Syntax

Problem Sets

The following problem sets are taken from:

> Carnie, Andrew (2002) *Syntax: A Generative Introduction.* Oxford: Blackwell Publishers.

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These files were created using Microsoft Word 98 for Mac. They should be compatible with MS Word 2000 for PCs. However please note the following things:

1. Several problem sets were constructed using the publicly available IPA fonts from SIL (www.sil.org): SIL Doulos and SIL Sophia. Note that these are *not* the 93 revision versions (don't use SILdoulos93).
2. The character mapping for these fonts is different for Macs and IBMs. If you are using a PC, you may have to rekey the phonetic characters. Please consult the original book or the PDF version of this document to see what characters are supposed to be present.

CHAPTER 1

1. INTUITIONS

All of the following sentences have been claimed to be ungrammatical or unacceptable by someone at some time. For each sentence, indicate whether this unacceptability is

i) a prescriptive or a descriptive judgment, and
ii) for all descriptive judgments indicate whether the ungrammaticality has to do with syntax or semantics.

One- or two-word answers are appropriate. If you are not a native speaker of English, enlist the help of someone who is. If you are not familiar with the *prescriptive* rules of English grammar, you may want to consult a writing guide or English grammar or look at Pinker's *The Language Instinct*.

a) Who did you see in Las Vegas?
b) You are taller than me.
c) My red is refrigerator.
d) Who do you think that saw Bill?
e) Hopefully, we'll make it through the winter without needing the snow-blower.
f) My friends wanted to quickly leave the party.
g) Bunnies carrots eat.
h) John's sister is not his sibling.

2. INNATENESS

Above, we argued that some amount of syntax is innate (inborn). Can you think of an argument that might be raised against innateness? (It doesn't have to be an argument that works, just a plausible one.) Alternately, could you come up with a hypothetical experiment that could disprove innateness? What would such an experiment have to show? Remember that cross-linguistic variation (differences between languages) is *not* an argument against innateness or UG, because UG contains parameters that allow minute variations.

3. PRESCRIPTIVE RULES

In the text above, we argued that descriptive rules are the primary focus of syntactic theory. This doesn't mean that prescriptive rules don't have their

uses. What are these uses? Why do we maintain prescriptive rules in our society?

4. UNIVERSALS

Pretend for a moment that you don't believe Chomsky and that you don't believe in the innateness of syntax (but only *pretend*!). How might you account for the existence of universals (see definition above) across languages?

5. LEARNING VS. ACQUISITION

We have distinguished between learning and acquiring knowledge. Learning is conscious, acquisition is automatic and subconscious. (Note that acquired things are *not* necessarily innate. They are just subconsciously obtained.) Other than language are there other things we acquire? What other things do we learn? What about walking? or reading? or sexual identity? An important point in answering this question is to talk about what kind of evidence is necessary to distinguish between learning and acquisition.

6. LEVELS OF ADEQUACY

Below, you'll find the description of several different linguists' work. Attribute a level of adequacy to them (state whether the grammars they developed are observationally adequate, descriptively adequate, or explanatorily adequate. Explain *why* you assigned the level of adequacy that you did.

a) Juan Martínez has been working with speakers of Chicano English in the barrios of Los Angeles. He has been looking both at corpora (rap music, recorded snatches of speech) and working with adult native speakers.

b) Fredrike Schwarz has been looking at the structure of sentences in eleventh-century Welsh poems. She has been working at the national archives of Wales in Cardiff.

c) Boris Dimitrov has been working with adults and corpora on the formation of questions in Rhodopian Bulgarian. He is also conducting a longitudinal study of some two-year-old children learning the language to test his hypotheses.

7. ANAPHORA

In this chapter, as an example of the scientific method, we looked at the distribution of anaphora (nouns like *himself*, *herself*, etc.). We came to the following conclusion about their distribution:

An anaphor must agree in person, gender, and number with its antecedent.

However, there is much more to say about the distribution of these nouns (in fact, chapter 4 of this book is entirely devoted to the question).

Part 1: Consider the data below. Can you make an addition to the above statement that explains the distribution of anaphors and antecedents in the very limited data below?

a) Geordi sang to himself.
b) *Himself sang to Geordi.
c) Betsy loves herself in blue leather.
d) *Blue leather shows herself that Betsy is pretty.

Part 2: Now consider the following sentences:[1]

e) Everyone should be able to defend himself/herself/themselves.
f) I hope nobody will hurt themselves/himself/?herself.

Do these sentences obey your revised generalization? Why or why not? Is there something special about the antecedents that forces an exception here, or can you modify your generalization to fit these cases?

CHAPTER 2

1. PART OF SPEECH 1[2]

Identify the main parts of speech (i.e., Nouns, Verbs, Adjectives/Adverbs, and Prepositions) in the following sentences. Treat hyphenated words as single words:

a) The old rusty pot-belly stove has been replaced.

[1] Thanks to Ahmad Lotfi for suggesting this part of the question.
[2] Problem set contributed by Sheila Dooley-Collberg.

b) The red-haired assistant put the vital documents through the new efficient shredder.
c) The large evil leathery alligator complained to his aging keeper about his extremely unattractive description.
d) I've just eaten the last piece of chocolate cake.

2. PART OF SPEECH 2

Consider the following selection from *Jabberwocky*, a poem by Lewis Carroll:

> Twas brillig and the slithy toves
> Did gyre and gimble in the wabe;
> All mimsy were the borogoves,
> And the mome raths outgrabe.
>
> "Beware the Jabberwock, my son!
> The jaws that bite, the claws that catch!
> Beware the Jubjub bird, and shun
> The frumious bandersnatch!"
>
> He took his vorpal sword in hand:
> Long time the manxone foe he sought –
> So rested he by the tumtum tree
> And stood a while in thought.
>
> And as in uffish thought he stood
> The Jabberwock with eyes of flame,
> Came whiffling through the tulgey wood,
> and burbled as it came.

For each underlined word, indicate its part of speech (word class), and explain the *distributional* criteria by which you came up with that classification. Do not try to use a dictionary. Most of these words are nonsense words. You will need to figure out what part of speech they are based upon what suffixes and prefixes they take, along with where they appear relative to other words. (See the appendix above.)

3. NOOTKA

(Data from Sapir and Swadesh 1939)

Consider the following data from Nootka, a language spoken in British Columbia, Canada. (The : mark indicates a long vowel. ʔ is a glottal stop.

PRES in the second line means "present tense," *DEF* means "definite determiner" (the).)

a) Mamu:k-ma qu:ʔas-ʔi.
working-PRES man-DEF
"The man is working."

b) Qu:ʔas-ma mamu:k-ʔi.
man-PRES working-DEF
"The working one is a man."

Questions about Nootka:
1) In sentence a, is *Qu:ʔas* a verb or a noun?
2) In sentence a, is *Mamu:k* a verb or a noun?
3) In sentence b, is *Qu:ʔas* a verb or a noun?
4) In sentence b, is *Mamu:k* a verb or a noun?
5) What criteria did you use to tell what is a noun in Nootka and what is a verb?
6) How does this data support the idea that there are no semantic criteria involved in determining the part of speech?

4. ENGLISH

Draw phrase structure trees *and* bracketed diagrams for each of the following sentences, indicate all the categories (phrase (e.g., NP) and word level (e.g., N)) on the tree. Use the rules given above in the summary of this chapter. Be careful that items which modify one another are part of the same constituent. Treat words like *can, should, might, was*, as instances of the category T (tense).[3]

a) The very young child walked from school to the store.
b) John paid a dollar for a head of lettuce.
c) Teenagers drive rather quickly.
d) A clever magician with the right equipment can fool the audience easily.
e) The police might plant the drugs in the apartment.
f) Those Olympic hopefuls should practice diligently every day.
g) The latest research on dieting always warns people about the dangers of too much cholesterol.
h) That annoying faucet was dripping constantly every day for months.

[3] Thanks to Sheila Dooley Collberg for contributing sentences d–h.

5. AMBIGUITY

The following English sentences are all ambiguous. Provide a paraphrase (a sentence with roughly the same meaning) for each of the possible meanings, and then draw (two) trees of the *original* sentence that distinguish the two meanings. Be careful not to draw the tree of the paraphrase. Your two trees should be different from one another, where the difference reflects which elements modify what. (For sentence (b) ignore the issue of capitalization.)

a) John said Mary went to the store quickly.
b) I discovered an old English poem.

6. STRUCTURE

In the following sentences a sequence of words is marked as a constituent with square brackets. State whether or not it is a real constituent, and what criteria (that is constituency tests) you applied to determine that result.

a) Susanne gave [the minivan to Petunia].
b) Clyde got [a passionate love letter from Stacy].

7. CONSTITUENCY TESTS (ADVANCED) [4]

Do the words in boldface in the following sentence form a *single* constituent? That is, is there a *[Barbie and Ken kissing]* constituent? How do you know? Use all the tests available to you.

Barbie and Ken were seen by everyone at the party ***kissing***.

A couple of things may help you in this problem. (1) Remember, that constituents can be inside other constituents. (2) This sentence is a passive, which means that some movement has happened, so don't let the fact that there is other stuff in between the two bits throw you off.

8. ENGLISH PREPOSITIONS

In the text, we claimed that perhaps the NP in PPs was optional, explaining why we can say *He passed out*, where the preposition *out* has no object. Consider an alternative: the expression *[passed out]* is really a "complex"

[4] Sheila Dooley Collberg is the source of this problem set.

verb. Using constituency tests, provide arguments that the structure of expressions like:

a) He blew out the candle.
b) He turned off the light.
c) He blew up the building.
d) He rode out the storm.

is really [[V P] NP] rather than: [V [P NP]].

9. BAMBARA

(Data from Koopman 1992)

Consider the following data from Bambara, a Mande language spoken in Mali. (The glosses have been slightly simplified.) Pay careful attention to the second line, where the word order of Bambara is shown.

a) A kasi-ra.
he cried
"He cried."

b) A kaa-ra.
she went
"She went."

c) Den ye ji min.
child PAST water drink
"The child drank water."

d) N son-na a ma.
I agreed it to
"I agreed to it."

