MODALITY: DOMAINS, LAYERS, AND PARTS OF SPEECH[1]

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ABSTRACT

The paper explores the subtypes of deontic and epistemic modality taken by FG to operate on predicates, predications and propositions, and relates these to some hypotheses formulated within typology. One of the central claims of the paper is that epistemic modality is always propositional, and that the evidence concerning the differential behavior of modal adverbs vs. modal adjectives, often used to argue for a distinction between subjective propositional modality and objective propositional modality, has to be interpreted as following directly from the fact that satellites function differently from operators. The second central claim is that there is no neat dividing line between modal adverbs and adjectives, and that the typology of parts of speech has to allow intermediate cases.

KEY WORDS: Functional Grammar, layering, modality, parts of speech.

RESUMEN

Este artículo explora los subtipos de modalidad deóntica y epistémica que, según la GF operan sobre los predicados, predicaciones y proposiciones, y los relaciona con algunas hipótesis formuladas dentro de la tipología. Una de las principales afirmaciones de este artículo es que la modalidad epistémica es siempre proposicional, y que la evidencia relativa al diferente comportamiento de los adverbios modales vs. los adjetivos modales, que a menudo se utiliza para postular una distinción entre modalidad proposicional objetiva y subjetiva, tiene que interpretarse como derivada directamente del hecho de que los satélites funcionan de manera diferente a los operadores. La segunda afirmación principal es que no existe una línea divisoria clara entre adverbios y adjetivos modales, y que la tipología de las partes de la oración tiene que permitir casos intermedios.

PALABRAS CLAVE: Gramática Funcional, estratos, modalidad, partes de la oración.

1. INTRODUCTION

Modality is an interesting issue from the point of view of meaning as well as expression. As far as meaning goes, Functional Grammarians have especially studied (i) the 'domain' of modality, i.e. the question of whether the modality is deontic, epistemic or yet something else, and (ii) the layering of modality, i.e. whether modality is to be situated at the level of the predication, proposition or clause. As far as expression goes, Functional Grammar has paid attention to the grammaticalization of modality and to the question whether modality has to be taken care of by operators or predication formation. Relevant studies include Bolkestein (1998), Cuvalay-Haak (1997), Goossens (1985a, 1985b, 1985c, 1996), Harder (1998) and Olbertz (1998). The point of the present article is double. First, I present a 'new' classification of the domains of modality and I relate it to FG layering. Second, I discuss some problems of non-grammaticalized modality, more specifically, the relation between modality and parts of speech.

2. DOMAINS AND LAYERS OF MODALITY

In a typologically oriented article van der Auwera and Plungian (1998) presented a classification of modality. In this proposal, modality is limited to possibility and necessity senses. First of all, both possibility and necessity may be epistemic, as shown in (1) and (2).

(1)   The plane *may* have landed.
       [epistemic possibility]
(2)   The plane from London has just landed; it *must* be 3 o'clock.
       [epistemic necessity]

In (1) the speaker holds that the arrival of the plane is possible given what he knows about the activities at the airport. In (2), it being 3 o'clock is judged necessary, not absolutely necessary but necessary relatively to other elements of knowledge, in this case, the arrival of the plane from London.

In the non-epistemic domain, it is important to know whether the element that necessitates or enables the state of affairs is internal or external to a participant in that state of affairs. In (3), the possibility is internal to the participant called 'Charles' —he is capable of speaking Bislama, i.e. he is capable of states of affairs in which he speaks Bislama.

(3)   Charles *can* speak Bislama.
       [non-epistemic possibility, participant-internal]

In (4), said by a travel agent, and in (5), said by a general, the focus is not on the subject's capacity. What is the focus of the conversation in (4) is the airplane connections between Vanuatu and the rest of the world. And in (5), what enables the leaving is not a special skill of the subject, it is rather the authority of the speaker.

