Syntactic Theory 2
Week 8: Islands Overview

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1   Introduction

- This handout is meant to be a basic "what are islands" handout. Next unit will be on **phase theory**, which is the framework that Minimalists have been attempting to explain island phenomena. However, island phenomena are quite difficult to develop a general theory of, which will become clear by the end of the lecture.

- Islands were first carefully discussed by Ross (1967), but Chomsky (1955, 1957) noted that a general *wh*-movement rule could not be formulated.

- Ross provided a long list of islands, which were then amended and expanded in later research. (Some of) the islands are...

(1) a. **Relative clause island:**
         *Who did Dale comfort [DP the woman [CP that saw ~~who~~]]?
     b. **Complex NP island:**
         *Who did Dale hear [DP the rumor [CP that Leo scared ~~who~~]]?
     c. **Definite Island:**
         *Who did Dale doubt [DP Lucy's rumor about ~~who~~]?
     d. **Whether Island:**
         *Who did Dale wonder [CP whether Bob frightened ~~who~~]?
     e. **Wh-Island:**
         *Who did Dale wonder [CP when Bob saw ~~who~~]?
     f. **Subject Island:**
         *Who did [DP a rumor about ~~who~~] upset Sarah?
     g. **Adjunct Island:**
         *Who did Dale ruminate [CP while Harry examined ~~who~~]?
     h. **Coordinate Structure Constraint Island:**
         *Who did [TP Dale suspect ~~who~~] and [TP Harry interrogated Leo]?
     i. **Factive Island:**
         *Who did Dale remember [CP that Ben was suspicious ~~who~~]?
     j. **Negative Island:**
         *Why did Dale say that [CP nobody was innocent ~~why~~]?

    k. **Left Branch Island:**
        *How scary did Dale see [$_\text{DP}$ a ~~how scary~~ man]?

- As Chomsky (1977) points out, island phenomena are observed across a wide array of phenomena, as demonstrated with *whether* islands here:

(2)   a. **Wh-movement:**
        *Who did Dale wonder [$_\text{CP}$ whether Bob frightened ~~who~~]?
     b. **Relativization:**
        *Dale is the agent [$_\text{CP}$ *OP* that Sarah wondered whether Bob frightened ~~*OP*~~]
     c. **Topicalization:**
        *Sarah, Dale wondered [$_\text{CP}$ whether Bob frightened ~~Sarah~~]!
     d. **Tough-Movement:**
        *Dale is easy [$_\text{CP}$ *OP* for us to learn whether to please ~~*OP*~~]
     e. **Adjective-Though Movement:**
        *Intelligent though we wondered whether Dale was ~~intelligent~~. . .
     f. **Comparatives:**
        The agent was more intelligent than *OP* I wondered whether they would be ~~*OP*~~

- Most islands are observed in most languages, children appear to know island phenomena at extremely early ages (de Villiers, Roeper, & Vanikkia 1990), and in sentence comprehension people use knowledge of island phenomena to find the "gap" (= lower copy/trace) of a *wh*-dependency (Phillips 2006). If there's something that's likely to be innate, this is it!

2 Subjacency

- The first serious attempt to give a general theory for island phenomena.

(3)   **Subjacency Condition:** A′-Movement may not cross two bounding nodes, where the bounding nodes are DP and TP

- Subjacency rules out extraction from subjects, since this would involve movement over both a DP and a TP simultaneously:

(4)   *Who did [$_\text{TP}$ [$_\text{DP}$ the rumor about ~~who~~] upset Harry]?

- At first glance, subjacency seems to be too strong. We can move across multiple TPs, for instance:

(5)   [$_\text{CP}$ Who did [$_\text{TP}$ Margaret say [$_\text{CP}$ that [$_\text{TP}$ Hawk thought [$_\text{CP}$ that [$_\text{TP}$ Dale was investigating ~~who~~]]]]]]?

- To fix this, Chomsky proposed that apprent long-distance A′-movement is "successive cyclic", i.e., an A′-moving phrase stops by every CP:

(6) [CP Who did [TP Margaret say [CP ~~who~~ that [TP Hawk thought [CP ~~who~~ that [TP Dale was investigating ~~who~~]]]]]]?

- No single "link" in this chain violates subjacency, thus the sentence is fine.

- Once we adopt the view that A′ movement is successive-cylcic, we can explain *wh*-islands:

(7) *[CP Who did [TP Margaret say [CP when [TP Hawk investigated ~~who when~~]]]]

- Either *who* jumps straight to the main clause Spec,CP violating subjacency, or it stops in the intermediate Spec,CP. To "block" this derivation, we need to postulate that there cannot be two *wh*-phrase things in the intermediate *Spec,CP*:

  *[CP Who did [TP Margaret say [CP ~~who~~ when [TP Hawk investigated ~~who when~~]]]]

- Successive cyclic movement is observable in some languages where we see intermediate copies being pronounced:

(8) a. [CP Wen$_i$ glaubst du [CP wen$'_i$ [TP sie t_i getroffen hat?]]]
         when think   you   when   she met has
         'When do you think she has met?'   (German)
     b. [CP Wer$_i$ tinke jo [CP wêr′ t [TP Jan t_i wennet?]]]
         Where think you where that-CL Jan resides
         'Where do you think that Jan resides'   (Frisian)[1]

- Rizzi (1982) argues that the bounding nodes are subject to variation. In Italian, the bounding nodes are CP and DP. This means that extraction from subjects and from *whether* and *wh*-complements are fine:

