Syntax
Instructor’s Handbook
Syntax
A Generative Introduction

Instructor’s Handbook

Andrew Carnie
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Welcome

TO THE INSTRUCTOR

Thank you for adopting *Syntax* as the textbook for your class. I hope you and your students will find it useful.

The book is aimed at an introductory level of formal analysis. It is *not* an introduction to Minimalism, but presents a view that is Minimalist-informed. For example, I don’t approach phrase structure from the perspective of Bare Phrase Structure or Antisymmetry. Instead, the student starts with old-style Phrase Structure Rules, then is lead through X-bar theory, finally in chapter 12, there is a very brief discussion of Merge. I didn’t write the book in Minimalism mainly because I feel that MP, although a great theory, is a little too abstract at this time for beginning students.

The book is designed to take students through many of the fundamental concepts of syntax (constituency, phrase structure rules, X-bar theory syntax/lexicon interactions, binding, structural relations, various kinds of movement and conditions on movement). I certainly don’t claim to have covered everything. For example, there is almost no discussion of VP ellipsis, and no mention at all of Dative Movement, Tough-movement or ACD. I chose topics that I think are accessible to the beginner and form a coherent whole. However, you may well want to supplement the text with readings on the topics I don’t cover. You may also want to look carefully at the problem sets and gray textboxes for each chapter. If I wasn’t able to include discussion of a topic then there is frequently a problem set that takes it up.

The textbook is designed to be used over a typical 14-week semester, although, I have found that sometimes I want to spend more time on some of the earlier chapters. For example, I often spend two and a half weeks on chapter 5. I, and my colleagues, have used this textbook successfully a number of times in our one-semester undergraduate *Introduction*
to Syntax class. This class (which normally has around 50 students in it) has a prerequisite of a formal introduction to linguistics, which focuses on the core areas of phonology, syntax, morphology, phonetics, and semantics. Some people may prefer to break this textbook into two semesters’ worth of material, supplementing some areas I gloss over more quickly with additional reading. I have also given this textbook to first-year graduate students who came to our program with limited background in syntax. They have all found it a successful way to gear them up to the level of our core syntax classes. Other people have told me that they have used the book in introductory graduate classes, although this is not the primary audience for the book. I deliberately made the tone of the book “informal,” which may be less appropriate to graduate students.

The textbook is designed to be used in the order of presentation, where each chapter builds on the next. I understand that you may, of course, want to do the chapters in a different order, or skip chapters entirely (e.g. some people may prefer to skip the discussion of phrase structure rules and go directly to X-bar theory). In this manual, I’ve mentioned all the major ideas covered in each chapter, so that if you skip a chapter or do them out of order you’ll know what to cover extramurally.

The problem sets form an important part of the book. They often ask the student to challenge the presentation of the material in the textbook and think critically about the material. The problem sets come of a number of types. Some are simply technology practice to cement the knowledge they have learned (e.g., the tree drawing exercises), others ask the student to apply their new skills to foreign language problem sets, and still others ask the student to challenge the black and white presentation of the text.

Electronic copies of all the problem sets in Microsoft Word 98/2000 and PDF formats are available on the textbook homepage on Blackwell’s website: http://www.blackwellpublishers.co.uk/carnie You may need a password to access them. Instructions on how to obtain one are found on the web page. You may also need to download fonts to use the Word98/2000 versions. You are welcome to download these problem sets and modify them for your own use. However, please do not distribute problem sets without a citation to the book on every page, even if you significantly modify them, I, and my contributing problem set authors, have spent a long time composing these problem sets, and would like credit for them. On that same website you can download the power point presentation slides I use in my own classes. You are welcome to use these if you like, again with credit.

On a related note: in order to retain the usefulness of the problem sets in this text book for use in classes by other instructors, and for your future classes, please do not distribute this instructor’s handbook or these answer keys in any form (electronic, print, or otherwise) to your students. Please do not photocopy this handbook. If you need extra copies for teaching assistants, please contact Blackwell, and they will be happy to send you a desk copy. I thank you in advance for your assistance in this matter, it will ensure that future instructors will be able to use the problem sets in my textbook with confidence in the originality of their students’ answers.

Unsurprisingly, this text is going to reflect my own biases. While I tried to follow the “canon” of thought on particular matters where possible, on occasion, I quite deliberately strayed from the generally accepted path. When I did this, I did it for one of two reasons: (1) Pedagogical reasons (2) I really don’t believe the “standard view.” An example of the former (pedagogical reasons), is the fact that until an exercise in chapter 8, I generate all auxiliary verbs under T (not as V). I felt it was just easier for the students to put them in the right place when you don’t give them the option. An example of the latter (I don’t believe the canon), is I don’t distinguish adverbs from adjectives (calling them both A). This may well annoy you, the instructor, and for that I apologize in advance. I have thought very carefully about all the cases.
where I diverge from common practice, and have decided on reflection to leave them all in. Perhaps these areas will stimulate discussion in your classes.

This instructor’s manual is your personal guide to the major ideas, idiosyncrasies of presentation, and answer keys. Each chapter has a brief outline of the major topics covered in the corresponding textbook chapter, along with a discussion of anything unexpected or non-canonical. What follows are the definitions (also found in the textbook itself) used in the chapter, and answers to most problem sets.

Please feel free to send me – or, if you prefer to remain anonymous, Blackwell – any comments, corrections, or high praise you might have on the textbook. I’ll be saving those comments for revisions in future editions.

Andrew Carnie
Tucson
1. **Topics Covered in This Chapter**

This chapter covers some of the basic philosophical issues of syntactic theory. Items marked with an asterisk (*) have a mention below in Idiosyncrasies in this Chapter section below.

a) Syntax as a science
b) Syntax as a part of cognitive science
c) I-Language (Language) vs. E-Language*
d) The scientific method*
   
   The distribution of person, number agreement in anaphors is used as an example.
e) Modeling syntactic hypotheses using rules
f) Prescriptive vs. Descriptive rules
g) Sources of data: Intuitions, corpora
h) Distinguishing learning from acquisition
i) Innateness and arguments for it
j) Parameters as an explanation for language variation
k) choosing among theories: Levels of adequacy (descriptive, observational and explanatory)

2. **If You Skip This Chapter**

Some instructors have expressed to me the desire to do this chapter last instead of first. This is a matter of personal taste. If you leave it until last, then you will want to review number and agreement and the notion of anaphor before you do chapter 4, and will probably want to discuss evaluation metrics (levels of adequacy) before you do chapters 12–14. Parameter setting

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should be reviewed before chapter 5. The things that I would review in class before going on to chapter 2 include prescriptive vs. descriptive rules, and basic syntactic methodology and perhaps innateness.

3. **Idiosyncrasies in this Chapter**

1. My description of the scientific method will undoubtedly cause some people to raise their eyebrows. Of course scientific investigation does not necessarily begin with data. (In fact, some people claim that it never does). Often a hypothesis precedes any data gathering. However, from the perspective of the student, I think it is important to perceive the data as being the primary driving force behind linguistic science. So I made this simplification for pedagogic reasons.

