Mapping the speaker's mind

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In this squib I share some thoughts about issues that need further investigation when it comes to the mapping of conversational pragmatics. In particular, based on my work with Liliane, I will point out some problems with the cartography of evaluative, evidential and epistemic modals, for which I have no solution to suggest at this time.

Haegeman & Hill (2013) and Haegeman (2014) argue for the mapping of speech acts in a separate field above ForceP (as defined in Rizzi 1997, 2004), which roughly yields the hierarchy SAP $>$ ForceP. Vocative phrases and injunctive particles are examples of items that merge directly in the SAP area. This approach entails that the speech act field is a root clause phenomenon, since embedding occurs only at the level of ForceP and/or lower structure (i.e., assuming that the clause typing feature located in Force is the goal of the selection probe).

However, speech acts are not the only syntactic manifestations of speaker's point of view. As argued in Cinque (1999), speech act modality is at the highest level of a hierarchy that further maps the speaker's mind, as in (1), where other modal phrases capture evaluations, evidentiality and epistemicity, to which I will refer as the *E-modal complex*.

(1) $\text{Mood}_{\text{speech act}} > \text{Mood}_{\text{eval}} > \text{Mood}_{\text{evid}} > \text{Mod}_{\text{epistemic}} > \text{TP}$

It is unclear how (1) can be converted to the cartographies of the left periphery proposed in Haegeman & Hill (2013), or in Rizzi (1997, 2004); see also Kidwai (2010) for a consideration of similar questions. Does the E-modal complex belong to SAP or to ForceP? The answer has consequences for understanding and delimiting the root clause phenomena.

There are already studies on the status of the E-complex, which aim to define the location of the relevant adverbs. In this sense, Haegeman (2010) points out that certain configurations, such as root and selected clauses, are more favourable to speech act adverbs and the E-modal complex, insofar as they avoid intervention effects, such as noticed with adverbial and conditional clauses.

While this is true, there is also evidence that the distribution of E-adverbs is not clear cut even when they merge in root and selected clauses. For example, the English adverb *clearly* and the Romanian counterpart *evident* may occur either above the Force complementizer, as in (2a) and (3a), or lower, as in (2b) and (3b). The evidential interpretation is the same in either position.

(2) a. ***Clearly* that**, for whatever reason, the information wasn't getting through on the ground. (from Radford 2013)
b. Tolkien's way of thinking ***clearly*** spoke deeply to Lewis. (McGrath 2013: 150)

(3) a. ***Evident* că** pe Maria cu avionul o vom trimite (nu cu
clearly that DOM Maria with plane.the her-will.1PL send not with
trenul).
train.the
'Clearly, we'll send Maria by plane, not by train.'
b. Pe Maria o vom trimite ***evident*** cu avionul, nu cu
DOM Maria her-will.1PL send clearly with plane.the not with
trenul.
train.the
'Clearly, we'll send Maria by plane, not by train.'

In (2a) and (3a), the adverb precedes not only the complementizer but also topic and focus constituents, which makes very unlikely an analysis that would locate the complementizer lower than Force (e.g., in Fin, as in Radford 2013 versus Force in Hill 2007). The point is that the versions in (2b), (3b) are embeddable under selection, whereas the versions in (2a), (3a) are not, as further shown in (4). Note that the evidential has a speaker oriented reading in (4a)-(4c), while in (4b)-(4d) the reading can be either speaker oriented or subject oriented. Crucially, the speaker oriented reading is not lost.

(4) a. *He wrote that ***clearly* that**, for whatever reason, the information…
b. He wrote that, for whatever reason, the information ***clearly*** wasn't getting through.
c. *Ne-a scris că ***evident* că** pe Maria cu avionul au
to.us-has written that clearly that DOM Maria with plane.the have
trimis-o.
sent-her

d. Ne-a scris că pe Maria au trimis-o ***evident*** cu
to.us-has written that DOM Maria have sent-her clearly with
avionul.
plane.the
'He wrote to us that they clearly sent Maria by plane.'

Such data are challenging for the current cartographic analyses, since it is not clear where the E-features are mapped (i.e., on SA, Force/Fin or T?).

This is not a problem only for cartographic analyses. Heavily semantic based analyses also fail to grasp the contrast in (4). For example, Krifka (2017) argues that the distinctions between the aspects involved in an assertion are not only semantic but also syntactically mapped. This is not a new idea for those working in cartography (it is, in fact, the driving principle for the development of clausal hierarchies since Rizzi 1997), but it receives novel semantic justification. Importantly, Krifka (2017) proposes a separate syntactic mapping of the semantic distinctions, as shown in (5). For a more detailed discussion of (5) see Frey (2018) and subsequent work.

(5) ActP $>$ CmP/JP $>$ TP

In (5), TP is the domain of the proposition, where the truth-value is established, and which would roughly correspond to ForceP in cartography (i.e., it includes contrastive focus). Beyond TP, we deal with non-at-issueness. JP (which stands for *judgment phrase*) and CmP (*commitment phrase*) is the area where main clause operations take place (e.g., merging E-adverbs, E-related discourse particles, contrastive left dislocation). ActP (*speech act phrase*) also contains elements that qualify as main clause phenomena, but occur more peripherally (e.g., Hanging Topic, illocutionary particles, question tags).

In this framework, a clause is built bottom-up and may vary as to the level attained beyond TP: the presence of elements relevant to speech acts triggers the clausal projection up to ActP, while, in the absence of such elements, the derivation may stop either at CmP/JP (if material with features relevant to this domain is present in the clause), or at TP, if there is no appropriate trigger for the projection of the not-at-issue area.