(9) a. [DP Questo autore$_i$ [CP   di   cui [TP so [CP che [TP il   primo
         this author by   whom I.know that the first book   is   been published
         [DP   libro t_i è]]]]]] stato publicato recentemente . . .
         recently
         'This author who$_i$ I know that the first book by t_i was published recently'
     b. [DP Tuo fratello$_i$ [CP a cui   [TP mi   domando [CP che   storie$_j$ [TP abbiano
             Your brother   to whom   myself I.wonder   what stories   had
         raccontato t_j t_i]]]]] era molto preoccupato
         told   was very   worried
         'Your brother who I wonder what stores were told to was very worried'

- Subjacency has a few kinks in the system, that lead to Chomsky's 1986 book *Barriers*, which was elaborated on by Lasnik & Saito's 1992 book *Move α*. In a major way, these books were the last great work in Government and Binding before the shift to Minimalism. However, I will not present the problems that they were solving. Instead, Homework #4 will address the issues of subjacency.

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[1]German and Frisian taken from Felser (2004)

3 The ECP

- The ECP is one of the best and worst parts of GB.[2]. To this date, Minimalists are trying to find a better alternative to the ECP.

- Let's revisit the following example:

(10)   *John$_i$ is illegal [$_{CP}$ t' [$_{TP}$ t to park here]]

- This does not violate subjacency, and it may satisfy Principle A vacuously as t and $t^p rime$ lack a governing category. So, what's wrong?

(11)   **Empty Category Principle** (ECP), first pass: A trace must be governed

- The ECP is extended to account for subject/object asymmetries, like the ***that*-trace effect**:

(12)   a.   *Who$_i$ do you think [$_{CP}$ that [$_{TP}$ t solved the problem]]?
       b.   Which problem$_i$ do you think [$_{CP}$ that [$_{TP}$ John solved t_i]]?

(13)   **ECP**, second pass: A trace must be properly governed.
       a. α properly governs β iff α governs β and α is a lexical category (N, V, A, P)

- The *that* in **??** is not lexical, and therefore t is not properly governed.

- But, we're not done:

(14)   a.   *Who$_i$ do you think [$_{CP}$ t'_i that [$_{TP}$ t solved the problem]]?
       b.   Who$_i$ do you think [$_{CP}$ t'_i C [$_{TP}$ t solved the problem]]?

- We need to explain why the overt C *that* induces a violation, but not the null C:

(15)   **ECP**, third pass: A trace must be properly governed.

(16) α properly governs β iff:
       a. α governs β and α is lexical (= **lexical government**), OR
       b. α binds β and β is 0-subjacent to α (i.e., there is another trace or antecedent with no bounding nodes in between) (= **antecedent government**)

- This isn't really an explanation, notice – we have to presume that *that* somehow blocks antecedent government, but null C does not. So, there is an embedded stipulation.

- ECP buys us adjunct/argument asymmetries for free:

(17)   a.   ?Which car$_i$ did you leave [$_{CP}$ before Mary fixed t_i] – *Subjacency
       b.   **How$_i$ did you leave [$_{CP}$ before Mary fixed the car t_i] – *ECP ; *Subjacency

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[2]This section is based off of Howard Lasnik's handouts 'The ECP' and 'An Early Minimalist Approach to Certain ECP EFfects', LING 610, Fall 2010

- An outstanding problem – why don't we get "*that*-trace effects" with adjuncts? They should violate the ECP, by the logic used above:

  (18)   Why$_i$ did you say that [$_{CP}$ Mary left t_i]?

- Chomsky (1986) and Lasnik & Saito (2002) provide interesting solutions to this puzzle, but it requires completely revising the theory of subjacency, barriers, and the ECP. Unfortunately, there still lies some pretty severe stipulations about the distinction between overt and null *that* and adjunct A$'$ dependencies.

4   Odds and Ends: ATB, Parasitic Gaps, Crossover, Doubly-Filled Comp

- The coordinate structure constraint has a "loophole". Extraction out of a conjunct is permitted, as long as you extract out of the same position in the other conjunct:

  (19)   a.   *Who did [$_{TP}$ Dale investigate ~~who~~] and [$_{TP}$ Harry interrogated Leo]?
          b.   Who did [$_{TP}$ Dale investigate ~~who~~] and [$_{TP}$ Harry interrogated ~~who~~]?

- One analysis for this phenomenon is "across-the-board (ATB) movement", and the phenomena is sometimes referred to this way

- Occassionally, a phrase appears to A$'$-move from a position it can't otherwise, as long as there is an additional A$'$-gap/trace/lower copy:

  (20)   a.   *Who did Dale arrest Leo without investigating ~~who~~?
          b.   Who did Dale arrest ~~who~~ without investigating *e*?

- Here, *e* is understood as bound by *who*, just like the lower copy of *who*. The precise status of *e* is controversial

- A$'$-operators do not like to c-command anything that they corefer apart from their lower copy

  (21)   a.   **Strong Crossover (SCO):**
               *Who$_i$ does she$_i$ love ~~who~~?
          b.   **Weak Crossover (WCO):**
               ?Who$_i$ does her$_i$ mother love ~~who~~?

- SCO arises when an A$'$-operator binds a lower copy and a coreferential pronoun, and the pronoun binds the lower copy as well. WCO arises when an A$'$-operator binds the lower copy and the coreferential pronoun, but the pronoun does not bind the lower copy.

- Some languages are picky about what can be in CP. English does not like to have both a A$'$-operator and a complementizer overt in CP:

a.   a.   Who did you say {that/$\varnothing_C$} Mary likes ~~who~~?
          b.   Did you wonder who (*that) Mary likes ~~who~~?

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