

Midterm model answers: Monday Section

Jean Mark Gawron
Introduction to Syntax
San Diego State University
gawron@mail.sdsu.edu
<http://www.rohan.sdsu.edu/~gawron>

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1 Introduction

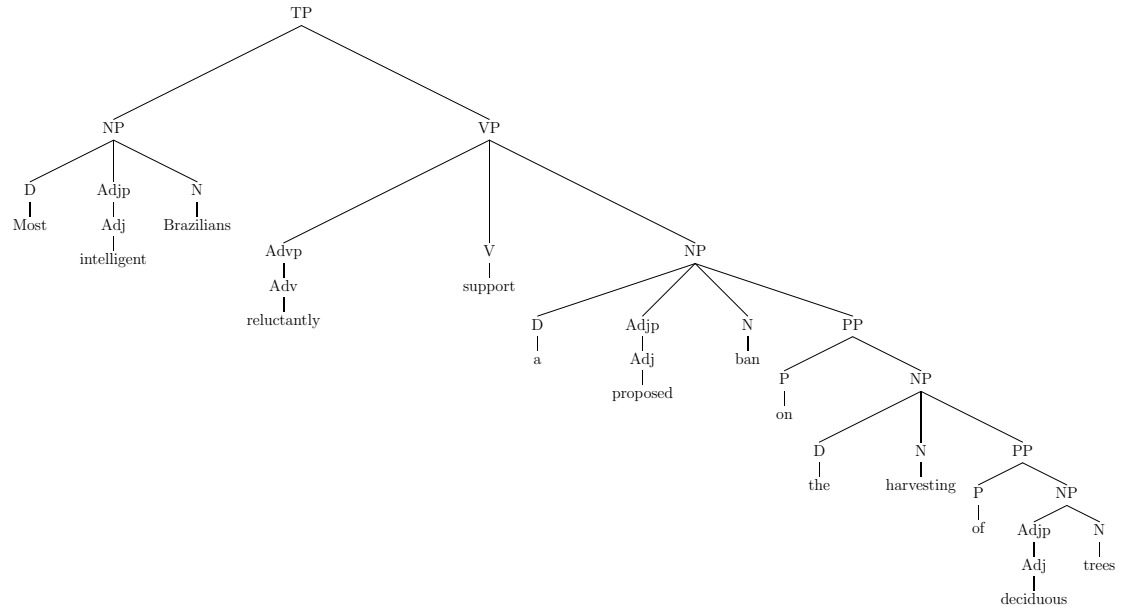
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2 Trees

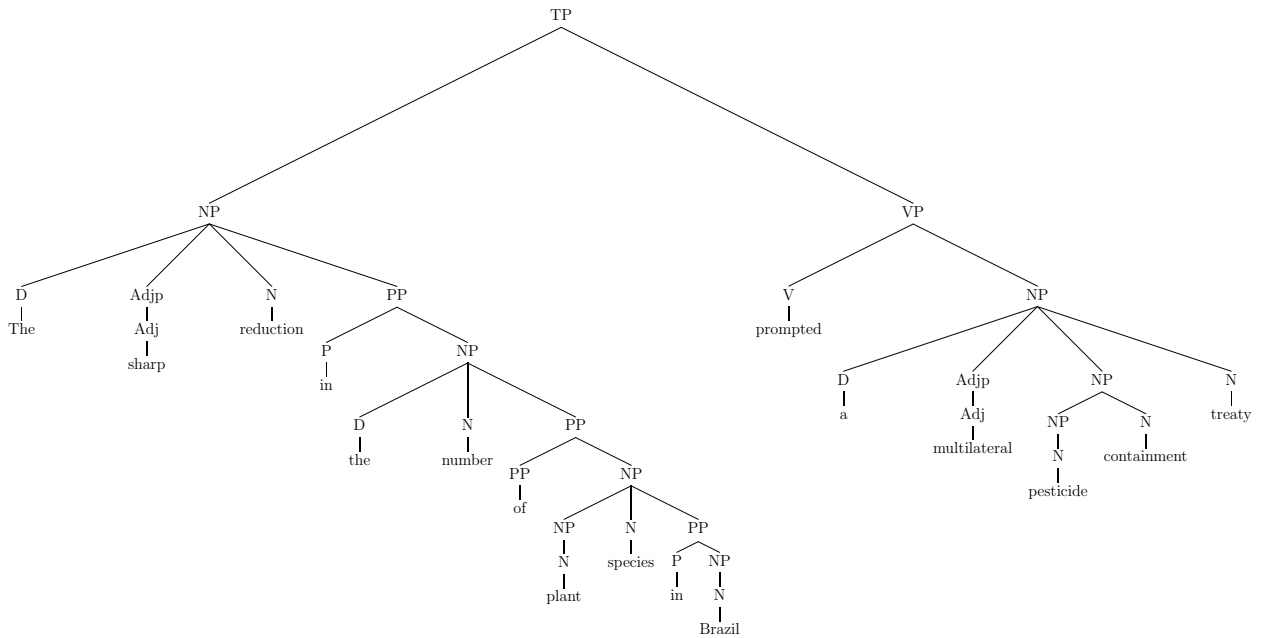
Draw trees for the following sentences, using the rules of Chapter 3, with the following rules replacing the NP rule and the VP rule. You may assume that POS is a new part of speech possessed by exactly one word, 's.