2. I distinguish I-language from E-language, but use the terms *Language* (capital L) and *language* (lower case l). The definitions are not precisely identical to I-language and E-language. Language (upper case) is the capacity and ability to use a particular language (lower case).

### Problem Sets

1. **Intuitions**
   a) Prescriptive (*who* instead of *whom*)
   b) Prescriptive (*me* instead of *I*)
   c) Descriptive, syntactic (*red* can’t be a subject NP)
      (Some students say semantic for the same reason. I generally accept this answer too.)
   d) Descriptive, syntactic (*that*-trace effect)
   e) Prescriptive (*Hopefully* is supposed to mean “in a hopeful manner” not “I hope that…”)
   f) Prescriptive (split infinitive)
   g) Descriptive, syntactic (wrong word order)
   h) Descriptive, semantic (*a sister* must be a sibling)

2. **Innateness**

   It is really hard to come up with a good answer to this question, which is the point of the question. It is hard to come up with an argument against innateness, which suggests the hypothesis is likely correct! The best common answer I’ve seen suggests performing an unethical experiment where one exposes a child to a language that violates UG.
3. **Prescriptive Rules**

Common answers include: maintaining a standard across dialects for effective communication. Marking of social and educational status; so-called “clarity” in writing.

4. **Universals**

Common answers include: shared world view and perception of the way the world works; a common ancestor language.

5. **Learning vs. Acquisition**

Typical answers:

**Learned:** Reading, writing, mathematics, modern dance, the rules of basketball, driving.

**Acquired:** walking, facial recognition, sexuality, taste in food.

Other answers are, of course, possible.

6. **Levels of Adequacy**

a) descriptive  
b) observational  
c) explanatory

7. **Anaphora**

**Part 1:** The antecedent must precede the anaphor

**Part 2:** This is the trickiest question in the chapter. The antecedents here are quantifiers. *Everyone* allows any gender or number to appear on the anaphor. *Nobody*, although it is technically not plural (as shown by the verb agreement) requires a plural or masculine singular anaphor.

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1. **Topics Covered in this Chapter**

This chapter focuses on the basic notions of constituency (and constituency tests) and phrase structure rules. There is also an extensive discussion of parts of speech and how they are determined (on the basis of distribution, rather than semantically). The rules are roughly aspect-style phrase structure rules.

2. **If You Skip this Chapter**

It is possible to skip directly to chapter 5 at this point and do X-bar theory. However, if you do this, you will need to discuss parts of speech, as well as the mechanics of how rules are written, and trees are generated by rules. Average students often comment to me that they are glad they did this chapter before doing X-bar, although they express frustration at having to learn two notations.

You should be warned that the trees in chapters 3 and 4 use the phrase structure rules in this chapter, not the X-bar ones. So if you skip this chapter, you’ll need to explain that.

3. **Idiosyncrasies of this Chapter**

I don’t distinguish adjectives from adverbs, abbreviating both as A. I’ve had a number of good in-class debates on this issue.

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I don’t use AUX, instead auxiliaries are generated in T. I use the categories S and S' (TP and CP are introduced in chapter 6).

Be careful to note the final form of rules, some rules are revised throughout the chapter. I also draw my student’s attention to this fact.

I use + to indicate multiple possible occurrences of an item in a PSR instead of *, since many student confuse this * with the one meaning ungrammaticality. E.g.

\[ NP \rightarrow (D) (AP^+) N (PP^+) \]

means you can have (hypothetically) as many APs and NPs as you need.

I discuss the possibility that particles (blow up, etc.) are actually prepositions without an object.

Some people dislike my use of the term “modifies” in my golden rule for tree association, feel free to replace with “is closely semantically associated with.”

---

**Problem Sets**

1. **Part of Speech 1**

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

   \[ D \ A \ A \ N(or\ A) \ N \ T \ V \]

   b) The red-haired assistant put the vital documents through the new efficient shredder.

   \[ D \ A \ N \ V \ D \ A \ N \]

   \[ P D A A N \]

   c) The large evil leathery alligator complained to his aging keeper about his extremely unattractive description.

   \[ D \ A \ A \ A \ N \ V \ P \]

   \[ D \ A \ N \ P \ D \ A \]

   \[ A \ N \]

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d) I’ve just eaten the last piece of chocolate cake.

<table>
<thead>
<tr>
<th>Part of Speech</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>wabe N; after the</td>
<td>were T; closed class</td>
</tr>
<tr>
<td>outgrabe V; after did, out- prefix</td>
<td>Jubjub A; after the, before bird</td>
</tr>
<tr>
<td>frumious A; after the, -ious ending</td>
<td>bandersnatch N; after frumious</td>
</tr>
<tr>
<td>vorpal A; after his, before sword, possibly -al ending</td>
<td>manxone A; after the, before foe</td>
</tr>
<tr>
<td>tumtum A; after the, before tree</td>
<td>And Conj; closed class</td>
</tr>
<tr>
<td>thought N (!!!); after in</td>
<td>uffish A; after in, before thought, -ish ending</td>
</tr>
<tr>
<td>he This is tricky, I accept D, Pronoun, or Noun</td>
<td>Jabberwock N; after the, before PP</td>
</tr>
<tr>
<td>whiffling could be either a V (gerund) (after came, precedes PP) or an adverb (after verb came)</td>
<td>the D; closed class</td>
</tr>
<tr>
<td>the D; closed class</td>
<td>tulgey A; between the and wood, -y ending</td>
</tr>
<tr>
<td>burbled V; -ed ending</td>
<td></td>
</tr>
</tbody>
</table>

3. **Nootka**

1) N
2) V
3) V
4) N
5) First position in sentence is a verb, verbs take -ma ending
   second position in a sentence is a noun, nouns take -zi suffix.
6) The same word appears in different parts of speech in the same language.

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4. **English**

a) \[ S \left[ \text{NP} \left[ \text{D} \right] \right] \left[ \text{AP} \left[ \text{AP} \left[ \text{very} \right] \right] \left[ \text{very} \right] \right] \left[ \text{N} \right] \left[ \text{child} \right] \right] \left[ \text{VP} \left[ \text{V} \text{walked} \right] \right] \left[ \text{PP} \left[ \text{P} \text{from} \right] \left[ \text{NP} \left[ \text{N} \text{school} \right] \right] \right] \left[ \text{PP} \left[ \text{P} \text{to} \right] \left[ \text{NP} \left[ \text{D} \right] \left[ \text{N} \right] \text{store} \right] \right] \right] \] .

b) \[ S \left[ \text{NP} \left[ \text{N} \right] \left[ \text{V} \text{paid} \right] \right] \left[ \text{NP} \left[ \text{D} \right] \left[ \text{N} \right] \text{a} \right] \left[ \text{P} \text{for} \right] \left[ \text{NP} \left[ \text{D} \right] \left[ \text{N} \right] \text{a} \right] \left[ \text{P} \text{of} \right] \left[ \text{NP} \left[ \text{N} \right] \text{lettuce} \right] \right] \] .

c) \[ S \left[ \text{NP} \left[ \text{N} \right] \left[ \text{V} \text{drive} \right] \right] \left[ \text{AP} \left[ \text{AP} \left[ \text{rather} \right] \right] \left[ \text{quickly} \right] \right] \] .

