Auxiliaries

# Observations

## English auxiliaries appear in

### the perfect construction (have)

### the progressive construction (be)

### the passive construction (be)

### do-support conditions (negative, interrogative, emphasis)

## main verb be

### the copula be is unlike a predicate in that it has no arguments

#### in most cases it supports adjectival or nominal predicates

##### it is red

##### he is a postman

#### in these cases, it is not clear that the copula adds much in a semantic sense, and so may be more like an auxiliary than a main verb

### there are other uses of main verb be which are not so obviously semantically null

#### epistemic

##### there is life on Mars

#### locative

##### John is in the garden

## the aspectual and voice uses of auxiliaries have a very regular syntax:

### perf - prog – pass

### each auxiliary is also accompanied by a morpheme which appears on the following verbal element

#### have – en (perf) ... have fall-en

#### be – ing (prog) ... be fall - ing

#### be – en (pass) ... be see –en

### in combination, the auxiliaries bear the morpheme associated with the previous auxiliary

#### ... have be-en be-ing eat-en

### the tense falls on the first verbal element, main verb or auxiliary

#### smile-ed

#### had smiled

#### was smiling

#### was eaten

#### had been ...

# Theories

## Chomsky 1957 – affix hopping

### auxiliaries are inserted into a structure by the following rules

#### S 🡪 NP (Aux) VP

#### Aux 🡪 tense (perf) (prog) (pass)

### he assumed that the auxiliary – morpheme combination enters a structure as a single element

#### perf 🡪 have - -en

#### prog 🡪 be - -ing

#### pass 🡪 be - -en

#### this accounts for why the appear together

### then a transformation alters every affix + V sequence to V-affix

#### have - -en see 🡺 have see-en

#### -ed be - -ing be - -en eat 🡺 be-ed be-ing eat-en 🡪 was being eaten

### although this was a very influential analysis and was probably what made transformational grammar so popular from the very beginning, it makes some problematic assumptions

#### what does it mean for the auxiliary and morpheme pair to be added to a structure together

##### although there was no notion of a lexicon at the time, in current views this looks like claiming that they form a single lexical item

##### but if this is the case, how can part of a lexical item be subject to a syntactic process?

## the common sense view

### as transformational grammar developed, the assumptions that underpinned the affix hopping analysis were dropped and so the analysis was not used – though no replacement was attempted

### the majority view was that the auxiliary was the main element and that the associated morpheme was part of the following element – perhaps somehow influenced by the presence of the preceding auxiliary (V-en) is the form of the verb that follows the perfect *have*, like V-∅ is the form of the verb that follows a modal

### However, the treatment of tense that developed at that time took tense to be represented by a bound morpheme to which verbs moved in order to support it

### Thus the uniform treatment of English affixes that Chomsky achieved was lost

# More observations

## the assumption that the auxiliary is the main carrier of aspectual meaning is questioned by the following observations

### I felt [myself falling] – I was falling

### I watched [the bridge opened] -- the bridge was opened

### him finished his homework! -- he had finished his homework

## in these examples, essentially involving a small clause construction which lacks a tense, although the auxiliary is absent, the corresponding morphemes are present. Moreover, so is the relevant interpretation.

## This indicates that the auxiliary is not the main carrier of the semantics – but the affix is

## This raises the question of what the role of the auxiliary verb is

# Dummy do

## it is well known that English has a mechanism for supporting tense when this bound morpheme cannot be supported by the main verb – the insertion of a meaningless auxiliary do

## the usual assumption is that dummy do is a meaningless lexical item used for such purposes

## this view was challenged by Grimshaw 1995 who pointed out that dummy elements cross linguistically are invariably the same as a fully meaningful lexical item (main verb do, in this case, but also consider pleonastic it and there, as well as meaningless of. Many languages make use of dummies and they tend to be words like do, it, etc.)

## from Grimshaw’s point of view, dummy do is the same item as main verb do used in meaningless contexts.

## she suggested that the reason do is used as a dummy is because it has a very light semantic content – if you are going to use a word an ignore its semantic content, you should choose the word with the smallest content

## the problem with Grimshaw’s idea is that we have no measure of the amount of semantic content associated with a word to fully put the idea into practise

### at a rough grain level, it is clear that do is a small content word when compared to lots of verbs (imagine, put, cogitate, etc.)

### but there are many words with smaller content than these (go, stay, have, be, give, take, etc), What is it that makes do smaller than these?

## Moreover, Grimshaw’s own theory was not totally compatible with her treatment of do insertion:

### taking an OT perspective, she claimed that do is not part of the input, but is inserted by GEN

#### as semantic interpretation is read off the final structure in Grimshaw’s theory, the insertion of a lexical element by GEN does not lead to it being interpreted as contentless without further stipulation.

## A late insertion approach can solve this problem

### instead of viewing do as a meaningless lexical element inserted for grammatical purposes only, or as a meaningful lexical element inserted in conditions in which its content is ignored, we can take dummy do simply as the best spelling out of certain functional material.

### Note however that this would go against the principle used in DM to decide on the best fitting vocabulary item – the subset principle

#### this assume underspecification

#### but the treatment of do as the spell out of functional material only has to assume overspecification (of conceptual content)

##### using underspecification, we would have to assume that do is associated with no conceptual content in the vocabulary and hence its use in meaningful contexts would have to be taken as the ‘best fit’ vocabulary item

##### but then we would have to assume that there is a gap in the vocabulary at precisely the point at which do is used and it would be very difficult to account for why there is no vocabulary associated with meaningful DO

##### it would have to be an accidental gap. But if this is so, this gap could have been anywhere and so the meaningless vocabulary element ‘do’ could have been used to spell out any semantic content (wherever the gap appeared) and then we lose Grimshaw’s observation that dummy do is associated with small conceptual content

# other auxiliaries as dummies

## given the treatment of aspectual morphemes as semantic carriers and the possibility that vocabulary items can be used to spell out content smaller than they are associated with in the vocabulary, a treatment of these auxiliaries is suggested

## the aspectual auxiliaries have and be are dummies

### i.e. vocabulary items used as the best spelling out of material that is less than what they are associated with in the vocabulary

## for such a theory to work, however, we need to account for why each vocabulary item is used in the context it is