$$\text{NP} \rightarrow \left(\left\{ \begin{array}{l} \text{D} \\ \text{NP POS} \end{array} \right\} \right) (\text{AdjP}^+) (\text{NP}^+) \text{N} (\text{PP}^+) (\text{CP}) (\text{PP}^+)$$
$$\text{VP} \rightarrow (\text{AdvP}^+) \text{V} \left(\left\{ \begin{array}{l} \text{AdjP} \\ \text{NP} \end{array} \right\} \right) (\text{NP}) (\text{PP}^+) (\text{CP}) (\text{AdvP}^+) (\text{NP}^+) (\text{AdvP}^+) (\text{PP}^+) (\text{AdvP}^+)$$

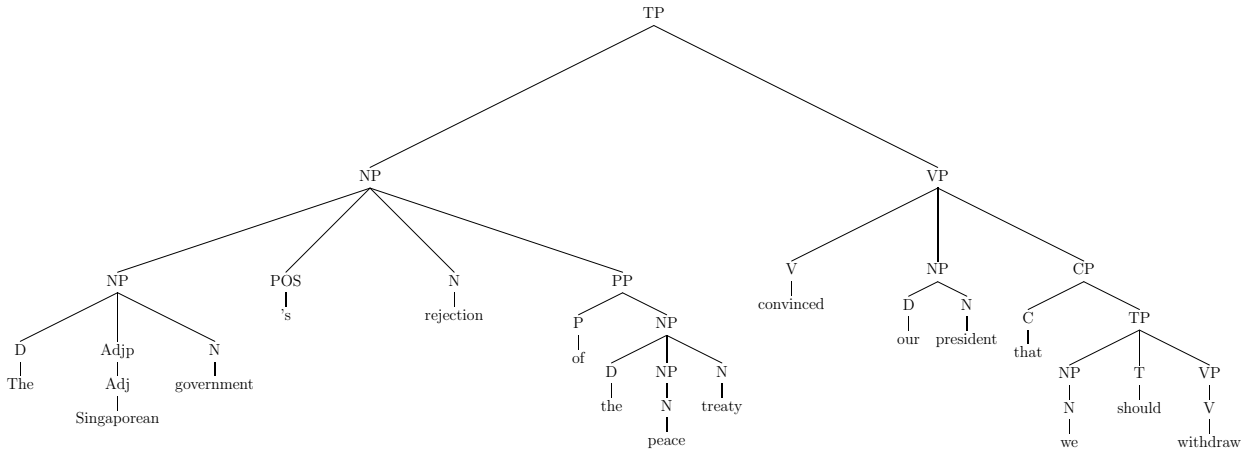
(2.1) Most intelligent Brazilians reluctantly support a proposed ban on the harvesting of deciduous trees.



(2.2) The sharp reduction in the number of plant species in Brazil prompted a multilateral pesticide containment treaty.



- (2.3) The Singaporean government's rejection of the peace treaty convinced our president that we should withdraw.



3 Parts of speech

- (3.1) Assign parts of speech in the following sentence. Assume that nouns may be modified by nouns, and assume that **Deg** is a part of speech.

(1) The results show how sensitive multinationals can be to developments in a single country.

