

Syntax problem set 1 solutions

24.900 — Introduction to linguistics

February 22, 2005

1 Ambiguities

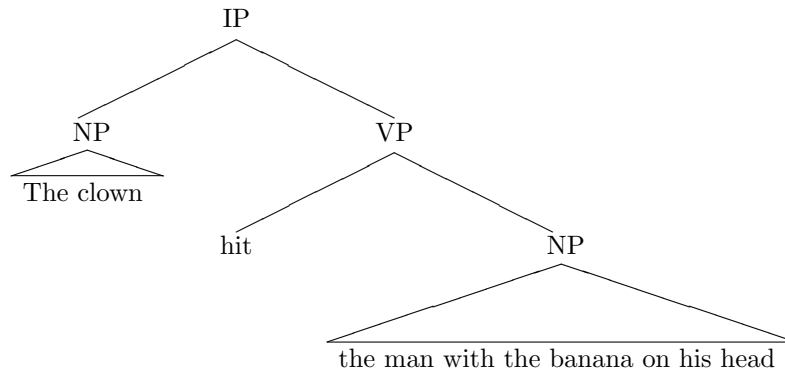
For each of the following sentences, give an unambiguous paraphrase for each meaning. Then draw a tree structure that is detailed enough to illustrate the difference between the available readings (the trees do not have to be exhaustive).

To save paper, we'll use brackets instead of drawing trees when it's sufficient to disambiguate. Either way is OK to answer the problem. Also, only the bracketing that is relevant to represent the ambiguity is shown.

- The angry men and women walked in.
 - [The angry men] and women walked in.¹
 - The angry [men and women] walked in.
- They fed her baby carrots.
 - They fed [her baby] carrots.
 - They fed her [baby carrots.]
- Herb forgot how good beer tastes.
 - Herb forgot [how good] beer tastes.
 - Herb forgot how [good beer] tastes.
- The clown hit the man with the banana on his head.

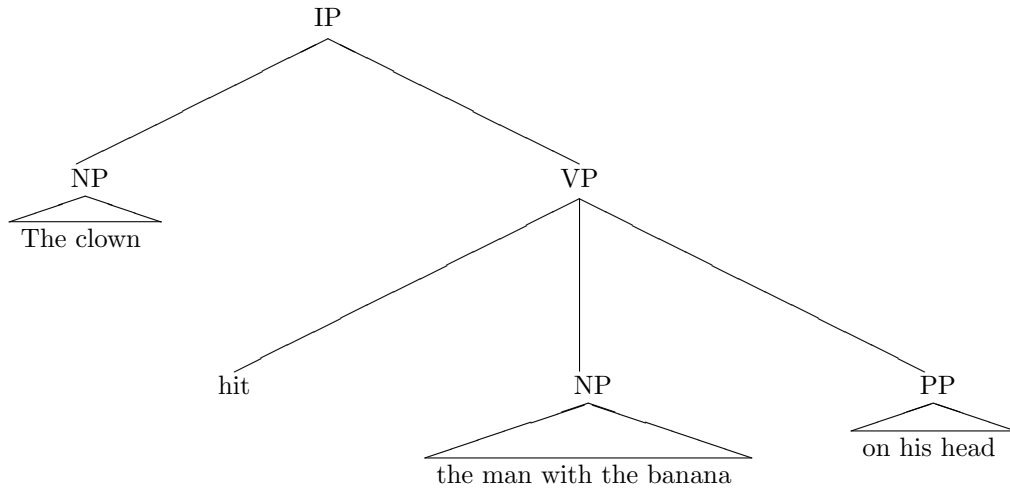
Full X' structure is not indicated in the trees below (i.e., whether a particular constituent is a complement or an adjunct).

- The clown hit [the man with the banana on his head.]

