GETTING INTO MEANING

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Índice

INTRODUCCIÓN

Cuando ya hace unos años se me presentó la oportunidad de enseñar semántica dentro de la titulación de Filología Inglesa, surgió en mi enseguida cierta inquietud acerca de cómo transmitir a los alumnos contenidos semánticos que por lo general se caracterizan por su naturaleza abstracta y compleja. Mi inquietud aumentaba al ser consciente de la dificultad añadida de que los alumnos poseen la lengua inglesa como segunda lengua, y que por consiguiente, presentarían carencias claras y lógicas en cuanto al conocimiento léxico de dicha lengua. Es por ello, que a lo largo de cinco cursos académicos he trabajado y reflexionado sobre la metodología que debería utilizar en mis clases para transmitir de manera eficaz los contenidos semánticos pertinentes. Este manual es el fruto de muchos años de trabajo, de ensayos, puestas en práctica y correcciones, y sobre todo es el resultado de un trabajo en el que las opiniones y comentarios del alumnado, así como sus dudas y problemas planteados en el aula, han sido tenidos muy en cuenta contribuyendo de manera inconmensurable a la hora de elaborar y mejorar esta guía didáctica.

Para poder lograr los objetivos del proceso de enseñanza-aprendizaje, esta guía didáctica ha sido pensada y diseñada partiendo siempre desde el punto de vista del alumno y tendiendo como principal objetivo el conseguir motivarlo a través de la presentación de actividades que le permiten trabajar en clase en parejas y/o grupos, y que le guían en el desarrollo y conclusión finales de las distintas nociones y conceptos relacionados con la semántica. El tipo de ejercicios que se encuentran en las cuatro unidades que forman esta guía didáctica fomenta la reflexión por parte del alumno de su propio conocimiento semántico, a través de tareas que le permiten poner en práctica su capacidad lingüística y semántica de la lengua inglesa.

Esta guía didáctica servirá como complemento práctico al manual que ya existe de la asignatura "Gramática Inglesa II", *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003) (Servicio de Publicaciones de la ULPGC), y que está principalmente constituido por una recopilación de textos por diversos autores relevantes en el desarrollo teórico de la semántica y de la pragmática, acompañados de ejercicios y preguntas que pretenden consolidar los conocimientos presentados a través de los textos. El manual *Getting into Meaning* está estructurado en cuatro unidades que se corresponden en gran medida con las unidades que aparecen en el manual ya existente de dicha asignatura. Así, por ejemplo, en la unidad 1 se presentan nociones básicas necesarias para el posterior desarrollo de la asignatura, y que a su vez pretenden

delimitar desde un principio el campo de estudio de la semántica y la pragmática. La segunda unidad aborda el estudio léxico de las palabras desde tres dimensiones complementarias - la denotación, el sentido y la referencia (*denotation*, *sense* y *reference*) - centrándonos principalmente en el estudio de la referencia. El análisis de las relaciones léxicas (s*ense relations*) entre palabras y de sus propiedades (*sense properties*) se estudia en la unidad 3, y la última unidad presenta los tipos de relaciones de significado que se dan a nivel oracional, así como una introducción básica a la lógica predicacional y proposicional (*predicate and propositional logic*).

PAPEL DE LA ASIGNATURA EN EL PLAN DE ESTUDIOS

La asignatura "Gramática Inglesa II", tal y como exige el BOE, se centra en la descripción científica y detallada de la lengua inglesa en dos aspectos fundamentales: el aspecto semántico y el aspecto pragmático de dicha lengua. Debido al carácter independiente (aunque a la vez altamente relacionados) de estas dos disciplinas lingüísticas, la asignatura está estructurada en dos componentes claramente diferenciados, que permiten su estudio de manera individual pero que a la vez ofrecen al alumno una visión global de lo que significa el estudio del significado en una lengua, en este caso en particular, de la lengua inglesa.

El papel que juega la asignatura "Gramática Inglesa II" en el Plan de Estudios general de la titulación es especialmente relevante por diferentes razones. Por un lado, la asignatura ofrece a los alumnos en su último curso el estudio detallado del componente semántico y pragmático de la lengua inglesa que hasta ahora en la titulación no habían tenido. Además, esta asignatura complementa los contenidos presentados a los alumnos en la asignatura "Gramática Inglesa I" que se imparte en tercer curso y que se centra en el estudio morfológico y sintáctico de la lengua inglesa. Otro de los motivos por los que esta asignatura es de especial relevancia para los alumnos de la titulación de Filología Inglesa está relacionado con el hecho de que en el Plan de Estudios de esta titulación se observan carencias claras (y frecuentemente denunciadas por nuestros propios alumnos) con respecto al desarrollo de las destrezas lingüísticas en inglés, ya que los alumnos sólo reciben clases de lengua inglesa en el primer y segundo cursos. De este modo, esta asignatura (junto a la asignatura de Gramática Inglesa I de tercer curso) les mantiene en contacto directo con la lengua inglesa ayudándoles de manera paralela a desarrollar sus competencias lingüísticas en el aprendizaje y adquisición de dicha lengua.

UNIT 1 BASIC CONCEPTS IN SEMANTICS

1. Types of linguistic knowledge
2. Types of meaning
3. Semiotics and signs
4. Branches of the study of meaning in language
5. Semantics and pragmatics
6. Utterances, sentences and propositions
7. What is a word? Forms and expressions; the token and type distinction; full and empty word-forms
8. What have you learned so far? Revision test

INTRODUCTION

1. TYPES OF LINGUISTIC KNOWLEDGE

- **ASSIGNMENT 1: On the nature of language**

  Read the text "The nature of language" by Kreidler (1998:3-5) from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), pp. 30-32, and summarise it; you should try to include in your summary the answer to question 16 on page 33.

- Using the **semantic knowledge** that you have, what can you say about the following pairs of sentences? Do they describe the same situation?

  1. *Ralph borrowed the book from Daniel / Daniel lent the book to Ralph*.
  2. *Pete bought a sweater for his brother / Pete bought a pullover for his brother*.
  3. *Pete is the headmaster of the French school / Pete is not the headmaster of the French school*.
  4. *Sentence 2 is false / Sentence 2 is true*.
  5. *There's a mouse under the table / There's an animal under the table*.

  What do the following sentences mean?

  6. *Mary took the hamster to a small animal hospital*.
  7. *When I saw her, she was crying*.

2. TYPES OF MEANING

- COMMON USES OF THE MEANING OF 'MEAN' (examples from Palmer (1981:3) and Lyons (1995)):
    8. I mean to be there tomorrow. / Mary means well.
    9. The red flag means danger. / Smoke means fire.
    10. What does 'calligraphy' mean? It means 'beautiful handwriting.'
    11. It wasn't what he said, but what he meant.

- TYPES OF MEANING: do you know the meaning of the following sentences:
    12. I went to the beach yesterday.
    13. I went to the bank.
    14. That's mine.
    15. He's very intelligent.

    If sentence (14) were uttered by a speaker as he or she winks or shakes his/her head, what would the meaning of that sentence be? And, if example (15) were said by a speaker using sarcasm or irony, what would the meaning of the sentence be? Can you work out the two different types of meaning that can be distinguished?

- Which of the following aspects and examples would you associate with *word* and *sentence meaning*, i.e. with the meaning of words (lexical structure) and sentences (grammatical structure), and which with examples of *speaker meaning*, i.e. with aspects of meaning which are not directly related to the grammatical and lexical structure of a sentence?
    16. Prosodic features (fall/rise intonation, stress, rhythm, loudeness)
    17. *It is cold in here*.
    18. *It is cold in here* (what you really want is to be allowed to close the window)
    19. Paralinguistic features (e.g. facial expressions and gestures)
    20. *John told me the secret.*
    21. *It was John that told me the secret* (clefting)
    22. *I wouldn't do that if I were you* (the speaker holding a gun).
    23. *When did you stop taking drugs*?
    24. *Shut up*! */ Could you please be quiet?*

Could you attempt your own definition of SENTENCE/WORD MEANING and SPEAKER MEANING?

3. SEMIOTICS AND SIGNS

Read the following pages from the manual *Introducing Semantics and Pragmatics: a Reader and Workbook* (2003) and do the following tasks*:*

- Read page 51 (Cruse, 2000:10-12) and pages 28-29 (Saeed, 1997:5) as regards *semiotics*.
- Read the section on *iconicity* (Cruse, 2000:7) on pp. 24-25.
- Answer question 1 on page 53 and question 2 on page 32.
- Answer these questions: How many different types of signs do semioticians distinguish? What type of signs do the words of a language correspond to?

4. BRANCHES OF THE STUDY OF MEANING IN LANGUAGE

In the manual *Introducing Semantics and Pragmatics: a Reader and Workbook* (2003) pages 51 to 53 (Cruse, 2000:15-16), you will find a brief introduction to the following branches of the study of meaning: lexical semantics, grammatical semantics, logical semantics and linguistic pragmatics. Read those pages and answer question 2 on page 53.

5. SEMANTICS AND PRAGMATICS

- What does the sentence *I'd like a glass of water* mean in the following situations:
  (i) uttered by a speaker at a restaurant
  (ii) uttered by a speaker after running 5 kilometres
  (iii) in the middle of the speaker's ascent to a high mountain?

- Decide whether the following aspects should be studied by semantics or not:
  a. ambiguities in the expressions of a language
  b. intention of the speaker
  c. meaning encoded in linguistic expressions
  d. socio-cultural aspects of context

e. meaning relations between linguistic expressions (e.g. are the two members in each of the following pairs somehow related? *sweater – pullover; book – page*; *big – small*)
f. the use of language on particular occasions
g. the speaker's psychological state
h. the use of language by particular speakers within a particular speech community
i. meaning in abstraction / in isolation

- From Cann (1993:1):

> In its broadest sense, **semantics** is the study of meaning and **linguistic semantics** is the study of meaning as expressed by the words, phrases and sentences of human languages. It is, however more usual within linguistics to interpret the term more narrowly, as concerning the study of those aspects of meaning encoded in linguistic expressions that are independent of their use on particular occasions by particular individuals within a particular speech community. In other words, semantics is the study of meaning abstracted away from those aspects that are derived from the intentions of speakers, their psychological states and the socio-cultural aspects of the context in which their utterances are made.

- The following quotation by Chierchia and McConnell-Ginet (1990:1-5) summarises what should be understood by semantics and pragmatics:

> **Semantics** is the branch of linguistics devoted to the investigation of linguistic meaning, the interpretation of expressions in a language system (...). Semantics can be thought of as explicating aspects of interpretation that depend only on the language system and not on how people put it to use. In slightly different terms we might say that semantics deals with the interpretation of *linguistic expressions*, of what remains constant whenever a given expression is uttered (...) **Pragmatics** is the study of *situated uses* of language, and it addresses such questions as the status of utterances as actions with certain kinds of intended effects.

- Now you can read pages 33-35 (Saeed, 1997:17-19) in the manual *Introducing Semantics and Pragmatics: a Reader and Workbook* (2003).

6. UTTERANCES, SENTENCES AND PROPOSITIONS

- Consider the following example: *I'm really keen on semantics*. Read this example aloud. Ask two other classmates to read it aloud for you. In this activity, how many sentences have been involved?

- **UTTERANCES**: are the following examples instances of utterances?
    25. “Good morning”
    26. “Thanks”
    27. “Un café, por favor”
    28. “Merci”
    29. “Water”
    30. “I’m tired. I’m going to bed”
    31. “Schplotesjimdeknb”

- **SENTENCES**: Complete the following statements with the word *utterance* or *sentence* (adapted from Hurford et al., 2007:17):
    32. All performances of "Macbeth" begin with the same _____.
    33. Not all performances of "Macbeth" begin with the same _____.
    34. It doesn’t make sense to talk of the time and place of a/an _____.
    35. It makes sense to talk of the time and place of a/an _____.
    36. One can talk of a loud _____ or a slow _____but not of a loud _____ or a slow _____.

- Notational convention: utterances (between inverted commas), sentences (in italics).

- Which of the following statements correspond to SENTENCE MEANING and which to UTTERANCE MEANING?
    - meaning obtained from associated prosodic and paralinguistic features
    - meaning directly predictable from grammatical and lexical features
    - compositional meaning (meaning of an expression is determined by the meaning of its component parts and the way in which they are combined)
    - meaning obtained from the linguistic and non-linguistic context

- **PROPOSITIONS** (Adapted from Kreidler, 1998:62-66)
  Which of the following expressions is a complete sentence? Do the three expressions share the same semantic content?
    37. we walk in the park
    38. our walk in the park
    39. for us to walk in the park

Do the following sentences express the same proposition?

40. *Joan turned on the TV / Joan turned the TV on.*
41. *Peter sent the e-mail / Peter is the one who sent the e-mail. / The e-mail was sent by Peter / The e-mail is what Peter sent.*
42. *Van Gogh painted the picture Sunflowers / The painting Sunflowers was painted by Van Gogh.*

How many propositions are expressed in this sentence?

43. *John is drawing a cart.*

Relationship between the notions *sentences*, *utterances* and *propositions.* Which of the three notions is the most abstract? Complete the following quotation by Saeed (1997:15) by using one of those concepts.

> To sum up: _____ are real pieces of speech. By filtering out certain types of (especially phonetic) information we can get to abstract grammatical elements, _____. By going on to filter out certain types of grammatical information, we can get to _____, which are descriptions of states of affairs and which some writers see as a basic element of sentence meaning.

State of Affairs (SoA) (Dik, 1997:51):"the conception of something that can be the case in some world". If we imagine a world in which it is the case that a person called "Pete" gives something of type "keys" to a person of type "teacher", then we can say that "give (Pete)(the keys)(to the teacher)" describes that SoA in that world.

The notion of truth: Could you imagine a situation in which one of the situations described in each example is true and the other is false? Do theses pairs of sentences share a description of the same state of affairs, or, in other words, do they share a common proposition? (examples from Hurford et al., 2007:20 and Saeed, 1997:14)

44. *Harry took out the garbage / Harry took the garbage out.*
45. *John gave Mary a book / Mary was given a book by John.*
46. *Isabel loves Tony / Tony loves Isabel.*
47. *George danced with Ethel / George didn't dance with Ethel.*
48. *Dr Findlay killed Janet / Dr Findlay caused Janet to die.*
49. *Caesar invaded Gaul / It was Gaul that Caesar invaded.*

Do the following examples describe the same sort of situation? In which example is the speaker asserting the proposition? And questioning it? And requesting someone to bring it about? So, what can you conclude about corresponding **declarative, interrogative and imperative** sentences? (Adapted from Saeed, 1997:15)

50. *Joan, make the sorbet!*
51. *Joan made the sorbet.*
52. *Did Joan make the sorbet?*

Modality: do the following sentences express the same proposition?

53. *Kate missed the bus / Kate may have missed the bus*.
54. *Kate dances beautifully / Kate can dance beautifully.*
55. *Kate bought a second-hand car / Kate shouldn't have bought a second-hand car*.

Do these different sentences share the same proposition?

56. *I'm cold.*
57. *Tengo frío*.
58. *J'ai froid*.

Definitions of proposition:

- "a proposition is that part of the meaning of the utterance of a declarative sentence which describes some state of affairs" (Hurford et al., 2007:20).
- "the descriptive meaning of a sentence". By descriptive meaning we mean "a concept that provides a mental description of the kind of situations it potentially refers to" (Löbner, 2002:24).