(2) [.D The] [.N results] [.V show] [.Deg how] [.Adj sensitive]
 [.N multinationals] [.T can] [.V be] [.P to] [.N developments]
 [.P in] [.D a] [.Adj single] [.N country]

- (3.2) Choose two words from the previous example (don't choose *how*). For each word give one morphological argument and one syntactic argument for the part of speech you claimed the word has (4 arguments in all). And one or both of the two words should be a non-noun. Hint: be careful not to choose a part of speech for which it's hard to give a morphological argument.

results	morph	This is a Noun in the plural form. -s functions as the plural morpheme. It is added to the singular form <i>result</i>
	syn	The word <i>results</i> is preceded by a determiner <i>the</i> . The context [D] ___ is a context in which Nouns can be found.
sensitive	morph	This is an Adj in the positive form. It can be made comparative and superlative by preceding it with <i>more</i> and <i>most</i> (<i>more sensitive</i> and <i>most sensitive</i>)
	syn	The word is preceded by the <i>Deg</i> word <i>how</i> This is an environment in which adjectives are often found.

- (3.3) What part of speech is *how*? Give a syntactic argument. Give three examples of other words having the same part of speech.

The word *how* is a *Deg*. The position it fills in front of *how* is one often used by other *Deg* words like *too*, *very*, *so*, and *that* in Adjps like *too sensitive*, *very sensitive*, *so sensitive*, and *that sensitive*. Like other *Degs*, *how* refers to the degree or intensity of the attribute denoted by the Adjective that follows it.

4 Complements, Adjuncts, and Xbar trees [ch. 6]

- (4.1) Consider the following sentence.

(3) We sent the letter to the president to the vice president.

Consider the following argument.

It is impossible for *to the president* and *to the vice president* to both be complements in this example, since no head takes two complements. Therefore one or both of them must be adjuncts.

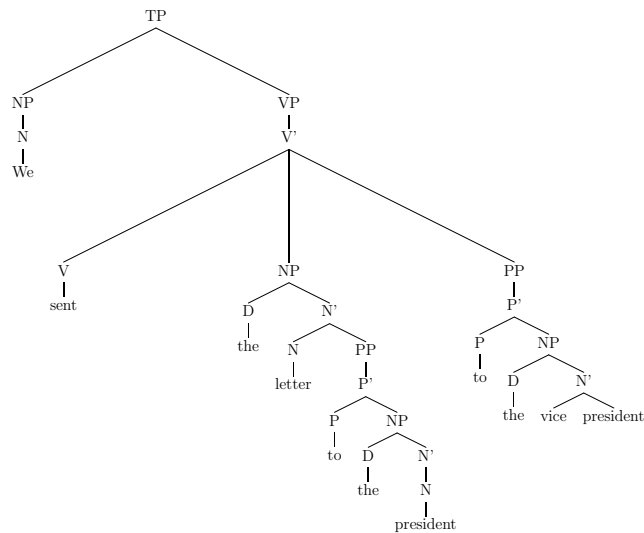
Write a few sentences evaluating this argument, and then come up with an independent argument of your own that the *to-PP* following

the noun *president* is a complement or an adjunct. Then draw the tree for this sentence in a way that is consistent with the analysis you argued for.

In the correct tree for this example (shown below), the two PPs *to the president* and *to the vice-president* are modifying different heads. *to the president* modifies *letter* and *to the vice-president* modifies the verb *sent*. Therefore it is perfectly possible for both PPs to be complements. In addition, we have seen cases where one head takes more than one complement. The verb *give* is an example. In

(i) John gave [_{NP} the book] [_{PP} to Mary].

The NP *the book* and the PP *to Mary* are both complements, because both are obligatory. The semantically parallel verb *send* seems to be another example, as shown in the tree below.

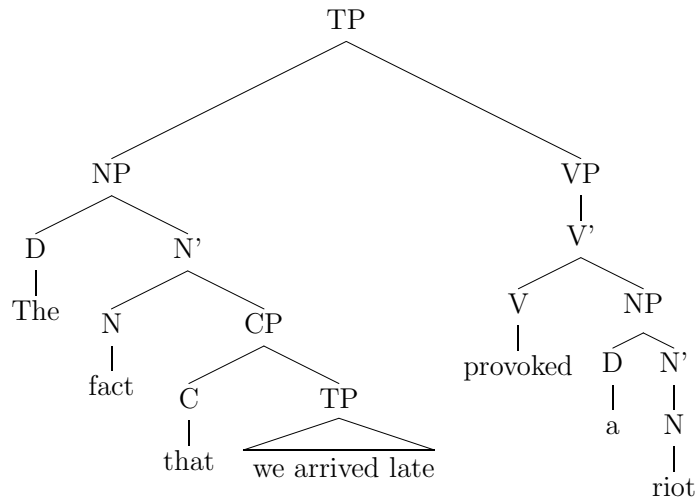


(4.2) Draw an Xbar tree (Ch. 6) for the following sentence:

(4) The fact that we arrived late provoked a riot.