Answer the following questions about Bambara:

1) Is there a gender distinction in Bambara?
2) Do you need a T category in Bambara?
3) Is there a Determiner category in Bambara?
4) What is the NP (if you need one) for Bambara?
5) What is the PP rule for Bambara?
6) What is the VP rule for Bambara?
7) What is the S rule for Bambara? (Keep in mind your answers to the above questions – be consistent.)

8) Draw trees for (a), (c), and (d) using your rules.
9) Draw bracketed diagrams for (b) and (c).

10. HIXKARYANA

(Data from Derbyshire 1985)

Look carefully at the following data from a Carib language from Brazil (the glosses have been slightly simplified from the original):

a) Kuraha yonyhoryeno bɨyekomo.
bow made boy
"The boy made a bow."

b) Newehyatxhe worɨskomo komo.
take-bath women all
"All the women take a bath."

c) Toto heno komo yonoye kamara.
person dead all ate jaguar
"The jaguar ate all the people."

Now answer the following questions about Hixkaryana:

1) Is there any evidence for a determiner category in Hixkaryana? Be sure to consider quantifier words as possible determiners (like *some* and *all*).
2) Is there evidence for an AP rule in Hixkaryana?
3) Posit an NP rule to account for Hixkaryana. (Be careful to do it for the second line, the word-by-word gloss, in these examples not the third line.)
4) Posit a VP rule for Hixkaryana.
5) Posit an S rule for Hixkaryana.
6) What is the part of speech of *newehyatxhe*? How do you know?
7) Draw the trees for (a) and (c) using the rules you posited above. (Hint: if your trees don't work, then you have probably made a mistake in the rules.)
8) Give bracketed diagrams for the same sentences.

10. IRISH

(Data from Carnie field notes)

Consider the following data from Modern Irish Gaelic.

a) Phóg Liam Séan.
kissed William John
"William kissed John."

b) Phóg Seán Liam.
Kissed John William
"John kissed William."

c) Phóg an fear an mhuc.
kissed the man the pig
"The man kissed the pig."

d) Chonaic mé an mhuc mhór.
Saw I the pig big
"I saw the big pig."

e) Rince an bheán.
Danced the woman
"The woman danced."

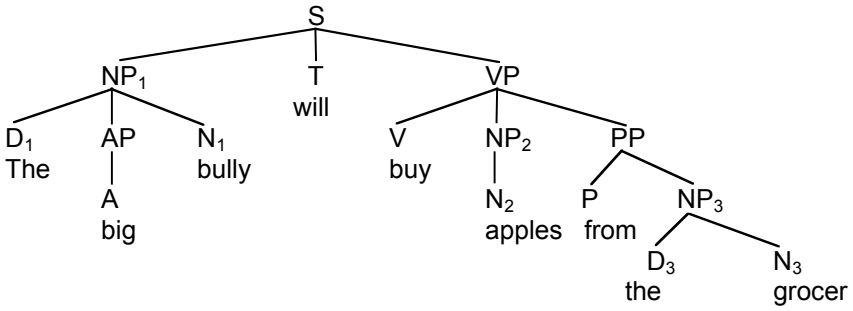
On the basis of this data answer the following questions:

1) Is there any evidence for an AP category in Irish?
2) Write the NP rule for Irish, be sure to mark optional things in parentheses.
3) Can you write a VP rule for Irish? Assume that object NPs (like *William* in (b) and *the big pig* in (d)) *must* be part of the VP, and that subject NPs (like *John* in (b) and *I* in (d)) are *never* part of VPs.
4) What is the S rule for Irish? (Be careful that your S rule is consistent with your answer in (3).)
5) Using the rules you developed, draw trees for sentences (c), (d) and (e).

CHAPTER 3

1. STRUCTURAL RELATIONS I[5]

Consider the following tree:



1) What node(s) dominate *grocer*?
2) What node(s) immediately dominate D_3 *the*?
3) Do *will* and *buy* form a constituent?
4) What nodes does N_1 *bully* c-command?
5) What nodes does NP_1 *the big bully* c-command?
6) What is V *buy*'s mother?
7) What nodes does *will* precede?
8) List all the sets of sisters in the tree.
9) What is the PP's mother?
10) Do NP_1 and VP asymmetrically or symmetrically c-command one another?
11) List all the nodes c-commanded by V.
12) What is the subject of the sentence?
13) What is the object of the sentence?
14) What is the object of the preposition?
15) Is NP_3 a constituent of VP?
16) What node(s) is NP_3 an immediate constituent of?
17) What node(s) does VP exhaustively dominate?
18) What is the root node?
19) List all the terminal nodes.
20) What immediately precedes N_3 *grocer*?

[5] The idea for this problem set is borrowed from Radford (1988).

2. TREES

Using the rules we developed in chapter 2, draw the trees for the following sentences:

a) The big man from New York loves bagels with cream cheese.
b) Susan rode a bright blue train from New York.
c) The plucky platypus kicked a can of soup from New York to Tucson.
d) John said Martha sang the aria with gusto.
e) Martha said John sang the aria from *La Bohème*.
f) The book of poems from the city of Angels with the bright red cover stinks.
g) Louis hinted Mary stole the purse deftly.
h) The extremely tired students hated syntactic trees with a passion.
i) Many soldiers have claimed bottled water quenches thirst best.
j) Networking helps you grow your business.

3. STRUCTURAL RELATIONS II

Look at your tree for sentence (a) of question 2.

1) List all the nodes that the subject NP c-commands.
2) List all the nodes that the subject NP asymmetrically c-commands.
3) List all the nodes that the subject NP dominates.
4) List all the nodes that the subject NP immediately dominates.
5) List all the nodes that the subject NP precedes.
6) List all the nodes that the VP node c-commands.
7) List all the nodes that the VP asymmetrically c-commands.
8) List all the nodes that the VP dominates.
9) List all the nodes that the VP immediately dominates.
10) List all the nodes that the VP precedes.
11) List all the nodes that the VP follows (i.e., is preceded by).

4. NEGATIVE POLARITY ITEMS

There is a class of phrase, such as [a red cent] and [a single thing], that are called Negative Polarity Items (NPI). These are only allowed in sentences with a negative word like *not*. So for example, in sentences (a) and (c) the NPI is fine, in the (b) and (d) sentences, however, the sentence is at best strange.

a) I didn't have a red cent.
b) *I had a red cent. (ungrammatical with idiomatic reading)

c) I didn't read a single book the whole time I was in the library.
d) *I read a single book the whole time I was in the library.

It turns out that sentences with NPIs not only must have a word like *not*, they also have to be in a particular structural relationship with that *not* word. On the basis of the following sentences figure out what that relationship is. There are two possible answers consistent with this data.

e) I did not have a red cent.
f) *A red cent was not found in the box.

5. GRAMMATICAL RELATIONS[6]

For each of the following sentences, identify the subject, the object (if there is one), the indirect object (if there is one), any objects of prepositions, the verb, and any adverbs.

a) It never rains violently in southern California.
b) Soon we should give the family dog another bath.
c) The quiz show contestant bravely made a wild guess about the answer.

6. TZOTZIL

(Data from Aissen 1987)

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.

a) 'ispet lok'el 'antz ti t'ule.
carry away woman the rabbit
"The rabbit carried away (the) woman."

b) 'ibat xchi'uk smalal li Maruche.
go with her-husband the Maruch
"(the) Maruch went with her husband." (Maruch is a proper name.)

c) Pas ti 'eklixa'une.
built the church
"The church was built."

[6] Problem set contributed by Sheila Dooley Collberg.

1) What is the NP rule for Tzotzil?
2) What is the PP rule for Tzotzil?
3) What is the VP rule for Tzotzil?
4) What is the S rule for Tzotzil?
5) What is the subject of sentence (b)?
6) Is *[the church*] a subject or an object of sentence (c)?
7) Does the verb precede the subject in Tzotzil?
8) Does the object precede the subject in Tzotzil?
9) Does the verb precede the object in Tzotzil?
10) Using the rules you developed in (1)–(4) above, draw the trees for (b) and (c).

7. HIAKI

(Data from Dedrick and Casad 1999)

Consider the data from the following sentences of Hiaki (also known as Yaqui), an Uto-Atzecan language from Arizona and Mexico. Data have been simplified.

a) Tékil né-u ’aáyu-k.
work me-for is
“There is work for me.” (literally: “Work is for me.”)

b) Hunáa’a yá’uraa hunáka’a hámutta nokriak.
that chief that woman defend
“That chief defended that woman.”

c) Taáwe tótoi’asó’olam káamomólim híba-tu’ure.
Hawk chickens young like
“(The) hawk likes young chickens.”

d) Tá’abwikasu ’áma yépsak.
different-person there arrived
“A different person arrived there.”
(assume *there* is an adverb)

1) What is the NP rule for Hiaki?
2) Do you need a PP rule for Hiaki? Why or why not?
3) What is the VP rule for Hiaki?
4) What is the S rule for Hiaki?
5) Using the rules you developed in questions 1–4, draw the tree for sentences (b, c, d).
6) What is the subject of sentence (b)?

7) Is there an object in (d)? If so, what is it?
8) What node(s) does *hunáa'a* c-command in (b)?
9) What node(s) does *hunáa'a yá'uraa* c-command in (b)?
10) What does *'áma* precede in (d)?
11) What node immediately dominates *káamomólim* in (c)?
12) What nodes dominate *káamomólim* in (c)?
13) What node immediately precedes *káamomólim* in (c)?
14) What nodes precede *káamomólim* in (c)?
15) Does *káamomólim* c-command *táawe* in (c)?
16) Do *hunáka'a* and *hámutta* symmetrically c-command one another in (b)?

CHAPTER 4

1. BINDING PRINCIPLES

Explain why the following sentences are ungrammatical:

a) *Michael$_i$ loves him$_i$.
b) *He$_i$ loves Michael$_i$.
c) *Michael$_i$'s father$_j$ loves himself$_i$.
d) *Michael$_i$'s father$_j$ loves him$_j$.
e) *Susan$_i$ thinks that John should marry herself$_i$.
f) *John thinks that Susan$_i$ should kiss her$_i$.