TABLE 1. THE DOMAINS OF MODALITY (ACCORDING TO VAN DER AUWERA AND PLUNGIAN 1998)			
Possibility			
Non-epistemic possibility			Epistemic possibility (Uncertainty) (1)
Participant-internal possibility (Dynamic possibility, Ability, Capacity) (3)	Participant-external possibility (4)		
	(Non-deontic possibility)	Deontic possibility (Permission) (5)	
Participant-internal necessity (Need) (6)	(Non-deontic necessity)	Deontic necessity (Obligation) (8)	Epistemic necessity (Probability) (2)
	Participant-external necessity (7)		
Non-epistemic necessity			
Necessity			

(4) To get to Vanuatu, you *can* first fly to Brisbane or Sydney.
    [non-epistemic possibility, participant-external]
(5) You *may* leave now, captain.
    [non-epistemic possibility, participant-external, deontic]

    As far as necessity goes, the distinctions are the same.

(6) I *need* to drink coffee at 4 o'clock or I won't make it to the evening.
    [non-epistemic necessity, participant-internal]
(7) To reach Vanuatu before midnight, you *need* to fly via Brisbane.
    [non-epistemic necessity, participant-external]
(8) Corporal, you *must* leave now.
    [non-epistemic necessity, participant-external, deontic]

This classification, represented in Table 1, is fairly traditional. There are, however, points of controversy, such as the exact relation between deontic and epistemic modality —indirect in my view, direct in some other analyses— or the relevance of notions of evidentiality and volition —these are neighboring notions in my view, but for other linguists they fall within the field of modality.

For the purpose of this article, it is important to note that this classification was developed without reference to any layering proposals as developed in FG. The point is now to ask whether the classification is compatible with FG layering. And

	Epistemic modality	Non-epistemic modality	
		Participant-external	Participant-internal
	↓	↓	↓
...	operator predicate ... [proposition satellite	operator predicate ... [predication satellite	operator predicate ... [predicate ...]]] satellite
layer	3	2	1

TABLE 2. TRANSLATION OF DOMAINS INTO LAYERS

the answer is rather clear. A translation of the domains of Table 1 into layers seems feasible and elegant.

The translation proposal is simple because of the complete correspondence between domain and layer. Independent of whether it is expressed with an operator, a predicate or a satellite, epistemic modality always plays at the level of the proposition (level 3). Participant-external modality has the predication in its scope (level 2), and participant-internal modality has the predicate in its scope (level 1).

It turns out, however, that the correspondence proposal represented in Table 2 is not quite orthodox. For Dik (1997) and for Hengeveld (1988, 1989, forthcoming), both epistemic and deontic modality relate to two layers (See Table 3).

Why do Dik and Hengeveld want to dissociate domains and layers? More specifically, what is the reason for the bifurcation of both epistemic and deontic modality?

For epistemic modality, the motivation refers to the hypothesis that epistemic modality exists in two variants: a subjective and an objective one. Subjective epistemic modality would have the proposition in its scope, and it is the predication that would be in the scope of objective epistemic modality (See Table 4).

Is the distinction between subjective and objective a worthwhile one? Consider the definitions of the two subtypes given by Dik (1997: 242):

Epistemic objective modality, in which the speaker evaluates the actuality of the SoA in terms of his knowledge of SoAs in general [...].

Through subjective modalities, the speaker may take personal responsibility for the content of the content of the proposition, and signal how certain he is about its truth [...]

Observe that the speaker is present in both cases. For both subtypes we are dealing with the opinion of the speaker. True, the speaker's opinion may or may not be shared with other people, and just in case it is shared, one could it consider it

	Epistemic modality		Non-epistemic modality			
			Participant-external		Participant-internal	
	↓	↘	↓	↘	↓	
	operator		operator		operator	
...	predicate ... [proposition		predicate ... [predication		predicate ... [predicate ...]]]	
	satellite		satellite		satellite	
layer	3		2		1	

TABLE 3. TRANSLATION OF DOMAINS INTO LAYERS ACCORDING TO DIK AND HENGEVELD

	Epistemic modality		
	Subjective	Objective	
	↓	↘	
	operator	operator	
...	predicate ... [proposition	predicate ... [predication	...]] ...
	satellite	satellite	
layer	3	2	

TABLE 4. SUBJECTIVE AND OBJECTIVE EPISTEMIC MODALITY (ACCORDING TO DIK AND HENGEVELD)

more "objective" or "intersubjective" (Nuyts 1992), but it remains nonetheless an opinion of the speaker, hence "subjective."