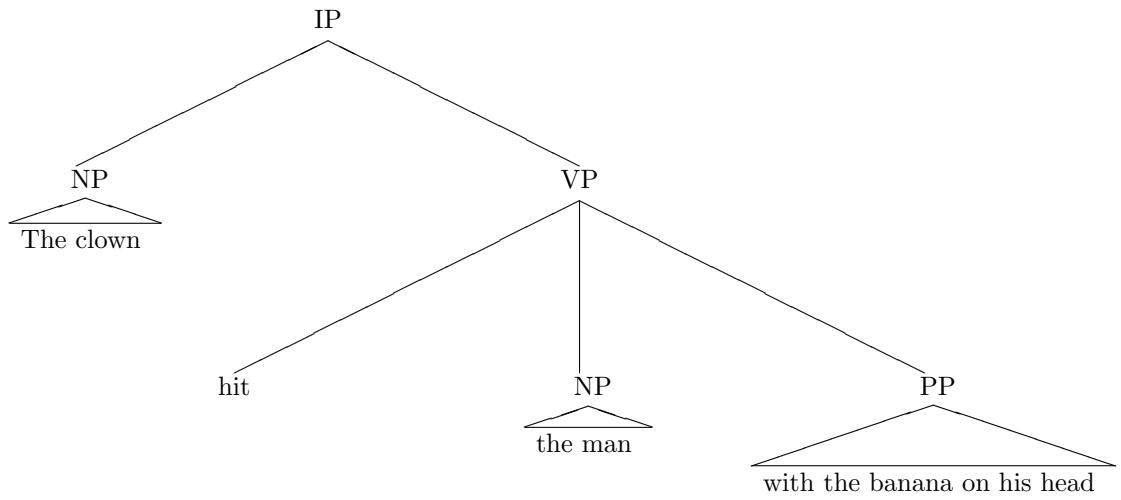


¹The following bracketing is also possible, with a slightly different reading: The [angry men] and women walked in.

- The clown hit [the man with the banana] [on his head.]

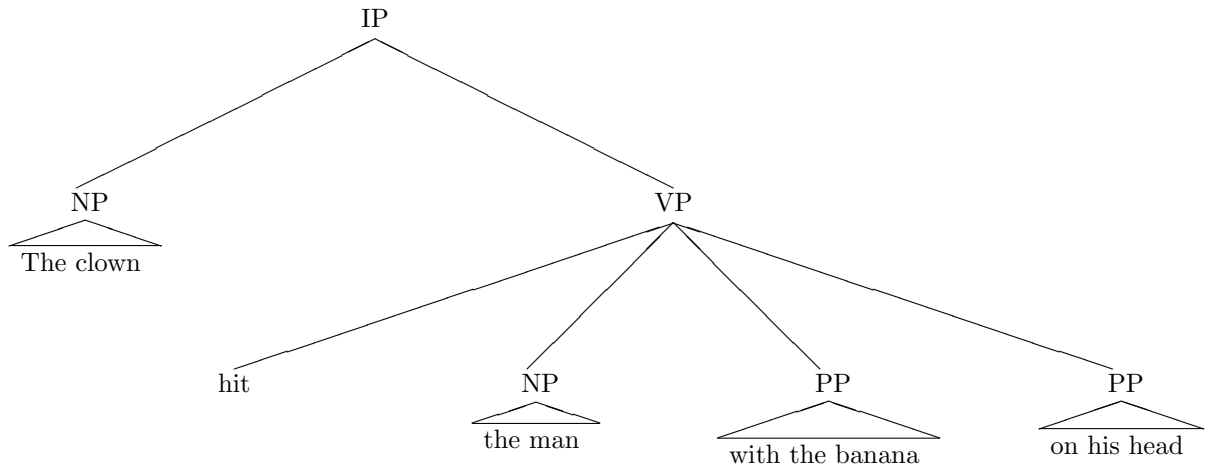


- The clown hit [the man] [with the banana on his head.]



There is also ambiguity in the reference of his.

- The clown hit [the man] [with the banana] [on his head.]



2 Constituency tests

Choose two of the ambiguous sentences in the previous problem. Use constituency tests to argue for the structures you assumed above, for all the readings. Use at least two constituency tests per reading.

How to apply constituency tests should be clear from the example, and from the handout on the web page. Not all constituency tests work all the time, as anybody trying to solve this problem will find out. The following is a table of tests that will work for each of the readings:

	Coord	Answ. fr.	Subst.	Cleft	Movt.	Comments
The angry [men and women] ...		?	✓			See below.
[The angry men] and women ...		?	✓			
They fed [her baby] carrots.	✓	✓	✓	✓	✓	Clefting and movt. work with a resumptive. How good it is that... Perform the tests on the middle constituent.
They fed her [baby carrots.]	✓	✓	✓	✓	✓	
Herb forgot how [good beer] ...	✓	✓	✓	?	?	
Herb forgot [how good] beer ...	✓	✓	✓	✓	✓	
C hit [M with B on H]	✓	✓	✓	✓	✓	
C hit [M with B] [on H]	✓	✓	✓	✓	✓	
C hit [M] [with B on H]	✓	✓	✓	✓	✓	
C hit [M] [with B] [on H]	✓	✓	✓	✓	✓	

Though the ambiguity in “the angry men and women” is quite straightforward (“angry” scopes either over one or both conjuncts), the standard constituency tests don’t quite work. To show constituency here one has to have some ingenuity; for instance, questions with the wh- word in situ allow the appropriate answer fragments to be produced:

- (1) a. Angry what came? — men and women
- b. Angry men and who else came? women

4 Fieldwork

Choose one of the topics in the Morphology section of the Squib topics handout, and conduct some exploratory research in the language that you have chosen for your final project. Two reasonable topics to try to tackle now could be the structure of compounds or the morphology of the verb. If you choose the former, pick one type of compound (make sure it exists in the target language) and describe how it is formed (is the head to the right or to the left? is there any special morphology on either member of the compound?) If you choose the latter, pick one or at most two verbs, and try to figure out what things are encoded as morphemes on the verb (is the person and number of the subject encoded? is tense or negation?) If it is possible at this stage, give the template with the order of the morphemes on the verb.