Extra readings on utterances, sentences and propositions:

Palmer, F. R. 1981. *Semantics*. Cambridge: Cambridge University Press (pp. 42-43)

For some scholars it is not the sentence but the proposition that is the basic unit of semantics. One reason for this is the belief that semantics must be truth-conditional, and that propositions, unlike sentences, can always be characterised as true or false. (...) One argument in favour of the distinction is that a sentence such as *I was there yesterday* may be uttered at different times and different places by different people, and may, for instance, assert that Bill Smith was in London on 18 August 1980 or that Mary Brown was in Bristol on 18 August 1981. This sentence cannot, therefore, be said to be true or false, but the various propositions that it states (concerning Bill Smith and Mary Brown) can be. Logic, moreover, which is truth-conditional, is not concerned with grammatical and lexical forms of the sentence, but essentially with its propositional meaning.

There are, however, grave difficulties in restricting semantics to propositions. To begin with, all the kinds of utterance meaning that we have discussed will be outside semantics. More seriously, we shall be restricted to statements, while questions and commands are excluded even though, in actual language, questions and commands are just as important as statements. (...)

Finally, it is obvious that when we wish to refer to propositions we normally do so in terms of sentences (...) Even if logical formulae are used, they are no more than translations of sentences into a logical 'language'. This should make us wonder whether propositions are either necessary or justified. The only real advantage they offer is that they may avoid some ambiguities, but that can be done no less easily by talking about 'sentences with a particular interpretation', by recognising, that is to say, and indicating precisely, those ambiguities that may be troublesome.

Kearns, K. 2000. *Semantics*. London: McMillan Press Ltd. / New York: St. Martin's Press (p. 25)

To discuss the meaning of sentences and other expressions, we need a way to represent them. Sentences written in ordinary writing are not reliable representations of their meanings, as written forms do not always capture sameness or difference of meaning, for example:

(1)a Rameses ruled Egypt.
b Egypt was ruled by Rameses.
c Visiting relatives can be boring.
d Visiting relatives can be boring.

Sentences (1a,b) have different written forms but the same meaning. Sentences (1c,d) have the same written form but different meanings – one means 'Relatives who are visiting one can be boring' and the other means 'It can be boring to visit relatives'. So we need to represent meaning directly, and for this we shall use a notation based on first order logic.

Logic is chiefly concerned with relationships between meanings, particularly the meaning of declarative sentences, in processes of reasoning. The meaning of a declarative sentence – the kind that can be used to make a statement and can be true or false – is a **proposition**.

7. WHAT IS A WORD?

ASSIGNMENT 2: What is a word?

Requirements: the assignment should be typed/computer-printed. Try to put into practice all the things that you learnt in the subjects *English Language I* and *English Language II* so that your text reads reasonably professional.

Tasks:

A. Take some time to consciously read the following extracts from the manual *Introducing Semantics and Pragmatics: a Reader and Workbook* (2003):

- Reading 2.1.I: "Words as meaningful units", (Lyons, 1995:46-48), pp. 58-59
- Reading 2.1.II: "Forms and expressions" (Lyons, 1995:48-52), pp. 59-62. The following passage should be added at the end of this reading (Lyons, 1995:52)

> It is lexemes and lexical meaning that will be at the centre of our attention [...]. But forms, in so far as they are forms of particular lexemes, are also of concern to the semanticist. Different forms of the same lexeme will generally, though not necessarily, differ in meaning: they will share the same **lexical meaning**, but differ in respect of their **grammatical meaning**. For example, the forms *girl* and *girls* have the same lexical meaning (or meanings); but they differ in respect of their grammatical meaning, in that one is the singular form [...] and the other is the plural form [...]; and the difference between singular and plural forms or – to take another example – the difference between the past, present and future of verbs forms is semantically relevant: it affects sentence-meaning. The meaning of a sentence [...] is determined partly by the meaning of the words (i.e. lexemes) of which it is composed and partly by its grammatical meaning.

- Reading 2.1.IV: "Word meaning vs. lexical meaning", (Cann, 1993.3), p. 63
- Reading 2.1.V: "What is a word?", (Cruse, 2000:87-89), pp.64-66
- Reading 2.4.I: "Full and empty word-forms", (Lyons, 1995:65-69), pp. 84-87.

B. The teacher will give you the activities you should do in class.

8. WHAT HAVE YOU LEARNED SO FAR? REVISION TEST

A. Can the same proposition be expressed by different sentences? If so, give an example.

B. Can the same sentence be realized by different utterances? If so, give an example.

C. Can the same sentence express different propositions? If so, give an example.

D. Is an utterance tied to a particular time and place?

E. Is a sentence tied to a particular time and place?

F. Can an utterance be true or false?

G. Complete the following definitions with one of the words or expressions given below (adapted from Hurford et al., 2007:16-17):

UTTERANCE:

phrase; particular occasion; word ; particular speaker; silence; physical; sentences

An UTTERANCE is any stretch of talk, by one person, before and after which there is _____ on the part of that person. An utterance is the USE by a _____, on a _____, of a piece of language, such as a sequence of _____, or a single _____, or even a single _____. Utterances are _____ events.

SENTENCE: thought; neither; grammatical; abstractly; nor; complete; realizations

A SENTENCE is _____ a physical event _____ a physical object. It is, conceived _____, a string of words put together by the _____ rules of a language. A sentence can be thought of as the IDEAL string of words behind various _____ in utterances (…). A sentence is a grammatically _____ string of words expressing complete _____.

H. What do the following definitions correspond to?

1. It is directly predictable from the grammatical and lexical features of the sentence.
2. The meaning that results from using an expression in a given context.
3. This term is used in logic to refer to the content of what the utterance of a sentence asserts on a particular occasion.
4. It is the conception of something that can be the case in some world.

I. Fill in the chart bellow with "+" or "-" as appropriate (adapted from Hurford et al., 2007:23).

	Utterances	Sentences	Propositions
Can be loud or quiet			
Can be grammatical or not			
Can be true or false			
In a particular regional accent			
In a particular language			
Are abstract			

UNIT 2 THE WORLD OF REFERENCE

1. Denotation, sense and reference
2. Reference
    2.1 Types of reference: variable / constant, specific / generic
    2.2 Referring expressions
    2.3 Semantic functions: arguments and predicators
    2.4 Predicates: degree of predicates
    2.5 Extensions and prototypes

1. DENOTATION, SENSE AND REFERENCE

- In this section, you will be reading about different aspects which make up the meaning of expressions. After reading extract 2.5.I "Denotation and sense" by Lyons (1995:77-82) in the manual *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), pages 93-97, do the following tasks:

  Match the following definitions taken from the text with the notion they refer to (sense, denotation, reference):

  1. Relation between an expression and a class of entities (e.g. individuals, events, relations properties)
  2. Relation between an expression and a particular entity
  3. Set or network of sense relations: interlexical / intralingual relations

  Decide whether the following concepts apply to denotation (D), sense (S) or reference (R), or to two or three of the notions at the same time.

  Then, organise them (1-13) into the columns below (some concepts must be used more than once) in such a way that you can establish comparisons and differences among the three notions:

  4. applying to lexically simple/composite expressions
  5. utterance-dependent
  6. inversely related to sense
  7. invariant
  8. internal to the language system

9. associated to different members of the class
10. inversely related to denotation
11. variable
12. utterance-independent
13. relating expressions to classes of entities in the external world

DENOTATION	REFERENCE	SENSE
1. relation between an expression and a class of entities	2. relation between an expression and a particular entity	3. set or network of sense relations: interlexical / intralingual relations

2. REFERENCE

- Reference deals with a relationship between two things or aspects, which ones? In the act of referring, what are the parts involved?

- What is the difference between *reference*, *referent* and *referring expressions*? Give a definition of each of them.

2.1 TYPES OF REFERENCE: VARIABLE / CONSTANT, SPECIFIC / GENERIC

- Consider the following examples and think who the potential referents of such linguistic expressions would be (adapted from Hurford et al., 2007:28):
    14. "the present president" (used in Spain)
    15. "the present president" (used in the USA)
    16. "the present president" (in 1997 in Spain)
    17. "the present president" (in 1997 in the USA)
    18. "the present president" (talking about "El Real Madrid")
    19. "the present president" (of a business company)

  In the light of the preceding answers, according to what aspects does the reference of an expression vary? So, does "the present president" have variable or constant reference?

- What does the term "constant reference" suggest to you? Can you give examples of linguistic expressions with constant reference?

- Is the following statement true or false? Give examples.

  The same referent may be referred to by using different referring expressions and similarly the same expression may be used to refer to different referents.

- Think of different expressions to refer to:
    20. "Prince Charles' late wife"
    21. "Margaret Thatcher"
    22. "Victoria Beckham"
    23. "Venus" (the planet)

- Are the following sentences about a particular dog or particular dogs?
    24. *A dog makes a fine pet.*

25. *Dogs make fine pets.*
26. *The dog was man's first domestic animal.*

So, what is the referent of the phrases "a dog", "dogs" and "the dog" in those examples? (Examples from Kreidler, 1998:141)

- Go back through the examples of generic sentences above. How can GENERIC REFERENCE be expressed in English?

- Could you attempt a definition of SPECIFIC REFERENCE?

- Are the following possible referring expressions? (Adapted from Hurford et al., 2007:61)
  27. "Santa Claus", "God", "that unicorn", "the fairy tale princess"
  28. "one o'clock in the morning", "93 million miles", "eleven hundred"

  So, in our notion of reference, what types of entities are included?

- Do the following underlined expressions have specific or generic reference? Do those expressions have variable or constant reference?
  29. I like <u>oranges</u>.
  30. This <u>orange</u> is really big.
  31. I'd like to be able to know how to fly <u>a plane</u>.
  32. <u>The plane</u> crashed during take-off.
  33. <u>The lions</u> that I saw in the zoo were sleeping.
  34. <u>Lions</u> in zoos look unhappy.

- Types of reference: fill in the missing gaps
  - Expressions either have variable or constant reference.
  - Expressions with _____ reference *always* have *specific* reference.
  - Expressions with _____ reference have either *specific or generic* reference depending on the circumstances of use.

- What type of reference do the following underlined noun phrases have? Variable (V) or constant (C)? Specific (S) or generic (G)?

  35. "Somebody (/) telephoned and left a message (/)for you (/)."

  36. "The lion (/) has a mane (/)."

  37. "I'd (/) like to have a motorbike (/)."

  38. "If I (/) ever go to Paris (/), the first thing I'll do is visit the Eiffel Tower (/)."

  39. "They (/) are sure that last night a young man (/) tried to break into their house (/)."

  40. "Planes (/) are always safer than cars (/)."

2.2 REFERRING EXPRESSIONS

- Underline all the examples of referring expressions that you can find in this passage by Lewis Carroll's *Alice's Adventures in Wonderland* (1965: chapter 11).

  One of the jurors had a pencil that squeaked. This, of course, Alice could not stand, and she went round the court and got behind him, and very soon found an opportunity of taking it away. She did it so quickly that the poor little juror (it was Bill the Lizard) (…) was obliged to write with one finger for the rest of the day (…).

- Go back through the underlined referring expressions in the text above and work out the CLASSES of referring expressions that can be distinguished in English.

- Could the following expressions be used as referring expressions?

"Mark"	"write"	"pleasant"
"and"	"but"	"a girl"
"think"	"between"	"they"
"the boy who is playing with the ball"		"Pat's bike"

- In the following situations, are the DEFINITE and INDEFINITE NOUN PHRASES in capital letters examples of referring expressions, i.e. does the speaker have a particular referent in mind? (adapted from Hurford et al., 2007:37-38, and Kearns, 2000:120)

41. “A MAN was in here looking for you last night.”
42. “John wants to marry A FRENCHWOMAN.”
43. “JOHN married A FRENCHWOMAN.”
44. “Every man who owns a donkey beats IT.”
45. “HE's a very polite man.”
46. “If anyone ever marries Nancy, HE's in for a bad time” (meaning that whoever marries Nancy is in for a bad time)
47. “Mary wants to buy a NORTON BIKE” (she’s negotiating with the owner).
48. “Mary wants to buy a NORTON BIKE” (she will look for one at the Biker Meet).

- How many referring expressions are there in each of the following examples? And how many referents?

49. “Tom Brown is the president of the company.”
50. “The boy who is waving his hands is my brother.”
51. “That woman over there is the president’s wife.”

- Are the following EQUATIVE SENTENCES? (adapted from Hurford et al., 2007:42)

52. “John is the person in the corner.”
53. “Henry the eighth is the current President of the USA.”
54. “Seville is not the largest city in Spain.”
55. “Seville is a large city.”
56. “Dr Jekyll is Mr Hyde.”
57. “Ted is an idiot.”
58. “That woman over there is a reporter.”
59. “The boss is that young lady wearing jeans.”
60. “The boss is not that young lady wearing jeans.”

2.3 SEMANTIC FUNCTIONS: ARGUMENTS AND PREDICATORS

- In the following sentences different referring expressions are given but the sentences are not complete. Could you fill in the slots with possible suggestions?

61. *My sister* _____ *her boyfriend.*

62. *I* _____ *the blue jeans.*
63. *Mark* _____ *the little boy*.
64. *Pete is a* _____.
65. *Sidney is* _____*Australia*.
66. *John's motorbike is* _____
67. *The knife is* _____ *the drawer*.
68. *The knife is* _____ *the table.*
69. *The teacher* _____ *the students a new handout*.
70. *My son is* _____ *our neighbour's dog.*
71. *Susan* _____.

- In the incomplete sentences below, there are no referring expressions. Could you fill in the slots with possible referring expressions?
    72. _____ *is kicking* _____.
    73. _____ *coughed.*
    74. _____ *is in front of* _____.
    75. _____ *is an architect.*
    76. _____ *are beautiful.*
    77. _____ *has written* _____.

- Go back through the expressions which I gave you in 72-77, and circle *the single word or part of a word* which carries more meaning or, in other words, which more clearly contributes to the information of the sentence.

- As you may have noticed, the nature of the expressions given in examples 61-71 is different from the nature of the expressions in 72-77, but both contribute to the meaning of the complete sentence. Thus, within simple declarative sentences we may distinguish two major semantic roles: ARGUMENTS and PREDICATORS.

- Could you attempt your own definition of the semantic function of:
    - Argument:
    - Predicator:

- Underline the arguments and circle the word(s) which function as the predicator in the following sentences and decide what parts of speech can function as predicators:

    78. *Fred is asleep.*
    79. *The paparazzi were following the Indian actress.*
    80. *Geoff was waiting for the morning bus.*
    81. *I am exhausted.*
    82. *Joe is in Los Angeles.*
    83. *The old lady is a teacher.*
    84. *The old lady who lives with her cats is ill.*
    85. *The ladder is behind the door.*

2.4 PREDICATES: DEGREE OF PREDICATES

- Definition: "a PREDICATE is any word (or sequence of words) which (in a given single sense) can function as the predicator of a sentence." (Hurford et al., 2007:48)

- Are the following **PREDICATES**? Work out the classes of predicates.

    'dirty' 'she' 'eat' 'Fiona' 'and' 'actress' 'inside' 'not'
    'behind' 'interesting' 'sneeze' 'father' 'look for'

- Below you have examples 78-85 again. Underline all the predicates.

    78. *Fred is asleep.*
    79. *The paparazzi were following the Indian actress.*
    80. Geoff was waiting for the morning bus.
    81. I am exhausted.
    82. Joe is in Los Angeles.
    83. The old lady is a teacher.
    84. *The old lady who lives with her cats is ill.*
    85. *The ladder is behind the door.*

- **Predicators and predicates:** consider the word 'book' in the examples below and do the following tasks:

    SYNTAX: Give the syntactic function of 'book' in the sentences below

86. *The book is in the drawer.*

87. *Mark wrote a book when he was fifteen.*

From the grammatical point of view, what part of speech (i.e. noun, verb, adjective, preposition) is 'book'?

