

## 1 Constituents

- (1) They stole a barrel of syrup from Québec.

**Part 1.** Show that *a barrel of syrup from Québec* is a constituent by creating test sentences using the topicalization and clefting tests.

**Part 2.** Show that *from Québec* is a constituent by creating test sentences using the topicalization and clefting tests.

**Part 3.** Show that *a barrel of syrup* is a constituent by creating test sentences using the topicalization and clefting tests.

- (2) Mary heard the rumor that Pat kissed Chris.

**Part 4.** Use the same kind of examples to show that *the rumor that Pat kissed Chris* is a constituent, but that *Chris* seems not to be. Give the test sentences as above and a sentence that says how you reach the conclusion about what is and isn't a constituent.

Now, of course—*of course*—*Chris* is a constituent in (2). So why is it failing the constituency tests? It turns out that the topicalization and clefting test *systematically fail* when trying to test a constituent that is inside a noun phrase (like *the rumor that Pat kissed Chris*, which is ultimately a noun phrase headed by *rumor*). In other words, something about this is incompatible with the *test* and therefore we can't trust its results.

Let me make that salient by putting it in a bold in a box.

**The topicalization and clefting tests will fail (will produce ungrammatical test sentences) if you test a constituent that is inside a larger noun phrase.**

Now, back to Québec and syrup. The sentence in (1) is ambiguous—it can mean a couple of different things, depending on what you understand to be *from Québec*. First, convince yourself of that. (1) can describe a situation where the *syrup* is from Québec, but could have been stolen from anywhere, and the barrel containing the syrup could be from anywhere. So, for example, in a barrel from Peru, stolen from Paris. That's one meaning. It can also describe a situation in which the *barrel* is from Québec, but

could have been stolen from anywhere and contain any kind of syrup. For example, a barrel from Québec full of Portuguese syrup, stolen from Seattle. Lastly, it can describe a situation where the stealing was from Québec, and the barrel and syrup could have been from anywhere. The difference in the meanings depends on what *from Québec* is understood to modify.

We hypothesize that the syntax and semantics of sentences are tied together fairly closely, and in particular, we will be assuming the following (which I will again make bold and enbox):

**A modifier must form a syntactic constituent with the thing it modifies.**

Although we aren't yet looking at trees specifically, only at constituent structure, this means that if *from Québec* is understood to be a modifier of *syrup*, then *syrup from Québec* must be a constituent. It must act as a unit. When we draw a tree eventually, there must be a single node of the tree that dominates the modifier, modifiee, and nothing else. Now we come to your task.

**Part 5.** Notice that the test sentences you created in parts 1–3 are not as ambiguous as the original sentence in (1). Specifically, the sentences in parts 2 and 3 must mean that the *stealing* was from Québec (it can't be just the barrel or just the syrup that are québécois), while the sentence in part 1 can mean either that the syrup or the barrel is from Québec, but not the stealing. Your task for this part is to explain why the test sentences are less ambiguous than the original sentence in (1). Start with the test sentences for part 1, consider what I said above, and explain why the test sentences only allow interpretations where *from Québec* modifies *syrup* or *barrel (of syrup)*. Then, explain why the test sentences for parts 2–3 only allow modification of *stole (a barrel of syrup)*. These last two are a bit more complicated, but consider the implications of the bold things in boxes above. Just write your explanation of why certain meanings are missing from the test sentences in (relatively succinct) prose, making reference to the principles outlined above.

## 2 Sinhala

In Sinhala (spoken in Sri Lanka), verbs can appear in two different forms, which we will call form A and form B. Some sentences in Sinhala are provided below.<sup>1</sup>

- (3) a. Mamə kawī kiənəwa.  
I poetry tell-A  
'I recite poetry.'

<sup>1</sup>Based on problem 7.1 from Carnie 2002.

- b. Maṭə kawī kiənəwa.  
I poetry tell-B  
'I started reciting poetry (despite myself).'
- (4) a. Lamea kataawə ahanəwa.  
child story hear-A  
'The child listens to the story.'
- b. Lameaṭə kataawə æhanəwa.  
child story hear-B  
'The child hears the story.'
- (5) a. Mamə naṭənəwa.  
I dance-A  
'I dance.'
- b. Maṭə nəṭənəwa.  
I dance-B  
'I dance (I can't help but do so).'
- (6) a. Mamə untə baninəwa.  
I them scold-A  
'I deliberately scold them.'
- b. Maṭə untə bænenəwa.  
I them scold-B  
'I experienced scolding them.'
- (7) a. Hæmə irida mə mamə koləmbə yanəwa.  
every Sunday EMPH I Columbo go-A.  
'Every Sunday I deliberately go to Columbo.'
- b. Hæmə irida mə maṭə koləmbə yæennəwa.  
every Sunday EMPH I Columbo go-B.  
'Every Sunday I experience going to Columbo.'
- (8) a. Malli nitərəmə aṅḍənəwa.  
brother always cries-A  
'Brother always cries.'
- b. Malliṭə nitərəmə æṅḍənəwaa.  
brother always cries-B  
'Brother always bursts out crying without control.'
- (9) Apitə pansələ peenəwa.  
we temple see-B  
'We saw the temple.'

**Part 1.** For each sentence, list the  $\theta$ -roles the verb assigns (both the type of  $\theta$ -role and the argument the  $\theta$ -role is assigned to). I have done the first one for you below as a model. **Notice:** these are paired examples. Read the sentences first, and compare the (a) examples to the corresponding (b) examples. The (a) examples contain a verb in form A, the (b) examples contain the same verb in form B. The  $\theta$ -roles you use should be drawn from the following list: Agent, Theme, Experiencer, Goal.

(3a) Agent: mamə  
Theme: kawī

**Part 2.** Look at the places where the suffix  $-tə$  appears. What is the generalization about where it is found? That is, what kind of noun does the suffix  $-tə$  appear on? As you answer this, don't forget that this problem is about  $\theta$ -roles, and that you just did Part 1. (Answer this in two sentences at most, one should suffice.)

**Part 3.** Compare sentences with form A verbs to the sentences with form B verbs. Succinctly, what is the difference between the forms in terms of the  $\theta$ -roles they assign?

**Part 4.** Sentence (9) is not paired with anything; you are only given the one with form B of the verb. Given what you now know about Sinhala, what does the corresponding sentence with form A of the verb (and without the  $-tə$  suffix on the subject) mean?

### 3 Tree relations

**Task.** For each of the following, list the nodes described with reference to the abstract tree below.

- (10) Nodes B dominates?
- (11) Nodes E dominates?
- (12) Daughter(s) of E?
- (13) Sister(s) of E?
- (14) Terminal nodes?
- (15) Mothers of terminal nodes?