(4.3) Here are the Xbar rules you can use:

- CP → C TP
- TP → {NP/CP} (T) VP
- NP → $\left(\left\{ \begin{array}{l} \text{Det} \\ \text{NP POS} \end{array} \right\} \right) N'$
- N' → N' PP
- N' → {AdjP/NP} N'
- N' → N ({PP/CP})
- V' → Advp V'
- V' → V' {PP/Advp/NP}
- V' → V ({NP/PP}) ({NP/CP/PP})
- PP → P'
- P' → P ({PP/NP})
- Adjp → Adj'
- Adj' → Advp Adj'
- Adj' → Adj (PP)
- Advp → Adv'
- Adv' → Advp Adv'
- Adv' → Adv



5 Binding Theory

[skipped, becue there will be no binding theory questions on the final.]

6 Phrase structure rules

Tzotzil is a Mayan language spoken in Mexico. Consider the following sentences, then answer the questions that follow. Glosses have been simplified and the orthography altered from the original source. (Data from Aissen 1987.)

- (5) 'ispet lok'el 'antz ti t'ule.
carry away woman the rabbit
“The rabbit carried away (the) woman.” (Assume *lok'el* is an Adv).
- (6) 'ibat xchi'uk smalal li Maruche.
go with her-husband the Maruche
“(the) Maruch went with her husband.” (*Maruche* is a proper name.)
- (7) Pas ti 'eklixa'une.
built the church
“The church was built.”

Answer the following questions about Tzotzil. Do not break apart words in your analysis.

(6.1) What is the NP rule for Tzotzil?

$NP \rightarrow (D) N$

(6.2) What is the PP rule for Tzotzil?

$NP \rightarrow P (NP)$

(6.3) Using the same constraints on VP as discussed in the Irish problem of Chapter 4, p. 145, Challenge Problem 3, consider whether Tzotzil can have a VP. Explain why or why not, being sure to explain the similarity to, or difference from, the Irish case. If you cannot posit a VP don't do so.

Tzotzil appears to be a VOS language. Since V and O occur next to each other, there is no problem writing a VP rule that includes both. The problem with Irish, on the other hand, was that it was VSO, which means that V and O do not occur next to each other, and that meant it was impossible to write a phrase-structure rule that included both, without

also including S, and our assumption about S is that it cannot occur in VP. Our provisional conclusion was that no VP rule was possible in Irish.

If you can, what is the VP rule for Tzotzil?

$VP \rightarrow V (PP) (NP)$

- (6.4) What is the TP rule for Tzotzil? Make sure your answer is consistent with your answer to the previous question.

$TP \rightarrow VP NP$

- (6.5) What is the subject of sentence (6)?

The subject is the NP *li Maruche*.

- (6.6) Is *ti 'eklixa'une* a subject or an object in sentence (7) ?

It actually could be either, based on the data we have. But I have written the TP rule to make the subject obligatory, so I am committed to saying it is a subject. If, however, subjects were optional in Tzotzil, *ti 'eklixa'une* could be an object, and we have no way of translating the sentence into English except as a passive.

- (6.7) Does the verb precede the subject in Tzotzil?

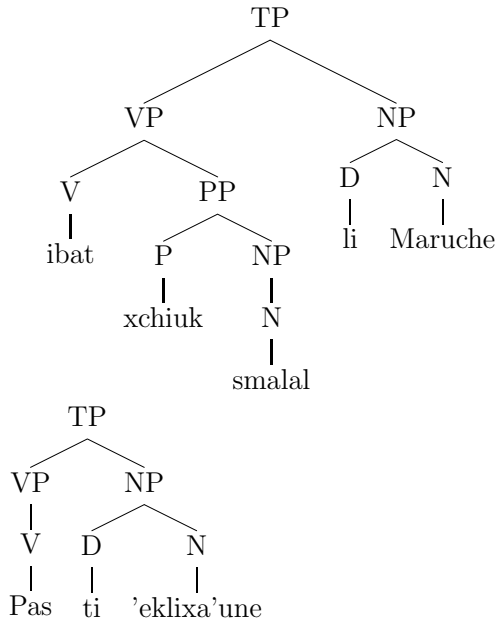
- (6.8) Does the object precede the subject in Tzotzil?

Yes, it does.

- (6.9) Does the verb precede the object in Tzotzil?

Yes, it does.

(6.10) Using the rules you developed in (1-4) above, draw the trees for (6) and (7).



If the TP rule was

$TP \rightarrow VP (NP)$

we could also have