SEMANTICS: Give the semantic function of 'book' in the following sentences:

88. *The book is in the drawer.*

89. *Mark wrote a book when he was fifteen.*

90. *This is a book.*

From the semantic point of view, is the noun 'book' a predicate in all the sentences? Does the noun 'book' have the same semantic function in all the sentences?

- **Difference between predicators and predicates**: decide whether the following statements correspond to the notions of 'predicator' or 'predicate' (in some cases you will have to fill in a gap with one of these two notions) (adapted from Hurford et al., 2007:49):
  - it identifies the semantic role played by a particular word (or group of words)
  - it identifies elements in the language system
  - it would make sense to envisage a list of the _____of English, as included in a dictionary.
  - It is similar to the 'subject': one can talk of the _____of a sentence, but no list the _____ of English.
  - independent of particular example sentences
  - in a particular sentence
  - A simple sentence only has one _____although it may well contain more than one instance of a _____.

- In which of the following sentences do the predicates 'male' and 'human' function as a predicator? (Adapted from Hurford et al., 2007:50)

91. *The male gorilla at the zoo had a nasty accident yesterday*.

92. *The gorilla at the zoo is a male*.

93. *The gorilla at the zoo is male*.

94. *All humans are mortal*.

95. *Socrates was human*.

96. *These bones are human*.

- Give an example in which the predicate ‘babysitter’ functions as an argument and another one in which it functions as a predicator. Similarly, give an example in which the adjective “gorgeous” is embedded in an argument and one in which it functions as the predicator.

  ‘babysitter’ _____

  _____

  ‘gorgeous’ _____

  _____

- Read the following statement: “Predicates may be embedded in referring expressions to help the hearer identify its referent” (adapted from Hurford et al., 2007:59). Could you easily identify the referent of the referring expression ‘the man’ in sentence 97 in a situation in which there is more than one man?

  97. *Look at the man.*

- **DEGREE OF PREDICATES**

  How many arguments does the predicate ‘like’ need to form a complete proposition? And the predicate ‘rain’ (verb)? And the adjective ‘clever’? And the preposition ‘behind’?

- Write down a definition of degree (or valency) of predicates:

- **VERBAL PREDICATES:** below there is a list of verbal predicates with different degrees. Can you work out the different degrees?

‘rain’	‘kill’	‘die’	‘give’	‘sleep’	‘thunder’
‘hit’	‘snow’	‘make’	‘put’	‘laugh’	‘send’

  Can you associate the different degrees with the major types of verbs in English?

- What is the degree of the verbal predicate ‘put’ in the sentences below?

98. *Put the pens in the drawer.*

99. *Mark put the pens in the drawer.*

- What is the degree of the verbal predicate ‘open’ in the sentences below?

  100. *The bus door opens automatically.*

  101. *Mark opened all the windows.*

- What can you conclude about the degree of the verb ‘eat’ after studying the following examples (from Löbner, 2002:105)?

  102. *Fred is eating spaghetti.*

  103. *Fred is eating spaghetti with a plastic fork.*

  104. *Fred is eating spaghetti with a plastic fork from a big bowl.*

  105. *Fred is eating with a plastic fork from a big bowl.*

  106. *Fred is eating from a big bowl.*

  107. *Fred is eating.*

- Which of the following verbal predicates are like ‘eat’? And which are like ‘open’?

  ‘break’ ‘write’ ‘teach’ ‘drive’ ‘roll’ ‘ring’

- Fill in the gaps in the following quotation from Kearns (2000:38-39) by writing one of the following notions: *argument(s), sentence(s), obligatory* and *optional*.

  … “every predicate has a fixed number of _____ which must be present in a well-formed proposition, and accordingly, a logical form must represent all the arguments of each predicate. Natural language allows for elliptical forms (…), where a/an_____ of the predicate need not be expressed in the _____, although its presence in the proposition is still understood. (…)

  On the other hand, there is a general axiom in syntactic theory that all syntactic _____of verbs (and possibly of other predicates) are _____, and must be expressed in a well-formed _____. Ellipsis is a special exception to this general rule. This principle may be used to test whether or not a phrase is a/an _____ of the verb, for example:

  (36)a Al put the groceries away / on the bench.

  b * Al Put the groceries.

  The asterisk before (36b) indicates that the _____ is ill-formed. A/An _____ with the verb *put* requires a locative phrase expressing where something is

put. _____ (36b) lacks a locative expression and is ill-formed, in contrast to (36a). This is generally taken as evidence that the locative expression is _____ with *put* and therefore is a/an _____ of *put*. Roughly, an expression which can be omitted without making the _____ ill-formed is not a/an _____ of the predicate. The converse is illustrated in (37).

(37) a We planned the weekend the other night.

b We planned the weekend.

Of the two noun phrases *the weekend* and *the other night*, both referring to intervals of time, only the first is a/an _____ of *plan*. The second noun phrase can be left out, and is not a/an _____.

The general principle that the syntactic _____ are _____ has a number of apparent counter-examples falling into two main groups.

The first group are elliptical _____. A possible strategy for at least some of these _____ is to include a sort of 'silent pronoun' in the syntactic structure of the _____ to fill the _____ slot. This allows the _____ _____principle to be maintained, as the silent pronoun counts as an expression of the _____in question, even though it is not pronounced. What it refers to is provided by the context, as is commonly the case with pronouns like *he, she, they,* etc.

Counter-examples of the second kind show what is called **variable adicity**. The **adicity** of a predicate is the number of _____ it takes, derived from the terms *monadic* (= one-place), *dyadic* (= two-place), *triadic* (= three-place), and so on. Verbs with variable adicity seem to have variable numbers of _____ in different _____, for example:

(38)	a <u>They</u> showed <u>the film</u> to <u>the censor</u> on Tuesday.	3
	b <u>They</u> showed <u>the film</u> on Tuesday.	2
	c <u>He</u> served <u>the soup</u> to <u>the guests</u> first.	3
	d <u>He</u> served <u>the soup</u> first.	2
	e <u>He</u> served <u>the guests</u> first.	2
	f <u>She</u> wrote <u>a letter</u>.	2
	g <u>She</u> wrote <u>him</u> <u>a letter</u>.	3
	h <u>She</u> made <u>a sandwich</u>.	2
	i <u>She</u> made <u>him</u> <u>a sandwich</u>.	3

Discussing data like these, linguists refer informally to _____ _____, although strictly speaking a/an _____ is _____ by definition. Indispensability is part of what it is to be a/an _____.

An alternative is to maintain that all _____ are indeed _____, and that the sentence groups above do not contain the same verb – for example, the verb

show in (38a), which has three _____, is not the same as the two-_____verb *show* in (38b). Although this option protects the obligatoriness principle, it conflicts with the common intuition that the sentence groups do contain the same verb, and it carries the consequence that many common verbs must be classed as highly ambiguous.

For the present purposes, phrases which appear to be so-called _____ _____, in that they are _____-like in meaning but can be omitted, will be analysed as arguments in logical forms.

- **ADJECTIVAL PREDICATES**: Study the following examples and draw some conclusions about the degree of adjectives (adapted from Hurford et al., 2007:52 and Löbner, 2002:108):

  108. *It is windy / rainy.*
  109. *Julia is pretty.*
  110. *This book is boring.*
  111. *His socks were smelly.*
  112. *John is fond of Sally.*
  113. *Your house is different from / similar to mine.*
  114. *This book is more boring than that one.*
  115. *My uncle is more interested in Sally than in her sister.*

- **PREPOSITIONAL PREDICATES:** Study the following examples and draw some conclusions about the degree of prepositions (adapted from Hurford et al., 2007:51-52):

  116. *Cairo is in Africa.*
  117. *Your marble is under my chair.*
  118. *The faculty is near the high school.*
  119. *Dundee is between Aberdeen and Edinburgh.*

- **NOMINAL PREDICATES:** Before attempting to draw some conclusions about the degree of nouns, identify the arguments and the predicators in the examples below:

  120. *Las Palmas is a beautiful city.*
  121. *John is a soldier.*

122. *This object is a fork*
123. *The Smiths are neighbours of the Wards.*
124. *Janette Jackson is a sister of Michael Jackson.*
125. *Julie is an employee of that department store*.

- **THE PREDICATE 'BE':** Concentrate on the form 'is' of the predicate *be* in the following sentences and decide whether the function of such form is the same in all the examples:
    126. *This animal is an otter.*
    127. *This gentleman is my father.*
    128. *My father is drawing a mountain.*
    129. *This is the lady I was telling you about at lunch yesterday.*
    130. *The lady I was telling you about at lunch yesterday is in the next room.*
    131. *The person I was telling you about at dinner last night is the man talking to Harry.*
    132. *This room is being redecorated.*

- **LINGUISTIC EXPRESSIONS:** In the following sentences are the underlined expressions examples of (specific) referring expressions, predicating expressions or generic expressions?
    133. *The Italian actor was awarded two Oscars.*
    134. *She is an Italian actress.*
    135. *Sofia Loren was married to Carlo Ponti.*
    136. *The teddy bear was under the bed.*
    137. *The whale is a mammal.*
    138. *The baby is sneezing.*
    139. *Dogs are loyal.*
    140. *Laura is a friend of one of my sisters.*

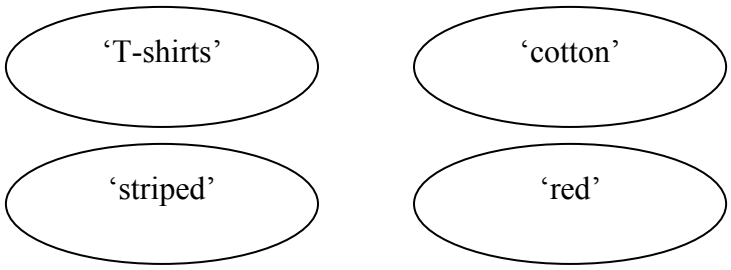
  Complete the following table with information about the function and the classes of linguistic expressions that may be distinguished in English:

REFERRING EXPRESSIONS	**Function:**
	Classes:
PREDICATING EXPRESSIONS	**Function:**
	Classes:
GENERIC EXPRESSIONS	**Function:**
	Classes:

2.5 EXTENSIONS AND PROTOTYPES

- The **EXTENSION** of a predicate is the **set of all individuals** which could be referred to by using that predicate. It is the **set of the things** which can **POTENTIALLY** be referred to by using an expression whose main element is that predicate (adapted from Hurford et al., 2007:81).

- The ellipses below represent the extension of those predicates in a figurative way.



Is the extension of 'striped T-shirts' smaller or larger than the extension of 'T-shirts'? And the extension of 'red striped cotton T-shirts', is it larger or smaller than the extension of 'striped T-shirts'? So, what can you conclude about the extension of a combination of predicates?

- **PROTOTYPE**: a prototype of a predicate is an **object** which is held to be very **TYPICAL** of the kind of object which can be referred to by an expression containing the predicate. In other words, the prototype of a predicate can be thought of as the most typical member of the extension of a predicate (Hurford et al., 2007:87).

- Complete the following definitions with the following concepts: 'extension', 'prototype' and 'referent' (adapted from Hurford et al., 2007:90):
  - The _____ of a referring expression is the thing picked out by the use of that expression on a particular occasion of utterance.
  - The _____ of a predicate is the complete set of all things which could potentially (i.e. in any possible utterance) be the referent of a referring expression whose head constituent is that predicate.
  - A _____ of a predicate is a typical member of its extension.

- Fill in the following gaps by using the terms *sense*, *reference*, or *referent* (adapted from Hurford and Heasley, 1983:78).

  CONTRASTS:

  In the case of most frequent common nouns, at least, an extension is a set of physical objects. Thus, extension contrasts with _____, since a _____is not a set of physical things but a network of linguistic relations. And extension contrasts with _____, since a _____ is normally an individual thing, not a set of things.

  SIMILARITIES:

  Extension is like_____, and unlike_____, in that it is independent of any particular occasion of utterance. Speakers refer to_____on particular occasions, but words which have_____ and extension have them 'timelessly'. On the other hand, extension is like _____and unlike_____, in that it connects a linguistic unit (word or expression) to something non-linguistic, be it as a set of physical objects or an individual physical object, or a set of abstract entities (e.g. songs, distances) or an individual abstract object (e.g. a particular song, a specific distance).

- Fill in the chart below with '+' and '-' signs to indicate the differences and similarities between these concepts (adapted from Hurford et al., 2007:81).

Statements:	**Sense**	**Extension**	**Reference**
Involving a set			
Utterance-independent			
Connecting language to the world			

3. WHAT HAVE YOU LEARNED SO FAR? REVISION TEST

Section 1. Denotation, sense and reference

1. What do the following definitions correspond to?
   a) the relationship between parts of a language (i.e. the linguistic elements, words, sentences, etc.) and the non-linguistic world of experience (i.e. things outside the language (in the world)).
   b) the relationship between an expression and a *class* of various sorts of individuals, events, properties and relations that may be referred to by the use of the expression on some particular occasion.
   c) the complex system of relationships that hold between the linguistic elements themselves (intralingustic relations).

Section 2.1. Types of reference

2. What type of reference do the following expressions have: constant reference or variable reference?

   'that house' 'your laptop' 'Tom' 'Auditorio de Alfredo Kraus'
   'Italy' 'Africa' 'she' 'the file'

3. Give an example of different expressions having one referent.
4. Give an example of an expression that has no reference.

Section 2.2 Referring expressions

5. Is the phrase 'a heavy book' always a referring expression?

6. Which of the following sentences are equative?
    a) Mackenzie is an Irishman.
    b) I was telling you about Mackenzie the Irishman.
    c) Mackenzie is the Irishman I was telling you about.
    d) Mackenzie is a genius.
    e) My sister's daughter is living in the South of England.
    f) Bridget Jones' Diary is a funny book.
    g) Our next guest is Dr Coll.