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d) \[ S \{NP\{D\text{ magician}\}} \{T\text{ can fool}\} \{VP\{D\text{ the audience easily}\} \} \]

e) \[ S \{NP\{D\text{ the police}\}} \{T\text{ might}\} \{VP\{D\text{ the drugs in the apartment}\} \} \]

f) \[ S \{NP\{D\text{ those Olympic hopefuls}\}} \{T\text{ should practice}\} \{VP\{D\text{ diligently every day}\} \} \]

*The AP characterization of every day is of course suspicious. But it is the only one that fits the rules I’ve given. I allow a certain amount of flexibility on this point.*

f) \[ S \{NP\{D\text{ those Olympic hopefuls}\}} \{T\text{ should}\} \{VP\{D\text{ practice}\} \} \{AP\{A\text{ diligently}\} \{NP\{A\text{ every}\} \{A\text{ day}\}\}\} \]

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Please do not copy or distribute this answer key to your students.
ii) John said that Mary went quickly to the store.

b) i) I discovered a poem written in Old English.

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(Some students will also treat Old English as a compound and generate it under a single A node. This seems like a reasonable alternative to me.)

ii) I discovered an old poem written in Modern English (or written in England, or from England).

6. Structure

a) *It was a minivan to Petunia that Susan gave.  
*Susan gave it. (where ellipsis hasn’t occurred)

The following sentence will give bad results:
Susan gave the minivan to Petunia and the car to Phil.

b) The constituency here depends upon whether the letter is from Stacy, or whether Clyde merely got it from Stacy (but it was from Louise). So both answers are possible

7. Constituency Tests (Advanced)

This is a very difficult question. [Barbie and Ken kissing] is a small clause. Various tests will show this. But [Barbie and Ken] is displaced by movement.

8. English Prepositions

*He blew out the candle and up the building

But

He turned off and blew up the lightbulb.

9. Bambara

1) No
2) Yes
3) No evidence

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Chapter 2: Fundamentals

4) NP → N (or none)
5) PP → NP P
6) VP → (NP) V (PP)
7) S → NP (T) VP
8) a) S
   
   NP             VP
   |               |
   N              V
   A               kasi-ra

   c) S
   
   NP        T            VP
   |        |               | 
   N     ye              NP  V
   Den   NP  min
   N     ji

d) S
   
   NP             VP
   |               |
   N              V
   N               son-na
   NP  P
   N               ma
   a

9) b) [S[NP[wA][VP[vkaa-ra]]]].
   c) [S[NP[nDen][yεe][VP[NP[nji]][vmin]]]].

10. HIXKARYANA

1) Yes
2) No
3) NP → N (A) (D)
4) VP → (NP) V
5) S → VP NP
6) Verb, it precedes the subject NP

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7) a) S
   VP NP
   NP V N
   yonyohoryeno biyekomo
   kurah

   b) S
   VP NP
   NP V N
   yonoye kamara
   toto heno komo

8) a) [S[VP[NP[Kuraha][yonhyoryeno][NP[biyekomo]]]]]
   b) [S[VP[NP[Toto][heno][komo][yonoye][NP[kamara]]]]]

11. IRISH

1) No
2) NP \rightarrow (D) N (A) (must be consistent with the answer to (1))
3) No
4) S \rightarrow V NP (NP)
5) c) S
   V NP NP
   Phóg D N D N
   an fear an mhuc

d) S
   V NP NP
   Chonaic N D N A
   mé an mhuc mhór

e) S
   V NP
   Rince D N
   an bheán

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0. INTRODUCTION

This chapter is pretty straightforward. However, I would like to draw a couple of things to your attention.

1) There is no discussion of government (except in passing).
2) The definition of “mother” is limited to immediate domination.
3) The discussion of “indirect object” is very sketchy. If you care about this you might want to expand on the issue.

PROBLEM SETS

1. STRUCTURAL RELATIONS

1) N1, NP3, PP, VP, S
2) NP3
3) No
4) D1 AP, A,

1 The idea for this problem set is borrowed from Radford (1988).

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5) T, VP, V, NP₂, N₂, PP, P, NP₃, D₃, N₃
6) VP
7) VP, V, NP₂, N₂, PP, P, NP₃, D₃, N₃
8) \{NP₁, T, VP\}, \{D₁, AP, N₁\}, \{V, NP₂, PP\}, \{P, NP₃\}, \{D₃, N₃\}
9) VP
10) Symmetrically c-command
11) NP₂, N₂, PP, P, NP₃, D₃, N₃
12) NP₁
13) NP₂
14) NP₃
15) Yes
16) PP
17) V, NP₂, N₂, PP, P, NP₃, D₃, N₃
18) S
19) D₁, A, N₁, T, V, N₂, P, D₃, N₃
20) D₃

2. Trees

a)

```
S
  \-- NP₁
     \-- VP
        \-- D
           \-- AP₁
           \-- N₁
           \-- PP₁
           \-- V
           \-- NP₂
               \-- PP₂
               \-- N₂
               \-- bagels
               \-- P₂
               \-- NP₃*
                   \-- AP₂
                   \-- N₃
                   \-- cheese
                   \-- A₂
                   \-- cream
```

*Some students may treat New York as an N with an adjective modifier, and similarly some students may treat cream cheese as a compound.

*I haven’t done the trees for the following sentences. Sorry, you are on your own!

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.

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Chapter 3: Structural Relations

h) The extremely tired students hated syntactic trees with a passion.
9) Many soldiers have claimed bottled water quenches thirst best.
10) Networking helps you grow your business.

3. **STRUCTURAL RELATIONS**

1) VP, V, NP2, N3, PP2, P2, NP3, AP2, A2, N3
2) V, NP2, N2, PP2, P2, NP3, AP2, A2, N3
3) D, AP1, N1, PP1, P1, NP4, N4
4) D, AP1, N1, PP1
5) VP, V, NP2, N2, PP2, P2, NP3, AP2, A2, N3
6) NP1, D, AP1, N1, PP1, P1, NP4, N4
7) D, AP1, N1, PP1, P1, NP4, N4
8) V, NP2, N2, PP2, P2, NP3, AP2, A2, N3
9) V, NP2
10) None
11) NP1, D, AP1, N1, PP1, P1, NP4, N4

4. **NEGATIVE POLARITY ITEMS**

Both c-command and precedence are consistent with the data in this question.

5. **GRAMMATICAL RELATIONS**

a) Subject: It; object of preposition: southern California
b) Subject: we; indirect object: the family dog; object: another bath
c) Subject: The quiz show contestant; object: a wild guess about the answer; object of a preposition: the answer

6. **TZOTZIL**

1) NP \(\rightarrow\) (D) N
2) PP \(\rightarrow\) P NP
3) VP \(\rightarrow\) V (AP) (NP) (PP)
   (There is not enough evidence to determine the order of NP and PP.)
4) S \(\rightarrow\) VP NP
   (Some students may treat the subject as optional if they note that the church in (c) is semantically an object.)
5) li Maruche
6) A trick question, could be either depending upon how you treat passives also depending upon their trees in (10) below.