2. JAPANESE

(Data from Aikawa 1994)

Japanese has a number of items that can be called pronouns or anaphors. One of these is *zibunzisin*. For the purposes of this assignment assume that any noun that has the suffix *-wa* c-commands any other NP, and assume that any noun that has the suffix *-ga* c-commands any NP with the suffix *-o*. Consider the following data:

a) Johnwa$_i$ [$_{S'}$ [$_S$ Maryga$_k$ zibunzisino$_{k/*i}$ hihansita] [$_C$ to]] itta.
John Mary zibunzisin criticized that said
"John said that Mary$_k$ criticized herself$_k$."
"*John$_i$ said that Mary criticized himself$_i$."

Question 1: On the basis of only the data in (a) is *zibunzisin* an anaphor or a pronoun? How can you tell?

Now consider this sentence:

b) Johnwa$_i$ [$_{S'}$ [$_S$ zibunzisinga$_i$ Maryo korosita] [$_C$ to]] omotteiru.
John zibunzisin Mary killed that think
"John thinks that himself killed Mary."
(*note:* grammatical in Japanese.)

Question 2. Given this additional evidence, do you need to revise your hypothesis from question 1? Is *zibunzisin* an anaphor, a pronoun or something else entirely? How can you tell?

One more piece of data:

c) *Johnwa$_i$ [$_{S'}$[$_S$ zibunzisinga$_k$ Maryo$_k$ korosita] [$_C$ to]] omotteiru.
John zibunzisin Mary killed that think
"*John thinks that herself$_k$ killed Mary$_k$."

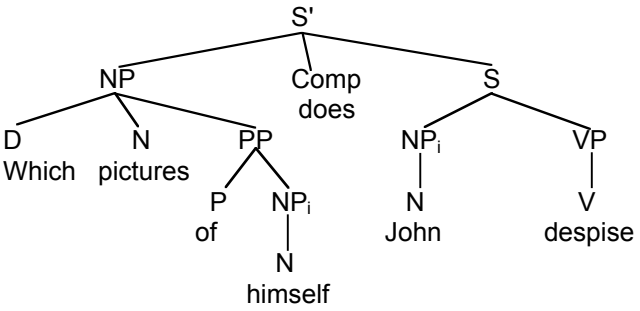
Question 3. Sentence (c) is a violation of which binding principle? (A, B, or C?) Which noun is binding which other noun in this sentence to cause the ungrammaticality?

3. WH-QUESTIONS

What problem(s) does the following sentence make for the binding theory? Can you think of a solution? (Hint: consider the non-question form of this sentence *John despises these pictures of himself*.)

Which pictures of himself$_i$ does John$_i$ despise?

Assume the following tree for this sentence:



4. COUNTEREXAMPLES?[7]

Each of the following examples is problematic for the binding theory we formulated above. Briefly explain why. For data from languages other than English, your answer should be based on the facts of the target language, and not the English translations. Use the word-by-word glosses to determine whether the Dogrib and Modern Greek NPs should be analyzed as anaphors, pronouns or R-expressions. Your discussion of Dogrib should be based on consideration of both sentences.

a) I have no money on me.

b) John knew that there would be a picture of himself hanging in the post office.

c) *Modern Greek*
O Yanis$_i$ ipe stin Katerina oti i Maria aghapa ton idhio$_i$.
John said to Catherin that Mary loves himself
"John$_i$ told Catherine that Mary loves him$_{i/*k}$."

d) *Dogrib*
(i) John ye-hk'è ha
John 3SG(=him)-shoot future
"John$_i$ is going to shoot him$_{k/*i}$."

(ii) *ye-zha shèeti
3SG(=his)-son ate
"His son ate."

5. PERSIAN[8]

Does the binding theory account for the following data? Explain. (*Râ* means "the" when following object NPs. 3SG means "third person singular".)

a) Jân$_i$ goft [$_{S'}$ ke [$_S$ Mery$_k$ ketâb-â ro be xodesh$_{i/k}$ bargardune]].
John said that Mary book-PL râ to himself/herself return
"John said that Mary (should) return the books to him/herself."

[7] This problem set was contributed by Betsy Ritter. The Dogrib data come from Saxon (1984).
[8] This problem set was contributed by Simin Karimi.

b) Jân$_i$ goft [$_{S'}$ ke [$_s$ Mery$_j$ ketâb-â ro be xodesh$_{i/j}$ barmigardune]].
John said that Mary book-PL râ to himself/herself return3SG.FUT
"John said that Mary will return the books to him/herself."

Now consider (c) and (d): in these examples, *xod* 'self', instead of *xodesh* 'himself', is used. How do you explain the contrast between (a and b) and (c and d)? Note that (a and b) are taken from the spoken language, whereas (c and d) represent the formal written variant.

c) Jân$_i$ goft [ke [$_S$ Mery$_k$ ketâb râ barâye xod$_{*i/k}$ bexânad]].
John said that Mary book râ for self read3SG
"John said that Mary (should) read the book to *himself/herself."

d) Jân$_i$ goft [ke [$_S$ Mery$_k$ ketâb râ barâye xod$_{*i/k}$ negahdârad]].
John said that Mary book râ for self keep3SG
"John said that Mary (should) keep the books for *himself/herself."

6. C-COMMAND OR PRECEDENCE?

In the text above, we proposed that binding required both c-command and coindexation. Consider an alternative: binding requires that the antecedent precedes (rather than c-commands) and is coindexed with the anaphor or pronoun. Which of these alternatives is right? How can you tell? You might consider data such as the following:

a) [$_{S'}$ [$_{S'}$Although he$_i$ loves marshmallows] [$_S$ Art$_i$ is not a big fan of Smores]].
b) [$_S$ [$_{NP}$ His$_i$ yearbook picture] gives Tom$_i$ the creeps].

CHAPTER 5

1. TREES

Draw the X-bar theoretic trees for the following sentences:

a) Abelard wrote a poem about Héloïse.
b) Abelard wrote a poem with Héloïse in mind.
c) Abelard wrote a poem with Héloïse's pen.
d) The red volume of obscene verse from Italy shocked the puritan soul of the minister with the beard quite thoroughly yesterday.
e) The biggest man in the room said that John danced an Irish jig from County Kerry to County Tipperary all night long.

2. GERMAN NOUN PHRASES

Consider sentence (a) from German:[9]

a) Die schlanke Frau aus Frankreich isst Kuchen mit Sahne.
the thin woman from France eats cake with cream
"The thin woman from France eats cake with cream."

The following sentences are grammatical if they refer to the same woman described in (a):

b) Die Schlanke aus Frankriech isst Kuchen mit Sahne.
"The thin one from France eats cake with cream."

c) Die aus Frankriech isst Kuchen mit Sahne.
"The one from France eats cake with cream."

d) Die Schlanke isst Kuchen mit Sahne.
"The thin one eats cake with cream."

e) Die isst Kuchen mit Sahne.
"She eats cake with cream."

Now consider sentences (f–i):

f) Die junge Koenigin von England liebte die Prinzessin.
The young queen of England loved the princess
"The young queen of England loved the princess."

g) Die junge liebte die Prinzessin.
"The young one loved the princess."

h) Die liebte die Prinzessin.
"She loved the princess."

i) *Die von England liebte die Prinzessin.
"the one of England loves the princess."

[9] Thanks to Simin Karimi for providing the data for this question.

Assume the following things:
i) *Der/Die* are always determiners, they are never nouns or pronouns
ii) *Schlanke, junge*, are always adjectives, even in sentences (f) and (d) – assume they never become nouns. (Ignore the rules of German capitalization.)

The questions:
1) Describe and explain the process seen in (a–e) and (f–i), be sure to make explicit reference to X-bar theory. What English phenomenon (discussed in this chapter) is this similar to? Make sure you analyze the *German* sentences not the English translations.

2) Draw the trees for sentences (a) and (f). Sentence (a) requires *two* different trees.

3) Explain the ungrammaticality of (i) in terms of X-bar theory. In particular explain the difference between it and sentence (c). Draw trees to explicate your answer.

3. JAPANESE

Consider the following data from Japanese:

a) Masa-ga kita.
"Masa came."

b) Toru-ga shinda.
"Toru died."

c) Kumiko-ga yonda.
"Kumiko read."

d) Kumiko-ga hon-o yonda.
"Kumiko read the book."

e) Toru-ga Kumiko-o mita.
"Toru saw Kumiko."

f) Kumiko-ga Toru-o mita.
"Kumiko saw Toru."

g) hon-ga akai desu.
"the book is red."

h) Toru-ga sensei desu.
"Toru is a teacher."

i) Masa-ga ookii desu.
"Masa is big."

j) Sono hon-ga ookii desu.
"that book is big."

k) Toru-ga sono akai hon-o mita.
"Toru saw that red book."

1) What is the function of the suffixes *-o* and *-ga*?
2) What is the word order of Japanese?
3) Does the complement precede or follow the head in Japanese?
4) Do adjuncts precede or follow the head in Japanese?
5) Do specifiers precede or follow the X' node in Japanese?
6) Draw the tree for sentence (k) using X-bar theory. Keep in mind your answers to questions (1–5).

4. PARAMETERS

Go back to the foreign language problems from the previous three chapters, and see if you can determine the parameter settings for these languages. You may not be able to determine all the settings for each language.

CHAPTER 6

1. ENGLISH *THAT*[10]

Discuss the status of the word *that* in each of the following two sentences. Explain the differences between the two sentences. If you assign a different category status to *that* in each sentence, explain why. Draw the tree (use X-bar theory) for each of the sentences.

a) Robert thinks that students should eat asparagus.
b) Robert thinks that student should eat asparagus.

[10] Thanks to Eithne Guilfoyle for contributing this problem set.

2. SUBJECTS AND PREDICATE PHRASES

In each of the following clauses identify the subject and the predicate phrase. Some sentences contain multiple clauses, be sure to identify the subjects and predicate phrases of all clauses.

a) The peanut butter has got[11] moldy.
b) The duffer's swing blasted the golf ball across the green.
c) That Harry loves dancing is evidenced by his shiny tap shoes.
d) The Brazilians pumped the oil across the river.

3. CLAUSE TYPES

The following sentences are "complex" in that they contain more than one clause. For each sentence, identify each clause. Remember main clauses include embedded clauses. Identify the complementizer, the T, and the subject of the clause; be sure to identify even *null* (Ø) complementizers and Ts with suffixes in them. State whether each clause is a finite clause or a non-finite clause.

a) Stalin may think that Roosevelt is a fool.
b) Lenin believes the Tsar to be a power-hungry dictator.
c) Brezhnev had said for Andropov to leave.
d) Yeltsin saw Chernyenko holding the bag.