7. Circle those of the following words which can be referring expressions (in normal everyday English):

    'Susan', 'behind', 'notice board', 'swim' (vb), 'university', 'next', 'difficult', 'below', 'visited', 'he' , 'and', 'centimetre', 'think', 'gnome'

8. Circle the referring expressions in the following sentences:
    a) *I just want any book that explains how to use a dictionary.*
    b) *Mary bought a bottle of wine.*
    c) *Those books were printed in London.*
    d) *My little sister always forgets to lock the kitchen door.*
    e) *A plant gives off oxygen.*
    f) *She saw a suspicious person.*

9. Which of the previous sentences include examples of generic expressions?

Section 2.3 Semantic functions

10. Underline the arguments and circle the predicators in the following sentences:
    a) *The little baby was tired.*
    b) *One of my cousins is redecorating her house.*
    c) *The calculator is inside the left drawer.*
    d) *The party was a disaster.*
    e) *Sue is in front of Mary and Patrick.*
    f) *I'm watching TV.*
    g) *Mark killed the wasp.*

Section 2.4 Predicates: degree of predicates

11. Which of the following words are predicates? What type of predicates are they? And what is their degree?

‘Henry’	‘screen’	‘expensive’
‘and’	‘under’	‘you’
‘cough’(vb)	‘love’(vb.)	‘put’
‘sister’	‘similar-to’	‘keen-on’
‘not’	‘eat’	‘key’

Section 2.5 Extensions and prototypes

12. Write the terms 'referent', 'extension', and 'prototype' next to the appropriate definitions below:
    - Thing typically referred to using a particular predicate: _____
    - Set of things that could be referred to using a particular predicate: _____
    - Thing referred to on a particular occasion of utterance: _____

UNIT 3 WORD MEANING

1. Sense relations between predicates: paradigmatic and syntagmatic
   - 1.1 Identity and inclusion of sense:
     - 1.1.1 The scale of synonymy
     - 1.1.2 Hyponymy and meronymy
   - 1.2 Oppositeness and dissimilarity of sense: antonymy
   - 1.3 Lexical ambiguity: homonymy and polysemy
2. Sense properties of predicates: symmetry, transitivity, reflexivity, reciprocity
3. Describing semantic structure
   - 3.1 Lexical or semantic fields
   - 3.2 Componential analysis or lexical decomposition
   - 3.3 Meaning postulates
4. What have you learned so far? Revision test

1. SENSE RELATIONS BETWEEN PREDICATES: PARADIGMATIC AND SYNTAGMATIC

- Consider the following predicates. Colloquially speaking, do you think that you know the meaning of these words? Could you group them according to some kind of semantic relationship among them?

  big, blue, fat, father, huge, large, mother, overweight, red, son, thin, yellow

- Definitions of sense and sense relations:

  Sense: The sense of an expression is the meaning associated with words and sentences by the language system, as opposed to *speaker or utterance meaning*, which is the meaning associated with utterances made by speakers on particular occasions. (Adapted form Hurford et al., 2007: 95)

  Sense relations: the meaning relations that hold between words and also between sentences.

- **VARIETIES OF SENSE RELATIONS** (Adapted from Cruse, 2000:147-49)

➢ **Paradigmatic relations:** choose appropriate words to complete the gaps in the following sentences:

1. *I'll have a glass of* _____.

   _____.

   _____.
2. *John* _____ *across the field.*

   _____

3. *I'd like a glass of* _____*wine.*

   _____

Do paradigmatic relations involve words belonging to the same grammatical category or to different grammatical categories?

- **Syntagmatic relations:** study the underlined pairs of words and decide which expression in each pair is the correct one:
  4. *I'd like a glass of* <u>*dry sherry / striped sherry*</u>
  5. *The girl* <u>*ran / sat*</u> *across the field.*
  6. *The* <u>*girl / smell*</u> *ran across the field.*

- Which of these examples shows a syntagmatic relation between a verb and prepositional phrase?
- And between an adjective and the head noun?
- And between the subject and the verb?
- Do syntagmatic relations involve words belonging to the same grammatical category or to different grammatical categories?
- Lyons (1995:124) gives a different name to these two types of varieties of sense relations: *combinatorial* relations and *substitutional* relations. Which of these terms corresponds to paradigmatic relations and which to syntagmatic relations?

1.1. IDENTITY AND INCLUSION OF SENSE

1.1.1 THE SCALE OF SYNONYMY

(Activities and examples on synonymy adapted from Cruse (1986), Hurford et al. (2007), Jackson (1998) and Saeed (1997))

- Try to fill in this chart of PAIRS and TRIPLES of synonyms:

NATIVE	**FOREIGN**	**FOREIGN**
brotherly	*fraternal*	
h _ _ _ _ _ _ _	*celestial*	
bodily	*c _ _ _ _ _ _ _*	
l _ _ _ _ _ _	*erudite*	
fiddle	*v _ _ _ _ _*	
h _ _ _	*aid*	
begin/start	*c _ _ _ _ _ _ _*	*initiate*
end	*finish*	*c_ _ _ _ _ _ _*
f _ _ _	*nourishment*	*nutrition*
answer	*reply*	*r _ _ _ _ _ _*

- Have a look at the different senses of the word 'hide' and remember that a word may have different senses and that each distinct sense of a word is a predicate (adapted from Hurford et al., 2007:107)

  "hide$_1$" [I]

  "hide$_2$" [T]

  "hide$_3$" ((n) the place from which you can watch animals without being seen)

  "hide$_4$" ((n) an animal's skin: ox hide gloves)

  Now, observe the following sentence and answer these questions:

  7. *The thief tried to hide / conceal the evidence.*

  - Are *hide* and *conceal* synonymous in this context?
  - Are the words *hide* and *conceal* always synonymous?
  - Is synonymy a type of sense relation between words, between predicates or between senses?

- Consider the following pair of synonyms: *liberty / freedom*. Can the two synonyms be used in the sentence context *I am not at* _____ *to tell you*?

These words share at least one sense in common, but do not share all their senses (i.e. they are like *hide* and *conceal*). Study the following pairs and decide whether they are interchangeable in all the contexts which are given or whether it is only one of the words in the pair that can be used because there is a different sense involved (adapted from Hurford et al. (2007:107-08) and Jackson (1998:65-66)):

- *discover – find*:

8. *We found/discovered the boys hiding in the shed.*
9. *Sir Alexander Fleming found/discovered penicillin in 1928.*

- *keep – retain*:

10. *Keep/retain your ticket for further inspection.*
11. *We keep/retain the door locked all night.*

- *busy – occupied*:

12. *I'm afraid Mr Smith is busy / occupied at the moment.*
13. *I'm afraid this seat is busy /occupied.*

- *decoration – ornamentation*:

14. *These porcelain vases have very fine ornamentation/decoration.*
15. *She's very expert at cake ornamentation/decoration.*

- *broad – wide*:

16. *She's got a broad/wide Scottish accent.*
17. *The river is very broad/wide at this point.*

- **Scale of synonymy**: using your semantic intuition and knowledge, which of the following pairs is more synonymous than the others? (adapted from Cruse, 1986:270)
    a. *settee* ("a long seat with a back an usually arms, for more than one person to sit on")- *sofa*
    b. *die - kick the bucket*
    c. *boundary* ("edge, wall, fence, limit") – *frontier*
    d. *brainy* ("clever, able to learn easily and think quickly") - *shrewd* ("good at judging what people or situations are really like, especially in a way that makes you successful in business, politics etc.")

1. ABSOLUTE/TRUE/EXACT/STRICT SYNONYMY

What do you understand by absolute synonymy?

You are going to read a passage which states the arguments against strict synonymy (Jackson, 1988:66-67). Students A should read "text 1" and students B "text 2". Once you have finished reading your texts, be ready to present the information you have read about to the students in the other group.

TEXT 1

(…) the definition of synonymy as 'interchangeable in all contexts' is sometimes referred to as **strict synonymy**, and many linguists doubt whether synonymy of this kind occurs at all in language. There are two arguments against strict synonymy:

1. One is economic: having two words which are totally synonymous, and even more so if there are large numbers of such pairs, is a luxury which a language can afford to do without. The economy of a language will not tolerate, except perhaps for a short period of time, the existence of two words with exactly the same range of contexts of use; and it certainly will not tolerate a proliferation of them.

2. The second argument against strict synonymy is the historical counterpart to the first. It has been noted that if strict synonyms occur in the language, whether by borrowing or for some other reason, then one of two things tend to happen.

2a. One is that a differentiation of meaning takes place and one of the words begins to be used in contexts from which the other is excluded, perhaps through semantic specialisation. When, for example, *mouton* was borrowed into English from French in the medieval period, it was absolutely synonymous with *sheep*. It still exists in the vocabulary of English as *mutton*, but its meaning is specialised, referring only to the meat of the animal consumed as food, while the animal itself continues to be called by the Anglo-Saxon word *sheep*. Alternatively, (…) one of the words in a synonym pair may be stylistically restricted. Usually, the borrowed word is associated with more formal style. For example, *commence* borrowed from Medieval French, as against Anglo-Saxon *begin* or *start*.

2.b (Student B has this information)

TEXT 2

(…) the definition of synonymy as 'interchangeable in all contexts' is sometimes referred to as **strict synonymy**, and many linguists doubt whether synonymy of this kind occurs at all in language. There are two arguments against strict synonymy:

1. One is economic: having two words which are totally synonymous, and even more so if there are large numbers of such pairs, is a luxury which a language can afford to do without. The economy of a language will not tolerate, except perhaps for a short period of time, the existence of two words with exactly the same range of contexts of use; and it certainly will not tolerate a proliferation of them.

2. The second argument against strict synonymy is the historical counterpart to the first. It has been noted that if strict synonyms occur in the language, whether by borrowing or for some other reason, then one of two things tend to happen.

2a. (Student A has this information)

2b. The other thing that may happen to counter strict synonymy is that one of the words will fall out of use and become obsolete, leaving the other as the sole lexeme with that meaning; or it may become highly restricted, like *kith* [your friends and acquaintances], found only in the expression *kith and kin* [kin: one's relatives]. For example, the word *reward* was introduced into English from Norman French, but English already has a word with the same meaning: *meed*. In this case *meed* had fallen out of use and *reward* has completely taken its place. A similar process has happened with *foe* and *enemy*, though *foe* is still retained in some contexts, mainly of a literature nature.

2. PROPOSITIONAL SYNONYMY

Do examples 18 and 19 share the same propositional meaning? Could the two sentences be used to describe the same state of affairs? Is there any difference between the two examples? So, are *lift* and *elevator* strict synonyms or propositional synonyms?

18. *I'm tired; I'm going to take the lift.*
19. *I'm tired; I'm going to take the elevator.*

Propositional synonyms differ in various aspects of non-propositional meaning:

A. GEOGRAPHICAL DIFFERENCES

- NATIONAL VARIETIES. Complete the following list of British and American pairs of synonyms. Can you add any other pairs of synonyms?

BrE	**AmE**	**BrE**	**AmE**
	elevator	*pavement*	
sweet			*cookie*
	faucet	*boot*	

autumn		*dustbin*	
postman		*frying pan*	

- REGIONAL DIALECTS: Match the following regional dialect words with the standard dialect synonyms.

REGIONAL DIALECTS	**STANDARD SYNONYMS**
butty (Northern English)	*empty*
heartsome (Scottish)	*cheering*
flesher (Scottish)	*post*
tum / *tyum* (Scottish/Northeast))	*sandwich*
stob (Scottish/Northern English/USA dialect)	*butcher*

B. DIFFERENCES OF STYLISTIC LEVEL: FORMALITY

Suggest a more formal synonym for each of the following Anglo-Saxon words that we might associate with colloquial language:

begin: _____ *last* (opposite of *first*) : _____

before: _____ *odd* : _____

burn:_____ *stop*: _____

funny: _____ *think*: _____

C. DIFFERENCES IN REGISTER

Look at the list of technical words and suggest an ordinary language synonym for each of them.

trachea: *windpipe* *cranium:* _____

*cardiac:*_____ *incision:* _____

*lesion:*_____ *ophthalmic/optic:* _____

*pulmonary:*_____ *orthography:* _____

phoneme: _____ *lexeme:* _____

D. DIFFERENCES IN CONNOTATION

Study the following groups of evaluative adjectives and do the following tasks:

- *thin, skinny, slender* :
  - Which of these adjectives is somewhat pejorative?
  - And neutral?
  - And flattering?
- *cheap, inexpensive* : which of these two adjectives would you use in the following examples?
  20. _____ *wine gives me a headache.*
  21. *Don't you think these earrings look too* _____*?*
  22. *It was easy to find clean and* _____*accommodation in the centre of town.*
- *frugal, stingy*: fill in the following gaps with the appropriate adjective and decide which of these adjectives means "careful to only buy what is necessary" and which "(informal) not generous, especially with money, when you can easily afford to be":
  23. *Jim's too* _____*to give money to charity.*
  24. *As children we were taught to be* _____*and hard-working.*
- *fat, plump*: Which word means "pleasantly fat"?
- *naïve, gullible, ingenuous:* which is the less critical adjective?

E. DIFFERENCES IN SENSITIVITY: EUPHEMISMS AND DYSPHEMISMS

In the following passage about the use of euphemisms and dysphemisms, all the examples have been removed from the text. Read the text and match the examples from the table below with the correct paragraphs (adapted from http://www.answers.com/topic/euphemism, http://www.uta.fi/FAST/US1/P1/SLA/skspade.html, http://www.answers.com/dysphemism and http://www.wisegeek.com/what-is-a-euphemism.htm, 13/06/2007)

1. A **euphemism** is an agreeable, mild or vague expression intended by the speaker to be less offensive, disturbing, or harsh to the listener than the word or phrase it replaces. Euphemistic expressions often deal with taboos and often have to do with biological functions, death and sex. _____

2. Similarly, government and military jargon are also filled with euphemistic expressions which attempt to confuse and conceal the truth (this phenomenon is normally referred to as **doublespeak**). ____
3. In modern usage euphemisms are often concerned with politeness. In certain situations using euphemisms instead of saying things directly is considered more tactful. _____
4. Euphemisms often evolve over time into taboo words themselves, through a process described by W.V.O. Quine, and more recently dubbed 'the **euphemism treadmill'** by Steven Pinker. Words originally intended as euphemisms may lose their euphemistic value, acquiring the negative connotations of their referents. In some cases, they may even be used mockingly. _____
5. **Dysphemisms** refer to the usage of an intentionally harsh and offensive word or expression instead of a polite, inoffensive one (they are rough opposites of euphemism). "Dysphemism" may be either offensive or merely humorously deprecating. ____
6. Many of the same subjects can be dysphemized as euphemized, such as sex and death. ____
7. Sometimes a term will go from being a euphemism to being a dysphemism and then go back to being a euphemism. ____

	EXAMPLES
A	For example, employees can be *hired* and *fired*, but perhaps it would be more tactful to talk about *dehiring* instead of *firing* them.
B	For example, *rest room* (AmE) for *toilet*, *pass away* for *die*, *lady of the evening/night* for *prostitute*.
C	Let us consider a lazy person who is watching television, for example: his behaviour could be described in a euphemistic way by saying that he is *recuperating from work,* or by using an insulting substitute such as *couch potato*.
D	A respected dead person may be said to have *passed away*, a disrespected one to be *worm food* or to have *kicked the bucket*.
E	Military organizations frequently do kill people, sometimes deliberately and sometimes by mistake; in doublespeak, the first may be called *neutralizing the target* and the second *collateral damage*.

F	For example, the term "*concentration camp*" was used by the British during the Second Boer War, primarily because it sounded bland and inoffensive. However, after the Third Reich used the expression to describe its death camps, the term gained enormous negative connotations. Since then, new terms have been invented as euphemisms for them, such as *internment camps*, *resettlement camps*, etc.
G	*Queer* and *gay*, for example, both started as euphemisms for *homosexual*, and then got on the euphemism treadmill and became insults—but are now the preferred adjectives amongst the gay community itself.

Match the euphemisms and dysphemisms on the right with the taboo/offensive or neutral expressions on the left:

OFFENSIVE/TABOO WORDS	**EUPHEMISMS**
1. accident, crisis, disaster	global climate change
2. adulterous	95% natural flavorings
3. anti-abortion-rights	administrative assistant
4. contains artificial flavors	friendly fire
5. crippled	incident
6. death insurance	extramarital
7. drugs	disabled, physically challenged
8. global warming	sleep with, make love, do it
9. have sexual intercourse with	life insurance
10. illegal worker	illegal substances
11. juvenile delinquent	undocumented worker
12. killing our own soldiers	problem child, at-risk child
13. lazy	pro-life
14. retarded	between jobs, taking time off
15. secretary	unmotivated
16. unemployed	special, slow, mentally challenged
NEUTRAL WORDS	**DYSPHEMISMS**
1. government	death tax
2. inheritance tax	pro-abortion, pro-death
3. pro-choice	regime

Match the neutral words on the left with their respective euphemisms and dysphemisms on the right:

NEUTRAL WORDS	EUPHEMISMS	DYSPHEMISMS
1. dead	the behind	sloshed, sizzled, stoned, pissed
2. die	go to the toilet	do someone in
3. drunk	departed, deceased, late, lost, gone	kick the bucket, snuff it
4. kill	pass away, pass on, expire, go to heaven	piss, point Percy at the porcelain
5. urinate	put away/down, put to sleep, liquidate, neutralise	pushing up daisies, worm food
6. the buttocks	intoxicated, inebriated	bum, arse, ass

F. DIFFERENCES IN COLLOCATION:

Which of the adjectives below occurs with or collocates with those nouns?

