

iii. Transformations. Transformations take as input the D.S. representation of a sentence, and output a structure called Surface Structure (or S.S.). Transformations (i) are obligatory unless stated otherwise, (ii) apply in the following order, and (iii) apply first to embedded clauses.

That-Deletion (Optional).

Elide the C *that* when it heads a verb's CP complement.

V-to-T Movement.

When T dominates only a suffix, raise V to the closest T.

Condition: Applies only to main verb *be*.

T-to-C Movement. Raise T to the closest C.

VP Ellipsis (Optional).

Elide a VP if identical to a VP in preceding discourse.

Tense Hopping.

When T dominates only a suffix, lower T to the closest V.

Condition: T may not cross Neg.

Do-Support.

When T dominates only a suffix, insert the dummy aux *do*.

A Movement (=NP Movement). Bounded.

Move an XP to Spec, TP.

Obligatory for external arguments (i.e., arguments that are *'d).

Optional for all other phrases.

A-bar Movement (=Topicalization, Wh-Movement). Unbounded.

Move a phrase to Spec, CP.

Condition 1: No movement out of islands.

Condition 2: Subject to the *Doubly Filled Comp Filter*.

Condition 3: Subject to the *Comp-trace Effect*.

Expletive Insertion. When Spec, TP is empty, insert the dummy NP *there* or *it*.

Subject-to-Subject Raising.

Move the Spec, TP of an embedded CP to the Spec, TP of the next higher CP.

For-Deletion. Elide the C *for* when it immediately precedes a trace.

Islands: *The Complex NP Island Constraint*. A CP sister to an N is an island.

The Sentential Subject Island Constraint. A CP subject is an island.

The Wh-Island Constraint. A CP introduced by a *wh*-word is an island.

*The Coordinate Structure Island Constraint**. A single conjunct of a coordinate structure is an island.

**Across-the-board (ATB) Movement*. Movement out of both conjuncts of a coordinate structure is an exception to the Coordinate Structure Island Constraint.

iv. Other Principles A number of other principles state further constraints on the well-formedness of sentences:

The EPP (Extended Projection Principle). Spec, TP must be occupied.

Stray Affix Filter. An affix must combine with a stem under a common head node before the pronunciation rules apply.

Doubly Filled Comp Filter. A *wh*-phrase may not be sister to a C occupied by an overt complementizer.

Comp-trace Effect. A lexically filled C node cannot immediately precede a trace.

Projection. The head of a phrase projects its features up to the phrasal level.

Full Interpretation. The structure to which the semantic interface rules apply contains no uninterpretable features.

Checking. Uninterpretable features must be checked; once checked, they delete.

Checking under Sisterhood. An uninterpretable **c-selectional** or **inflectional** feature on a syntactic object Y is checked when Y is sister to another syntactic object Z that bears a **matching** feature.

Coreferentiality Hypothesis. For two expressions to be coreferential, they must bear the same PHI-features.

v. Binding Theory. The Binding Theory comprises three principles that account for the distribution of reflexives, pronouns, and r-expressions. These principles are assessed at Deep Structure.

Principle A: A reflexive must be bound in its minimal CP.
Principle B: A pronoun cannot be bound in its minimal CP.
Principle C: An r-expression cannot be bound.

Definitions:

A *binds* B iff A *c-commands* B and A and B are co-referential.
A node A *c-commands* a node B iff A's sister either is B, or contains B.
An *R-expression* is an expression that refers to some entity.

See the solutions to the homework assignments for example derivations of sentences, given this grammar.

3. Summary of Crosslinguistic Comparisons.

English:	Head-initial, Specifier-initial. Adjuncts initial or final. V-to-T Movement only for main verb <i>be</i> . Tense Hopping, <i>Do</i> -Support. T-to-C Movement for interrogatives. A-bar Movement optional in declaratives. A-bar Movement for <i>wh</i> -questions. A-Movement and Expletive Insertion to satisfy EPP.
Japanese:	Head-final; Specifier-initial. Apparent Tense Hopping, <i>Do</i> -Support in negated sentences. C is lexically filled for <i>Yes/No</i> -Questions.
Irish:	Head-initial; Specifier-initial. V-to-T Movement for all verbs. C is lexically filled for interrogatives.
German:	Head-final VPs & TPs, otherwise Head- and Specifier-initial. V-to-T Movement for all verbs. T-to-C Movement for interrogatives and declaratives. A-bar Movement for <i>wh</i> -questions. A-bar Movement obligatory in declaratives.
French:	Head-initial, Specifier-initial. V-to-T Movement for all verbs. T-to-C Movement for interrogatives and declaratives. A-bar Movement for <i>wh</i> -questions.