Consider an example from the literature on English modals. Coates (1983: 42) considers the use of *must* in (9) the expression of an objective epistemic modality.

(9) Certainly if there is endeavour to x, there *must* be attention to x.

Whoever said or wrote (9) may well take his/her subjective certainty to be absolute, but it remains subjective.

The motivation for the bifurcation of deontic modality is different. Dik (1997: 241-242) contends that if a participant is obliged or permitted to do something, the deontic modality would involve the level of the predicate. If the predication is involved, however, the modality would refer to a moral, legal or social system. Is this an interesting distinction? What should we do with the example in (10)?

(10) A Belgian citizen *has to* vote.

Is the soldier under an obligation? I think that the answer has to be positive, so the modality would be situated on the level of the predicate. Does voting in Belgium involve a legal or social system? Again, the answer can only be positive, and this would take us to the level of the predication. But, surely, a meaning cannot be both at the level of the predicate and at the level of the predication.

Note also that Dik (1997: 242) considers the deontic modality of the predication to be objective. It remains unclear, however, whether a deontic modality can also be subjective. Dik does not discuss them. Goossens (1999) does, but he reserves the notion for a case like (11), in which the speaker invests the obligation with his/her own authority.

(11) You *must* obey me.

The general conclusion is simply that I find the one-to-one correspondence between domain and layer to be more plausible that the double bifurcation proposal.

3. THE BIFURCATION OF EPISTEMIC MODALITY AND PARTS OF SPEECH

The hypothesized bifurcation between subjective and objective epistemic modality is associated with a parts of speech distinction. Hengeveld (1988: 236) affirms that modal adverbs like *maybe* in (12) express a subjective epistemic modality (level 3), whereas modal adjectives like *possible* in (13) express an objective epistemic modality (level 2).

(12) *Maybe* the train has arrived.   [[the train has arrived] [maybe]]
   $[\quad\ [X_i]\qquad\qquad\qquad \sigma_3\ ]$
(13) It is *possible* that the train has arrived.   [it is possible [that the train has arrived]]
   $[[X_i: [e_i: [\text{pred} [A]\qquad [e_j]_\varnothing]\qquad]]$

In (12) *maybe* is a level 3 satellite and it has a proposition in its scope. In (13) *possible* is the adjectival predicate of a predication e_i —and, higher up, also of a proposition X_i— and it has a predication e_j in its scope.

In the analysis offered in section 2, epistemic modality is always at level 3. This view implies no changes in the analysis of the adverb in (12), but (13) needs to be replaced by (14).

(14) It is *possible* that the train has arrived.   [it is possible [that the train has arrived]]
   $[[X_i: [e_i: [\text{pred} [A]\qquad [X_j]_\varnothing]\qquad]]$

In (14) *possible* is the adjectival predicate of a predication e_i and of a proposition X_i, but what it has in its scope is not a predication, but a proposition X_j.

Combining the analyses of (12) and (14) is clearly simpler than combining (13) and (14): for both adverbs and adjectives the entities in the scope of the mo-

dality are propositions. Yet a distinction remains. It is only in (14) that the expression of the modality is part of a predication and of a proposition. In (12) the expression of the modality with the satellite is outside of the predication and of the proposition. This distinction has its consequences. In my view, it explains the fact, much discussed since at last Bellert (1977), that only adjectival modality can be questioned.

(15)   Is it *possible* that the train has arrived?
(16)   Has the train *maybe* arrived?

The account could go as follows. What is questioned is a proposition, and it is only in (14) that the modality is inside a proposition. In (12) the proposition is only 'the train has arrived'.

4. EPISTEMIC MODALITY AND
INTERMEDIATE PARTS OF SPEECH

(12) and (14) illustrate strategies that are clearly either adverbial or adjectival. But how should one analyze the French construction in (17), a construction that entered FG discussions with Vet (1997, 1998)?

(17) *Peut-être*   que   l'avion   a   atteri.
      perhaps   that   the.plane   has   landed
      'Perhaps the plane has landed'.

On the one hand, this use of *peut-être* resembles the clearly adverbial structure of (18), which invites the analysis shown in (12).