Adjectives: rancid, addled

Nouns: bacon / eggs / butter

The following collective words all mean "group of (animals)"? Could you collocate them with the appropriate group of animals?

flock of _____

school of _____

herd of _____

pride of _____

- Example of distributional differences of words used for the *police* (Saeed, 1997:66):
  - regional constraints: *the guards* (Irish English from the Irish *garda*): *the old Bill* (BrE); *the heat* (AmE)
  - formality: *police officer* (formal); *cop, copper*, *the old Bill*, *the heat* (slang, colloquial contexts)
  - negative connotations: *fuzz, flatfoot, pigs, the slime*; neutral connotations: *cop*
  - collocation restrictions: a police/cap car but not very likely ?*a guards car*, ?*an Old Bill car*.

3. NEAR-SYNONYMY OR PARTIAL SYNONYMY

Are the predicates *kill* and *murder* synonymous in the following example?

25. *He was killed but I can assure you that he was not murdered.*

- Minor differences between near-synonyms:

  In degree:

  fog /mist:

  disaster / catastrophe:

  hot / scorching

  pull / heave:

  big / huge:

  weep / sob:

  In certain adverbial specializations of verbs:

  amble /stroll:

  chuckle / giggle:

  drink / quaff

- Overlap of meaning → group the following words into triplets of lexemes with overlapping meanings and explain the differences among them:

decorate	enlist	wages
hire	income	make up
recruit	salary	paint

1.1.2 HYPONYMY AND MERONYMY

HYPONYMY

- How could you paraphrase the relation between the predicates *tulip* and *flower?*

- **Sentence frames**: *X (hyponym) is a type/kind/sort of Y (superordinate).*

- Which of the following predicates is the hyponym and which the superordinate?

  lion-mammal; dog-collie; scarlet-red; duck-bird; table-furniture

- Give some **co-hyponyms** of the following predicates:

  tulip: _____

  robin: _____

- Which is the corresponding **superordinate** of the following sets of hyponyms:

  apples, pears, grapes, oranges: _____

  car, lorry, pick-up, van: _____

  knife, fork, spoon: _____

- Fill in some missing **hyponyms**:

  Meat: _____

  *Garment:*_____

  *Furnitur*e: _____

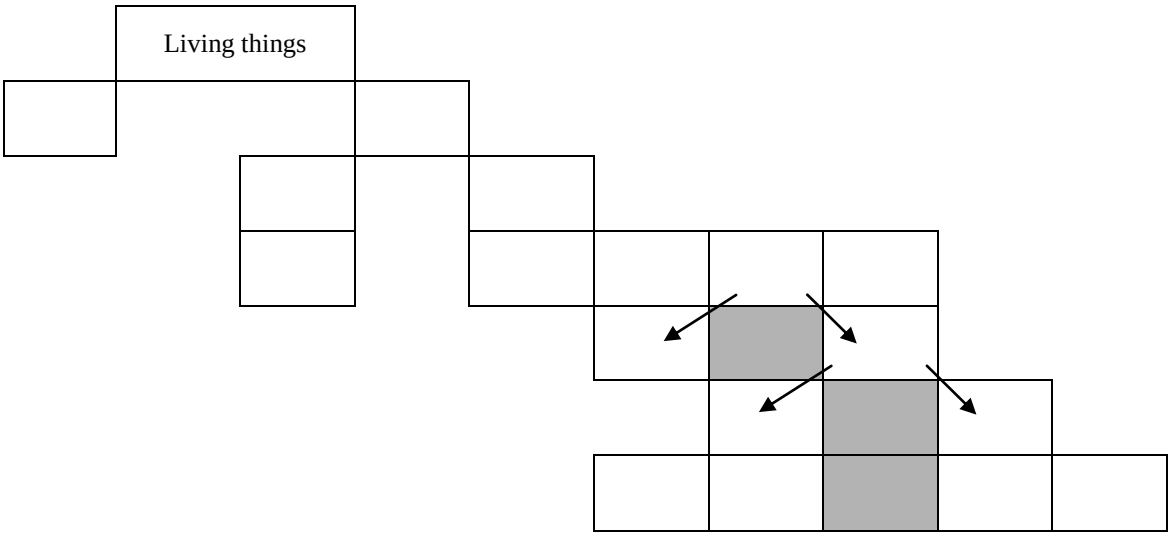
  Chair: _____

- Try to explain the following statement:

  In the hierarchical relationship of hyponymy, the same predicate may be a hyponym and a superordinate at the same time and at the same level.

- Arrange the following predicates in the form of a 'tree diagram' showing the **hierarchical** relationship among them (the first element in the tree diagram is *living things*):

  horse, tiger, donkey, reptile, equine, leopard, feline, fish, human, living things, animal$_{1, 2, 3}$*, insect, vegetable, bird, vertebrate, invertebrate*



- In logical terms, hyponymy is a **transitive relation** (Cruse, 2000: 152):

  If A is a hyponym of B, and B a hyponym of C, then _____ is necessarily a hyponym of _____ (where A = *spaniel*, B = *dog*, C = *animal*).

- Think about the sense relation of inclusion between the predicates *cow* and *animal*. What is the hyponym and what is the superordinate? Is the hyponym included in the superordinate term or vice versa?

- In which sense is the sense relation of hyponymy related to the notion of extension? Write down the answer to this question using your own words and give it to your teacher.

- Related to the ideas of extension, sense and informativeness (adapted from Hurford et al., 2007:111 and Kreidler, 1998:93):
  - Which of the following descriptions is the more specific?
    a. a man, 5ft 8in tall, with black hair, moustache, no beard, wearing a black sweater, blue denim jeans, and boots.
    b. a man in blue denim jeans.
  - Which of the above descriptions gives more information?
  - Which of the above descriptions describes more men?
  - In general, does giving more information increase or reduce the range of things described?

- Which sentence is more informative, a sentence containing a hyponym (e.g. *There's a horse in that field*) or a sentence containing the corresponding superordinate (e.g. *There's an animal in that field*)?

MERONYMY

- How could you paraphrase the relation between the predicates *page* and *book?*

- **Sentence frames:** *X is part of Y / Y has X/Xs.*

- Give some **meronyms** of the following predicates:

HOLONYM	**MERONYMS**
Arm	
House	
Head	
Trunk (body)	
Shoe	
Car	

- **Variations:** how **necessary** is the part to the whole?

  Decide whether the following "part" predicates are *necessary (N), usual (U)* or *optional (O)* with respect to their whole*:*

  - *hinge - door*
  - *nose - face*
  - *cellar - house*
  - *collar - shirt*
  - *beard - face*
  - *buckle - belt*
  - *lace - shoe*
  - *prong - fork*
  - *lapel - jacket*
  - *wick - candle*

- In logical terms, is meronymy a **transitive relation**?

1.2 OPPOSITENESS AND DISSIMILARITY OF SENSE: ANTONYMY

- What is the opposite of *woman*? And of *girl*? And of *yellow*? And of *warm*? And of *parent*? And of *true*?

- Using the semantic knowledge that you have, provide an antonym for each of the following predicates and arrange them into four sets with four pairs each:

alive:	*elephant:*	*male:*	*narrow:*
red:	*open:*	*over:*	*receive:*
true:	*sell:*	*kitchen:*	*small:*
tall:	*weak:*	*wife:*	*tulip:*

1. _____
2. _____
3. _____
4. _____

- **TYPES OF ANTONYMY**

1. BINARY ANTONYMS

- The pair *true-false* is an example of binary antonymy. How could you define it?

- Test for binary antonyms: "the negative of one term must be equivalent to (or entail) the other" (Hurford et al., 2007:137)

- Are the following pairs of predicates binary antonyms? Apply the test for binary antonyms (adapted from Hurford et al., 2007: 122)

chalk - cheese	*dead - alive*
same - different	*married - single*
cat – dog	*love - hate*
urban – rural	*coastal- inland*
pass – fail	*liquid - solid*

2. CONVERSES

- The pair *parent - child* is an example of converses. How could you define converse predicates?

- Are the following pairs examples of converses?

  in front of - behind

  love - hate

  own - belong to

  left - right

  buy - sell

  open - close

  give - take

  give - receive

  fiancé - fiancée

- Give the converse of the following predicates:

  below -

  husband -

  teacher -

  north of -

  borrow -

- By studying the examples of converses that we have seen so far, work out the **degree** of converse predicates.

3. MULTIPLE INCOMPATIBILITY

- '*Yellow- blue (and any other colour)*' is an example of multiple incompatibility. How could you define this kind of opposition?

- Give the predicates which complete the following sets of multiple incompatibility:

  *spring,*_____

  *solid,*_____

  air, earth, _____

north, _____

Monday, _____

clubs, diamonds, _____ (suits in cards)

daffodil, _____

brass, tin, _____

- What can you conclude about the number of predicates which constitute the different systems of multiple incompatibility?

4. GRADABLE ANTONYMS

- The pair *hot-cold* is an example of gradable antonymy. How could you define it?

- Do gradable antonyms stand in a binary opposition?

- Give the gradable antonym which is at the opposite end of the following scales of value:

  tall

  long

  love

  old

  big

- **Test of gradability:** gradable antonyms may combine with *very, very much, how?* and *how much*?. Apply this test to the following predicates to decide whether they are gradable or not (adapted from Hurford et al., 2007: 125-6):

near	*electrical*	*wide*
cheap	*top*	*beautiful*

- The notion of **markedness** is often applied to pairs of opposites, in which one of the terms is described as the unmarked term, and the other as the marked term. The **unmarked** term is the one which occurs in most of the contexts and is considered to be the more natural. The **marked** term, on the other hand, is the one which is restricted to fewer contexts and is regarded as less natural. Which adjective would you use in the

following examples: *high/low*, *young/old, long/short*? So, what are the marked and unmarked terms in each of these oppositions?

26. *How _____ is the building? It is 200 metres _____.*
27. *How _____ is Mark? Eighteen years _____.*
28. *How _____ is the street? It's 10 kilometres _____.*

- Types of **norm** in gradable antonyms: is there anything wrong in the following sentences?

29. *A hot coffee has the same temperature as a hot swimming pool.*
30. *A young person is older than an old dog.*
31. *A big mouse is a small animal.*
32. *A wide stripe on a dress is narrower than a narrow road.*
33. *'Las Palmas is beautiful' is inconsistent with 'Las Palmas is ugly'.*
34. *This beautiful city is ugly.*

- **Consolidation**: read the following passages about antonymy from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003) and do the following tasks:
  - Read passage 3.3.I "Antonymy" by Kempson (1977:84-86), pp. 126-28 and answer study questions 1 to 6 on page 129.
  - Read passage 3.4.II "Antonymy" by Kreidler (1998:100-101), pp. 129-30 and do practical questions 1 and 2 on pages 130-32. You should also do exercises 1 and 2 below the heading "Some more questions" (from Hoffmann (1993:57)) on page 132.
  - Read pages 133-135 on "Converse predicates" (Reading 3.5.I "Converse predicates; symmetry and reciprocity", by Kreidler (1998:105-107)) and answer the following questions:
    a. What is the degree of converse predicates?
    b. What types of converse predicates can be found in the English language?

1.3 LEXICAL AMBIGUITY: HOMONYMY AND POLYSEMY

- **ASSIGNMENT 3: Ambiguity: types**

  Requirements: this assignment requires group work, so get two/three other students to work with. You should read and discuss the texts which are indicated below orally with the other students in your group.

  Parts: the assignment has two clear parts: the first part should be done outside the class although the feedback will be given in class; as for the second part, the group will have to do some activities in class, so make sure that all the members of the group come to class that day.

  Tasks:

  A. Take some time to consciously read the following extracts from the manual *Introducing Semantics and Pragmatics: a Reader and Workbook* (2003):

  - **Reading 2.1.III** "Word, lexical item and the problem of homonymy", (Kempson, 1977:79-80), pp. 62-63.
  - **Reading 2.2** "Ambiguity" (Cann, 1993:8-9), pp. 67-69.
  - **Reading 2.3.I** "Expressions with more than one meaning" (Allan, 1986:146-155), pp. 72-78.
  - **Reading 2.3.II** "Homonymy and polysemy" (Lyons, 1995:58-60), pp. 79-81.

  B. Assignment-part 1: once you have read the texts:

  1. Answer the following questions in your manual:
     - p. 69, exercise 2.2.1, study questions 1, 2
     - p. 82, exercise 2.3.1, study question 11
  2. Do the following exercises:
     - 2.2.2, pp. 70-72. For examples a, b, c, and d give the type of ambiguity involved
     - 2.3.2, pp. 82-83
  3. Try to explain the ambiguity involved in the two quotations that you can read in the manual on pages 72 (graffito on graffito) and 76 (Lewis Carroll).

  C. Assignment-part 2: quiz on ambiguity: homonymy and polysemy (the appropriate worksheets will be given out in class on the same day)

2. SENSE PROPERTIES OF PREDICATES: SYMMETRY, TRANSITIVITY, REFLEXIVITY, RECIPROCITY

- Predicates can express different types of logical relations between the arguments. Underline the arguments and circle the predicators in the following examples:

  35. *Geoff is a cousin of Tracey.*
  36. *Joan is taller than Claire and Claire is taller than Mary.*
  37. *John is in front of Harry and Harry is in front of Mark.*
  38. *Las Palmas is 8 kilometres from Tafira.*
  39. *My sister is older than Mary and Mary is older than my cousin.*
  40. *Peter is married to Laura.*
  41. *John and Mary kissed (each other).*
  42. *Brad and Angelina argued.*
  43. *Tom resembles himself.*
  44. *Pat is as old as herself.*

  Go back through these examples. What can you conclude about the relation between:

  - Tracey and Geoff in 35?
  - Joan and Mary in 36?
  - John and Mark in 37?
  - My sister and my cousin in 39?
  - Laura and Peter in 40?
  - John and Mary in 41?
  - Brad and Angelina in 42?

- Below you have the description of four types of predicates which express different types of logical relations between the arguments (small case letters stand for arguments and capital letters for predicates). Read these statements and match each type of predicate with the examples above:

A. **Symmetric predicate**: whenever *aRb*, then *bRa* (Chierchia and McConnnel-Ginet (1996:437); if A stands in a particular relation to B, then B necessarily stands in that same relation to A (Cruse, 2000:34).

B. **Transitive predicate**: for three arguments x, y and z, the relations that holds both for x and y and for y and z, also holds for x and z (Palmer 1986:84).

