



UNIVERSITETET I OSLO

Institutt for litteratur, områdestudier og europeiske språk

Home Examination  
Spring 2015  
9 pages

SPR4106 – Syntax and Semantics in formal terms

1–4 June

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Your paper must be submitted in the folder “Eksamensinnlevering” (in the Fronter “fellesrom”) at 14:00 (2 pm) on the submission day. The folder will automatically close at this hour. If you have technical problems, contact the exam coordinator immediately. The first page of your paper must contain:

- Candidate number (4 numbers, which you find at StudentWeb), NO name
- Course code and course name (see above)
- Semester (spring or fall) and year

Please use an equivalent of Times New Roman, 12 pt, 1.5 line spacing in the body of the text. In the header you write your candidate number, course code and semester. All pages must be numbered. When submitting your paper, you must confirm that you are familiar with the University’s rules regarding proper citation of sources. Make sure that you have enough time to read through the declaration.

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For the exam set, you are to select: Syntax Module I or Syntax Module II, and, Semantics Module I or Semantics Module II. This gives you four options:

1. Syntax Module I + Semantics Module I,
2. Syntax Module I + Semantics Module II,
3. Syntax Module II + Semantics Module I,
4. Syntax Module II + Semantics Module II.

# Syntax Module I

## Task 1

Consider the following sentence, which is ungrammatical in English.

- (1) \*Which officer did you think that he would be present?

Draw a c-structure and f-structure for this sentence. Explain in detail why the sentence is ill-formed.

## Task 2

Some languages (e.g. Irish and some Arabic dialects) allow sentences such as (1).

- (2) Cén t-oifigeach ar shíl tú go mbeadh sé i láthair?  
which officer that thought you that would-be he present  
'Which officer did you think would be present?'

To simplify things in this task, we consider an imagined language Iringlish, which is just like English except it allows sentences like (3).

- (3) a. Which officer did you see him?  
b. Which officer did you think that he would be present?  
c. Which officer did you say that you thought that he would be present?

When pronouns such as *he*, *him* are bound by a *wh*-phrase as in (3), they are called resumptives. Explain how the Iringlish grammar and lexicon must differ from English to allow such resumptives. Draw an f-structure for (3-b) and compare it to that of (1).

## Task 3

In fact, things are a bit more complicated in Iringlish (and Irish). Sentences like (3-b) require a special complementizer, which we will call *that*<sub>1</sub>, which is used for complement clauses with a resumptive pronoun, or complement clauses governing a clause with a resumptive pronoun. There is another complementizer *that*<sub>2</sub> which is used when there is a gap (as in English unbounded dependencies):

- (4) a. Which officer did you think *that*<sub>1</sub> he would be present?

- b. Which officer did you say that<sub>1</sub> you thought that<sub>1</sub> he would be present?
- (5)
  - a. Which officer did you think that<sub>2</sub> would be present?
  - b. Which officer did you say that<sub>2</sub> you thought that<sub>2</sub> would be present?

Write control equations to capture these data. Hint: you should have the complementizers introduce a feature in their clauses, and make the control equations sensitive to this feature. Look at how off-path constraints are used in binding equations (Falk, Chapter 7).

## Syntax Module II

### Task 1

Consider the following English sentences.

- (1) a. The doctor tried to examine the patient.  
b. The patient tried to be examined by the doctor.
- (2) a. The doctor agreed to examine the patient.  
b. The patient agreed to be examined by the doctor.
- (3) a. The doctor seemed to examine the patient.  
b. The patient seemed to be examined by the doctor.

Intuitively, the meaning changes between the a. and b. sentences in (1) and (2), but not in (3). Give lexical entries for *try*, *agree* and *seem* and explain how these lexical entries give rise to different syntactic structures, and therefore semantic differences.

### Task 2

If we try to passivize the matrix verb instead, we get another pattern. (4) and (6) are ungrammatical while (5) is grammatical.

- (4) \*It was tried to examine the patient.
- (5) It was agreed to examine the patient.
- (6) \*It was seemed to examine the patient.

This time, *try* and *seem* pattern together against *agree*. Do your lexical entries capture this? If not, update your entries. Draw f-structures for (4), (5) and (6) and explain why they are (un)grammatical.

### Task 3

The two tests above give us three classes of verbs:

Verb	Complement passive changes meaning	Matrix passive ungrammatical
<i>seem</i>	no	yes
<i>agree</i>	yes	no
<i>try</i>	yes	yes

This seems to open up the possibility of a fourth class of verbs which would

pattern like *seem* in having no meaning change when the complement clause is passive, but with *agree* in having a grammatical passive. What would the lexical entry of such a verb look like? What does LFG predict about the existence of such verbs?

