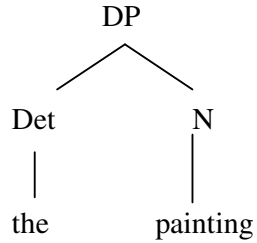


PLIN1302 Introduction to Language -2007

Lecture 5: When Syntax and Semantics Meet

1. $DP \rightarrow Det N$

2.

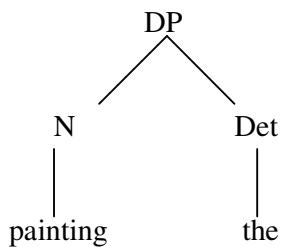


3. A single rule like (1) allows speakers to form phrases like *the painting*, *the drawing*, *a sketch* and thousands more. Syntactic rules also explain why some combinations are ungrammatical: the absence of a rule like (4) rules out the structure in (5):

4. $DP \rightarrow N Det$

5.

*

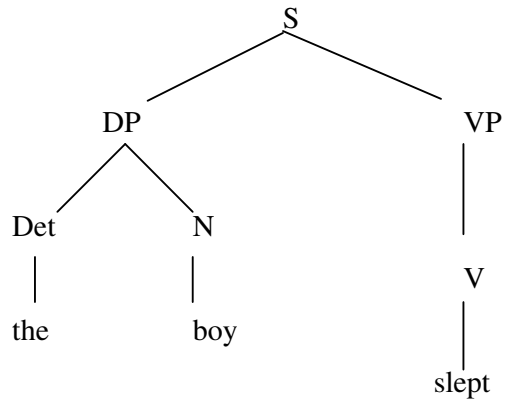


6. Some phrases can have more than one structure, (e.g. English verb phrases):

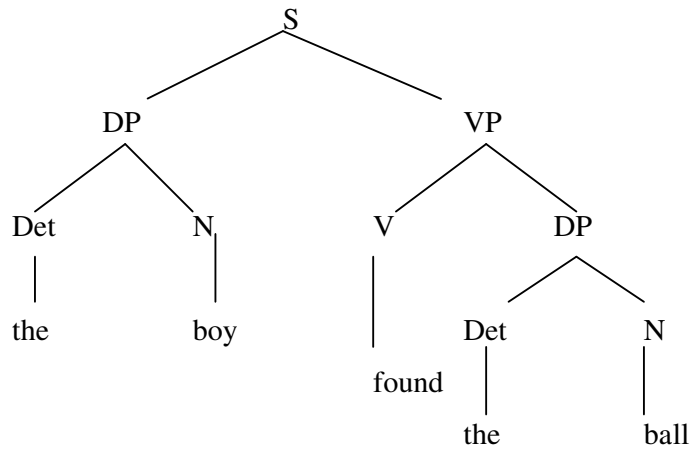
- a. $VP \rightarrow V$ the boy slept
- b. $VP \rightarrow V DP$ the boy found the ball
- c. $VP \rightarrow V DP PP$ the boy put the ball in the box

7.

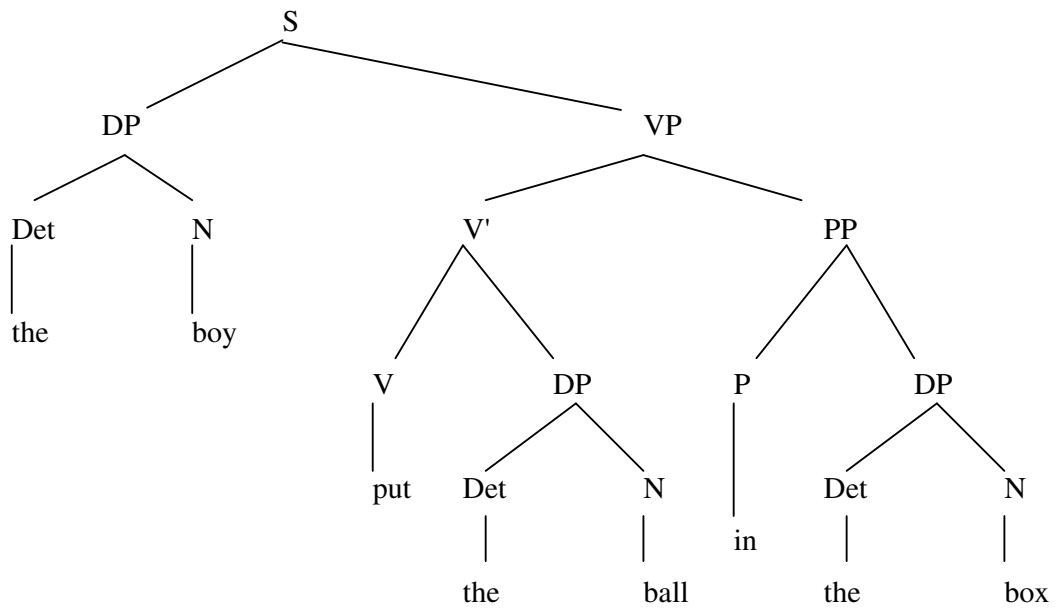
a.



b.



c.



Subcategorisation

8.

- a. The boy bought a driving license.
- b. *The boy bought.
- c. The boy bought a driving licence from the instructor.
- d. The nurse slept.
- e. *The nurse slept the baby.

9. The verb *buy* is transitive and therefore must be followed by an object DP while *sleep* is intransitive and cannot be followed by an object DP. Because these properties are unpredictable, they will be listed in the lexicon.

10.

- buy: V __ DP
- find: V __ DP
- sleep: V __

When Syntax Meets Semantics

11. The principle of compositionality: the meaning of a sentence depends on both the meaning of its words and how those words are combined.