C. **Reflexive predicate**: a relation is reflexive if it relates an argument to itself (Palmer 1986:84).

D. **Reciprocal predicate**: if and only if x and y P, then x P y and y P x.

- Relations that can <u>never</u> be symmetric, transitive or reflexive are **asymmetric, intransitive,** and **irreflexive**. E.g. *father-of* : paraphrase the three kinds of logical relation expressed by this predicate:

  a. _____

  b. _____

  c. _____

- A single predicate may express more than one logical relation at a time: e.g. *father-of*. What types of relations does the predicate *taller than* express (paraphrase the logical relations?

  a. _____

  b. _____

  c. _____

- Read the following quotation by Palmer (1986:85) and explain it in yur own words:

  > **…** a relation that is not symmetric, transitive or reflexive (e.g. *like*) is not necessarily asymmetric, intransitive or irreflexive. For (1) if *x* likes *y*, *y* may (or may not) like *x*, (2) if, in addition, *y* likes *z*, *x* may (or may not) like *z*, (3) *x* may (or may not) like *x*.

- Is *kiss* a symmetric predicate, an asymmetric predicate or neither symmetric nor asymmetric?

- Decide whether the underlined predicates in the following sentences are (a) <u>symmetric</u>, (b) <u>asymmetric</u>, (c) <u>non-symmetric</u>, or (d) <u>reciprocal</u>? Use logical formulae (paraphrasing) to express the logical relation.

  45. *Quicksilver is <u>synonymous to</u> mercury*.

46. *Room five communicates with room six.*

47. *Room five and room six communicate.*

48. *John is taller than Peter.*

49. *My handwriting and your handwriting are different.*

50. *Mark is the spouse of Janet.*

51. *Tom embraced Mary.*

52. *Tom and his son embraced tenderly.*

- Fill in the tables below by grouping the following predicates into the different types of logical relations:

  as old as, behind, cousin-of, father of, intersect,
  kiss, like, older than, similar to, taller than

SYMMETRIC x P y ≡ y P x (necessarily, always)	
ASYMMETRIC if x P y, then NEVER y P x	
NON-SYMMETRIC neither symmetrical nor asymmetrical	
TRANSITIVE x P y, y P z, then x P z	
INTRANSITIVE If x P y, and y P z, then NEVER x P y	
NON-TRANSITIVE neither transitive nor intransitive	
REFLEXIVE: x P x	
IRREFLEXIVE it is never the case that x P x	
NON-REFLEXIVE neither reflexive nor irreflexive	

RECIPROCAL If and only if x and y P, then x P y and y P x	

as old as	
similar to	
cousin-of	
intersect	
father of	
kiss	
like	
behind	
older than	
taller than	

- Are the following predicates symmetric or reciprocal?

argue-with	miles-from
co-operate-with	mix-with
equal-to	near-to
fight (with)	hug
sibling-of	separated-from
similar-to	joined-to

- Now that you know the different types of predicates answer the following questions:
  a. What's the degree of the predicates which establish logical relations?
  b. What type of logical relation holds for the arguments in both directions?
  c. What sense property do you think is not of great use in semantic analysis?
  d. Which of the following sense relations express(es) a symmetric relation and which a transitive relation?

     synonymy

     meronymy

     hyponymy

- **Consolidation:** read passage 3.5.I ("Converse predicates; symmetry and reciprocity", Kreidler (1998:107-110)) on pages 136-138 from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), and answer questions 3, 4 and 5 on page 138. You should also list the types of symmetrical predicates mentioned by Kreidler in the same text.

3. DESCRIBING SEMANTIC STRUCTURE

3.1 LEXICAL OR SEMANTIC FIELDS

- Read text 3.6.I ("Lexical Fields", Kreidler (1998:87-89)) on pp. 139-141 from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003) and answer study questions 1, 2, 3 and 4 on page 141.

3.2 COMPONENTIAL ANALYSIS OR LEXICAL DECOMPOSITION

- Study the componential analyses of five different lexemes into some possible semantic components. Can you guess the lexemes which have been defined? (Adapted from Cruse, 2000:261)

	object; clothing; worn by women; normally visible; on lower part of body; attached at waist; legs not individually covered
	object; implement; cutlery; with cup-shaped concavity at one end; for adding sugar and stirring tea in cup
	object; musical instrument; stringed; played with bow; lowest note: g below middle c
	process; mental; during sleep; experience unreal events
	action; physical; intentional; functions as conventional social signal; apply lips to something

- **Consolidation:** read text 3.7 ("Componential analysis and lexical relations", Kempson (1977:86-92)) on pages 141-148 in *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003) and answer study questions 2, 3 and 4 on page 148.

3.3 MEANING POSTULATES

- A meaning postulate is a representation of a sense relation between two lexical units which takes the form of an implication (*Oxford Concise Dictionary of Linguistics*).

- The following logical connectives are used in meaning postulates:

$\rightarrow$	'if … then'
& (also $\wedge$)	'and'
~ (also $\neg$)	'not'
$\vee$	'or'
$\equiv$	'if and only if'

- Read the following meaning postulates paying special attention to the connectives and identify the type of sense relation that they represent (adapted from Saeed, 1997:292-3 and Hurford et al., 2007:206-212):
  - x DOG $\rightarrow$ x ANIMAL
  - x DEAD $\rightarrow$ ~ x ALIVE
  - x PARENT y $\rightarrow$ y CHILD x
  - x COUCH $\equiv$ x SOFA
  - x ASLEEP $\rightarrow$ ~ x AWAKE
  - x BEFORE y $\rightarrow$ y AFTER X
  - x METAL $\rightarrow$ x MINERAL
  - x IRON $\rightarrow$ x METAL
  - x FATHER y $\rightarrow$ x PARENT y
  - x INSIDE y $\rightarrow$ ~ x OUTSIDE y

- Write the meaning postulates which represent the sense relation existing between the following pairs of predicates:
  - *married – single*:
  - *buy – sell*:
  - *robin – bird*:
  - *below- above*:

- *daughter- child*:
- *learned – erudite*:
- *neon – gas:*

4. WHAT HAVE YOU LEARNED SO FAR? REVISION TEST

1. What does this definition correspond to? "The meaning relations that hold within the vocabulary of a language between words themselves" (Jackson, 1998:64-5).

2. Match the following definitions with one of the two varieties of relations distinguished originally by de Saussure (de Saussure, F. 1916. *Cours de Linguistique Générle*. Translated (1959) as *Course in General Linguistics* by W. Baskin. New York: McGraw-Hill): paradigmatic and syntagmatic sense relations:
   a. "those [= relations] into which a linguistic unit enters through being contrasted or substitutable, in a particular environment, with other similar units" (Palmer, 1976:65)
   b. "those [= relations] that a unit contracts by virtue of its co-occurrence with similar units" (Palmer, 1976:66)
   c. "relations […] which hold between intersubstitutable members of the same grammatical category" (Lyons, 1995:124)
   d. "relations [that] hold typically, though not necessarily, between expressions of different grammatical categories" (Lyons, 1995:124)

3. Consider the following statement: "the meaning of *mammal* is included in the meaning of *lion"*. Which is the hyponymous term in this relationship? And which is the superordinate term?

4. Consider the following statement: "the meaning of *lion* is included in the meaning of *mammal"*. Which is the hyponym in this relationship? And which is the superordinate term?

5. When can we state that the hyponym is more inclusive than the superordinate term?

6. When can we state that the superordinate term is more inclusive than the hyponym?

7. Choose a word from the box to fill in the gaps below.

woman	*parent*	*toddler*	*waitress*	*adult*	*husband*	*adult*
boy	*child*	*spinster*	*parent*	*person*	*baby*	*adult*	*sculptress*

By isolating these two main types of relation, hyponymy and incompatibility, we can characterise the relations between a large web of items. For lexical items do not just stand in one relationship to one other lexical item, but each stands in relationships to many other items. For example, *wife* simultaneously stands in a converse relation of incompatibility with _____, is mutually exclusive with _____, is a hyponym of_____. *Woman* itself has as other hyponyms, _____ and _____, but it is itself a hyponym of _____. *Adult* is incompatible with _____ under one interpretation (see below), and is itself a hyponym of _____. If a word is ambiguous and corresponds to more than one lexical item [predicate], then the different lexical items will stand in different relationships to other lexical items. *Child* is one such example: it can either be used with a meaning incompatible with *adult* (call it $child_1$), or with a meaning incompatible with *parent* ($child_2$) to which it stands in a converse relation. Only the latter sense is a kinship term. Thus $child_1$ is incompatible with _____ and _____, but contains as hyponyms _____,_____ and _____. $Child_2$ is on the contrary not incompatible with _____, but is incompatible with _____.

(From Kempson, 1977:86)

8. Binary and gradable antonyms: Choose one of the words from the box to fill in the gaps below.

absolute	possibilities	narrow	multiple	single	narrow
difference	occasions	two	single	gradable	open	wide

Binary antonyms (or complementary antonyms) are in some ways similar to our gradable antonyms. Both exhibit incompatibility. To say that something is *wide* is to

say that it is not _____. To say that someone is *married* is to say that he is not _____. But there is one striking _____between the two types. With binary antonyms, it is also the case that to say something is NOT the one is to say that it is the other. If Peter is *NOT married*, he is _____ and vice versa. This results from the fact that there are only two _____ (it would not be the same with the _____ sets). With the _____ antonyms, in contrast, although there are only _____ terms, it is not the case to say something is not *wide* is to say that it is _____, or that to say it is *not narrow* is to say that it is _____. The possibility of being neither wide nor narrow is left_____. (...)

A further interesting point is that there is no _____distinction between these two types. We can treat *male/female, married/single, alive/dead* as gradable antonyms on _____. Someone can be very *male* or *more married* and certainly *more dead than alive*.

(From Palmer, 1981:96-97)

9. Name and explain the sense relation holding between the following predicates:

- *begin-commence*:

- *borrow-lend*:

- *die-kick the bucket*:

- *faucet-tap*:

- *flower-tulip*:

- *fog-mist*:

- *iron-copper*:

- *lapel-jacket*:

- *male-female*:

- *meat-pork:*

- *plump-fat:*

- *pullover-sweater*:

- *pulmonary-lung*:

- *punch* (drink) - *punch* (action):

- *shoe-lace*:

- *tail* (of a coat) – *tail* (of an animal):

- *tree-bark*:

- *two – too*:

UNIT 4 SENTENCE MEANING

1. Sense relations between sentences: entailment, paraphrase, contradictoriness
2. Sense properties of sentences: analytic, synthetic, contradiction
3. Typology of State of Affairs and thematic roles within the sentence
4. About logic:
   - 4.1 Predicate logic
   - 4.2 Propositonal logic: truth conditions and truth values
   - 4.3 The logical connectives: truth tables
   - 4.4 Logical notation for complex propositions
5. What have you learned so far? Revision test

1. SENSE RELATIONS BETWEEN SENTENCES: ENTAILMENT, PARAPHRASE, CONTRADICTORINESS

- What does this definition correspond to? "The content of what a sentence is used to assert on any particular occasion" (Kempson, 1977:36).

- Do the following sentences share the same **propositional content**, or in other words, do they have the same **truth value**?

  In order to do this activity you have to imagine real-world situations, or states of affairs, of which particular sentences are TRUE. Remember that TRUTH, in the classical semantic view, only involves the objective situation described. For each of the following pairs of sentences, say whether they are TRUE of all the same situations. (Activity adapted from a workshop given by James Hurford in the 1995 Linguistic Institute, University of New Mexico).

  1. *The door's locked, you stupid git / The door is locked, Sir.*
  2. *It's raining / Of course, it's raining.*
  3. *Pierre is French and a rotten cook / Pierre is French but a rotten cook.*
  4. *I wrote you a letter / I did write you a letter.*
  5. *This bear was shot by Teddy Roosevelt / Teddy Roosevelt shot this bear.*

Do the same task for exercise 4.1.2 (Cruse, 2000:37-38) in the manual *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), pages 157-58.

- **Consolidation:** read passage I ("Sentence meaning; truth condition; propositional content", Cruse (2000:22-24)) on pages 152-54, and passage II ("Propositions", Cruse (2000:25-26)) on pages 155-66 in the manual *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003).

- **ENTAILMENT:** A proposition **p** entails a proposition **q** when the truth of **p** guarantees the truth of **q**, and the falsity of **q** guarantees the falsity of **p** (adapted from Saeed, 1997:90).

    6. *The anarchist assassinated the emperor.***(p)**
    7. *The emperor died.***(q)**

    - If **p** is true, is **q** automatically true?
    - If **q** is false, is **p** automatically false?
    - Do we have to consciously reason to conclude **q** from **p**, or do we just know it instantaneously because of our knowledge of English?
    - If **p** is false, what can we conclude about **q**?
    - The following table summarises the sense relation of entailment. Fill the gaps with the words *true* or *false*:

    p ENTAILS **q**

    p TRUE → **q** _____

    q FALSE → **p** _____

    p FALSE → **q** either _____ or _____

- Are the following statements of entailment correct or incorrect? In order to get your answer, consider whether you can find a situation in which the first proposition is true and the second is false; if that is the case, then, there is no sense relation of entailment between these two sentences (examples from Hurford et al., 2007:112)

    8. *Edmund has just finished building our house* entails *We have a house.*
    9. *Susie did a strip-tease* entails *Susie took her clothes off.*
    10. *John cooked an egg* entails *John boiled an egg.*
    11. *John boiled an egg* entails *John cooked an egg.*
    12. *I saw a boy* entails *I saw a person.*

13. *His speech disturbed me* entails *His speech deeply disturbed me.*

- **PARAPHRASE**: a sentence which expresses the same proposition as another sentence is a PARAPHRASE of that sentence (assuming the same referents for any referring expression involved) (from Hurford et al, 2007:108-09).

- Do the following pairs of sentences show the sense relation of paraphrasing? (All the examples of paraphrases have been taken from Hurford et al., 2007:108-109; 113)
    14. *John is the parent of James /James is the child of John.*
    15. *John is the parent of James / James is the parent of John.*
    16. *My father owns this car / This car belongs to my father.*
    17. *I am orphan / I am a child and have a father and a mother.*
    18. *Some countries have no coastline / Not all countries have a coastline*

- Two sentences may be said to be **PARAPHRASES** of each other if and only if they have exactly the same set of **ENTAILMENTS**; or, which comes to the same thing, if and only if they mutually entail each other so that whenever one is true the other must also be true. (Hurford et al., 2007:112)

- Do the following pairs of sentences have the same SET OF ENTAILMENTS?
    19. *No one has led a perfect life /Someone has led a perfect life.*
    20. *We've just bought a dog / We've just bought something.*
    21. *The house was concealed by the trees/ The house was hidden by the trees.*
    22. *I ran to the house / I went to the house.*
    23. *It is hard to lasso elephants / Elephants are hard to lasso.*

- How many *sentences* are involved in the sense relation of *entailment*?
  And how many *propositions*?
  How many *sentences* are involved in the sense relation of *paraphrase*?
  And how many *propositions*?

- Which sense relation, entailment or paraphrase, shows a symmetric relation? And a transitive relation?

- **RELATIONSHIP BETWEEN HYPONYMY AND ENTAILMENT** (Adapted from Hurford et al., 2007:113-16)

- What can you say about the relationships between the words in column A below and those in column B and the sentences in A and those in B?

COLUMN A	COLUMN B
tulip	*Flower*
sheep	*Animal*
steal	*Take*
Henry was chewing a tulip.	*Henry was chewing a flower.*
Denis got savaged by a sheep.	*Denis got savaged by an animal.*
David stole a pound of beef.	*David took a pound of beef.*

- By using the key words given below, try to state the Basic Rule of Sense Inclusion for AFFIRMATIVE sentences (the beginning of the rule is given to you):

  identical / except / contain / word / hyponym / then / entail

Given two sentences A and B, …

- NEGATIVE SENTENCES: What is the relationship between the A sentences and the B sentences below?