4. TREES

Draw the trees for the following sentences. Use X-bar theory, show all CPs, DPs, and TPs.

a) The very young child walked from school to the store.
b) Linguistics students like phonetics tutorials.
c) John paid a dollar for a head of lettuce.
d) Teenagers drive rather quickly.
e) Martha said that Bill loved his Cheerios in the morning.
f) Eloise wants you to study a new language. [assume *to* = T]
g) For Maurice to quarrel with Joel frightened Maggie.
h) John's drum will always bother me.

[11] You may prefer *gotten* to *got* here. The choice is dialect-dependent.

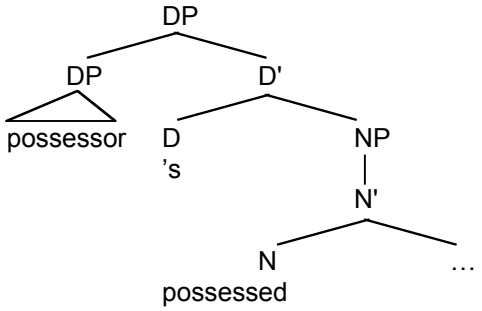
5. TREES II

1) Go back to chapter 2, problem set 4, and draw the trees using X-bar theory.
2) Go back to chapter 3, problem set 2, and draw the trees using X-bar theory.

6. HUNGARIAN

(Data from Szabolcsi 1994)

In the text above, we argued that the structure of genitive constructions in English looks like:



Consider the follow data from Hungarian. Does the possessor DP appear in the same place as the English ones?

a) az en kalapom
the I hat
"my hat"

b) a te kalapod
the you hat
"your hat"

c) a Mari kalapja
the Mary hat
"Mary's hat"

Hungarian has another possessive construction, seen in (d).

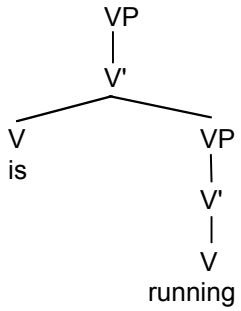
d) Marinak a kalapja
Mary the hat

"Mary's hat"

Where is the possessor DP in (d)?

7. ENGLISH MODALS AND AUXILIARIES

In traditional grammar, two different kinds of T are distinguished: modals and auxiliaries. Modals include words like *can, must, should, would, could, may*, and in some dialects *shall* and *will*. Auxiliary verbs, by contrast, include such words as *have* (and all its allomorphs such as *has* and *had*), and *be* (and all of its allomorphs: *is, are, been, was, were*, etc.) In this book, we've been treating modals and auxiliaries as both being members of the category T. Many linguists, believe that in fact, only modals are really of category T, and that auxiliaries are real verbs. They claim that an auxiliary and verb combination such as "is running" is actually a stacked set of VPs:



Construct an argument in favor of the idea that modals are of category T, but auxiliaries are really verbs. Assume the following: You may have as many V categories as you like, but there is only one T in any tensed clause's tree.

CHAPTER 7

1. SINHALA[12]

(Data from Gair 1970)

Two forms of the Sinhala verb appear in the data below and are identified in the glosses as A or B.

1) Provide a complete θ-grid (theta grid) for each of the verbs in the following data. Be sure to primarily look at the second line of each piece of data, not the English translation.
2) Indicate what theta role is assigned to what NP.
3) Discuss briefly (no more than 2 sentences) what kind of NP the suffix -ʈə attaches to.
4) What is the difference between *mamə* and *maʈə*? (Hint: the answer to this question is related to the answer to question (3)).
5) In terms of θ roles, what is the difference between the A and the B verb forms?

a) Mamə kawi kiənəwa.
I poetry tell-A
"I recite poetry."

b) Maʈə kawi kiəwenəwa.
I poetry tell-B
"I started reciting poetry (despite myself)."

c) Lamea kataawə ahanəwa.
child story hear-A
"The child listens to the story."

d) Lameaʈə kataawə æhenəwa.
child story hear-B
"The child hears the story."

e) Mamə naʈənəwa.
I dance-A
"I dance."

[12] This problem is loosely based on one given to me by Barb Brunson. However, the data and questions have been altered. The data in this version of the problem set is taken directly from Gair, with some minor modifications to the glosses.

f) Maʈə næʈəenəwa.
I dance-B
"I dance (I can't help but do so)."

g) Hæmə irida m´ mam´ kol´mb´ yan´wa.
every Sunday emph I Columbo go-A
"Every Sunday I deliberately go to Colombo."

h) Hæm´ irida m´ maˇ´´ kol´mb´ yæwen´wa.
every Sunday emph I Columbo go-B
"Every Sunday I experience going to Colombo."

i) Malli nit´r´m´ an(Í´n´wa.
brother always cries-A
"Brother always cries."

j) Malliˇ´´ nit´r´m´ æn(Í´n´wa-.
brother always cries-B
"Brother always bursts out crying without control."

k) Mam´ unt´ banin´wa.
I them scold-A
"I deliberately scold them."

l) Maˇ´´ unt´ bænen´wa.
I them scold-B
"I experienced scolding them."

m) Apiˇ´´ pans´l´ peen´wa.
we temple see-B
"We saw the temple."

2. Irish and the Theta Criterion

What problems do each of the following sentences give for the theta criterion? (As a starting point, it may help to draw the theta grid for each verb and show what NP gets what role.) Please, not more than 3–4 sentences of discussion per example.

a) An fear a bhfaca mé é.
the man who saw I him
"The man who I saw."

b) Rinceamar.
Dance.1pl
"We danced."

c) Ba-mhaith liom an teach a thógail.
cond-good with-me the house its building
"I would like to build the house."

3. Warlpiri[13]

Consider the following data from Warlpiri:

a) Lungkarda ka ngulya-ngka nguna-mi.
bluetongue aux burrow-A lie-non.past
"The bluetongue skink is lying in the burrow."

b) Nantuwu ka karru-kurra parnka-mi.
horse aux creek-B run-non.past
"The horse is running to the creek."

c) Karli ka pirli-ngirli wanti-mi.
boomerang AUX stone-C fall-NON.PAST
"the boomerang is falling from the stone."

d) kurdu-ngku ka-jana pirli yurutu-wana yirra-rni.
child-D AUX stone road-E put.NON.PAST
"the child is putting stones along the road."

What is the meaning of *each* of the affixes (suffixes) glossed with -A, -B, -C, -D, and -E. Can you relate these suffixes to theta roles? Which ones?

4. OBJECT EXPLETIVES

In the text above, it was observed that theta-role-less expletives primarily appear in subject position. Consider the following sentence. Is it here an expletive?

I hate it that you're always late.

How could you tell?

5. PASSIVES

[13]The data for this problem set comes from Ken Hale via Barb Brunson.

Part 1: Write up the theta grids for the verbs in the following sentences. Pretend as if there are two verbs *give* ($give_1$ is seen in (d), $give_2$ in (e)).

a) John bit the apple.
b) Susan forgave Louis.
c) The jockey rides the horse.
d) Phillip gave the medal to the soldier.
e) Phillip gave the soldier the medal.

Part 2: English has a suffix *-en*, which when attached to verbs changes the structure of the sentence associated with them. This is called the ***passive*** morpheme. The following sentences are the passive equivalents of the sentences in part 1. The bracketed PPs starting with *by* are optional.

f) The apple was bitten (by John).
g) Louis was forgiven (by Susan).
h) The horse was ridden (by the jockey).
i) The medal was given to the soldier (by Phillip).
j) The soldier was given the medal (by Phillip).

Describe in your own words what the *-en* passive suffix does to the theta grids of verbs. Pay careful attention to the last two examples, and to the optionality of the *by*-phrases.

6. HIAKI *-WA*[14]

(Data from Escalante 1990 and Jelinek and Escalante forthcoming)

Part 1: Consider the function of the suffix *–wa* in Hiaki (also known as Yaqui), a language spoken in Southern Arizona and Mexico. Look carefully at the data below, and figure out what effect this suffix has on the theta grids of Hiaki verbs. What English phenomenon is this similar to?

(Notes: Sometimes when *-wa* attaches to a verb, the form of the root changes (usually /e/ becomes /i/). This is a morphophonological phenomenon that you don't need to worry about. ACC refers to accusative case, INST means instrument, and PERF means perfective aspect (aspect plays no role in the answer to this problem). There is no nominative suffix in Hiaki.)

a) Peo Huan-ta chochon-ak.
   Pete John-ACC punch-PERF
   "Pete punched John."

[14] Thanks to Heidi Harley for contributing this problem set.

a') Huan chochon-wa-k.
John punch-WA- PERF
“John was punched.”

b) ‘Ume uusi-m uka kuchu-ta kuchi’i-m-mea bwa’a-ka.
the children-PL the-ACC fish-ACC knife-PL-INST eat- PERF
“The children ate the fish with knives.”

b') ‘U kuchu kuchi’i-m-mea bwa’a-wa-k.
the fish knife-PL-INST eat-WA-PERF
“The fish was eaten with knives.”

c) Peo bwiika.
Pete sing
“Pete is singing.”

c') Bwiik-wa.
sing-WA
“Singing is happening.” or “There is singing going on.” or “Someone is singing.”

Part 2: Not all verbs allow *-wa*. Consider the following pairs of sentences that show verbs that don’t allow *-wa*. In terms of theta grids, what do these sentences have in common with each other that differentiates them from the ones that allow *-wa* (above in part 1).

a) 'U wikia chukte.
the rope come.loose
“The rope is coming loose.”

a') *Chukti-wa.
come.loose-WA
“Coming loose is happening.” or “There is coming loose going on.” or “Something is coming loose.”

b) ‘U kaaro nasonte.
the car damage
“The car is damaged.”

b') *Nasonti-wa.
damage-WA
“Damage is happening.” or “There is damage going on” or “Something is getting damaged.”

c) ‘U kari veete-k.
The house burn-PERF

"The house burned."

c') *Veeti-wa-k.
Burn-WA-PERF
"Burning happened." or "There was burning going on." or "Something is getting burned."

d) 'U vachi bwase'e.
The corn cook
"The corn is cooking."

d') *Bwase'i-wa.
cook-WA
"Cooking happened." or "There was cooking going on." or "Something is being cooked."