12. Homer strangled Bart

13. In order to understand (12), you must know what *Homer* and *Bart* refer to and what action is denoted by *strangled*. However, the sentence does more than just refer to Homer, *Bart* and an act of *strangling*: it also tells us who is doing the strangling and who is suffering from it.

14. Bart strangled Homer.

15. The sentences in (12) and (14) contain the same words but convey two different semantic relations between Homer and Bart. However, in both cases the subject DP carries out the action while the object DP undergoes the action. This seems to indicate a one-to-one relationship between meaning and structure.

16.

- a. John undertook the surgery.
- b. John underwent the surgery.

17. Despite being the subject in both cases, John is the doer in (16a), but not in (16b):

- a. what John did was undertake the surgery.
- b. *what John did was undergo the surgery.

18. It looks like we must abandon the idea of a one-to-one relationship between the two components. Although syntax only involves two relations (subject and object) they can be associated with more than one semantic relation. This is the view taken by **theta theory**.

19. DPs can be semantically related to a verb in various ways: AGENT (the DP intentionally initiates the action expressed by the verb) THEME (the DP is undergoing the action expressed by the verb).

- 20. a. The dog bit the cat
- b. The cat was bitten by the dog

21. In (16b), syntax has assigned the **theta role** THEME to the DP in subject position while in (16a) it has assigned the AGENT role to the subject and the THEME role to the object.

22.

- buy: V [AGENT, THEME]
- find: V [AGENT, THEME]
- put: V [AGENT, THEME, GOAL]
- undertake: V [AGENT, THEME]
- undergo: V [THEME, GOAL]

23. Theta theory formalises the idea that the relationship between syntax and semantics is not one-to-one. A single syntactic notion such as *subject* can be associated with various semantic notions (e.g. AGENT, THEME, EXPERIENCER).
- 24.
- a. John shut the door
 - b. *John shut
25. The door shut
26. The verb *shut* must assign a THEME role to some DP. Consequently, (24b) is ungrammatical because the THEME role is not assigned (there is no DP it can be assigned to) while (24a) and (25) are fine because the THEME role has been assigned (to *object* and *subject* respectively).
- 27.
- a. John broke his arm (when he fell off his bike)
 - b. John broke his arm (to get out of taking a syntax exam)
28. Theta theory offers an explanation for cases of ambiguity like (27): break carries an AGENT a THEME and an EXPERIENCER role. While the THEME is always assigned to the object DP, the subject can receive either an AGENT or an EXPERIENCER role, thus allowing for two separate interpretations.
- 29.
- a. John lost his wallet
 - b. John dropped his wallet (and lost all his credit cards)
 - c. John dropped his wallet (to demonstrate gravity)
30. The subject of drop can be assigned either an EXPERIENCER role (e.g. 29b) or an AGENT role (e.g. 29c) while the subject of lose can only be assigned an EXPERIENCER role. (the subject of lose experiences the action denoted by the verb while the subject of drop can either experience or initiate the action denoted by the verb).

31.

- a. The door shut [THEME]
- b. John shut the door [AGENT, THEME]

32. Languages differ as to which verbs allows the alternation in (31). Some Italian verbs only assign a THEME role although their English counterparts can also assign an AGENT:

33. English

Italian

Planes fly	THEME	Gli aerei volano	THEME
Pilots fly planes	AGENT, THEME	*I piloti volano gli aerei	*AGENT, THEME
The ball rolled	THEME	La palla rotolava	THEME
John rolled the ball	AGENT THEME	*Gianni rotolava la palla	*AGENT, THEME
The box slid down the stairs	THEME, GOAL	La scatola scivolo' dalle scale	THEME, GOAL
John slid the box down the stairs	AGENT, THEME, GOAL	*Gianni scivolo' la scatola dalle scale	*AGENT, THEME GOAL

34. Languages may also differ with regard to what theta roles are allowed in a specific syntactic position:

- a. This hotel forbids dogs (English)
- b. *Dieses Hotel verbietet Hunde (German)

35. In diesem Hotel sind Hunde verboten

In this hotel are dogs forbidden

'dogs are forbidden in this hotel'

36.

- a. John smokes cigars
- a'. John smokes
- b. Bill ate pizza
- b'. Bill ate

37.

smoke: V [AGENT, (THEME)]
eat: V [AGENT, (THEME)]

38.

shut: V [(AGENT), THEME]
fly: V [(AGENT), THEME]
volare: V [THEME]

Reading

- Fromkin, V., Rodman, R. & Hyams, N. (2002). An Introduction to Language. 7th edition. Heinle. (Ch. 5 from 'Phrase & Sentence Meaning' to 'Sentential Meaning')
- Radford, A. (1997) Syntax: A minimalist introduction. Cambridge: CUP.
(pg. 163-166)

Back Up Exercises

1. Suggest theta roles for the following structures:
 - a. Mary is cooking dinner
 - b. Dinner is cooking
 - c. John opened the door
 - d. The door opened
 - e. Bill grows artichokes
 - f. Bill's artichokes are not growing
 - g. Susan smelled the rose
 - h. Susan's feet smelled
 - i. Mary is reading Semantic Structures
 - j. Mary is reading

2. Provide lexical specifications for each of the verbs in (1).
3. How can we explain the following facts in terms of theta roles?

- a. The enemy sank the ship deliberately.
- b. The ship sank
- c. *The ship sank deliberately
- d. We sold the books in order to raise money
- e. These books sell well
- f. *These books sell well in order to raise money

4. Provide examples for each of the following lexical specifications:

V [AGENT]

V [AGENT, THEME]

V [AGENT, (THEME)]

V [(AGENT), THEME]

V [EXPERIENCER, THEME]