COLUMN A	COLUMN B
Henry was not chewing a tulip.	*Henry was not chewing a flower.*
Denis didn't get savaged by a sheep.	*Denis didn't get savaged by an animal.*
David didn't steal a pound of beef.	*David didn't take a pound of beef.*

Rule of sense inclusion for negative sentences:

Given two negative sentences A and B, identical in every way except that A contains a word X where B contains a different word Y, and X is a hyponym of Y, then _____.

- SENTENCES WITH THE WORD ALL: What is the relationship between the A sentences and the B sentences below?

COLUMN A	**COLUMN B**
Henry chewed up all my tulips.	*Henry chewed up all my flowers.*
All Denis's sheep have a disease.	*All Denis's animals have a disease.*

- GRADABLE WORDS: What are the entailment relations between the following sentences?

COLUMN A	**COLUMN B**
John saw a big mouse.	*John saw a big animal.*
A tall pygmy came in.	*A tall person came in.*
We went in a small bus.	*We went in a small vehicle.*
That was an expensive sandwich.	*That was an expensive meal.*

- Direction of the relation of entailment: SPECIFIC or GENERIC interpretation of the predicate concerned. Does the sentence containing the hyponym entail the sentence containing the superordinate or vice versa? (Adapted from Leech, 1981: 134-135).

SPECIFIC PROPOSITIONS	Direction → ←	SPECIFIC PROPOSITIONS
I saw a boy.		*I saw a child.*
Tom stole a horse.		*Tom took a horse.*
The children were eating apples.		*The children were eating fruit.*

GENERIC PROPOSITIONS	Direction → ←	GENERIC PROPOSITIONS
Boys are a nuisance.		*Children are a nuisance.*
Mothers love their children.		*Parents love their children.*
Women are sensible.		*Adults are sensible.*

- State the direction of the entailment relation in the following pairs (i.e., whether the first sentence entails the second or vice versa) and explain the reason why this sense relation only holds in that direction:

  24. *John has read all my novels _____ John has read all my books.*

  25. *Mary is not going to buy a vehicle _____ Mary is not going to buy a car.*

  26. *Roses are beautiful _____ Flowers are beautiful.*

  27. *I have an old dog _____ I have an old animal.*

  28. *Mark bought twelve roses _____ Mark bought twelve flowers.*

- **CONTRADICTORINES**: a proposition is a CONTRADICTORY of another proposition if it is impossible for them both to be true at the same time and of the same circumstances (from Hurford et al., 2007:126)

- Are the following pairs examples of contradictories? (From Hurford et al., 2007:127)

  29. *John murdered Bill / Bill was murdered by John.*

  30. *John murdered Bill / John did not kill Bill.*

  31. *Bill died / James can't swim.*

32. *Mary is Anne's parent / Mary is Ann's child.*
33. *Room 404 is below this one / Room 404 is above this one.*
34. *This doorhandle is brass / This doorhandle is plastic.*

2. SENSE PROPERTIES OF SENTENCES: ANALYTIC, SYNTHETIC, CONTRADICTION

- **TRUTH-CONDITIONAL** approach to semantics: knowing the meaning of a sentence is equivalent to knowing the conditions under which that sentence could be true, i.e., knowing its **truth conditions:**

  e.g. *John is a bachelor*➔ *John is unmarried.*
  John is male.
  John is human.
  John is adult.

- By using your semantic knowledge, decide whether the following sentences are always true, always false, or you don't really know whether the sentence is true or false:
  35. *Cars are vehicles.*
  36. *Bachelors are unmarried.*
  37. *Bachelors cannot form lasting relationships.*
  38. *Cats are vegetables.*
  39. *Bachelors are female.*
  40. *No cat likes to bathe.*
  41. *Bachelors are lonely.*
  42. *Pat's mother is a woman.*
  43. *Pat's father is a woman.*
  44. *My father is a doctor.*
  45. *This apple is a pear.*
  46. *This proposition is either true or false.*

- Which of the sentences above are true by virtue of the senses of the words in them? Which are false by virtue of the senses of the words in them? Which might be true or false as a matter of fact about the world?

- Given below you have the definitions for the three types of sense properties of sentences: analyticity, syntheticity and contradiction. Complete the definitions with the words *true* or *false* (definitions from Cruse, 2000:31-32)

  Synthetic sentences are those which express _____ propositions in some (conceivable) contexts (…) and _____ ones in others.

  Contradictions are sentences which automatically express a _____ proposition.

  Analytic sentences are sentences which automatically express _____ propositions in any context, by virtue of the meanings of their constituent words and their arrangement.

- Match the examples above (35-46) with the kind of sense property that they represent.

- What type of sentence is the one which is normally used in everyday communication? What type is the one which is really informative?

- **Necessary truth** (analytic truth): truth because of the very nature of language; truth in virtue of meaning, of the semantic rules of the language.
  Contingent truth (synthetic truth)**:** truth by virtue of facts in the world, rather than by virtue of linguistic necessity.

3. TYPOLOGY OF STATE OF AFFAIRS AND THEMATIC ROLES WITHIN THE SENTENCE

- Remember the definition of *State of Affairs* (SoA) which was introduced in unit 1: "the conception of something that can be the case in some world" (Dik, 1997a:51). If we imagine a world in which it is the case that a person called "Pete" gives something of type "keys" to a person of type "teacher", then we can say that "give (Pete)(the keys)(to the teacher)" describes that SoA in that world.

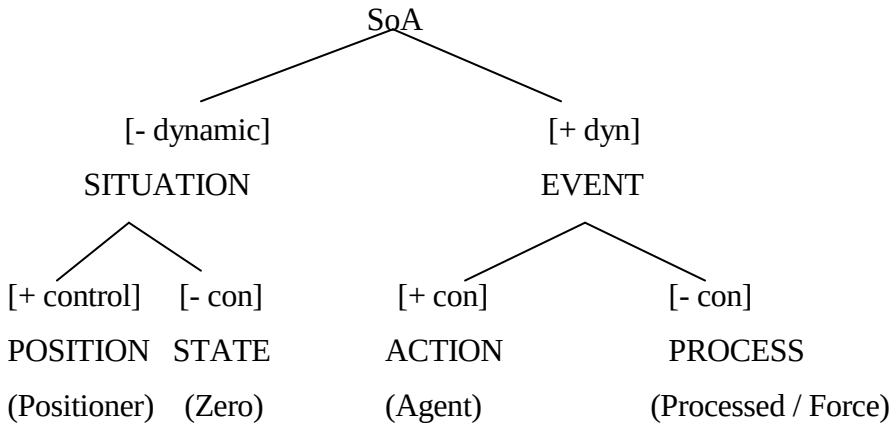
- Study the sentences below and answer the following questions:

  47. *Jane opened the window.*

  48. *Jane heard the window shut.*

- What are the referring expressions in these sentences? What is the degree of the predicates ‘open’ and ‘hear’ in these sentences?
- From the semantic point of view, is the relationship between ‘Jane’ and the event of ‘opening’ the same kind of relation as between ‘Jane’ and the event of ‘hearing’?
- In which example is Jane acting intentionally?
- Examples (47) and (48) represent two different types of State of Affairs: a Process and an Action. Which example do you think represents a Process and which an Action?

- TYPOLOGY OF SoAs. Below I have reproduced an incomplete scheme which tries to represent the different types of States of Affairs presented in FG (Dik, 1997a:105). Notice that the last line introduces the semantic functions assigned to the Subjects of those SoAs between brackets:



- Examples:
  a. *<u>John</u> was sitting in a rocking chair* / *<u>John</u> kept his money in a sock* (Position)
  b. *<u>The bird</u> is ill* / *<u>The baby</u> is in the room* (State)
  c. *<u>Mark</u> painted the room* (Action)
  d. *<u>Mary</u> saw an accident* (Process, Semantic function → Processed)
  e. *<u>The wind</u> opened the window* (Process, Semantic function → Force)

- Thematic roles/ semantic roles/ participant roles/ theta-roles (adapted from Saeed, 1997:140-142 and Dik, 1997:120-122): match the semantic roles from the box below with their description and corresponding examples:

Recipient (Rec)	Location (Loc)
Positioner (Pos)	Processed (Pro)
Force (Fo)	Zero (Ø)
Source (So)	Instrument (Instr)
Goal (Go)	Agent (Ag)

ROLE	**DESCRIPTION**	**EXAMPLES**
	The initiator of some Action, capable of acting deliberately (controlling an Action).	***David*** *cooked the omelette.* *The fox was killed by* ***the hunter****.*
	The non-controlling entity which experiences the Event described by the predicate or the entity (usually a thing) that *undergoes* a Process	***Mary*** *saw the smoke.* ***Lorcan*** *heard the door shut.* ***The apple*** *fell from the tree.* ***A window*** *broke.*
	The entity controlling a Position	***John*** *lives in Las Palmas.* ***John*** *believed the story.*
	The non-controlling entity initiating a Process	***The earthquake*** *moved the rock.* ***The heat*** *suffocated John.*
	The non-controlling entity primarily involved in a State; the entity whose location is being described.	***Kevin*** *felt ill.* ***The book*** *is in the library.*
	The entity undergoing the effect of some Action; the entity that is perceived by a Processed.	*Enda cut back* ***these bushes****.* *Roberto passed* ***the ball*** *wide.* *Mary saw* ***the smoke.***
	The entity for whose benefit or detriment the Action was	*Robert filled in the form* ***for his grandmother****.*

	performed or the entity into whose possession something is transferred.	*The terrorists sent **the president** a letter bomb.* *Pat told the joke **to his friends**.*
	The entity used by a controlling entity in performing an Action.	*She cleaned the wound **with antiseptic wipe**.* *They signed the treaty **with the same pen.***
	The place in which something is situated or takes place.	*The kid was hiding **under the bed**.* *The band played **in a marquee**.*
	The entity from which something moves, either literally or metaphorically.	*The plane came **from Kinshasa**.* *We got the idea **from a French magazine***

- Give the semantic roles for the following referring expressions. Do the semantic roles change in each sentence?

    49. *John opened the door with the key.*
    50. *The key opened the door.*
    51. *The door opened.*

- Give the semantic roles of the referring expressions in the following sentences (examples from Hurford et al., 2007:244-57 and Dik, 1997: 120-122):

    52. *My mother's Imari bowl was broken by a thief.*
    53. *Muriel dealt the cards carefully to each player.*
    54. *Seymour sliced the salami with a knife.*
    55. *The hammer smashed the glass.*
    56. *Crippen dissolved the body with the acid.*
    57. *The acid dissolved the body.*
    58. *Caesar was assassinated in Rome.*
    59. *Keith gave Gill a replica of the Venus de Milo.*

60. *Alan was sent a special offer from the magazine "Reader's Digest".*

61. *Glenn bought a micro-computer for his son.*

62. *The children heard the loud noise.*

63. *Jane watched a movie at home.*

64. *Janice became sick.*

65. *The thunder was heard by everyone.*

66. *John repaired his bicycle in the garage.*

67. *The cup was on the table.*

68. *John jumped from the table.*

69. *The storm destroyed the harvest.*

70. *The book fell from the table.*

71. *The rock moved.*

72. *John placed the dustbin on the sidewalk.*

73. *The wind blew the papers from the bed.*

4. ABOUT LOGIC

- In the following examples, haw many sentences are there? And how many propositions?

    74. *Susan decorated the house / The house was decorated by Susan.*
    75. *Visiting relatives can be boring.*
    76. *John and Mary are married.*

- **Logical notation:** a way of representing meaning unambiguously (Hurford et al., 2007:146-47). The different interpretations in example (76) may be represented in two logical notations or formulae:

    a. (MARRIED-TO j m) & (MARRIED-TO m j)

    b. (∃ x (MARRIED-TO j x)) & (∃ y (MARRIED-TO m y))

- In the following passage some key words have been omitted. Can you put them in the right position? What does *logic* deal with: sentences, utterances or propositions?

  *arguments / complex / connectives / **predicate logic***

  *proposition / **propositional logic***

  Logic is chiefly concerned with relationships between meanings, particularly the meanings of declarative sentences, in processes of reasoning. The meaning of a declarative sentence – the kind that can be used to make a statement be true or false – is a _____. To explore how propositions are related to each other in reasoning, logic analyses their inner structure. _____ analyses certain ways of combining propositions to form _____ propositions. The expressions which are used to combine propositions are the _____ (…)._____analyses the inner structure of simple propositions, which are formed of predicates and their _____ (…). (Kearns, 2000:25)

4.1 PREDICATE LOGIC

- Have a look at the following examples of logical notation given below and work out what they represent, i.e. what do capital letters stand for? And small case letters?

  77. *Mary snores*: SNORE m
  78. *Pat is a teacher:* TEACHER p
  79. *Fred likes pizzas:* LIKE f p
  80. *Pat gave the book to Fred:* GIVE p b f
  81. *Fred gave the book to Pete*: GIVE f b p

- Now have a look at the following examples and study how prepositions are treated in logical notation:

  82. *Pat gave the book <u>to</u> Fred:* GIVE p b f
  83. *Mary is interested <u>in</u> linguistics:* INTERESTED m l
  84. *The book is <u>in</u> the drawer:* IN b d
  85. *Kate is keen <u>on</u> cooking:* KEEN k c
  86. *Bob is looking <u>for</u> the cat*: LOOK-FOR b c
  87. *Bob is looking <u>after</u> the cat*: LOOK-AFTER b c

- Go back through all the examples of logical notations studied so far and work out which words or parts of words are omitted in logical notation.

- Concentrate on the verb *be* in the following examples and work out how it is treated in logical notation:

    88. *Mark is a student:* STUDENT m
    89. *Mark is studying:* STUDY m
    90. *Mark is the boss:* m = b
    91. *George Bush is the President of the United States:* gb = pus

- Translate the following English sentences into logical notation for simple propositions (some examples have been taken form Hurford et al., 2007:152-163):

    92. *Arthur dreamed.*
    93. *Albert swore.*
    94. *Ben sends a present to Sue.*
    95. *The hat is beside the table.*
    96. *Gill is proud of Keith.*
    97. *Ireland is to the west of Scotland.*
    98. *Cardiff is the capital of Wales.*
    99. *Clark Kent is Superman.*
    100. *Clark Kent is mild-mannered.*
    101. *Clark Kent is a reporter.*
    102. *Jack the Ripper was the Duke of Clarence.*
    103. *Mary Clark was a sister of Clark Kent.*
    104. *Freda is shorter than Ellen.*
    105. *Margaret is looking at Bill.*
    106. *Walter is beside Harriet.*

4.2 PROPOSITIONAL LOGIC: TRUTH CONDITIONS AND TRUTH VALUES

- The **truth conditions** of a sentence are the conditions under which it is true. If we know the truth conditions of a sentence, then we know which situations the sentence can refer to (…). (Löbner, 2000:26)

- **Truth value** of a sentence: a sentence has the truth value TRUE if it is true, it has the truth value FALSE if it is false. (…) The truth value of a sentence depends on (…) the truth conditions of the sentence (Löbner, 2000:60)

- If the truth value of the first proposition (107) below is "true", and the truth value of the second (108) is "false", what could you say about the truth value of the combination of the two propositions joined by means of the connective "and" (109)? And if the truth value of the two single propositions is true, what can you conclude about the truth value of the combination of the two propositions? And if it is false in the two cases, what can you conclude about the truth value of the combination of the two propositions?