7. ANTIPASSIVES IN ENGLISH AND INUPIAQ

(Data from Seiler 1978)

In many languages there is an operation that changes the theta grid of certain verbs, this operation is called the ***antipassive***.

Part 1: Here is some data from Inupiaq, an Inuit language of Canada and Alaska. Explain what adding the antipassive morpheme does to the theta grid of the verb. Verbs in Inupiaq agree with both their subjects and their objects. 3-3 means that the verb agrees with both a 3rd person subject and a 3rd person object. 3 means that the verb only agrees with a 3rd person subject.

Active

a)	Aŋuti-m	umiaq	qiñig-aa	tirrag-mi.
	man-ERG	boat-ABS	see-3SUBJ.3OBJ	beach-at
	"The man sees the boat at the beach."			

Antipassive

b)	Aŋun	(umiag-mik)	qiñiq-tuq	tirrag-mi.
	man-ABS	boat-INST	see-3	beach-at
	"The man sees (with a boat) at the beach."			

Part 2: The following is some data from English. This might also be called an antipassive construction. How is it similar or different from the Inupiaq antipassive?

c) I ate a basket of apples.
d) I ate.

CHAPTER 8

1. ENGLISH

Draw trees for the following English sentences, be sure to indicate all transformations with arrows. (Note the *-ed* suffix in (a) and (e) is *not* tense.)

a) I have always loved peanut butter.
b) I do not love peanut butter.
c) Martha often thinks John hates phonology.
d) Do you like peanut butter?
e) Have you always hated peanut butter?
f) Are you always so obtuse?

2. AMERICAN VS. BRITISH ENGLISH VERB *HAVE*

English has two verbs *to have*. One is an auxiliary seen in sentences like (a):

a) I *had* never seen this movie.

The other indicates possession:

b) I never *had* a book.

You will note from the position of the adverb *never* that the possessive verb *have* is a main verb, whereas the auxiliary *have* is of category T.

Part 1: Consider the following data from American English. How does it support the idea that auxiliary *have* is of category T, but possessive *have* is a main verb, and stays downstairs (i.e., has affix lowering apply)?

c) I have had a horrible day.
d) I have never had a pencil case like that!
e) Have you seen my backpack?
f) *Have you a pencil?

Part 2: Consider now the following sentence, which is grammatical in some varieties of British English:

g) Have you a pencil?

Does the possessive verb *have* in these dialects undergo V → T movement? How can you tell?

3. VERB RAISING[15]

Based on the following data, do German and Persian exhibit V → T movement? Explain how you came to your answer.

German

a) Sprechen Sie Deutsch?
speak you German
"Do you speak German?"

b) Ist er nach Hause geganen?
is he to home gone
"Has he gone home?"

c) Er sitzt nicht auf diesem Tisch.
he sits not on this table
"He does not sit on this table."

d) Sie soll nicht auf diesem Tisch sitzen.
she must not on this table sit
"She must not sit on this table."

Persian

a) Rafti to madrese?
went you school
"Did you go to school?"

b) Bâyad un biyâd?
must he come
"Must he come?"

c) Man keyk na-poxtam.
I cake not-cooked
"I did not bake cakes."

d) Un na-xâhad âmad.

[15] Thanks to Simin Karimi for contributing this data.

he not-will come
"He will not come."

4. ITALIAN

(Data from Belletti 1994)

Consider the following data from Italian. Assume *non* is like French *ne-* and is irrelevant to the discussion. Concentrate instead on the positioning of the word *più*, 'anymore.'

a) Gianni non ha più parlato.
Gianni *non* has anymore spoken
"Gianni does not speak anymore."

b) Gianni non parla più.
Gianni *non* speaks anymore
"Gianni speaks no more."

On the basis of this very limited data, is Italian a verb raising language or an affix lowering language?

5. GERMANIC VERB SECOND

Background: Many of the languages of the Germanic language family exhibit what is known as ***verb second*** order (also known as V2). With V2, the main restriction on word order is that, in main clauses, the constituents may appear in essentially any order, as long as the verb is in the 2nd position in the sentence. This is seen in the following data from Dutch and German:

Dutch (Weerman 1989)
a) De man heeft een boek gezien gisteren.
the man has a book seen yesterday
"The man has seen a book yesterday."

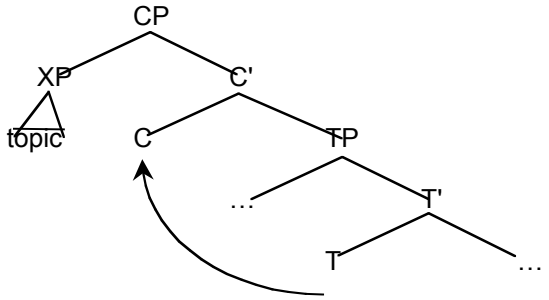
b) een boek heeft de man gezien gisteren.

c) gisteren heeft de man een boek gezien.

German (Vikner 1995)
d) Die Kinder haben diesen Film gesehen.
the children have this film seen
"The children have seen this film."

e) Diesen Film haben die Kinder gesehen.

One analysis of this phenomenon uses the specifier of CP as a "topic" position. The most topical constituent (the bit under discussion) is put in the specifier of CP (i.e., is moved there – we'll discuss this kind of movement in chapter 11). Whatever is in T then moves to the C head by T → C movement:



This puts T in second position.

Part 1: Now consider the following data from embedded clauses in German and Dutch.

Dutch

g) Ik geloof [dat de man een boek heeft gezien].
I believe that the man a book has seen
"I believe that the man has seen a book."

h) *Ik geloof [dat de man heeft een boek gezien].

German

i) Er sagt [daß die Kinder diesen Film gesehen haben].
He said that the children this film saw have
"He said that the children saw this film."

j) *Er sagt [daß die Kinder haben diesen Film gesehen].

How does this data support the T →C analysis of V2? (Having trouble? Think about embedded *yes/no* questions in English).

Part 2. Consider now the following sentence of German and compare it to the embedded clauses in part 1 above.

k) Gestern sahen die Kinder den Film.
Yesterday saw the children the film
"The children saw the film yesterday."

Given what you now know about V2 and T → C movement in these languages, is German a V → T raising language or an affix lowering language?

Bonus: Is the data in part 1 above consistent with your answer? If not how might you make it consistent?

6. HEBREW CONSTRUCT STATE (N → D)

(Based on the analysis of Ritter 1988, data from Borer 1999)

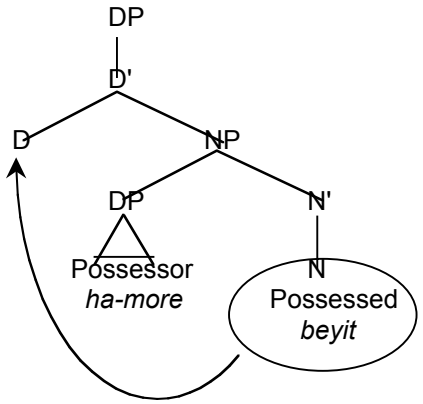
Background: In the text above we considered two variations on head movement: V → T, and T → C. In an influential article in 1988, Ritter proposed that head movement might also apply inside NPs. More particularly she proposed that in many Semitic languages there is a rule of N → D movement. This applies in a possessive construction called the construct state.

a) beit ha-more
house the-teacher
"the teacher's house"

In the construct state, the noun takes on a special form (the construct):

b) *Free form* bayit 'house'
Construct beit 'house'

Ritter proposes that the construct arises when the noun moves into the determiner. The construct morphology indicates that this noun is attached to the determiner. A tree for sentence (a) is given below. The possessor noun sits in the specifier of the NP, the possessed N head undergoes head movement to D, where it takes on the construct morphology:



This results in the surface NP *[beyit ha-more]*.

Part 1: Consider now the following evidence, how does this support Ritter's N→D analysis?

c) *ha-beit ha-more
the house the teacher
"the house of the teacher"

Part 2: Now look at the positioning of adjectives. How does this support Ritter's analysis? Note in particular what noun the adjective modifies. (If you are having trouble with this question, trying drawing the tree of what the whole DP would look like before N → D movement applied.) M stands for "masculine", and F stands for feminine:

d) more kita xadaS
teacher-M class-F new-M
"a new teacher of a class" or "a class's new teacher"
but:
"*a teacher of a new class" or "*a new class's teacher"

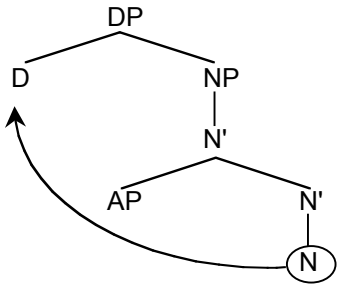
7. ENGLISH[16]

Consider the italicized noun phrases in the following sentences:

a) I ate *something spicy*.
b) *Someone tall* was looking for you.
c) I don't like *anyone smart.*
d) I will read *anything interesting*.

[16] Thanks to Jila Ghomeshi for contributing this problem set.

One analysis that has been proposed for noun phrases like the ones above involves generating elements like *some* and *any* as determiners, and generating elements *one* and *thing* as nouns (under N), and then doing head-to-head movement of the Ns up to D. The tree below illustrates this analysis.



Give an argument in favor of this analysis, based on the order of elements within the noun phrase in general, and the order of elements in the noun phrases above.

8. ENGLISH PROPER NAMES AND PRONOUNS

Consider the following data from English:

a) Lucy
b) *The Lucy
c) *Smiths
d) The Smiths
e) Him
f) *The him
g) We linguists love a good debate over grammar.

Part 1: One possible analysis of proper names in English is that they involve head movement from an N position into a D position. How does the data in (a–d) above support this idea?

Part 2: Consider now the pronouns in (e–g). What category are they? N or D? Is there any evidence for movement?

9. ITALIAN N→D[17]

(You may want to do question 8 before attempting this problem.)

In English, proper names cannot co-occur with determiners (e.g. **the John*). However, in Italian proper names of human beings *can* occur with determiners as the following example shows. (The presence or absence of the determiner seems to be free or perhaps stylistically governed.)

a) i) Gianni mi ha telefonato.
Gianni me has telephoned
"Gianni called me up."

ii) Il Gianni mi ha telefonato.
the Gianni me has telephoned
"Gianni called me up."