(18) L'avion   a   *peut-être*   atterri.
      the.plane   has   perhaps   landed
      'Perhaps the plane has landed'.

The epistemic marker is after all the same element *peut-être*. But, on the other hand, the presence of the conjunction *que* 'that' links it up with an adjectival construction like (19), which invites the same analysis as English (14).

(19) Il   est   *possible*   que   l'avion   ait   atterri.
      it   is   possible   that   the.plane   have   landed
      'It is possible that the plane has landed'.

Both (17) and (19) employ *que*, and the *que* clauses seem to be a complements of the main clause predicates *peut-être* and *possible*. Note that there is still a difference. In the *que* clause in (17), the verb is in the indicative mood, whereas that of the *que* clause of (19) takes subjunctive mood. With a resemblance to both the

TABLE 5. THE STATUS OF SOME FRENCH EPISTEMIC MODALITY MARKERS				
	PEUT-ÊTRE	PEUT-ÊTRE QUE	IL SE PEUT QUE	IL EST POSSIBLE QUE
+ *que*	+	-	-	-
+ *il*	+	+	-	-
indicative	+	+	-	-
allows negation	+	+	±	-
allows question	+	+	±	-

clearly adjectival (19) and the clearly adverbial (18), one is lead to believe that the construction in (17) is somehow 'in between'.[2]

Interestingly, Vet (1998: 158-159) makes room for an in between category too, but he uses this label for yet another construction, viz. one with a pseudo-reflexive finite use of the verb *pouvoir* 'can'.

(20) Il   se   peut   que   l'avion   ait   atterri.
     it   itself can   that   the.plane   have   landed
     'The plane may have landed'.

If one characterizes the structures in (17), (18), (19) and (20) in terms of five criteria (cp. Vet 1997, 1998), we could arrive at the classification shown in Table 5.

It is clear that the *peut-être* without *que* is a satellite and that *possible* (with *que*) is a predicate, but the status of *peut-être* with *que* and that of (*il se*) *peut que* is much less clear. The real problem is actually that FG forces us to associate each

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[2] French is not the only language that allows this kind of variation. Ramat and Ricca (1998: 211-213) offers a brief discussion of Latvian.
(1) *Divian-i /*divian-s*   ka   Janis   jau   ir   aizgajis.
     strange-ADVstrange-NOM   that   John   already is   gone
     'It is a strange that John has gone already'.
(2) **Skaidr-i / skaidr-s*   ka   Janis   jau   ir   aizgajis.
     clear-ADVclear-NOM   that   John   already is   gone
     'It is clear that John has already gone'.
(3) *Saprotam-i/saprotam-s*   ka   Janis   jau   ir   aizgajis.
     understandable-ADVunderstandable-NOM   that   John   already is   gone
     'It is understandable that John has already gone'.
     For the predicate 'strange' Latvian only allows an adverbial strategy, for the predicate 'clear', only an adjectival strategy is admitted, and for 'understandable' both are allowed.

expression type with a pure category, and the FG is not ready (yet) at to accept intermediate categories. This reminds us of Hengeveld (1992), where he proposes a certain type of mixed categories. The category N/A, for instance, is the category of elements that function both as noun and as adjective. The kind of category that we need now, however, is that of an element that would function neither as a noun nor as adjective, but only partially like a noun and partially like and an adjective.

5. CONCLUSION

In this particle I went back to a classification of modality domains, which was proposed independently of FG but which allows an easy equation with the FG layers. The big distinction is between epistemic and non-epistemic modality. Within non-epistemic modality, there is a division between participant-internal and participant-external modality. Deontic modality is a subtype of participant-external modality. In FG layering terms: epistemic modality operates on propositions, participant-external modality on predications, and participant-internal modality on predicates. Whether or not it is useful to distinguish further subtypes of epistemic and deontic modality, like subject and objective epistemic modality, these further distinctions should not be associated with a layering distinction. The distinction between adjectivally vs. adverbially expressed epistemic modality is a difference between modality expressed by predicate vs. satellites. Finally, epistemic modality does not only enlist strategies that are clearly adverbial and clearly adjectival, but also strategies that are intermediate.

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