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7) Precede
8) Precede
9) Yes
10) b)

7. **Hiaki**

1) $NP \rightarrow (D) N (A)$
2) No, prepositions are morphologically marked.
3) $VP \rightarrow \{PP, A, NP\} V$
   (Don’t put any order on these complements because there isn’t any evidence for the order in the data.)
4) $S \rightarrow NP VP$
5) b)

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6) [uHuná'a yá'uraa]
7) Technically no, since the students are told to assume 'áma is an adverb and object is defined as an NP daughter of VP.
8) [u yá'uraa]
9) VP, NP₂, N₂, D₂, V
10) [v yépsak]
11) NP
12) NP₂, VP, S
13) N₁
14) NP₁, N₁, N₂
15) No
16) Yes
0. INTRODUCTION

This chapter presents a fairly straightforward presentation of binding theory. However, there is coverage of all three binding conditions. I oversimplify the description of what binding domain is. I stipulate that the binding domain is equivalent to the clause. So there is no discussion of accessible subject etc. Nor, since there is no government discussed in chapter 3, is there any discussion of “governing category.” These topics might serve as topics for further discussion.

PROBLEM SETS

1. BINDING PRINCIPLES

a) Condition B
b) Condition C
c) Condition A
d) Condition B
e) Condition A
f) Condition B

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2. **JAPANESE**

*Question 1*: It appears to be an anaphor in this data, it must be locally bound.

*Question 2*: It has the properties of both, since in (b) it can be bound by something outside the clause. (The solution, not asked for, is that *zibunzisin* must be bound by the first NP that precedes it.)

*Question 3*: Condition C (Mary bound by *zibunzisinga*).

3. **WH-QUESTIONS**

The anaphor in the wh-phrase isn't c-commanded by its antecedent in it's surface position. We return to this question in the chapter on wh-movement.

4. **COUNTEREXAMPLES?**

a) *Me* is c-commanded and coindexed with *I*, should be a principle B violation.

b) Should be a condition A violation, because *himself* is bound by an NP outside its binding domain (clause).

c) The obligatorily bound anaphor is bound by an NP two clauses up.

d) In (i) the pronoun ye can’t be locally bound.
   In (ii) the pronoun ye can’t be free.
   So in (i) it’s behaving like a pronoun, and in (ii) like an anaphor.

5. **PERSIAN**

*Xodesh* can either be locally or longdistance bound.
*Xod* must be locally bound.

6. **C-COMMAND OR PRECEDENCE?**

If precedence defines binding, then these sentences would constitute condition C violations. However, the sentences are grammatical. By contrast, under c-command, the pronoun does not c-command the R-expression, so these do not constitute condition C violations (correctly).

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This chapter introduces the basic notions of X-bar theory as applied to NPs, APs, PPs, and VPs. CP, TP (which I use instead of IP), and DP are saved until the next chapter. There is significant discussion on motivating more general principles instead of language specific phrase structure rules. I also discuss at length the distinction between complements and adjuncts, and the tests to distinguish them. The notion of phrase structure parameters is also introduced.

As in Radford (1988) and the original work in X-bar theory (but not consistent with common current practice), adjuncts in this chapter are not Chomsky-adjoined. Instead they are daughters of and sisters to the single bar level.

\[ [\text{XP spec } [\text{X } \text{adjunct } [\text{X } \text{complement}]]] \]

I'm using a version of X-bar theory where only the single bar level iterates, XP is what I use for \( X^{\text{max}} \) or \( X' \).

There is relatively little discussion of specifiers (I'm going to reserve specifiers for subjects in later chapters). I put determiners in the specifier of NP in this

\[ [X \text{ spec }] \]

Footnote:

2 The particular presentation in this chapter of X-bar theory draws fairly heavily on Radford (1988) rather than on the original versions of X-bar theory found in Chomsky (1973) or Jackendoff (1977).

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chapter but this is the only specifier they see. In chapter 6, I adopt a DP hypothesis getting rid of this exception. Unlike Jackendoff’s original form, I don’t put very in the spec of VP, because I find this confuses the students later when they do the VP-internal subject hypothesis. So students may need some additional discussion reassuring that specifiers are well motivated.

One area that may require further discussion is the treatment of pre-head complements (as in the linguistics professor). Some people prefer to treat these as N-N compounds rather than AP N complement head structures. I adopt the latter, without much discussion. There is no discussion in the text of why pre-head modifiers must not be phrasal. This will probably need some classroom work.

PROBLEM SETS

1. TREES

a)

```
S
  NP    VP
    |      |
    N'    V'
      |      |
      N    V
        Abelard wrote
        D
          a
            N'
              PP
                N
                  poem
                    P
                      about
                        N'
                          NP
                            N
                              Héloïse
```

You are on your own with the rest. Notice that “from Italy” in (d) is ambiguous and could either modify volume or verse, in either case as an adjunct.

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.

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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

1) Elide or delete an N’ node. This is like one-replacement in English.

2) I believe mit Sahne modifies the verb, not the NP cake, but this is up for debate. Simin Karimi tells me that on the basis of certain pronominalization facts, she thinks the PP modifies Kuchen. The exact analysis of the mit Sahne PP is irrelevant to the content of the question. Which is actually about the Subject NP.

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OR

```
S
  /\  
/   \   
NP  VP
  /\  /\ 
/  D \ V' 
 NP \ N' /
  /    /  
A' A'  P'  
 N' N' N' 
 P P P
   \   /  
    P N'
      \  
       P NP'
        \  
         P NP
          \ 
           P N
            \ 
             N
             \ 
            Frankreich
```

f)

```
S
  /\  
/   \   
NP  VP
  /\  /\ 
/  D \ V' 
 NP \ N' /
  /    /  
A' A'  P'  
 N' N' N' 
 P P P
   \   /  
    P N'
      \  
       P NP'
        \  
         P NP
          \ 
           P N
            \ 
             N
             \ 
            Koenigin
             \ 
              P
               \ 
                P NP
                 \  
                  P NP
                   \  
                    P NP
                      \  
                       P N
                        \ 
                         N
                         \ 
                        Prinzessin
```

g) von England is a complement, so is a sister to N, not N', so deletion of the bare noun is impossible. By contrast aus Frankreich is an adjunct, sister to N', so there is an N' alone above the noun head can occur.
3. JAPANESE

1) -o marks objects and -ga marks subjects
2) SOV
3) Precede
4) Precede
5) Precede
6) Precede

```
S
  |    |    |
NP  VP  NP  V
  |    |    |    |
N'  N'  N'  N
  |    |    |    |    |
N  N  N  N
  |    |    |    |    |    |
Toru-ga  sono  mita
  |    |    |    |    |    |
AP  A'  A'  A'  N
  |    |    |    |    |    |    |
Akai  hon-o  danh
  |    |    |    |    |
```

4. PARAMETERS

I leave these for you to do.
0. INTRODUCTION

This chapter presents a short survey of clause types (main, embedded, complement, adjunct, specifier, tensed, untensed). There is no discussion of small clauses, I find students have too much difficulty with the concept to identify them at this stage in their intellectual development. I identify a clause as a subject and predicate phrase (I use the term predicate phrase here, instead of predicate due to the fact in the next chapter we use predicate to refer only to the head of the predicate phrase).