Now, it has been argued that in the cases where the determiner does *not* occur, the proper name has moved from N to D. Provide an argument to support this view, based on the following examples. (Note: for the purposes of this question treat possessive pronouns such as *my* as adjectives.)

b) i) Il mio Gianni ha finalmente telefonato.
the my Gianni has finally telephoned

ii) *Mio Gianni ha finalmente telefonato.
my Gianni has finally telephoned

iii) Gianni mio ha finalmente telefonato.
Gianni my has finally telephoned

c) i) E'venuto il vecchio Cameresi.
came the older Cameresi

ii) *E'venuto vecchio Cameresi.
came older Cameresi

iii) E'venuto Cameresi vecchio.
came Cameresi older

d) i) L' antica Roma
the ancient Rome
"Ancient Rome"

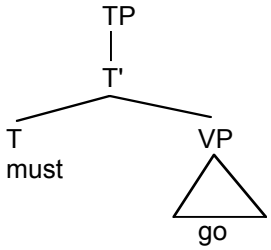
[17] Jila Ghomeshi contributed this problem set based on data from Longobardi (1994).

ii)	*Antica	Roma
	ancient	Rome
iii)	Roma	antica
	Rome	ancient

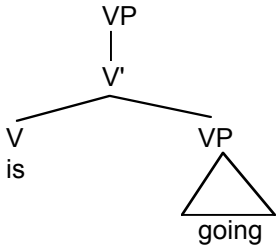
10. ENGLISH MODALS (REPRISE)

(In order to do this question, you should probably do problem set 7 (English modals and auxiliaries) in chapter 6 first.)

In problem set 7, chapter 6, you were asked to construct an argument that modal verbs, such as *can, may, must, should, would, could,* etc. are of category T, and auxiliary verbs, like *have* and *be*, are really verbs. Assume this to be the case; that is, assume modals have a structure like:



whereas auxiliaries have a structure like:



With this assumption in mind, your task is to determine whether English auxiliaries undergo verb movement, or have affix lowering of T to them. Use the diagnostics for verb movement discussed in this chapter. Explain your answer. Draw the trees for the following two sentences:

a) Robert must be running.
b) Robert is running.

If you claimed that English auxiliaries undergo verb raising, explain how this is possible when English main verbs do not. If you claimed that English auxiliaries have affix lowering, explain the word order of *yes/no* questions with auxiliaries.

CHAPTER 9

1. ENGLISH

Draw the D-structure trees for the following sentences. Be explicit about what transformations derived the S-structure tree (if any). Recall that we have the following transformations: Expletive insertion, NP/DP movement (both raising and passive), affix lowering, verb movement, T $\rightarrow$ C movement, and *do*-support/insertion. Annotate the D-structure tree with arrows to show the derivation of the S-structure.

a) Marie is likely to leave the store.
b) The money was hidden in the drawer.
c) Donny is likely to have been kissed by the puppy.
d) It seems that Sonny loves Cher.
e) Has the rice been eaten?

2. ENGLISH UNGRAMMATICAL SENTENCES

Explain why the following sentences are ungrammatical. Some sentences may have more than one problem with them.

a) *It seems Sonny to love Cher.
b) *Bill was bitten the dog.
c) *Donny is likely that left.

3. PERSIAN ACCUSATIVE CASE[18]

In the text above, we claimed that some verbs have an accusative feature [ACC] that must get checked by a complement NP/DP. In English, we only see the realization of this feature on pronouns. This question focuses on the [ACC] feature in Persian.

[18] Thanks to Jila Ghomeshi for contributing this problem set.

Background: Persian is an SOV language. There is no Case distinction among Persian pronouns. For example, the pronoun *man* 'I, me' doesn't change whether it is a subject, object of a preposition or possessor (see (a) below). (iii) shows that possessors are linked to head nouns with a vowel glossed as EZ (for ***Ezâfe***).

a) i) *Man* ruznâme xarid-am.
I newspaper bought-1SG
"I bought a newspaper."

ii) Simâ az *man* ruznâme xâst.
Sima from me newspaper wanted.3SG
"Sima wanted a newspaper from me."

iii) Ruznâme-ye *man* injâ-st.
newspaper-EZ me here-is
"My newspaper is here."

Hypothesis: It looks like the clitic *-râ* (which is realized as *-o* or *-ro,* depending on whether the preceding word ends in a vowel or not) is the realization of the [ACC] feature based on examples like the following:

b) i) Man jiân-o didam.
I Jian-RÂ saw.1SG
"I saw Jian."

ii) * Man jiân did-am.
I Jian saw-1SG

c) i) Jiân man-o did.
Jian I-RÂ saw.3SG
"Jian saw me."

ii) *Jiân man did.
Jian I saw.3SG

d) i) Jiân in ketâb-o xarid.
Jian this book+RÂ bought.3SG
"Jian bought this book."

ii) *Jiân in ketâb xarid.
Jian this book bought.3SG

One possible analysis is that Persian verbs have an [ACC] feature that gets checked by *-râ*. That is, *-râ* contributes the [ACC] feature to the NP/DP that can be used to check the feature of the verb.

The problem: Not all direct objects show up with *-râ*. Yet we don't want to say that the ones without *-râ* don't check the [ACC] feature of the verb.

e) i) Jiân ye ketâb xund.
Jian a book read.3SG
"Jian read a book."

ii) Jiân ketâb-o xund.
Jian book-RÂ read/3SG
"Jian read the book."

f) i) Man se-tâ qalam xarid-am.
I three pen bought-1SG
"I bought three pens."

ii) Man se-tâ qalam-o xarid-am.
I three pen+RÂ bought-1SG
"I bought the three pens."

g) i) Jiân pirhan xarid.
Jian shirt bought.3SG
"Jian bought a shirt."

ii) Jiân pirhan-o xarid.
Jian shirt+RÂ bought.3SG
"Jian bought the shirt."

Suggest a solution to this problem.

4. ARIZONA TEWA

(Data from Kroskrity 1985)

The following data is from Arizona Tewa:

a) hẹ'i sen né'i 'enú mánk^{hw}ẹ́di.
that man this boy 3.3.hit
"That man hit this boy."

b) né'i 'enú hẹ'i sen-di mánk^{hw}ẹ́di.

This boy that man-DAT 3.PASS.hit
"This boy was hit by that man."

c) na:bí kwiyó hẹ'i p'o mánsunt'ó.
my woman that water 3.3.drink
"My wife will drink that water."

d) hẹ'i p'o nasunt'íi.
that water 3.PASS.drunk
"That water was drunk."

1) Determine the X-bar parameter settings for Tewa.
2) Draw trees for (a) and (c). Assume Tewa is an affix lowering language.
3) Describe in your own words the differences between (a) and (b) and between (c) and (d) in terms of theta roles and Case.
4) Draw the trees of (b) and (d) showing all the movements.

5. MIDDLES, ACTIVES, CAUSATIVES, AND PASSIVES

Middles are English constructions that are little bit like passives. An example of an active/middle pair is seen below:

a) I cut the soft bread.
b) The soft bread cuts easily.

In (b), the theme appears in the subject position. One analysis of this order has the theme undergoing NP/DP movement to subject position.
Consider now the following triplet of sentences. The first sentence is called a middle, the second an active, and the third a causative.

d) The boat sank. *middle*
e) The torpedo sank the boat. *active*
f) The captain sank the boat (with a torpedo). *causative*

Part 1: Describe the relationship between the active, middle, and causative in terms of their theta grids.

Part 2: Now consider the passives of sentences (d–f). Why should sentence (g) be ungrammatical, but (h) and (i) grammatical?

g) *Was sunk (by the boat).
(also * It was sunk by the boat, where *it* is an expletive)
h) The boat was sunk by the torpedo.
i) The boat was sunk by the captain (with a torpedo).

6. TWO KINDS OF RAISING

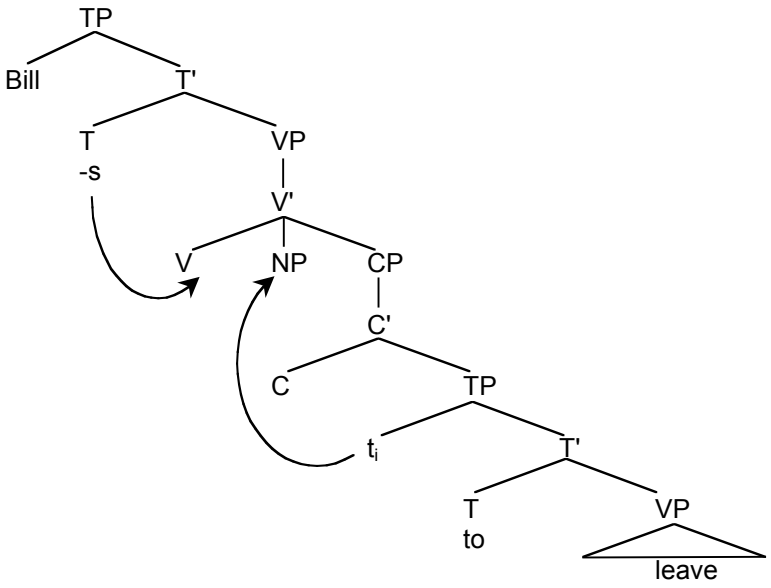
In the text, we proposed that subjects of non-finite clauses can raise to the subject position of finite clauses in sentences like (a):

a) $John_i$ seems [t_i to have left].

This kind of raising is sometimes called ***subject-to-subject raising***. Now consider the following sentence:

b) Bill wants John to leave.

This sentence should be ungrammatical, because *to* is a non-finite T, so can't assign Case to *John*. One hypothesis that has been proposed to account for this says there is also a process of ***subject-to-object raising***:



How does the following data support this analysis?

a) John wants Bill to leave.
b) John wants him to leave.
c) John believes him to have been at the game.
d) ?$John_i$ believes $himself_i$ to have been at the game.
e) *$John_i$ believes him_i to have been at the game.
f) He is believed (by John) to have been at the game.

