theory as an endocentric system of structure (i.e., identification of phrasal category according to the categorial properties of X, the head of XP where X is a lexical category comprised of distinctive features with binary values [+/-N, +/-V] and represented as terminal nodes with the labels N, V, A or P); comparing endocentricity of phrases to a seeming exocentric system for clauses (how to respond to the question, "What is the head of S and of S' ?"); investigating grammatical features represented by the functional category AUX (i.e., Tense and Agreement) and relating those features to inflectional morphology of verbal systems); introducing AUX lowering (a form of affix hopping) as a rule in the Transformational Component of a generative syntax and returning yet again to embedded clauses introduced by Complementizers (a type of conjunction)

Week Six

Oct. 2 Poole (Ch. 3, sections 3.1, 3.2, 3.3, 3.5 & 3.6; Ch. 4, subsections 4.2.1 & 4.2.2): Interpreting apparent clausal exocentricity as abstractly an endocentric system resembling phrasal categories; interpreting AUX & COMP as the respective heads of S and S' and proposing that these heads be understood as functional categories projecting Inflection Phrase (IP) and Complementizer Phrase (CP) while adhering to structure-building principles of an X-bar Theory; exploring further abstractions in the form of Expletive Pronoun (semantically vacuous *it* and *there* as a subject) and empty category PRO (a semantically interpreted but phonetically unrealized pronoun as a subject) as a means to account for facts explicated by Theta-Theory

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4 Aarts (Ch. 9, sections 9.2 & 9.3, pp. 145-153): Looking again at lowered AUX and the phenomenon of affix hopping in the English verbal system, with a focus on passive auxiliary "be" as a word-formation rule (WFR) in morphology that affects a predicate's argument structure, reflected in the phrase structure that is projected in X-Bar structure-building principles; the passivization of active-voice predicates and its interaction with the Transformational Component, expressed in the form of NP movement (referred to as Object-to-Subject Raising); introducing predicates that raise NPs from subject position of embedded clause to subject position of matrix clause, expressed in the form NP movement (Subject-to-Subject raising); returning to the Locality condition on theta-role assignment and its interaction with raising NPs

Week Seven

9 Poole (Ch. 6, sections 6.4, then 6.0 & 6.1): Continuing to study NP movement from object and subject positions located in deep-structure to subject positions in surface-structure; continuing to relate NP-movement to argument structure of predicates that assign theta-roles in adherence to a locality condition, examining local domain more thoroughly through stipulating conditions on transformations, namely the Tensed Sentence and Specified Subject Conditions on NP movement; grasping derivation of syntactic structure and sufficiently general generative model

&

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AT SOME POINT DURING WEEKS SIX AND SEVEN THE MID-TERM EXAM (TAKE-HOME) IS DISTRIBUTED IN CLASS OR POSTED ON THE MOODLE

Week Eight

- 16 Aarts (reread sections 9.2 & 9.3, read Ch. 13, pp. 236-241) and Poole (reread sections 6.4): Examining more thoroughly NP-movement as a transformation that (i) targets a phrasal constituent headed by N, (ii) displaces it from a basic position in the structural description, and (iii) locates it in a derived position (specifically, empty [Spec, IP]) in the structural change; considering this transformational rule in relation to the constraint on theta-role assignment (i.e., Locality condition) and construing the conditions on NP-movement as a constraint also based on locality; reviewing the constituents that comprise the transformational rule component (i.e., substitutions such as "one-" and "do so-", deletions such as VP-ellipsis, additions such as "do-"support or insert "expletive pronoun," and NP-movement, the raising of subject-to-subject induced by raising predicates and the raising of object-to-subject induced by passivization); introducing an additional type of movement that involves the displacement of a phrasal category and its relocation in an empty Spec position, that is, WhXP-movement to [Spec, CP]
- 18 Poole (reread Ch. 6, sections 6.0 & 6.1, and then continue through section 6.2) and Aarts (Ch. 9, section 9.5): Continuing to investigate WhXP-movement as raising a phrasal constituent that is specified with an interrogative feature [+WH] to a position that is specified with similar a interrogative feature [+Q]; considering a locality condition observed in theta-role assignment and NP-movement and relating these conditions to islands for extraction (or structural configurations that prevent the application of transformational rule WhXP-movement because they derive ill-formed constituency; attempting to generalize these island conditions under a single constraint, Subjacency, and its concomitant condition ensuring that movement respects locality, the Successive Cyclicity Condition

