76. Overlap between Situational and Epistemic Modal Marking

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1.   Definition of values

Modality is a dimension of meaning that crucially involves notions of possibility and necessity. These may relate to circumstances that allow or necessitate a situation, as in (1). The permission in (1a) is a matter of the speaker allowing a situation, while with the obligation of (1b) the situation of the addressee's going home is deemed necessary.

(1)   a.   *You **may** go home now.*
      b.   *You **must** go home now.*

We call this type of modality **situational** (see chapter 74).
      Situational modality is distinguished from **epistemic** modality, as in (2a) and (2b) (see chapter 75).

(2)   a.   *Bob **may** be mistaken about the cause of the accident.*
      b.   *Terry **must** be from Northumberland.*

In these instances of epistemic possibility (2a) and necessity (2b), the speaker asserts that a proposition is possibly or necessarily true, relative to some information or knowledge. If the proposition is only possibly true, the propositional attitude is that of uncertainty; if it is necessarily true, the propositional attitude is that of a high degree of certainty. Note that the English modals *may* and *must* can be used both for situational and for epistemic modality.
      This chapter documents to what extent languages have identical markers for situational and epistemic modality. Three types will be distinguished.

@	1.	The language has markers that can code both situational and epistemic modality, both for possibility and for necessity.	36
@	2.	The language has markers that can code both situational and epistemic modality, but only for possibility or only for necessity.	66
@	3.	The language has no markers that can code both situational and epistemic modality.	105
		total	207

In the first type of language there are **markers that can express both situational and epistemic modality, for both possibility and necessity.** We will say that in this case the language shows **high overlap** between its situational and epistemic modal systems. Examples (1) and (2) have already shown English to be a case in point. Another example is West Greenlandic (Eskimo). The suffix *-ssa* 'should' has a situational necessity reading in (3a) and an epistemic necessity reading in (3b).

(3)   West Greenlandic (Fortescue 1984: 292, 294)
    a.   *Inna-jaa-**ssa**-atit.*
        go.to.bed-early-NEC-IND.2SG
        'You must go to bed early.'
    b.   *Københavni-mii-**ssa**-aq.*
        Copenhagen-be.in-NEC-IND.3SG
        'She must be in Copenhagen.'

In the same vein, the suffix *-sinnaa* has a situational possibility reading in (4a) and an epistemic possibility reading in (4b).

(4)   West Greenlandic (Fortescue 1984: 293, and p.c.)

    a.   *Timmi-**sinnaa**-vuq.*
           fly-can-IND.3SG
           'It can fly.'

    b.   *Nuum-mut aalla-reer-**sinnaa**-galuar-poq ...*
           Nuuk-ALL   leave-already-can-however-3SG.IND
           'He may well have left for Nuuk already, but...'

In judging whether a situational and an epistemic marker are identical, we disregard syntactic differences. Modern Greek illustrates this case. For possibility the language uses the verb *boró* 'can'. This verb is inflected for person when used for situational modality, as in (5a), but appears in an impersonal construction as *borí* '(it) may (be)' in its epistemic function, as in (5b) (see also Joseph and Philippaki-Warburton 1989: 184).

(5)   Modern Greek (Palmer 1986: 19-20, 29)

    a.   *Ta   peðjá   **borún***
           the   children   can.IND.IMPF.PRES.3PL
           na   fíɣun   ávrio.
           that   leave.IND.PFV.PRES.3PL   tomorrow
           'The children can leave tomorrow.'

    b.   *Ta   peðjá   **borí***
           the   children   can.IND.IMPF.PRES.3SG
           na   fíɣun   ávrio.
           that   leave.IND.PFV.PRES.3PL   tomorrow
           'Perhaps the children leave tomorrow.'

An identical set of verbs with the possibility of syntactic disambiguation is also found in Irish (Ó Siadhail 1989: 289), where modal verbs select a verbal noun in the situational function, but a finite complement in the epistemic function. In Tagalog (Austronesian; Philippines), speakers can choose a word order which is exclusively epistemic (Schachter and Otanes 1983: 273). Nevertheless, the markers remain the same, so that

both Irish and Tagalog count as languages with highly overlapping modal systems.

In the second type of language, there are **markers for both situational and epistemic modality, but only for possibility or only for necessity, not for both.** We will say that such a language shows **some overlap** in its situational and epistemic modal systems. Ainu (isolate; Japan) has markers for situational and epistemic modality only in the case of necessity. The particle *kuni* 'must, should' is shown with a situational necessity use in (6a) and an epistemic necessity use in (6b).

(6)   Ainu (Refsing 1986: 204; Tamura 2000: 118)
       a. *A   kor   nispa,   hokure   **kuni**   a*
          I   ATTR husband hurry   NEC   we
          cisehe   orun e   hosipi.
          house.of ALL   you   return
          'My husband, you must hurry and return to our house.'
       b. *Tapan hekaci   poro   yakun,   isanispa*
          this   youth   be.big if   doctor
          *ne   an **kuni** p   ne.*
          as/into be NEC   thing become
          'When this child grows up, (s)he should become a doctor.'