7. HAITIAN CREOLE

(Data from Déprez 1992)

In the text, we suggested that NP/DP movement leaves what is called a trace (*t*) at the D-structure position of the NP/DP. In English, you can't hear this trace. Now consider the following data from Haitian Creole.

a) Sanble Jan pati.
seems John left
"It seems that John left."

b) Jan sanble li pati.
John seems he leave
"John seems he to have left."

c) *Jan sanble pati.

Questions:
1) How does this data support the idea that raising constructions involve movement from the lower clause to the higher clause, and the movement leaves a trace?
2) Is sentence (b) a violation of the theta criterion? How might we make sure that it isn't ?

9. TURKISH

(Data from Moore 1998)

In this chapter, we argued that the reason NP/DPs raise from embedded clauses to main clauses is that they cannot get Case in the embedded clause. Consider the following data from Turkish. What problems does this cause for our theory? Is there a simple way to explain why Turkish nouns raise?

a) Biz süt içiyoruz.
we milk drink
"We are drinking milk."

b) Biz_i sana [$_{CP}$ t_i süt içtik] gibi göründük.
We you-DAT milk drank like appear
"We appear to you [$_{CP}$ drunk milk]."

10. IMPERSONALS IN UKRAINIAN, KANNADA, AND IRISH

(The Ukrainian and Kannada data are taken from Goodall 1993. The Ukrainian data originally comes from Sobin 1985. The Kannada data is originally from Cole and Sridhar 1976.The Irish data is slightly modified from Stenson 1989.)

Many languages contain a construction similar to the passive called ***the impersonal passive***. Consider the following data from Ukrainian, Kannada, and Irish. Pay careful attention to the Case marking on the various nouns.

Ukrainian

a) Cerkvu bulo zbudovano v 1640 roc'i.
Church-ACC was built in 1640 year
"The Church was built in the year 1640."

Kannada

b) Rama-nannu kollalayitu.
Ramma-ACC kill.PASS
"Rama was killed."

Irish

c) Buaileadh iad sa gcluife deireanach.
beat.PAST.PASS them.ACC in the game last
"They were beaten in the last game."

What is the difference between these impersonal passive constructions and more traditional passives of English? Suggest a parameter that will account for the difference between languages like Ukrainian, Kannada, and Irish and languages like English. (Hint: the parameter will have to do with the way the passive morphology works.)

11. UNACCUSATIVES AND PASSIVES

(Data from Perlmutter and Postal 1984)

In a textbox above, we mentioned the existence of a class of verbs that are essentially inherently passive. These are called unaccusatives. A surprising property of unaccusative verbs is that they don't allow passivization.[19]

[19] Strictly speaking, the data in (a–d) do not involve passivization, since the NP that is moved comes from inside a PP. The technical term for these constructions is pseudo-passivization. The differences between pseudo-passivization and passivization are not relevant to this problem set.

a) The Shah slept in a bed.
b) The bed was slept in by the Shah.
c) Dust fell on the bed. *unaccusative*
d) *The bed was fallen on by the dust. *unaccusative*

Similar effects are seen in the following Dutch sentences. Sentence (e) is not unaccusative (we call these "unergatives"), while sentence (f) is. Both these sentences are impersonal passives. English doesn't have this construction, so they are difficult to translate into English.

e) In de zomer wordt er hier vaak gezwommen.
"In the summer, there is swimming here."

f) *In de zomer wordt er hier vaak verdronken.
"In the summer, there is drowning here."

Your task is to figure out why passives of unaccusatives (like c, d, and f) are not allowed. The following data might help you:

g) Bill was hit by the baseball.
h) *Was been hit by bill by the baseball. (passive of a passive)
i) Bill gave Sue the book.
j) Sue was given the book by Bill.
k) *The book was been given by Bill by Sue. (passive of a passive)

12. ICELANDIC QUIRKY CASE

(Data from Zaenen, Maling, and Thráinsson 1985)

In Icelandic, some verbs assign irregular case marking to particular arguments. For example, the verb *hjálpa*ð 'help' assigns dative case to its theme argument:

a) Ég hjálpaði honum.
I helped him-DAT
"I helped him."

This kind of irregular case marking is called ***quirky Case*** and it seems to be linked to the theta grid of the particular predicate. The dative case is obligatorily linked with whatever noun takes the theme role:

*hjálpa*ð ‘help’

agent	theme
i	k

Dative Case

Now consider the following data from Icelandic NP/DP movement constructions.

b) Honum$_k$ var hjálpað t_K.
   him-DAT was helped
   “He was helped.”

c) Ég tel honum$_k$ [t_k hafa verið hjálpað t_k i prófinu].
   I believe him-DAT have been helped in the-exam
   “I believe him [to have been helped in the exam].”

What problem does this cause for the theory of NP/DP movement we have proposed above? Can you think of a solution? (A number of possibilities exist, be creative.)

13. PASSIVES AND DOUBLE OBJECT CONSTRUCTIONS

(For more information on the phenomenon discussed in this problem set, see Larson 1988)

English has two constructions that surface with ditranstive verbs. One is called the prepositional construction, the other the double object construction:[20]

a) I sent a book to Louis. *prepositional*
b) I sent Louis a book. *double object*

It is possible to make passives out of these constructions. But some additional restrictions on how passives work are needed. Consider the following data and posit a restriction on NP/DP movement in passives to account for the ill-formedness of the ungrammatical sentences. Pay careful attention to sentence (g).

[20] There is a great deal of literature that tries to derive the double object construction from the prepositional construction using NP movement (see for example Larson 1988). The relationship between the two constructions is not relevant to the question in this problem set, but is an interesting puzzle in and of itself.

c) A book was sent to Louis.
d) *Louis was sent a book to.
e) *To Louis was sent a book.[21]
f) Louis was sent a book.
g) *A book was sent Louis.

CHAPTER 10

1. ENGLISH PREDICATES

(The idea for this problem set comes from a similar question in Soames and Perlmutter 1979)

Using your knowledge of theta theory and the tests of extraposition and idioms determine if these predicates are:

subject-to-subject raising,
subject-to-object raising,
subject control, or
object control.

Some predicates might fit into more than one category.

is eager	is believed	seems	is ready
persuaded	urged	requested	hoped
expect	force	tell	advise
ask	assure	imagine	promise
want	is likely	consent	imagine
encouraged	intended		

2. TREES AND DERIVATIONS

Draw trees for the following sentences, annotate your trees with arrows so that they show all the movements, and write in all PROs with appropriate coindexing indicating control. You may wish to do this problem set *after* you have completed the problem set 1.

a) Jean wants Bill to do the Macarena.

[21] This may be marginally acceptable in poetic or flowery speech. Assume for the purposes of this problem set that this is ungrammatical.

b) Robert is eager to do his homework.
c) Jean seems to be in a good mood.
d) Rosemary tried to get a new car.
e) Susan begged Bill to let her sing in the concert.
f) Susan begged to be allowed to sing in the concert.
g) Christina is ready to leave.
h) Fred was believed to have wanted to try to dance.
i) Susan consented to try to seem to have been kissed.

3. *IS EASY*

Consider the following sentences:

a) This book is easy to read.
b) John is easy to please.

Is *is easy* a raising or a control predicate or both? If it is a raising predicate, which argument is raised? If it is a control predicate, where is the PRO? What kind of PRO is it?

4. THE EXISTENCE OF PRO

How does the following sentence provide support for the existence of PRO in the subject position of the non-finite clause?

a) [To behave oneself in public] is expected.

Consider now the following sentence. Does it provide support for the existence of PRO? How?

b) Robert_i knew [$_{CP}$ that it was necessary [$_{CP}$ PRO_i to behave himself_i]].

5. ICELANDIC PRO AND QUIRKY CASE

(Data from Sigurðsson 1991)

Background. In order to do this question it will be helpful to have reviewed the discussion of floating quantifiers in chapter 9, and to have done the question on Icelandic quirky Case in chapter 9.

As discussed in chapter 9, in English, it is possible to "float" quantifiers (words like *all*) that modify subject arguments:

a) The boys don't all want to leave.

Icelandic also allows floating quantifiers, but with a twist. The quantifier takes endings indicating that it has the same Case as the NP it modifies. Recall from the last chapter that certain verbs in Icelandic assign irregular or "quirky" Cases to their subjects. The verb *leiddist* 'bored' is one of these. In sentence (b), the subject is marked with its quirky dative Case. The floating quantifier *öllum* 'all' is also marked with dative.

b) Strákunum leiddist öllum í skóla.
boys.DAT bored all.DAT in school
"The boys were all bored in school."

We might hypothesize then, that floated quantifiers must agree with the noun they modify in terms of Case.

The question. Now consider the following control sentence. What problems does the following sentence hold for our claim that PRO does not get Case? Can you relate your solution to the problem of Icelandic passives discussed in the problem sets of the previous chapter? Note that the noun in the main clause here is marked with nominative rather than dative Case.

c) Strákarnir vonast til að PRO leiðast ekki öllum í skóla.
boys.NOM hope for to bore not all.DAT in school
"The boys hope not to be bored in school."

6. CONTROLLERS

Williams (1980) claimed that obligatorily controlled PRO requires a c-commanding controller. What problem do the following sentences hold for that hypothesis?

a) To improve myself is a goal for next year.
b) To improve yourself would be a good idea.
c) To improve himself, Bruce should consider therapy.
d) To improve herself, Jane went to a health spa.

7. IRISH *pro*

Irish is a null subject language.

a) Rinceamar.
   Dance.3PL.PAST
   "We danced."

Consider the following sentences and discuss how Irish *pro*-drop differs from that found in Italian:

b) Tá mé.
   Am I
   "I am."

c) Táim.
   Am.1SG
   "I am."

d) *Táim mé.
   Am.1SG I
   "I am."

CHAPTER 11

1. ENGLISH TRANSFORMATIONS

For each of the following sentences, give the D-structure and annotate it with arrows indicating what transformations have applied. Be careful, since some of these sentences might have PRO in them.

a) How was the plot discovered by the authorities?
b) Which animals appear to have lost their collars?
c) Alan told me who wanted to seem to be invincible.

2. BOUNDING THEORY

Why is the following sentence ungrammatical?

*Who$_j$ did [$_{TP}$ George try to find out [$_{CP}$ what$_i$ [$_{TP}$ t$_j$ wanted t$_i$]]]?

