Preamble: Modality – Some key notions

- two key dichotomies
  (i) **root** modality – according to norms, expectations, desires, or circumstances
    (a) **deontic** subjective \(<\text{Gr } δέον ‘duty, what is right’\)
    (b) **dynamic** non-subjective, physical, circumstantial \(<\text{Gr } δύναμις ‘power’\)
  (ii) **necessity** modality ◇ (in all possible worlds; \(\forall\))
  **possibility** modality □ (in at least one possible world; \(\exists\))

- these two dichotomies together define a matrix with four cells, each of which is attested in natural language

<table>
<thead>
<tr>
<th></th>
<th>ROOT</th>
<th>EPISTEMIC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NECESSITY</strong></td>
<td>[in order for Sp’s new seedlings to survive...]</td>
<td>[Sp saw someone coming in with a rain-soaked coat...]</td>
</tr>
<tr>
<td></td>
<td><em>it must rain this week</em></td>
<td><em>it must be raining outside</em></td>
</tr>
<tr>
<td><strong>POSSIBILITY</strong></td>
<td>[no outdoors events planned; as far as Sp is concerned...]</td>
<td>[Sp checked the weather forecast...]</td>
</tr>
<tr>
<td></td>
<td><em>it may/can rain this week</em></td>
<td><em>it may/can be raining outside</em></td>
</tr>
</tbody>
</table>

- other types of modality found in linguistic and philosophical texts
  - **alethic** or **logical** modality (modalities of truth; logical necessity, (im)possibility)
    - a subtype of epistemic modality
      - [Von Fintel: ‘It is in fact hard to find convincing examples of alethic modality in natural language, and its inclusion in this list is primarily for reasons of historical completeness.’ http://web.mit.edu/fintel/fintel-2006-modality.pdf]
  - **bouletic/boulemaic/boulomaic** or **volitive** modality (wishes, desires)
    - a subtype of deontic modality; related to subjunctive mood
  - **directive** modality (commands, requests)
    - a subtype of deontic modality; related to imperative mood

  - Von Fintel: ‘In the descriptive literature on modality, there is taxonomic exuberance far beyond these basic distinctions.’

**NB** note the close relationships between **epistemic modality** and **evidentiality**, and between **deontic modality** and **mood** (imperative, subjunctive)
Covert modality – An overview (probably non-exhaustive)

- imperative: a heterogeneous category, highlighting all manner of covertly modal non-finites
  
  (i) finite
  □ [necessity]: (don’t) do it! doe het (niet)!
  ◊ [possibility, permission]: go ahead, smoke if you want to/must; rook gerust, ga (gerust) je gang

  (ii) bare infinitival, with deontic □ modality
  (niet) doen! ne pas se pencher au dehors! nicht hinauslehnen!
  [infinitival imperatives quite freely allow object drop in Dutch; possibly related to the presence of a silent modal, though not obvious how to establish the connection]
  [re: bare infinitives and modality, perhaps also note English a no go/fly zone]

  (iii) past-participial (esp. Dutch, German – Duinhoven 1984, Hoeksema 1992, Rooryck & Postma 2007; also Romance: cuidado! fini!; there’s also discussion on the internet of the ‘imperitival participle’ in New Testament Greek, which I know nothing about)
  opgepast! opgelet! ingerukt! en nou opgesodomieterd! ‘pay attention / go away’
  niet getreurd/gezeurd! ‘don’t be sad/nag’
  [NB1: peculiar propensity for particle verbs in these constructions, in non-negatives; Rooryck & Postma: ‘positive participial imperatives are restricted to a semantically coherent set of verbs’ – verbs involving ‘a call to attention’ or ‘a call to move off’]
  [NB2: Rooryck & Postma point out that there is a remarkable distribution of negation in the realm of past-participial imperatives in Dutch: the ones that can be positive cannot be negative (*niet opgepast/opgesodomieterd!) and vice versa; they relate the ban on negation in opgepast/opgesodomieterd! to tense restrictions –hic et nunc; Hoeksema notes that the ban on negation also holds of adjectival admonitions: (*niet) voorzichtig! – but note (niet) de deur uit! niemand de deur uit!; see also (viii), below]
  [NB3: for negative past-participial imperatives, Rooryck & Postma identify the negation as boulemaic negation (‘I don’t want’), which they say is ‘never used with finite verbs’ (in Dutch, perhaps more generally)]

  a near-exhaustive list of Dutch past-participial imperatives from Coussé & Oosterhof (2012) (who note, however, that there is some degree of productivity in the a–type)
  
  c. opgelet – opgepast (“Take care! / Look out!”)
(iv) **ge-nominalisation** (Rooryck & Postma 2007; always negative, with *geen* (rather than *niet*); but Iatridou [http://lingphil.scripts.mit.edu/papers/iatridou/Non-Canonical_Imperatives-talk_version.pdf] notes that when used conditionally, they can be non-negative: *gettoeter alleen op Koningsdag!* ‘honking only allowed on King’s Day’) *geen gezeur!* ‘no nagging/waffling’