  107. *Your car has been stolen.*
  108. *I have lost my bag.*
  109. *Your car has been stolen and I have lost my bag.*

- **Logical form:** a lower case letter (**p, q, r,** etc.) → propositional variable
  a special symbol for logical connectives→ e.g. negation ~ (also ¬)

  110. *Your car has been stolen.* p
  111. *Your car has not been stolen.* ~p

4.3 THE LOGICAL CONNECTIVES: TRUTH TABLES

- Propositional (or Sentential) logic "is a simple formal system with rules for combining sentences, usually simply represented by variables, by means of certain basic connectives and interpreting the results in terms of truth and falsity. (…) The only connectives to be considered are those whose meaning can be exhaustively described in terms of the truth values of the sentences they are applied to. (This rules out connectives such as *because, before, but, nevertheless,* etc.)" (Löbner, 2000:73)

- Match the symbols (column A) with their appropriate names for the logical connectives (column B) and with their everyday language equivalents (column C):

COLUMN A	COLUMN B	COLUMN C
1. v, v_e	Negation	or / either … or
2. ≡	Conjunction	if ... then
3. &	Disjunction	not
4. →	material implication	if and only if ... then
5. ~ (or ¬)	Equivalence or biconditional	and

- **TRUTH TABLES:** the effect of connectives in the truth value of compound propositions may be shown in a truth table. By studying the examples below try to fill in the different truth tables with the letter T (for True) or F (for False) depending on the meaning conveyed by the connective in each case.

- **TRUTH TABLE FOR THE CONNECTIVE & (CONJUNCTION):**

112. *Your motorbike was stolen (p) and I lost my keys (q).*

p	q	p & q
T	T	
T	F	
F	T	
F	F	

- **TRUTH TABLE FOR THE CONNECTIVE V (INCLUSIVE 'OR'):** 'either or both'

113. *Your motorbike was stolen (p) or I lost my keys (q).*

p	q	p V q
T	T	

T	F	
F	T	
F	F	

- **TRUTH TABLE FOR THE CONNECTIVE V_e (EXCLUSIVE 'OR'):** 'either but not both' (This connective corresponds to the use of English *or* in a sentence like *You will pay the fine or you will go to jail* (Saeed, 1997:84))

  114. *Your motorbike was stolen (p) or I lost my keys (q).*

p	q	p V_e q
T	T	
T	F	
F	T	
F	F	

How could you paraphrase the sentence so that the idea of exclusion of one of the propositions is clear?

- **TRUTH TABLE FOR THE CONNECTIVE ~ (NEGATION):**

  115. *Tom arrived* (p).

  116. *Tom didn't arrive* (~ p).

p	~ p
T	
F	

- **Consolidation**: read the text "The logical connectives" by Kearns (2000:25-30) from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), pages 158-164, where you have information about the following connectives: conjunction, inclusive disjunction and exclusive disjunction.

- **TRUTH TABLE FOR THE CONNECTIVE → (MATERIAL IMPLICATION):**

The following passage from Kearns (2000:30-32) will help you understand how the material implication connective is treated within propositional logic, and so be able to fill in the gaps in the truth tables below:

Conditionality is mainly expressed by certain uses of *if* or *if … then* (…). There are two logical connectives corresponding to conditionals, the material implication connective and the biconditional connective (…). (…) these two connectives only partly fit the usual ways we understand *if* sentences.

The material implication connective is represented by the symbol '→'. The proposition p in p → q is the **antecedent**, and q is the **consequent**. In a conditional sentence the antecedent is the sentence to which *if* is attached, although it may appear first or second in the whole sentence. For example, in both sentences in (15) the antecedent is *if Marcia invited John/him* and the consequent is *John/he will go*.

(15) a If Marcia invited John, (then) he'll go.
b John will go if Marcia invited him.

The main point with implication is that where the antecedent is true, the consequent must also be true. If the antecedent is true and the consequent is false, then the whole implication is false. So the first two lines of the truth table for implication are [you should fill in the third column]:

p	**q**	**p → q**
T	T	
T	F	

The remaining lines of the truth table, where the antecedent is false, are not so clearly related to ordinary uses of *if*. Where the antecedent is false the implication is true no matter what the truth value of the consequent, as shown in the full truth table below [fill in the third column].

(16) Truth table for material implication

p	**q**	**p → q**
T	T	
T	F	
F	T	
F	F	

Using the example in (15), the lines of the truth table give these truth values:

(17) p = Marcia invited John
q = John will go
p→q = If Marcia invited John, he'll go.

Line 1: Marcia did invite John and John will go: the implication is true.

Line 2: Marcia did invite John, but actually John won't go: the implication is false.
Line 3: Marcia didn't invite John, but he will go anyway: the implication is true.
Line 4: Marcia didn't invite John and John won't go: the implication is true.

Lines 1 and 2 give the results we would expect from the ordinary use of *if*. Line 3 seems odd. If John will go (to some understood destination) whether Marcia invited him or not, why bother to say 'if Marcia invited John' at all? All that is communicated here is 'John will go'. In fact, an utterance of *If Marcia invited John, he'll go* is more likely to be intended to mean 'If Marcia invites John he'll go, but not otherwise' – explicitly, 'If Marcia invited John he'll go, and if she didn't invite him, he won't go'. On this reading the whole sentence on line 3 should be false. This use of *if* is more like the biconditional connective (…).

The chief general difference between material implication and conditional sentences is that *if* is commonly not simply truth-functional in actual use. Given that material implication is truth-functional, the truth of an implication proposition depends on a certain combination of truth values for the contained propositions, and the actual content or subject matter of those propositions is irrelevant. Logically, (18) expresses a perfectly fine (and true) implication, but it is odd as a conditional sentence.

(18) If the number 1960 is divisible by 5 then 1960 was a leap year.

antecedent (1960 is divisible by 5)	true
consequent (1960 was a leap year)	true
implication	true

But many of us would dispute the truth of (18), because we don't calculate leap years by dividing by five. The problem here is that we frequently use *if … then* to express some **causal** relationship between the antecedent and consequent – the antecedent describes some event or state of affairs which causes what is described by the consequent – in other words, the consequent describes the consequences. Sentence (18) reads most naturally as stating that the status of 1960 as a leap year depends on the year's number being divisible by five, whereas in fact divisibility by four is the criterion for leap years. For the implication to be true, it is sufficient that the antecedent and consequent are both true. For the conditional sentence to be true as we normally understand it, the status of 1960 as a leap year would have to depend on, or be caused by, the fact that the number 1960 is divisible by 5.

These uses of *if* carry extra aspects of meaning, such as causality, but note that they also include the truth-value combinations given by the first two lines of the truth table. Even with the causal use of *if*, if the antecedent is true the consequent must also be true. For example, *If the number 1960 is divisible by 4 then 1960 was a leap year* expresses the causal connection accurately. In addition, given that the antecedent is true, the conditional is true only if the consequent is also true and 1960 was a leap year – if 1960 was not a leap year the conditional is false. That is, the causal meaning associated with *if* is extra content added to the meaning of logical implication.

There is a common rhetorical use of *if … then* that fits well with the logical analysis, requiring no causal or commonsense connection between the sentences, as illustrated in (19).

(19) If that's a genuine Picasso then the moon is made of longlife food product.
p = That's a genuine Picasso

q = The moon is made of longlife food product

Assume (…) that a sentence like (19), when uttered, is taken as being true. The rhetorical device requires that the consequent be obviously false. This gives the combination of values:

(20)

p	**q**	**p → q**
?	F	T

Checking the truth table for implication, repeated here, we see that this combination of truth values occurs only on line 4, where the antecedent is false [fill in the third column again].

p	**q**	**p → q**
T	T	
T	F	
F	T	
F	F	

So this rhetorical device is used to convey that the antecedent is false. Here (19) is used to convey that that's not a genuine Picasso. Routines of this form include the cliché *if … I'll eat my hat.*

- **TRUTH TABLE FOR THE CONNECTIVE ≡ (EQUIVALENCE or BICONDITIONAL):** an equivalence is a bilateral implication, i.e. the conjunction of two implications: p ≡ q is equivalent to (p → q) & (q → p)

117. *Tracey is married to John (p) if and only if John is married to Tracey (q).*

p	q	p ≡ q
T	T	
T	F	
F	T	
F	F	

- **Consolidation**: read the text "Meaning relations" by Gregory (2000:23-27) from *Introducing Semantics and Pragmatics: A Reader and Workbook* (2003), pages 164-167, where you have information about the following connectives: material implication and equivalence.

4.4 LOGICAL NOTATION FOR COMPLEX PROPOSITIONS

- Below you have the logical translation of three individual propositions:

    118. *Barbara drew a painting:* DRAW b p

    119. *Barbara sold a painting:* SELL b p

    120. *Barbara didn't like the painting:* ~ LIKE b p

    From these individual formulae, a single complex formula can be formed:

    (DRAW b p) & (SELL b p) & (~LIKE b p)

- Translate the following complex propositions into logical notation (examples from Hurford et al., 2007:165;181-2;185;189):

    121. *Andy entered and Mary left.*

    122. *John loves Mary and Mary loves Bill.*

    123. *John and Mary are Irish.*

    124. *Alice didn't come and Bill didn't, either.*

    125. *Alice didn't come and nor did Bill.*

    126. *Neither Alice nor Bill came.*

    127. *If the knight takes the bishop, Alice will lose.*

    128. *Alice will lose if the knight takes the bishop.*

    129. *If David is Alice's brother, then Fanny's his aunt.*

    130. *Alex is Bill's son if and only if Bill is Alex's father.*

- The following examples are ambiguous sentences. First, disambiguate them by using brackets which correspond to their different interpretations and then provide logical formulae for each of the different meanings (examples from Hurford et al., 2007:170-171):

    131. *Alice went to Birmingham and she met Cyril or she called on David.*

        a. _____

        _____

        b. _____

        _____

    132. *Angela is Ben's mother or David's grandmother and Charlie's aunt.*

        a. _____

        _____

        b. _____

        _____

- Do the two formulae below represent equivalent propositions for sentence (133)? How many people came? (Adapted from Hurford et al., 2007:182-183):

    133. *Neither Alice nor Bill came*.

    134. (~ a COME) & (~ b COME)

    135. ~ (a COME V b COME)

    In each of the three sentences below, how many people came? Are these sentences paraphrases of each other? Try to give two logical formulae which show the single meaning conveyed by the sentences below:

    136. *Either Alice didn't come or Bill didn't come.*

    137. *Alice and Bill didn't both come.*

    138. *It is not the case that Alice came and Bill came.*

        a. _____

        _____

        b. _____

        _____

- Give two logical formulae for each of the following complex propositions in which conjunction and disjunction interact:

139. *Ann saw neither Ben nor Clara.*

a. _____

_____

b. _____

_____

140. *Anne didn't see both Ben and Clara.*

a. _____

_____

b. _____

_____

141. *Fred is neither boastful nor proud.*

a. _____

_____

b. _____

_____

142. *Fred is not both boastful and proud.*

a. _____

_____

b. _____

_____

- Disambiguate the two meanings of the following sentence into two logical formulae. If you can't spot the ambiguity at once, try uttering the sentences aloud with pauses in different places (from Hurford et al., 2007:186):

143. *If David is Alice's brother then Fanny's his aunt or Bob's his uncle.*

a. _____

_____

b. _____

_____

At what point in the sentence in the previous practice can one insert the word *either* in order to make it convey (BROTHER d a) → (AUNT f d V UNCLE b d) ? In what way could one rearrange the parts of the sentence mentioned to make it convey only (BROTHER d a → AUNT f d) V (UNCLE b d)?

a. _____

_____

b. _____

_____

- Disambiguate the ambiguity of the following sentence into two different logical formulae (examples from Hurford et al., 2007:186-187):

144. *Claire will marry Burt and Ethel will resign if David goes to Glasgow.*

a. _____

_____

b. _____

_____

Which of your formulae asserts that Claire will marry Burt in any case?

By using the correlative expressions *not only … but also* and *if … then* rearrange the parts of the sentence so that it means, on the one hand, that Claire will marry Burt in any case ; and, on the other hand, that the actions of Claire's marrying Burt and Ethel's resignation depend on or are conditional upon David's going to Glasgow.

a. _____

_____

b. _____

_____

5. WHAT HAVE YOU LEARNED SO FAR? REVISION TEST

1. What *sense relation* between sentences do these definitions correspond to? (Kreidler, 1997:86-87)

a. "(…) the relation between two propositions such that if either is true, the other is necessarily false"
b. "(…) the relation between two propositions, p and q, such that if either is true, the other is necessarily true also, and if either is false, the other is false"
c. "(…) the relation between two propositions – (…) p and q – such that if p is true, q must also be true, but if q is true, it does not necessarily follow that p is true"

2. What is the *sense relation* that holds between the following pairs of sentences?
   145. *This secretary is a woman – This secretary is an adult*._____
   146. *Some families have no pets – Not all families have a pet*. _____
   147. *Mary is about to give birth – Mary is pregnant.*_____
   148. *Mary is my mother – Mary is my daughter*_____
   149. *Susan is the parent of John – John is the child of Susan*. _____

3. *Sense properties*: below you have the definition of analytic sentences, synthetic sentences and contradictions. Which is which? (Adapted from Saeed, 1997:87 and Hurford et al. 2007:97)
   - A _____ is a sentence that is necessarily false, as a result of the senses of the words in it.
   - _____ statements are those where the truth follows from the meaning relations within the sentence, regardless of any relationship with the world.
   - _____ statements may be true or false because they accord with facts of the world.

4. Decide whether the following sentences have the *sense property* of analicity, syntheticity or contradiction
   150. *Mary's teacher is from Ireland.*
   151. *John's youngest brother is a boy.*
   152. *Henry's wife is unmarried.*
   153. *Henry's wife is not British.*
   154. *The girl is her own mother's daughter*.
   155. *John killed Bill, who remained alive for many years after*.

5. Give the semantic roles of the referring expressions in the following sentences:
    156. *Alfred burnt the cakes.*
    157. *Sidney swatted the fly with a folded newspaper.*
    158. *Ruth bought Bryan a red sweater.*
    159. *Jack saw a play at the Royal Theatre.*
    160. *A tree was planted by Julia.*
    161. *John put his bicycle in the garage.*
    162. *John lives in London.*
    163. *John gave the ticket to Mary.*
    164. *John took the dictionary from the table.*
    165. *The wind blew the leaves.*

6. Write logical formulae for the following simple and complex propositions. If the sentence is ambiguous, provide the different logical formulae representing the different interpretations:
    166. *Dr Jekyll was a gentleman.*
    167. *Mr Hyde was a villain.*
    168. *Dr. Jekyll was Mr Hyde.*
    169. *Paul invited Joan and Mary.*
    170. *Alice and Mathew are both parents of Richard.*
    171. *Susan didn't sleep and nor did Mat.*
    172. *I didn't buy both the pen and the dictionary.*
    173. *I bought neither the pen nor the dictionary.*
    174. *If Mark buys the watch, sue will hold a party.*
    175. *Alex will return the money, if Mark apologises.*

176. *The picture is above the fireplace if and only if the fireplace is below the picture.*

177. *Kevin sent Mary an e-mail and he phoned Fred of he wrote Paul a letter.*

178. *Neither Diane nor Helen read the book.*

179. *Kate played tennis or she played volleyball and she watched football.*

180. *If Pat knows the secret, then Mary told her the secret or Pat invented it.*

181. *Alice will travel to Madrid and Geoff will drink champagne if Alice gets the money.*

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