Draw a tree showing the exact problem with this sentence.

3. PICTURE NPS

Why is the grammaticality of the following sentence surprising? Does the theory we have presented in this chapter predict this to be acceptable?

Who(m) did you see a picture of?

4. IRISH

(The idea behind this problem set is taken from McCloskey 1991)

Some dialects of English allow a kind of *wh*-construction, where the base position of the *wh*-word is filled a ***resumptive pronoun***:

This is the book$_i$ that the police are arresting everyone who reads it$_i$.

In Modern Irish, this kind of construction is very common. Modern Irish has two different *wh*-complementizers (notice that these are *not* *wh*-words, which go in the specifier of CP, these are complementizers): *a*^{L}, *a*^{N}. The complementizer *a*^{L} is found in sentences like (a). Sentence (i) shows a simple sentence without *wh*-movement using the non-*wh*-complementizer *go*. Sentences (ii) and (iii) show two possible forms of the question. (ii) has the question moved only to an intermediate CP specifier. (iii) has the *wh*-phrase moved to the topmost specifier.

a) i) Bíonn fios agat i gconaí [$_{CP}$ **go** bhuailfidh an píobaire an t-amhrán].
be.HAB know at.2.S always that play.FUT the piper the song
"You always know that the bagpiper will play the song."

ii) Bíonn fios agat i gconaí [$_{CP}$ caidé$_i$ **a**$^{\mathbf{L}}$ bhuailfidh an píobaire t$_i$].
be.HAB know at.2.S always what$_i$ COMP play.FUT the piper t$_i$
"You always know what the bagpiper will play."

iii) [$_{CP}$ Cáidé$_i$ [$_{IP}$ **a**$^{\mathbf{L}}$ bhíonn fios agat i gconaí [$_{CP}$ t$_i$ **a**$^{\mathbf{L}}$ bhuailfidh an píobaire t$_i$]]?
What COMP be.HAB know at.2.S always COMP play.FUT the piper
"What do you always know the piper will play?"

Now the distribution of the complementizer a^N seems to be linked to the presence of a resumptive pronoun. Consider the (ii) sentences in (b) and (c). Both show resumptive pronouns and the complementizer a^N:

b) i) Bíonn fios agat i gconaí [$_{CP}$ caidé$_i$ **a^L** bhuailfidh an píobaire t$_i$].
be.HAB know at.2.S always what$_i$ COMP play.FUT the piper t$_i$
"You always know what the bagpiper will play."

ii) [$_{CP}$Cén Píobaire$_j$ ***a^N*** [$_{TP}$ mbíonn fios agat i gconaí [$_{CP}$caidé$_i$ **a^L** bhuailfidh ***sé$_j$*** t$_i$]]]?
Which piper COMP be.HAB know at.2.S always what$_i$ COMP play.FUT he
"Which bagpiper do you always know what he will play?"

c) i) Tá máthair an fhir san otharlann.
Be.PRES mother the man.GEN in.the hospital
"The man's mother is in the hospital."

ii) Cé ***a^N*** bhfuil ***a$_i$*** mháthair san otharlann?
who COMP be.PRES his mother in.the hospital
"Who is (his) mother in the hospital?"

The a^N complementizer and the resumptive pronouns are boldfaced in the above examples. Where precisely does the a^N-resumptive strategy appear? In what syntactic environment do you get this construction?

5. BINDING THEORY

In chapter 4, you were asked why the sentence below causes a problem for the binding theory. Remind yourself of your answer, and then explain how the model of grammar we have proposed in this chapter accounts for this fact.

Which pictures of himself does John despise?

6. ENGLISH

Do derivations for each of the following sentences. They may involve head-to-head movement, *do*-insertion, expletive insertion, NP/DP movement and *wh*-movement.

a) Car sales have surprised the stockbrokers.
b) Have you seen my model airplane collection?
c) Can you find the lightbulb store?

d) John was bitten by an advertising executive.
e) It is likely that Tami will leave New York.
f) Tami is likely to leave New York.
g) It seems that Susy was mugged.
h) Susy seems to have been mugged.
i) What did you buy at the supermarket?
j) I asked what Beth bought at the supermarket.
k) What is likely for Beth to have bought at the supermarket?
l) What is likely to have been bought at the supermarket?

7. SERBO-CROATIAN[22]

(Data from Bošković 1997 as cited in Lasnik 1999a)

In this chapter, we have proposed that a *wh*-phrase appear in the specifier of CP, to check a [WH] feature. Our account of bounding theory requires that only one *wh*-phrase appear in the specifier of CP. Consider the following data from Serbo-Croatian (also known as Serbian or Croatian). Assume that Serbo-Croatian is SVO at D-structure.

a) Ko šta gdje kupuje?
   who what where buys
   "Who buys what where?"

b) *Ko kupuje šta gdje?
c) *Ko šta kupuje gdje?
d) *Ko gdje kupuje šta?

What problems does this data raise for our analysis? Can you see a way around these problems?

8. BINDING AND SCRAMBLING[23]

Modern Persian has a kind of movement often called ***scrambling***. Your task in this problem set is to figure out whether scrambling is NP movement, head-to-head movement or *wh*-movement. The Persian word *hamdiga* means 'each other' and is an anaphor. Assume that anaphors are subject to the binding theory of chapter 4, and that they must be in argument positions to be bound. Sentence (a) shows the basic order. Sentences (b) and (c)

[22] This problem set was contributed by Simin Karimi.
[23] This problem set was contributed by Simin Karimi.

show the surface word order after scrambling has applied. The scrambled sentences mean almost exactly the same thing as (a). HAB stands for "habitual"

a) Mo'allem-â$_k$ fekr mi-kon-an [$_{CP}$ ke [$_{T'}$ [$_{vP}$ bachche-hâ$_i$
teacher-PL thought HAB-do-3PL that child-PL

[$_{VP}$ aks - â -ye hamdiga$_{i/*k}$ - ro be modir neshun dâd-an]]].
picture-PL-EZ each other - RÂ to principal sign gave-3PL
"The teachers$_k$ think that the children$_i$ showed [each other's]$_{i/*k}$ pictures to the principal."

b) Mo'allem-â$_k$ [aks-â-ye hamdiga$_{i/*k}$-ro]$_m$ fekr mi-kon-an [$_{CP}$ ke [$_{T'}$ [$_{vP}$
[bachche-hâ$_i$] [$_{VP}$ t$_m$ be modir neshun dâd-an]]]].

c) [Aks-â-ye hamdiga$_{i/*k}$-ro]$_m$ mo'allem-â$_j$ fekr mi-kon-an
[$_{CP}$ ke [$_{T'}$ [$_{vP}$ bachche-hâ$_i$ [$_{VP}$ t$_m$ be modir neshun dâd-an]]]].

9. IRISH[24]

(The idea behind this problem set is taken from McCloskey 1979)

You may want to do problem 4 above before attempting this question.

Irish has a number of different complementizer forms. In declarative clauses (statements), it uses the complementizer *go/gur*. As discussed in the text above, when there is a question, this complementizer switches to the *wh* form *a*^{L}:

a) Ceapann tú go bhuailfidh an píobaire an t-amhrán
think you that play.FUT the piper the song
"You think that the piper will play the song."

b) Caidé a^L cheapann tú a^L bhuailfidh an píobaire?
What WH think you WH play.FUT the piper
"What do you think the piper will play?"

Note carefully the number of *a*^{L} complementizers in sentence (b). (b) provides evidence that *wh*-phrases stop off in intermediate specifiers of CP (for subjacency reasons). Explain why. You need to make the assumption that the complementizer *a*^{L} only shows up when a *wh*-phrase has at one point shown up in its specifier.

[24] This problem set was suggested by an anonymous Blackwell reviewer.

CHAPTER 12

1. ENGLISH

In this chapter we proposed that the subjacency condition could be subsumed under the Minimal Link Condition (MLC). What problem do complex NP islands cause for this idea?

2. PF MOVEMENT

In the text above, we proposed that some movement was covert. That is, it happened between S-structure and LF. This movement affects meaning, but it doesn't affect how the sentence is pronounced. Can you think of any kind of movement that might occur just on the PF branch of the model? That is, are there any phenomena that affect only how the sentence is pronounced, but not its meaning?

3. SERBO-CROATIAN VS. ENGLISH *WH*-QUESTIONS

This is the same data that was in problem set 7 of chapter 11.

a) Ko šta gdje kupuje?
   who what where buys
   "Who buys what where?"

b) *Ko kupuje šta gdje?

c) *Ko šta kupuje gdje?

d) *Ko gdje kupuje šta?

Compare these sentences to the English:

e) *Who what where buys?
f) Who buys what where?
g) *Who what buys where?
h) *Who where buys what?

Using the terms “covert” and “overt movement,” explain the difference in parameter setting between Serbo-Croatian and English.

CHAPTER 13

1. ENGLISH

Draw the annotated c-structures and f-structures for the following sentences:

a) Susie loves the rain.
b) Joan thinks that Norvin is likely to write a paper.
c) What have you read?

2. ICELANDIC (AGAIN)

Go back to the questions on quirky case in Icelandic in chapters 9 (question 12) and 10 (question 5) and review the data. These data caused problems for us with our case driven theory of movement and our theory of PRO. Do these same problems arise in LFG? Why or why not?

3. TRANSFORMATIONS OR NOT?

Construct the design for an experiment that would distinguish between a transformational approach, and a non-transformational approach like LFG.

4. *WANNA*-CONTRACTION

How might LFG account for *wanna*-contraction (see chapter 11) if it doesn’t have movement or traces?

CHAPTER 14

1. ENGLISH

Create an HPSG-style lexicon for the following words:

the, kitten, tore, toilet, paper.

And then draw a tree using the rules and lexical entries for the sentence:

The kitten tore the toilet paper.

You may abbreviate your SYN-SEM structures using tags.

2. SUBJECT/AUX INVERSION

How might HPSG go about doing subject/aux inversion? (Hint: consider a lexical rule.) Assume that auxiliary verbs select for other verbs in their ARG-ST features.

3. ISLAND CONSTRAINTS

In this chapter, we didn't talk at all about how HPSG might account for island constraints. Propose a constraint on the GAP principle that might account for them.