DPs, TPs (note not IP!) and CPs are all introduced. I make the claim that all clauses have a CP even if there is no overt C (and similarly with TP and T). There is a brief introduction to subject/aux inversion, which we return to in more detail in chapter 8.

1. PROBLEM SETS

1. **ENGLISH THAT**

a) Complementizer

b) Determiner, as shown by number agreement

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2. **Subjects and Predicate Phrases**

a) Subject: The peanut butter  
   Predicate Phrase: has got moldy
b) Subject: The duffer's swing  
   Predicate Phrase: blasted the golf ball across the green
c) Main Clause Subject: That Harry loves dancing  
   Main Predicate Phrase: is evidenced by his shiny tap shoes  
   Embedded clause subject: Harry  
   Embedded clause predicate phrase: loves dancing
d) Subject: The Brazilians  
   Predicate Phrase: pumped the oil across the river

3. **Clause Types**

a) Main clause: Stalin may think that Roosevelt is a fool.  
   complementizer: Ø  
   T: may  
   subject: Stalin  
   finite  
   Embedded clause: that Roosevelt is a fool  
   complementizer: that  
   T: is  
   subject: Stalin  
   finite
b) Main clause: Lenin believes the Tsar to be a power-hungry dictator.  
   complementizer: Ø  
   T: -s  
   subject: Lenin  
   finite  
   Embedded clause: the Tsar to be a power-hungry dictator  
   complementizer: Ø  
   T: to (to be?)  
   subject: the Tsar  
   non-finite
c) Main clause: Brezhnev had said for Andropov to leave.  
   complementizer: Ø  
   T: had  
   subject: Brezhnev  
   finite  
   Embedded clause: for Andropov to leave  
   complementizer: for  
   T: to  
   subject: Andropov  
   non-finite

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Chapter 6: Extending X-bar Theory

d) Main clause: Yeltsin saw Chernyenko holding the bag.
   complementizer: Ø
   T: -ed?? or [past]
   subject: Yeltsin
   finite

   Embedded clause - this is tricky, since they have to identify the clause headed by hold as a clause. Chernyenko holding the bag
   complementizer: Ø
   T: -ing? (this requires some discussion)
   subject: Chernyenko
   non-finite

4. **Trees**

```
CP
   | C'
   C
   Ø
   NP
   D
   the
   AP
   A'
   child
   A'
   young
   A
   very
   walk
   P
   from
   N
   N'
   N
   store
   P
   D
   N'
   N
   school
```

You are on your own for the rest:

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.
5. **TREES II**

Again you are on your own.

6. **HUNGARIAN**

No, the possessor has to appear in spec, NP. In the second construction it appears in spec, DP.

7. **ENGLISH MODALS AND AUXILIARIES**

You are only allowed one modal (=T), but multiple Auxs (=V) (e.g., I should have had been being kissed when Margo walked into the room and interrupted the frivolity).

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0. INTRODUCTION

The system of X-bar theory developed in the previous chapter seriously overgenerates. This chapter introduces theta roles and thematic relations as a way to constrain this.

Two important points of note: (1) I distinguish thematic relations from theta roles. Thematic relations are the semantic notions. Theta roles are the syntactic slots associated with a group of theta roles. The theta criterion holds of theta roles, not thematic relations. (2) I use Haegeman’s box notation for theta grids.

The EPP and expletives are also introduced in this chapter.

PROBLEM SETS

1. Sinhala

1) See below
2) See below
3) Experimcer
4) ma\(\alpha\) is used with experiencers
5) A attaches to Agents, B attaches to experiencers

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Chapter 7: Theta Roles and the Lexicon

m) Apiṭa, pansol, peenawa.

<table>
<thead>
<tr>
<th>experiencer</th>
<th>theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>j</td>
</tr>
</tbody>
</table>

2. IRISH AND THE THETA CRITERION

1) The theme role seems to be applied twice, once to An fear, the other time to é (a resumptive pronoun).
2) The subject role is in the subject agreement (pro-drop).
3) The object appears twice, once in the object, the second time in the possessive clitic (clitic doubling).

3. WARLPIRI

ngka: location
kurra: goal
ngirli: source
ngku: agent
wana: location/path

4. OBJECT EXPLETIVES

Maybe. It is the double of the relative clause that modifies it. Otherwise this sentence would be an example of a counterexample to the theta criterion.

5. PASSIVES

Part 1:

a) Johni bit the applej.

<table>
<thead>
<tr>
<th>agent</th>
<th>theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>i</td>
<td>j</td>
</tr>
</tbody>
</table>

b) Susani forgave Louisj.

<table>
<thead>
<tr>
<th>agent</th>
<th>theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>experiencer</td>
<td></td>
</tr>
<tr>
<td>i</td>
<td>j</td>
</tr>
</tbody>
</table>

Please do not copy or distribute this answer key to your students.
c) The jockey\textsubscript{i} rides the horse\textsubscript{j}.

\begin{tabular}{|c|c|}
\hline
agent & theme \\
\hline
\textsubscript{i} & \textsubscript{j} \\
\hline
\end{tabular}

d) Phillip\textsubscript{i} gave the medal\textsubscript{j} to the soldier\textsubscript{k}.

\begin{tabular}{|c|c|c|}
\hline
agent & recipient & theme \\
\hline
\textsubscript{i} & \textsubscript{j} & \textsubscript{k} \\
\hline
\end{tabular}

e) Phillip\textsubscript{i} gave the soldier\textsubscript{j} the medal\textsubscript{k}.

\begin{tabular}{|c|c|c|}
\hline
agent & theme & recipient \\
\hline
\textsubscript{i} & \textsubscript{j} & \textsubscript{k} \\
\hline
\end{tabular}

Part 2: Delete external argument (delete agent might also be consistent). Some students (usually the bright ones) will also say that the second theta role becomes the external argument. While technically this is not correct, they can’t know this until they do chapter 9. Other students claim that the theme becomes an experiencer, I’m less thrilled with this answer, especially in light of how one can experience giving. But since the definition of experiencer is so wishy-washy, it is hard to argue against.

6. **Hiaiki -wa**

Part 1: Deletes agents, similar to English -en.
Part 2: Only agents are effected by -wa. Also note that intransitives can be affected by the suffix.

7. **Antipassives in English and Inupiaq**

Note the question is only about theta grids, but of course there are also case changes going on here too (the element normally marked with absolutive is deleted, and the element that otherwise is marked with ergative becomes absolutive).

Part 1: Delete the theme.
Part 2: Similar to antipassive, but doesn’t allow a by-phrase expression of the theme. Also seems to be limited to certain verbs (not required by question).
0. INTRODUCTION

This is the first chapter on transformations. It presents a relatively straightforward view of head-to-head movement, starting by contrasting French and English adverbial and negative placement, moving on to VSO order in Irish (the VP-internal subject hypothesis is also introduced here). Then we move on to T → C movement and the interaction of V → T and T → C.

One thing that is unusual about this chapter, and that you should be aware of, is that I continue to treat all auxiliaries as generated under T, and not raised from V → T. I did this for a number of reasons, the primary of which is that I wanted to avoid having to talk about multiple VP shells. However, there is an exercise in this chapter (building on a previous exercise in chapter 6) that asks the students to develop a V raising analysis of auxiliaries.

