Modality

# Introduction

## the English modals are semantically some of the hardest elements to analyse

### this is because every modal is used to express different modalities and every modality can be expressed by a different modal

### so there is no one to one correspondence between modals and the modalities they express

### moreover, two modals may be virtually synonymous in one context, but not in another

() a we might be being followed

b we could be being followed

() a when I was young, I could run for hours

b ? when I was young, I might run for hours

### it is clear therefore that we cannot simply associate modals with a particular modality or set of modalities in any simple way

# Modality

## before we start to look at how modals are used to express modality, it is first necessary to analyse modality itself – this is a complicated thing in itself

## it is traditional to classify modalities into at least two types

### epistemic modality

#### which has to do with the logical relations of possibility and necessity

##### a triangle **must** have 3 sides

##### a triangle **may** have one 90° angle

### root modality

#### i.e. all the rest

##### you **must** go to gaol

##### I **can** see your house from here

# epistemic modality is not only used to express logical relations, but also conclusions based on what is known (hence ‘epistemic’)

## working here must be boring

## he may be in his office

### these do not involve logical necessity and possibility, but conclude on the basis of what is known

#### knowing what the work entails and knowing what sorts of things are boring, I conclude that in all possible worlds in which these are held constant, it is boring working here

#### knowing all that I do about the person involved, I conclude that in at least some possible world in which this is held constant, he is in his office

## however, English does not seem to distinguish between logical and epistemic necessity and possibility in that exactly the same modals are used to express both.

### therefore we don’t need to separate these as different types

# root modality is more differentiated

## it includes Deontic modality (concerning obligation and permission) and notions of ability and volition

### you should go to the dentist (obligation)

### you may go in now (permission)

### I can ride a unicycle (ability)

### he will sell me his ticket (volition)

## Palmer argues that these are distinct because

### ability and volition can be expressed with a tense distinction, but obligation and permission cannot

#### I could ride a unicycle = past of I can ride a unicycle

#### He would sell me a ticket = past of he will sell me a ticket

#### you should know ≠ past of you shall know

#### you might go in ≠ past of you may go in

### past time reference can be expressed separately (with a perfect) with Deontic modals, but not the others

#### you should have gone to the dentist

#### you may have left at any time

#### \* can have played the tuba

#### \* he will have lent me the money

### they interact with negation differently

#### must (deon) vs. can (abl)

##### you mustn’t leave 🡪 you are obliged not to leave (MOD > NEG)

##### you must not leave 🡪 you are obliged not to leave

##### I can’t leave 🡪 I don’t have the ability to leave (NEG > MOD)

##### I can not leave 🡪 ??? I have the ability not to leave (MOD > NEG)

#### can (deon) vs. will (vol)

##### you can’t leave 🡪 you don’t have permission to leave (NEG > MOD)= you are obliged to stay

##### you can not leave🡪 you have permission not to leave (MOD > NEG)= you are not obliged to stay

##### he won’t leave 🡪 he isn’t willing to leave (NEG > MOD) ≠ he is able to stay

##### he will not leave🡪 ??? he is willing to not leave (MOD > NEG) ≠ he is not able to stay

# Therefore Palmer concludes that there are three different types of modality

## epistemic

## Deontic

## dynamic

### by this he means to indicate ‘power’, but while this is the Greek term, as are epistemic (= knowledge) and Deontic (= obligatory), but in modern English this meaning has shifted (more to do with movement) and it is also used as a term for a type of verb (dynamic vs. stative). For these reasons I prefer

## potential

### this is Latin for ‘power’

# Degree of Modality

## traditionally, the difference between necessity and possibility is seen as a second axis along which we differentiate modals

## Palmer calls this the degree of modality

## however, while this terminology implies that this distinction is only relevant for epistemic modality, the fact is that all modalities show distinctions

### epistemic

#### necessity

#### possibility

### Deontic

#### obligation

#### permission

### potential

#### willingness

#### ability

## though these notions don’t seem to have much to do with each other, it might be argued that they relate to the same thing

### for one thing, there are two notions associated with each modal type

### moreover, a similar relationship exists between them

#### if something is necessary then it is possible, but not vice versa

#### obligation is compatible with permission, but not vice versa

#### willingness is compatible with ability, but not vice versa

### finally, there are modals which express different types of modality, and when they do they always express the same degree:

#### must (ep) 🡪 necessity

#### must (deon) 🡪 obligation

#### may (ep) 🡪 possibility

#### may (deon) 🡪 permission

#### can (deon) 🡪 permission

#### can (pot) 🡪 ability

#### will (ep) 🡪 necessity

#### will (pot) 🡪 willingness

### this would suggest that there is some feature which these modals express which is constant across the different types of modality that they are associated with

#### +F = must, will

#### -F = may, can

## Kratzer 1977 gives a semantic analysis of this aspect of modality which suggests that degree is uniform across all modal types.

### In her analysis of must and can she takes type of modality to be provided by a separate argument of the modal

#### must in view of – what is known

#### must in view of – what duties there are

#### can in view of – what is known

#### can in view of – what duties there are

### it would be too complicated to go into her semantic theory here, but the essentials are that ‘must in view of’ and ‘can in view of’ are defined uniformly

#### must in view of

##### logically follows from the set of propositions provided by the second argument (what is known, what duties there are)

#### can in view of

##### is compatible with the set of propositions provided by the second argument

#### a proposition logically follows from a set of propositions if there is no possible world in which the set of propositions is true and the proposition is false

#### a proposition is compatible with a set of propositions if there is some possible world in which the set is true and the proposition is true

## However degree is to be formally defined, I will assume two features to express it:

### [ff] = follows from

### [cw] = compatible with

# Finally there is one more dimension to modality that we need to acknowledge

## most modals come in pairs

### can/could, may/might, shall/should, will/would

## while these derive from the tense forms of the corresponding verbs in Old English, they mostly have nothing to do with tense (except for the potential modalities)

## instead they seem to denote degrees of certainty of a proposition

### he may be in his office

### he might be in his office

## this reflects what might be called evidentiality – the nature of evidence we have for believing something

## sometimes this distinction is expressed by different modals

### you must write an essay

### you should write an essay

## I will assume a further two features to express this distinction

### [∧ev] = high evidentiality

### [∨ev] = low evidentiality

# Conclusion

## the features of modality I will adopt are:

### type: [ep], [deon]. [pot]

### degree: [ff], [cw]

### evidentiality: [∧ev], [∨ev]