# Semantics Module I

## Task 1

In Chapter 5, Section 4, Zimmermann and Sternefeld analyze a case like (1):

- (1) the capital of Delaware

Its extension is an individual – in our world: Dover.  
To derive this, they treat *of* as semantically inactive (vacuous).



Now consider a case like (2):

- (2) (The city of Dover is the capital of) the state of Delaware.

How does this case differ from (1)? In particular:

1. As compared to *capital*, what type of noun is *state*?
2. What is the relation between  $\llbracket \text{the state of Delaware} \rrbracket$  and  $\llbracket \text{Delaware} \rrbracket$ , intuitively?
3. How could one define the extension of *of* to derive this?

Finally, discuss the use of a name like *Delaware* in a definite description: *the Delaware* (a river). Try to think of a way to derive the extension of this DP, on common analyses of names and of *the*, by means of semantically active covert (implicit) material.

## Task 2

In Chapter 7, Section 4.1, *and* coordination between sentences, conjunction, is defined as intersection between two propositions, sets of worlds:

- (3)  $\llbracket S_1 \text{ and } S_2 \rrbracket := \llbracket S_1 \rrbracket \cap \llbracket S_2 \rrbracket$

Not defined, however, is coordination at lower levels, say, between names:

- (4) Iago and Othello love Desdemona.

Intuitively, (4) means the same as (5):

- (5) Iago loves Desdemona and Othello loves Desdemona.

Show how we can account for this intuition if we alter the definition in (3) along the following lines (cf. Chapter 6, Section 2) (N for ‘name’):

$$(6) \quad \llbracket N_1 \text{ and } N_2 \rrbracket_s := \llbracket N_1 \rrbracket_s^{\text{DP}} \cap \llbracket N_2 \rrbracket_s^{\text{DP}}$$

Next, answer these two questions:

1. Will the method work for just any DP?
2. Can there be scope ambiguities if instead of *Desdemona* there is a quantifier in object position?

Now how about a case like:

- (7) Yuri and Larissa are married.

Describe the ambiguity of this sentence.

Which reading is captured, which reading is not captured, by the method based on (6)?



## Semantics Module II

### Task 1

In Chapter 7, Section 4.1, *and* coordination between sentences, conjunction, is defined as intersection between two propositions, sets of worlds:

$$(1) \quad \llbracket S_1 \text{ and } S_2 \rrbracket := \llbracket S_1 \rrbracket \cap \llbracket S_2 \rrbracket$$

Not defined, however, is coordination between adjectives, as in (2):

$$(2) \quad \text{China's flag is red and rectangular.}$$

Intuitively, (2) means the same as (3):

$$(3) \quad \text{China's flag is red and China's flag is rectangular.}$$

Show how we can account for this intuition if we adapt the definition in (1) to adjectives (cf. ‘Nominal Modification’, Chapter 5, Section 5.2).

Now consider (4) and assess whether it has a parallel meaning,

$$(4) \quad \text{Poland's flag is red and white.}$$

taking these two questions into account:

1. Do different color terms provide examples of **incompatibility** (cf. Chapter 8, Section 4)?
2. Would it be better to analyze *and* as **union** instead of intersection (cf. Chapter 5, Section 5.3)?

Finally, how about a case like:

$$(5) \quad \text{Austria's flag is red and white and red.}$$

Relate this case to the discussion of non-truth-functionality in Chapter 7, Section 5.1.

### Task 2

We know from Homer's *Odyssey* (Book 9, tale of the Cyclops Polyphemos) that *nobody* is not a referential expression – it is a **quantifier**. How would you go about defining its extension? (Cf. Chapter 6, Section 1.)

$$(6) \quad \llbracket \text{nobody} \rrbracket_s = \dots$$



Then extend the definition to the case of *everybody*:

$$(7) \quad \llbracket \text{everybody} \rrbracket_s = \dots$$

Now consider a case like (8) and explain why it is problematic:

$$(8) \quad \text{Everybody from Berlin is gay.}$$

(For the extension of *from Berlin*, see Chapter 5, Section 5.2.)

Then try to sketch a solution to the problem – keyword: decomposition.

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The results will be published in Studentweb within 3 weeks after the exam date.

For an explanation of the result obtained, please contact the teacher in charge of the course within one week after the exam results have been published. Remember to include your name and candidate number. The examiner will then decide whether to give a written or oral explanation.