I cast transformations in the D-structure → Transformations → S-structure model, leaving aside questions of the Minimalist model until chapter 12.
1. **ENGLISH**

a) CP

C

TP

NP

N' T

N

I

T

VP

have

V'

AP

A' V

A

N

peanut butter

(some students may treat *peanut butter* as a phrase)

b) CP

C

TP

NP

N' T

N

I

T

NegP

do Neg'

Neg

not VP

V'

love

N/DP

N/D'

N

peanut butter

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c) CP (For briefness, I've abbreviated this tree, there is T lowering in the embedded clause too.)

CT P
NP T'
V' N' T VP
-s
Martha AP V'
A' V CP

CT P
NP T'
V' N' T VP
-do
you V N/DP
A' V think A'
A often John hates syntax

I leave the rest to you.

e) Have you always hated peanut butter?

f) Are you always so obtuse?

2. **American vs. British English Verb Have**

Part 1: Auxiliary have undergoes T → C but possessive have does not.

Part 2: Yes, (suggesting that it has undergone V → T).
3. **VERB RAISING**

German: Yes, main verbs appear higher than negation and undergo T → C.

Persian: Yes the main verb undergoes T → C. The data in (c) and (d) is trickier, but there it appears as if negation attaches to T, and in (c) it is attached to the V, suggesting the verb has raised to T. The word order is surprising, however.

4. **ITALIAN**

V raising

5. **GERMANIC VERB SECOND**

*Part 1:* You don’t get V2 when there is an overt complementizer. The phenomenon is in complementary distribution with overt complementizers, suggesting that complementizers are involved.

*Part 2:* V raising.

6. **HEBREW CONSTRUCT STATE (N → D)**

*Part 1:* Overt complementizers are in complementary distribution with construct states.

*Part 2:* The agreement phenomena show that the construct state N, agrees with the final adjective. If we take seriously the idea that modifiers are always sisters (or more accurately are attached to a projection of the element they modify), then at some point the construct N had to be low and near the adjective.

7. **ENGLISH**

Adjectives normally precede nouns in English, the adjectives here follow. Suggesting that at least part of the noun has moved around them. This is supported by the alternation between some spicy thing and something spicy. (However, of course, contrast a spicy something!)

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8. **English Proper Names and Pronouns**

Part 1: Proper names are (usually) in complementary distribution with determiners. The fact that you can have The Smiths, suggests that under certain circumstances the N remains downstairs. The alternation (Smith vs. The Smiths) suggests that movement is involved.

Part 2: D, they are in complementary distribution with determiners (it is an open question as to whether they undergo N → D movement).

9. **Italian N → D**

When there is no determiner, the adjective follows the noun, when there is, it precedes the noun. Assuming that adjectives are fixed in position, the alternation suggests that the N has raised around the AP. The answer to this is very similar to the answer to question 7.

10. **English Modals (Reprise)**

Both modals and tensed auxiliaries can undergo subject/aux inversion, precede negation and adverbs, whereas untensed auxiliaries don’t. This suggests untensed auxiliaries mark the base position for auxiliaries (but not modals) and they move when they are tensed.
0. INTRODUCTION

This chapter presents a fairly standard view of NP movement. I call it NP/DP movement, so that we can retain the traditional NP movement name (which students will find in the literature), but maintain the use of the DP hypothesis.

I treat both passives and subject-to-subject raising in this chapter. Subject to object raising (see also exercise 6 of this chapter) and control constructions are left to the next chapter. I start out with an EPP-based explanation but develop it into Case theory.

Movement is explained in terms of feature checking for the first time.
1. **ENGLISH**

   a) 
   
   \[
   \begin{array}{c}
   \text{CP} \\
   \text{C'} \\
   \text{C} \\
   \emptyset \\
   \text{NP} \\
   \text{T'} \\
   \text{T} \\
   \text{N'} \\
   \text{T} \\
   \text{N} \\
   \text{Marie} \\
   \text{A} \\
   \text{CP} \\
   \text{C'} \\
   \text{C} \\
   \emptyset \\
   \text{T'} \\
   \text{T} \\
   \text{V} \\
   \text{V'} \\
   \text{to} \\
   \text{leave} \\
   \text{the store}
   \end{array}
   \]

   I leave the rest for you to do, however, I’ve listed the transformations that apply in each:

   b) The money was hidden in the drawer.
   passive

c) Donny is likely to have been kissed by the puppy.
   passive in the lower clause, raising
   Note: you may want to discuss how to deal with the multiple auxiliaries before assigning this question.

d) It seems that Sonny loves Cher.
   T-lowering (in both clauses), expletive insertion

e) Has the rice been eaten?
   T \rightarrow C movement, passive
   again discussion of the multiple auxs will probably be in order

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2. **ENGLISH UNGRAMMATICAL SENTENCES**

   a) Sonny can’t get case in the embedded subject position, because of non-finite T.

   b) Well this is a theta criterion violation, but in terms of case, at least one NP doesn’t get case, since only the non NP gets case.

   c) Donny already has case in the embedded clause.

3. **PERSIAN ACCUSATIVE CASE**

   Features don’t have to be overtly morphologically expressed. We can have abstract case features. This parallels the discussion of English nouns in the body of the text.

4. **ARIZONA TEWA**

   1) Spec: XP \(\rightarrow\) (YP) X'  
      Adjunct: X' \(\rightarrow\) (ZP) X'  
      Complement: X' \(\rightarrow\) (WP) X

   2) a) CP  
      \[
      \begin{array}{c}
      \begin{array}{c}
      C' \\
      | \\
      C \\
      | \\
      DP \\
      | \\
      T' \\
      | \\
      VP \\
      | \\
      D' \\
      | \\
      D \\
      | \\
      DP \\
      | \\
      V' \\
      \end{array}
      \end{array}
      \]
      'hɛ’i  
      \[
      \begin{array}{c}
      \begin{array}{c}
      N' \\
      | \\
      DP \\
      | \\
      V \\
      \end{array}
      \end{array}
      \]
      mánk'ɛ’di  
      sen  
      \[
      \begin{array}{c}
      \begin{array}{c}
      D' \\
      | \\
      D \\
      | \\
      N \\
      \end{array}
      \end{array}
      \]
      'ɛnû

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Chapter 9: NP/DP Movement

3) same as the English passive

4) b) CP

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5. **Middles, Actives, Causatives, and Passives**

Part 1: Middle: theme  
   Active: instrument theme  
   Causative: agent theme (instrument)

Part 2: This is essentially the Relational Grammar Law 1AEX. Middles are already passive like, so they don’t allow further passivization.

6. **Two Kinds of Raising**

This question leads us into chapter 10. It should be done before chapter 10.

a and b) These two pieces of data show accusative case marking on the embedded subject, since acc case is assigned to a sister of V, then this is the correct surface position of the NP.

c, d, e) These three pieces of data show that the subject of the embedded clause is behaving like it is part of the higher clause with respect to binding theory, it allows disjoint reference in (c). For many people it may be bound by the subject

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when it is an anaphor in (d), and in (e) it cannot be coreferent with the main clause subject.

f) It can get raised to subject position of the main clause in a passive, just like a regular object.