Week Nine

- 23 Aarts (reread Ch. 9, section 9.4 & 9.1) and Poole (Ch. 10, section 10.1, only subsections 10.1.1 & 10.1.2 up to but not including section 10.1.2.2, pp. 268-272): Turning to another interrogative movement transformation, the raising of verbs specified with the feature [+Aux] from head of VP to head of IP to head of CP (i.e., V-to-I movement & I-to-C movement); differentiating transformational rules for XP-movement from those for X^o-movement; considering various conditions that constrain X^o-movement and wondering if a simpler way can be formulated; finally abandoning Transformational Grammar (TG) in favor of the theory known as Government and Binding (GB, synonymous with Principles and Parameters)
- 25 Poole (reread Ch. 10, section 10.1, subsections 10.1.1 & 10.1.2, and then read subsection 10.1.2.2, pp. 268-276) and Aarts (Ch. 9, reread section 9.1 and then read section 9.6): Considering further the multiple conditions on X^o-movement and their relation to Locality; looking one last time at affix-hopping, multiple VPs for each auxiliary and a final decision to base-generate verbs specified as [+Aux] immediately below the I-node in the face of incompatible evidence; returning again to Theta-theory in order to begin understanding (i) how Government Theory functions in a generative grammar and (ii) how this operation in one generality captures the various phenomena that were related to Locality of X^o-movement.

AT SOME POINT BEFORE WEEK TEN THE MID-TERM EXAM WILL BE COLLECTED IN CLASS (ANNOUNCEMENT POSTED ON BLACKBOARD)

Week Ten

- Oct. 30 Poole (reread Ch. 4, section 4.2, read section 4.3 & 4.4 up to 4.4.2, pp. 80-89): Reviewing Government Theory and its role in assigning theta-roles to arguments of predicates and considering its role in assigning morphological case to NPs; distinguishing grammatical function (subject, direct object, indirect object) and encoding of grammatical function through the realization of case features on NPs; returning to the definition of c-command and its second requirement (the first W, i.e., branching node, that dominates X also dominates Y); interpreting W to mean the first maximal projection (WP), that is, the upper limit of case government; using the upper limit of case government as a way to restrict government such that it conforms with the intuition of Locality (i.e., any maximal projection is a barrier to government from a head that is external to that maximal projection)
- &
- Nov. 1 Poole (reread Ch. 4, sections 4.3 & 4.4 including 4.4.2, pp. 80-91, read sections 4.5 to 4.8, pp. 91-99): Delving into Government Theory in order to comprehend its function in assigning theta-roles & case; initially defining government as mutual c-command between a head and its complement (structural configuration for theta-government) and the failure of that definition for capturing a similarity in the semantic relationship that associates a head with its complement and a head with an adjunct; modifying the definition of government through a slight alteration in the second requirement on c-command, changing the structural configuration resulting in government and capturing the underlying architecture that sustains both case-assignment; distinguishing case (morphological) from Case (syntactic); the maximal projection IP specified [-T,-Agr] as a defective barrier to government

Week Eleven

- 6 **ELECTION DAY HOLIDAY: NO CLASS MEETING**
- 8 Poole (reread Ch. 4, sections 4.5 to 4.8, pp. 91-99, read Ch. 5, sections 5.0 & 5.1 up to 5.1.3, pp. 107-114): Delving further into case-government in terms of barriers that block government; case-government's role in enforcing NP-movement to empty grammatical subject ([Spec, IP]); reconsidering raising object-to-subject in passive voice and subject-to-subject by raising-predicates; maximal projections as barriers and the X^{\max} IP, which is apparently transparent to case-government when its head is specified [-T,-Agr]; examining the vital role of case-government in the Binding Theory and governors that are capable Exceptional Case Marking; identifying reflexive pronouns and reciprocals (anaphors) and distinguishing them from personal pronouns (pronominals) and all other nouns (Referring-expressions)