Your answer to this question should be in essay format (do not exceed one page, though), and should present sufficient data to make your points clear.

There is no right answer to this question, of course; in fact, at least in (II) I’ve given an answer that is wrong from the point of view of current ideas about Spanish morphology. What matters in this exercise is that data is presented in an organized way, and that the analysis advanced doesn’t come out of thin air, but rather is built on the data and on reasonable argumentation. Good writing is important, but clarity rather than formality should be emphasized.

I.

Spanish has a type of compound consisting of a verb plus a noun, that is very productive and widely used in the language. The following are some examples of the compound in question:

- (2) a. traga-monedas swallows-coins (slot machine)
 b. rasca-cielos scratches-skies (skyscraper)
 c. abre-latas opens-cans (can-opener)
 d. arruina-hogares ruins-homes (destroyer of households)
 e. mata-moscas kills-fles (whatever that thing is called)

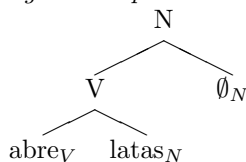
As can be seen from the glosses, the form that the verb takes is that of the singular third person present (indicative), whereas the noun appears in its plural form.

The noun in the compound is the noun that occupies the direct object position in some paraphrases of the compounds offered spontaneously by my informants:

- (3) a. abrelatas = un utensilio que abre latas
 an utensil that opens cans
 b. arruinahogares = una persona que arruina hogares
 a person that destroys households

We therefore predict that the V+N compounds in question are formed solely with transitive verbs and nouns that can be their objects. None of the compounds in our sample of 20 (!), gathered during a half-hour-long session, contradicts our claim. In future research, we will test this claim by presenting our informant with new coinages based on the patterns that we deduced, and checking whether they are acceptable or not.

As far as the structure of these compounds goes, we suggest something similar to what could be given for an English compound such as “icebreaker”:



That is, these compounds are headed by an empty noun whose sense is filled in by context, just as in the paraphrases given in (3). Whether the head is to the right or to the left is something on which nothing bears so far.

II.

I asked my informant for the present, past and future forms of the Spanish verbs tener ‘to have’ and cuidar ‘to take care of’. The following are the full paradigms obtained:²

	<i>tener</i>		<i>cuidar</i>	
	singular	plural	singular	plural
Present				
1	tengo	tenemos	cuido	cuidamos
2	tienes	tienen	cuidas	cuidan
3	tiene	tienen	cuida	cuidan
Past				
1	tenía	teníamos	cuidaba	cuidabamos
2	tenías	tenían	cuidabas	cuidaban
3	tenía	tenían	cuidaba	cuidaban
Future				
1	tendré	tendremos	cuidaré	cuidaremos
2	tendrás	tendrán	cuidarás	cuidarán
3	tendrá	tendrán	cuidará	cuidarán

²I was lucky my informant was consistent, because I later learned that Spanish has two different past tenses. If he had given me different forms for each verb I think I would have been really confused at first.

Looking at *cuidar*, it's easy to segment a verb stem *cuida-* and different verb endings. The only form that isn't segmentable in this way is the singular first person present form *cuido*. We've explored an alternative analysis where the verb stem is considered to be *cuid-*, but we found that it is much messier, so we will put *cuido* aside. With *tener*, identifying an invariable stem is not so simple, but the endings are still discernible by analogy with *cuidar*. So I'm going to put the stem irregularities aside (I've seen linguists do this often), until my generalizations are more robust. The endings that give tense, person and number information are therefore:³

- (4) a. Present: -o, -s, \emptyset , -mos, -n, -n
 b. Past: -(i)a/-ba, -(i)as/-bas, -(i)a/-ba, -(i)amos/-bamos, -(i)an/-ban, -(i)an/-ban⁴
 c. Future: -re, -ras, -ra, -remos, -ran, -ran

Aside from the exceptional behavior of the first person (again), the tense suffixes are clearly *-ia/-ba-* for the past, and *-ra-* for the future. It is then possible to consider that the person endings are the following:

	Singular	Plural
1	-o,-e, \emptyset	-mos
2	-s	-n
3	\emptyset	-n

What's special about the first person, besides the fact that its form depends on the tense the verb is in, is that it often deletes the final vowel of the stem. We have too little data so far to determine how exactly this works.

The template for the Spanish verb that is justified by our analysis so far is the following:

- (5) Stem — Tense — Person/Number

³Note that I'm brazenly ignoring stress. Hey, this is the first time I come in contact with linguistics!

⁴It's not clear to me whether the *i* in *tenía* is part of the stem or of the ending.