7. **Haitian Creole**

NP movement in Haitian Creole leaves a resumptive pronoun. This pronoun is an “overt trace,” creating an NP–Pronoun chain (thus not violating the theta criterion).

9. **Turkish**

The NP already has case in the embedded clause, therefore there is no motivation for raising.

10. **Impersonals in Ukrainian, Kannada, and Irish**

In English intransitives aren’t allowed to undergo passive; in these languages they are. [±intransitive passive]

11. **Unaccusatives and Passives**

You can only delete the external argument once, and only suppress the ACC case feature once. (Again the 1AEX of relational grammar.)

12. **Icelandic Quirky Case**

These NPs already have case. There is no motivation for the movement. The solution may lie in distinguishing abstract case from overt morphological case. The quirky case marked NPs in Iceland take both a quirky case (dative) and an abstract case (either accusative or nominative).

13. **Passives and Double Object Constructions**

Only the NP adjacent to the verb may passivize, suggesting that this is the element that gets accusative case.
0. INTRODUCTION

This chapter introduces the distinctions between raising and control constructions, between subject to subject raising and subject to object raising, between obligatory and optional control, and between subject control and object control. There is also a short discussion of little pro and the null subject parameter.

Control theory is notoriously problematic. Here I give a less than satisfying answer, but that I think reflects the less that satisfying status of control theory at this time. I discuss the various syntactic, thematic/semantic, and pragmatic accounts that have been suggest for controlling PRO. I do not consider movement analyses of PRO.
Chapter 9: NP/DP Movement

**PROBLEM SETS**

1. **ENGLISH PREDICATES**

   *Warning:* this is a very long (and tedious) problem set to do!

   is eager        Subject control
   is believed    SSR
   seems           SSR
   is ready       SC
   persuaded       OC
   urged           OC
   requested       SC (and maybe Object control)
   hoped           SC
   expect          SOR
   force           OC
   tell            OC
   advise          OC
   ask             OC, SC
   assure          This is a really weird verb. It doesn’t allow any of them. *but* it does allow a *wh-* trace in the subject position of the embedded clause. *Is assured* is a SSR raising verb.
   imagine         SOR
   promise         SC
   want            SC or SOR
   is likely       SSR
   consent         SC
   imagine         SOR
   encouraged      OC
   intended        SOR, SC

2. **TREES AND DERIVATIONS**

   I haven’t bothered to do the trees here. I’ve just indicated traces and PROs. You’ll also note I’m ignoring the existence of the VP-internal subject hypothesis.

   a) Jean wants Billi [CP ti to do the Macarena].  
   b) Roberti is eager PROi to do his homework.  
   c) Jeani seems [CP ti to be in a good mood].  
   d) Rosemaryi tried PROi to get a new car.  
   e) Susan begged Billi PROi to let her sing in the concert.  

   Students may require some discussion of the “let her sing in the concert” part of this sentence.

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f) Susan\textsubscript{i} begged PRO\textsubscript{i} to be allowed t\textsubscript{i} to sing in the concert. 
   There should be some discussion of whether PRO moves from the specifier of \textit{to sing}, to the specifier of \textit{to be allowed}, given that neither of them are case positions. (Economy conditions – discussed in the chapter 12 – force such an analysis, but you may want to draw the problem to the student’s attention.)

\begin{itemize}
  \item g) Christina\textsubscript{i} is ready PRO\textsubscript{i} to leave.
  \item h) Fred was believed t\textsubscript{i} to have wanted PRO\textsubscript{i} to try PRO\textsubscript{i} to dance.
    I leave it for discussion as to whether there is a trace only in the specifier of the first embedded TP, or whether there is also one in the main clause object position.
  \item i) Susan consented PRO\textsubscript{i} to try PRO\textsubscript{i} to seem t\textsubscript{i} to have been kissed t\textsubscript{i}.
    Again the existence of the chain of the two traces and the lower PRO needs to be discussed, since none of these are case positions.
\end{itemize}

3. \textbf{Is Easy}

Both, there is an arbitrary PRO as the subject of the embedded clause, the object of the embedded clause raises to main clause subject position.

4. \textbf{The Existence of PRO}

\begin{itemize}
  \item a) There needs to be a binder for the anaphor – thus PRO.
  \item b) Himself is too far away from Robert to meet condition A, so PRO must serve as the antecedent.
\end{itemize}

5. \textbf{Icelandic PRO and Quirky Case}

The quantifier here agrees in case with the quirky case marking that PRO would get (note, not the case on the main clause subject that controls PRO). So this means that PRO must be getting case. This problem is related to the one in the previous chapter, where passive occurred even though the NP got quirky case. A similar solution applies: we distinguish morphological from abstract case.

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6. **CONTROLLERS**

a) To improve myself is a goal for next year.
   
   PRO = me obligatorily (as shown by the anaphor bound by PRO) but there is no me to control it.

b) To improve yourself would be a good idea.
   
   same answer as (a)

c) To improve himself, Bruce should consider therapy.
   
   PRO = Bruce obligatorily, but Bruce does not c-command it.

d) To improve herself, Jane went to a health spa.
   
   same answer as (c)

7. **IRISH pro**

Irish doesn’t allow you to have both agreement and the pronoun.
Basic wh-movement is addressed in this chapter, as well as some of the easier constraints. Wh-movement is cast as movement for feature checking reasons.

The main focus of the chapter is on locality conditions, in particular bounding theory. The version of bounding theory I use here involves the subjacency condition, and counting bounding nodes (TP and NP). There is no discussion of barriers or the ECP (because I haven’t used government). In the next chapter we revise subjacency into the more general minimal link condition (MLC), but that is left aside in this chapter. I also discuss, briefly and stipulatively, that-trace and double-filled CP filters. There is no discussion of the specified subject condition or argument/adjunct asymmetries in extraction. There is also no discussion of relative clause or other operator constructions. The reason for all these omissions is brevity – I assume these topics can all be covered in more advanced classes.
1. **ENGLISH TRANSFORMATIONS**

Again I haven’t bothered with the trees here, I just give the relevant traces and PROs. Students are asked to provide the trees.

a) How was the plot discovered by the authorities?

b) Which animals appear to have lost their collars?

(I’m assuming that there is wh-movement of subjects here)

c) Alan told me who wanted to seem to be invincible.

2. **BOUNDING THEORY**

Students are supposed to draw the tree. I’ve just circled the bounding nodes here:

*Who did George try to find out what wanted t1?*

The wh-phrase has to cross both these, creating a subjacency violation. It can’t stop off in the spec of CP because of the what.

3. **PICTURE NPs**

Should be a violation of the subjacency condition. Who crosses the NP node [a picture of] and the TP node of the sentence. There is no intermediate CP to stop off in.

4. **IRISH**

You get the $a^N$-resumptive strategy obligatorily when you have an island (= subjacency violation). A note on the data: this is a simplification of the facts. You can actually get the $a^N$-resumptive strategy in any position, except for the highest subject position, but it is only obligatory in an island. See McCloskey (1991) for more details.

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5. **Binding Theory**

Binding conditions hold at D-structure, before the transformations have move the wh-phrase.