There is no such overlap for possibility. The central marker of situational possibility (*askay*), for instance, does not appear to be used for epistemic functions.

(7)   Ainu (Refsing 1986: 207f.)
       *Hure   konno, a   e   **easkay.***
       be.red when   INDEF eat   can
       'When they have become red, one can eat them.'

A language in which an overlap between situational and epistemic modality occurs for possibility, but not for necessity,

is Hungarian (Kenesei et al. 1998: 314–317). The relevant marker is the verb *lehet*, illustrated with a situational use in (8a) and an epistemic one in (8b).

(8)   Hungarian (Kenesei et al. 1998: 315, 316)
        a.   *Haza   lehet   men-n-em?*
               to.home   may   go-INF-1SG
               'Am I allowed to go home?'
        b.   *Lehet, hogy   jöv-ök.*
               may   that   come-IND.PRES.INDEF.1SG
               'I may be coming.'

The two uses are different syntactically: in its situational use *lehet* selects an infinitive, whereas in its epistemic use it selects a complement clause. But the same marker *lehet* occurs in both, and we thus count Hungarian as a language with some overlap.

        In the third type of language, there are **no markers that code both situational and epistemic modality, neither for possibility nor for necessity**. The language will be said to show **no overlap** in its systems for situational and epistemic modality. Evenki (Tungusic; Siberia) is a case in point. It uses a modal participle   *-d'AngA* (or a future tense) for situational possibility (9a) and a suffix *-mAchin* for situational necessity (9b). Then there are epistemic suffixes, viz. *-nA, -rkA* and *-rgu,* which all cover both epistemic possibility (9c) and necessity (9d) and differ as to temporal-aspectual reference (present or recent past, past, and habitual respectively). The two sets of markers are fully distinct.

(9) Evenki (Nedjalkov 1997: 264, 265, 269, and p.c.)

    a.   *Ulguchen-**d'enge***   *bejetken*   *amakan*
          tell-PTCP   boy   soon
          eme-d'e-n.
          come-FUT-3SG
          'The boy who will be able to tell will come soon.'

    b.   *Minggi*   *girki-v*   *ilan-duli*
          my   friend-1SG.POSS   three-PROL
          chas-tuli   *suru-**mechin**-in.*
          hour-PROL   go.away-NEC-3SG
          'My friend must go/leave in three hours.'

    c.   *Ga-**na**-m.*
          take-POS-1SG
          'Maybe I take/took recently.'

    d.   *Su*   *tar*   *asatkan-me*   *sa:-**na**-s.*
          you   that   girl-ACC.DEF   know-NEC-2PL
          'You probably know that girl.'

If a language that lacks specialized expressions for situational and/or epistemic modality makes use of the same general tense-aspect-mood-marker in both subdomains, this is not considered to be an instance of the relevant overlap, as the primary function of the marker in question does not fall into either field. One such case is the particle *ki* in Yurok (Algic; California; Robins 1958: 99-100), which can stand for 'may', 'can', 'ought' and 'must', i.e. covering virtually all the territory of situational and epistemic modality, but also 'will'. In fact, of the various future makers in Yurok, this particle *ki* comes closest to being a purely temporal marker.

2. Geographical distribution

The first and most important finding is that high overlap is characteristic of Europe. Here, and only here, nearly all

languages have highly overlapping systems, and those that do not still show at least some overlap. High overlap is also found in Turkish, Hebrew and Egyptian Arabic. Outside of this area, languages without any overlap are in the majority. Languages with a high degree of overlap occur only sporadically in Asia, and we did not discover any examples in sub-Saharan Africa or in the Americas. An interesting case in between Europe and America is West Greenlandic. Like Yup'ik it expresses both situational and epistemic possibility with verbal morphology. Yup'ik, however, seems to have no overlapping modals. West Greenlandic does, and for both possibility and necessity, and whereas the overlap for necessity is old, the one for possibility is recent and probably due to contact influence from Danish (Fortescue 1984: 293, and p.c.). An area in which absolutely no overlap was detected is, roughly speaking, central South America. North of the Panama Canal, the absence of overlap also predominates, and the languages with partial overlap do not cluster in any particular area.

3.   Theoretical issues

There are two ways of approaching the relationship between what we have called "situational" and "epistemic" modality. One is more synchronically oriented and focuses on the relationship of semantics and morphosyntactic expressions. Excellent work, for English, includes Coates (1983) and Perkins (1983). Such language-specific studies are relevant to the topic because it must first be determined how it can be established whether a modal conveys situational or epistemic meanings or both. The foundation of comparative research was laid by Palmer (2001 [1986]). Bybee et al. (1994) and van der Auwera and Plungian (1998) present a comparative and diachronic approach drawing largely on grammaticalization theory. The focus has been on determining paths of semantic change.