(v) outwardly nominal gerunds (Rooryck & Postma 2007; again, always negative, with *no* (rather than *not*), as root utterances; but Iatridou notes that when used conditionally, they can be non-negative: *smoking, on the balcony!* ‘if you want to smoke, you have to do it on the balcony’) *no talking!* *no smoking!* *no drinking alcohol!* *no exposing/relieving oneself in public!* [note that these gerunds can take a nominal object, so they are not *inwardly* nominal; but on the outside they are necessarily nominal, as witness *no*]

(vi) pluperfect imperatives, with counterfactual (‘should/ought to have’) modality *was toch naar huis gegaan!* ‘if only you’d gone home; you should’ve gone home’

(vii) negative impersonal passives (Rooryck & Postma 2007), with deontic ¬◊ (‘not allowed’) modality and imperative force (available only when negation is present) *er wordt hier niet gezeurd!* ‘there shall be no nagging here’

(viii) verbless imperatives, with deontic □ modality *careful!* *voorzichtig!* *not so fast!* *niet zo hard!*

• subjunctive
  – root: *God save the Queen*
  – embedded: *it is important/imperative that he do this*

**NB** the so-called subjunctive is form-identical with the bare infinitive in English, even for the most irregular of verbs, *be*; note that the so-called imperative in English is also always form-identical with the bare infinitive

→ remarkably, the bare infinitive of *be* occurs under the dummy *do* in imperatives: *do be quiet!*

→ in this respect, negative *why*-requests behave like imperatives: *why don’t you be quiet?* = *please/do be quiet!* = *I want you to be quiet*

• *wh*-question (I): *why*+bare infinitive (only with *why*, as far as I am aware – see also below)
  – *why wait?*, *why bother?* (deontic, □ [necessity] ‘should’)

• *wh*-question (II): *wh*+past (probably passive) participle (Dutch; Rooryck & Postma 2007)
  – *waarom zo ver gereden?* ‘why would/should we/you drive so far?’
  – *wat nu gedaan?* ‘what shall we do now, what should be done now?’

[NB: while Dutch has *wh*-drop in *(wat) heb je nou gedaan?*, such is impossible in *wh*+past participle questions – perhaps dependent on overt Aux-to-Comp movement]
• *to*-infinitive
  (i) root
  → active: *to do today* \(x, y, z; \text{what to do?}, \text{how to do this?}, \text{where to go?}\)
  → passive: *still to be done* \(x, y, z; \text{to be determined/announced}; *\text{what to be done?}, *\text{how (this) to be done?}\)
  
  NB *wh*-infinitives with *to* feature all *wh*-words except *why* (*why to do this?*); *why*, on the other hand, is the only *wh*-word occurring in bare infinitives

  (ii) infinitival relative (Bhatt’s dissertation; NB: note the effect of the article on modality)
  
  \(a/\text{the man to fix the sink} \ ‘\text{man who can/should fix the sink’ \ subject relative}\)
  \(a/\text{the book to read} \ ‘\text{book that one can/should read’ \ object relative}\)
  \(a/\text{the place to go} \ ‘\text{place where one can/should go’ \ other relative}\)

  (iii) embedded under the copula
  → active: *you are to do this* (deontic, \(\Box\ ‘\text{must/should’}\); *he was to be a great president* (epistemic, ‘will’); *dit is niet te doen/eten/lezen* (deontic, \(\neg\Box ‘\text{not V-able’}\))
  → passive: *this is to be done* (deontic, \(\Box; \text{I don’t think this ever has epistemic uses}\)

  (iv) embedded under *have* (got) or *got*
  → active: *you have (got)/got to do this* (deontic, \(\Box); \text{there has (got)/got to be a way} (epistemic)
  → passive: *this has (got)/got to be done* (deontic, \(\Box); \text{I can’t think of an epistemic use of have (got) or got embedding a passive to-infinitive}
  \[\text{NB: non-raising have in the absence of got: you haven’t *(got) to do this, you don’t have to do this; in the presence of got, do-support is impossible (regardless of whether have is present or not): *you don’t (have) got to do this – on have (got) to, see last year’s GLOW-paper by Thoms et al.}\]

  (v) embedded under *get*
  → active: *you get to do this (if you’re good)* (deontic, \(\Diamond \text{ permission}\))
  \[\text{[this could be elliptical for you get a chance to do this; get probably does not deliver \(\Diamond \text{ by itself: you can get both permission (\(\Diamond\)) and an order (\(\Box\)) to do something}]\]
  → passive? *you get to be selected* – not obvious that this is modal

  NB *to*-infinitives are often irrealis/futurate – but this is not the case across the board (e.g., ECM-infinitives are not: *I consider her to be/have been right*); the modality of certain *to*-infinitives cannot be blamed on some semantic aspect of *to*, which by itself is presumably meaningless

• gerund
  → on outwardly nominal gerunds used as imperatives, with *no*, see above
  → in finite contexts, gerunds (again with *no* rather than *not*) can also be used modally (Kjellmer 1980, referred to in Sabine Iatridou’s slides on non-canonical imperatives)
  \(\text{there was no mistaking that scream – } \Diamond [\text{possibility}]\)
  \(\text{there is no telling whether (or when) the situation will get back to normal}\)
  → Iatridou notes the difference in modality between the *no*+GER imperative (\(\Box\)) and the *no*+GER construction noted by Kjellmer (\(\Diamond\)); she argues on this basis (informatively) that the *no*+GER imperative cannot be derived via partial ellipsis of a copular clause