Week Twelve

- 13 Poole (reread Ch. 5, sections 5.0 & 5.1 including subsection 5.1.3, and also read subsection 5.1.4 only up to the paragraph starting with "So far, so good," as well as sections 5.2 to 5.4 pp. 107-117, 122- 127): Delving further into the Binding Theory and examining the calculation of a local domain in the application of the principles for binding (a governing category must include α , α 's governor and a subject that is accessible to α); identifying apparent points of insufficiency in binding principles

- 15 Poole (reread Ch. 4, sections 4.5 to 4.8, pp. 91-99, read Ch. 5, sections 5.0 & 5.1 up to 5.1.3, pp. 107-114): Delving further into case-government in terms of barriers that block government; case-government's role in enforcing NP-movement to empty grammatical subject ([Spec, IP]); reconsidering raising object-to-subject in passive voice and subject-to-subject by raising-predicates; maximal projections as barriers and the X^{\max} IP, which is apparently transparent to case-government when its head is specified [-T,-Agr]; examining the vital role of case-government in the Binding Theory and governors that are capable Exceptional Case Marking; identifying reflexive pronouns and reciprocals (anaphors) and distinguishing them from personal pronouns (pronominals) and all other nouns (Referring-expressions)

Week Thirteen

- 20 Poole (reread Ch. 5, sections 5.0 & 5.1 including subsection 5.1.3, and also read subsection 5.1.4 only up to the paragraph starting with "So far, so good," as well as sections 5.2 to 5.4 pp. 107-117, 122- 127): Delving further into the Binding Theory and examining the calculation of a local domain in the application of the principles for binding (a governing category must include α , α 's governor and a subject that is accessible to α); identifying apparent points of insufficiency in binding principles

Week Thirteen

- 20 Poole (read Ch. 8. sections 8.0 to 8.2, read Ch. 6, section 6.5 & 6.6 pp. 205-210, 155-158): Continuing to delve further into the Binding Theory and comparing features specifying classes of NPs and classes of Empty Categories; employing these feature specifications to distinguish phonetically realizable NPs (which must receive case through government) from NP-traces and WH-traces; relating traces and their antecedents to the Binding Theory as a way to constrain the rule Move- α

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- 22 **NO CLASS MEETING: THANKSGIVING DAY HOLIDAY**

AT SOME POINT AFTER THE THANKSGIVING HOLIDAY THE FINAL EXAM (TAKE-HOME) IS DISTRIBUTED IN CLASS OR POSTED ON BLACKBOARD

Week Fourteen

- 27 Poole (read Ch. 8. sections 8.3 & 8.4, pp. 210-217): Continuing to delve further into the Binding Theory and comparing features specifying classes of NPs and classes of Empty Categories; employing these feature specifications to distinguish phonetically realizable NPs (those which must receive case through government) from an NP that is not phonetically realized because it cannot be case-governed, that is, PRO; introducing Control Theory and its relation to Case and Theta Theory (thus also Government Theory) and understanding Control Theory in terms Binding

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- 29 Aarts, Ch 13, section 13.2, pp. 241-246; Poole (read Ch. 8, section 8.5, p. 218, Ch. 6, section 6.7, pp. 159-160, and Ch. 2, Open Issue, pp. 50-53); Summing up the GB framework in terms of Language Acquisition

Week Fifteen (coverage of this reading material contingent on time permitting)

- Dec. 4 Poole (read Ch. 3, section 3.3, pp. 65-67); post-1985 GB and the DP Hypothesis
&
6 Poole (read Ch. 9, sections 9.0 to 9.2); introducing the Empty Category Principle
and (read Ch. 9, sections 9.3 to 9.6); continuing the Empty Category Principle

**THE FINAL EXAM MEETING (12 DEC.) IS AN INSTRUCTIONAL ADDITION
FOR PREPARING TO COMPLETE THE FINAL (DUE 16 DEC. AT NOON)**