6. **English**

Students are expected to do trees, I’ll just list the transformations:

a) Car sales have surprised the stockbrokers.
   No transformations (unless you assume VP-internal subjects, or VP shells in which case there is one instance each of head movement and NP movement.)

b) Have you seen my model airplane collection?
   T $\rightarrow$ C

c) Can you find the lightbulb store?
   T $\rightarrow$ C

d) John was bitten by an advertising executive.
   NP movement (passive)

e) It is likely that Tami will leave New York.
   Expletive insertion

f) Tami is likely to leave New York.
   NP movement (raising)

g) It seems that Susy was mugged.
   Expletive insertion, T-lowering (main clause)

h) Susy seems to have been mugged.
   NP movement (raising), T-lowering, NP movement (passive)
   (sub. clause)

i) What did you buy at the supermarket?
   Wh-movement, T $\rightarrow$ C

j) I asked what Beth bought at the supermarket.
   Main clause: T-lowering
   Embedded clause: T-lowering, wh-movement

k) What is likely for Beth to have bought at the supermarket?
   Wh-movement, NP movement (raising)
   (some people may find this sentence ungrammatical)

l) What is likely to have been bought at the supermarket?
   Wh-movement, NP movement (raising), NP movement (passive)

7. **Serbo-Croatian**

All the wh-words seem to move. Various alternatives can be proposed, some more likely than others: Multiple CPs, (or other multiple functional categories high in the tree). Other students have suggested that the wh-words all combine into one wh-phrase. This latter answer is obviously less satisfying.

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8. **BINDING AND SCRAMBLING**

Wh-movement, because the anaphor can still be bound even though it has moved.

9. **IRISH**

Complementizer agreement shows that the wh-word stops off in the intermediate specifier. There would be no a’ comp in the embedded CP if the wh-word didn’t stop there.
Towards Minimalism

0. INTRODUCTION

This chapter is called “towards Minimalism” for a reason, it is not an introduction to minimalism. Instead it is designed to take the student in the direction of Minimalist ideas using the more standard P&P tools they’ve been taught in the first 11 chapters. There are plenty of parts of Minimalism that are not covered here. The basic philosophical and conceptual issues are almost entirely ignored. There is no discussion of Bare Phrase Structure, Merge, multiple functional categories, to name a few issues.

What is covered (note that I am not claiming that these are by any measure defining properties of minimalism, these are simply the transitional issues I address):

a) uniting head movement, NP movement, and *wh*-movement into Move
b) motivating all movement via feature checking and Full Interpretation
c) reducing conditions on movement to the Minimal Link Condition (MLC) (=shortest move)
d) distinguishing LF from PF movement
e) accounting for language-specific variation in terms of timing between overt and covert movement
f) a brief discussion of LF operations (like QR).

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Chapter 12: Towards Minimalism

PROBLEM SETS

1. **ENGLISH**

The MLC holds that movement is to the closest potential landing site. With wh-islands there is an intermediate, but filled spec, CP that serves to block further movement. With NP islands, however, there is no such “closer potential landing site” to block extraction.

2. **PF MOVEMENT**

I was looking for sentences that might be synonymous or nearly synonymous, for example, particle movement. Of course there are always those that will claim that all movement types have some effect on meaning (broadly interpreted to include so called “pragmatic” issues like topic and focus). The answers you’ll get on this question will depend upon the semantic sophistication of your students.

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

English only allows one overt wh-movement. Serbo-Croatian requires that all movement be overt.

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0. **ALTERNATIVE THEORIES**

While I myself am a Minimalist, I think it is important for my students to be able to read papers and work written in other theoretical frameworks.

This chapter and the next take a fairly big turn from the rest of the book. These are quite dense and quite technical surveys of the machinery involved in LFG and HPSG. People who have read the manuscript of this book tell me that these are the hardest chapters in the book and I agree. These are not designed to be user-friendly or in-depth introductions to these frameworks. If you really want to teach your students to do LFG or HPSG properly (as opposed to giving them a familiarity with the mechanics and ideas underlying the theories) then these chapters are not for you. Instead, I’d recommend that you use one of the textbooks written by practitioners of these approaches (such as Bresnan 2001 and Sag and Wasow 1999). This chapter and the next one are designed to be quick and dirty introductions to the technical apparatus of these approaches.

I’ve written these chapters with an eye towards a smart syntax student who has understood the basics of P&P/Minimalism, but would like to understand the mathematical tools of these other approaches. In doing this, I haven’t always been faithful to the ideological or philosophical underpinnings of the approaches. For example, I occasionally say things like “this is the equivalent of head movement” when what I really mean is “this does roughly the work that head movement does in P&P,

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even though it has different assumptions and motivations.” This is likely to annoy those people who actually work in these frameworks, as it gives a certain P&P feel to them. Again this is for pedagogical reasons. I reiterate, if you want proper introductions to the influential ideas of LFG or HPSG, you’d be better off going to the source material. But if you want a brief explanation of what a metavariable or a SYNSEM structure is, then these chapters will do the trick.

One other caveat has to do with my discussion of evaluating competing theories. A number of people have given me quite a bit of flack about the “all theories are roughly equal” or “aesthetics play a big role” language I use in these chapters. Let me state for the record, that of course I believe it is possible to evaluate theoretical approaches on empirical grounds. However, I do want to point out that doing so is extremely difficult. Some theoretical machinery is better suited to certain empirical tasks, but other machinery might be better at different tasks. This makes empirical comparison, while not impossible, certainly more difficult than many scholars would have us believe. This practical consideration has the effect that for the most part people work in the theoretical framework that appeals to them on aesthetic grounds or works best in their own particular sub-area of interest. This isn’t an ideal situation, but I think it is wrong to try to conceal this fact from students.

This chapter, on LFG, introduces – but does not discuss in depth – some of the original motivations for abandoning transformations. It introduces the basic notions of c-structure, f-structure, a-structure, variables, metavariables, grammatical functions, AVMs, functional equations, f-descriptions, unification, lexical rules, and functional control. It treats none of these topics in depth.

**PROBLEM SETS**

1. **ENGLISH**

   I leave these for you to do.

2. **ICELANDIC (AGAIN)**

   No.

3. **TRANSFORMATIONS OR NOT?**

   The answer to this question involves creativity on the part of the student.

4. **WANNA-CONTRACTION**

   The answer to this question involves creativity on the part of the student.

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Please read the caveat about the alternatives chapters at the beginning of chapter 13 of this instructor’s handbook.

This chapter covers all the basics of HPSG: Features, SYN-SEM structures, tags, realization principles, gap (slash) features, lexical rules, compositionality, unification, phrase structure rules, and binding theory. It does not get into some of the more difficult issues, such as inheritance hierarchies. As in the last chapter, the metaphors used are sometimes those of P&P not HPSG, for pedagogic reasons, and I make no claims that this chapter represents HPSG as its practitioners would present it.

**Problem Sets**

1. **English**

   I leave these for you to do.

2. **Subject/Aux Inversion**

   The answer to this question involves creativity on the part of the student.

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3. **ISLAND CONSTRAINTS**

The answer to this question involves creativity on the part of the student.