Crucially, the derivation in (5) predicts that the different levels have a different distribution, a hypothesis presently explored (and confirmed) for German in Frey (2018). For example, Frey points out that a question tag can only appear with an ActP, and when this ActP is adjunct, it falls outside the structure of the

clause it relates to, as shown in (6a) versus (6b).

(6) a. *[Weil Maria sehr begabt ist, hab ich recht], wird sie schnell
since Maria very talented is have I right will she quickly
promovieren.
graduate
b. Maria wird schnell promovieren, [ist sie doch sehr begabt, hab
Maria will quickly graduate is she MP very talented have
ich recht?]
I right
'Maria will quickly graduate, she is is very talented, isn't she?'

Along the same lines, a discourse particle like *ja* in (7b) demands that its host be at least a JP. JP has to be attached high in its host, therefore binding into an adverbial clause which contains a discourse particle is not possible.

(7) a. Weil er_1 sehr erschrocken ist, wurde $jeder_1$ bleich.
because he very frightened was became everyone pale
'Because they were frightened, everybody turned pale.'
b. *Weil er_1 ja sehr erschrocken ist, wurde $jeder_1$ bleich.
because he PART very frightened was became everyone pale

Romanian brings independent confirmation for the hierarchy in (5), since the complementizer *că* 'that', obligatory with declarative complement clauses, may also occur, optionally, at the border between the fields above TP. For example, in (8), the speech act adverb 'frankly' and the promissive particle *zău*, which qualify as elements of ActP, embed a 'that' headed JP field containing the adverb 'surely', which further embeds a 'that' headed TP, the entire structure qualifying as a root clause (see Hill 2007 for tests verifying the mono-clausal versus bi-clausal status of such structures).

(8) Cinstit zău (că) bineînțeles (că) voi sosi la timp.
frankly PRT that surely that will.1SG arrive in time
'Frankly, I will surely arrive in time.'

So the sentence in (8) supports the field separations in (5) by showing the possibility of 'that' insertion in-between these fields. However, the sentence in (8) is unembeddable, as shown in (9), either as a complement or as an adjunct, as long as its level is ActP or JP, a conclusion that also follows, on independent grounds,

from cartographic analyses.

(9) a. *A promis că cinstit zău (că) bineînțeles (că) va sosi la timp.
has promised that frankly PRT that surely that will.3SG arrive in time
b. *Deși cinstit zău (că) bineînțeles (că) va sosi la timp...
although frankly PRT that surely that will.3SG arrive in time

However, if we eliminate the ActP elements, we can get embedding on the condition that the E-adverb is somewhere lower in the structure (i.e., *că* is ruled out), as in (10). As mentioned for (4), embedding, as in (10a), allows for a double reading, where the E-adverb may reflect either the point of view of the speaker or of the grammatical subject (under a reportative structure), depending on the context. On the other hand, in the adjunct clause in (10b) only the speaker's point of view is a valid option.

(10) a. A promis că va sosi bineînțeles (*că) la timp.
has promised that will.3SG arrive surely that in time
'He promised to surely arrive in time.'
b. Deși va sosi bineînțeles (*că) la timp...
although will.3SG arrive surely that in time
'Although he will surely arrive in time...'

The contrast between (9) and (10) replicates the contrast signalled in (4). Crucially, Krifka's (2017) proposal falls short of explaining why this would be so: Why is embedding disallowed when E-adverbs are merged high but not when they are merged low in the structure, since the mapping of the formal feature that triggers this merge must be systematically associated with the same functional head? In other words, the presence of the evidential adverbs should always signal the presence of JP, which is predicted in Krifka's system to systematically rule out embedding, contrary to the facts in (10).

A more promising approach seems to come from Miyagawa's 2010 system, where C is associated not only with phi-agreement features but also with discourse (δ) agreement features. Cross-linguistic variation follows from variation in the transfer of the δ-feature set from C-to-T. Along these lines, the contrast between (2a), (3a) and (2b), (3b) would show unstable systems, where both options are in place in one single language, with δ-agr at C in (2a), (3a), and δ-agr transferred to T in (2b), (3b). This would cover the grammaticality contrast seen

with embeddings, insofar as C with a specific set of discourse Agr is unembeddable, whereas structures where δ-Agr is transferred to T are embeddable.

Miyagawa's system may seem instrumental for maintaining Cinque's (1999) hierarchy while also explaining the variation in the distribution of E-adverbs, as well as the consequences of this distribution for the syntactic behavior of the relevant structure. However, the extension of Miyagawa's analysis along these lines is problematic on other grounds: The δ-agr set at C is meant to capture the relation between topic/focus and comment/presupposition, which concerns truth value structures, not the non-at-issueness. Moreover, even if we include the E-feature sets in the δ-agr set at C, it is not clear how the cross-linguistic variation arising from C-to-T transfer may be sorted out, since the transfer may concern one set of δ-agr features (e.g., E-features) but not the other (e.g., topic/focus). This also leaves open the question of the speech act features set, which systematically blocks embedding.

I have no solution to suggest at this time for the apparently free distribution of E-adverbs as shown in (2) and (3), and their effects on clausal embedding. I only point out that this kind of data is worth investigating since it occurs quite often cross-linguistically, especially within the Romance language group. Whoever takes on this task will further Liliane's work and deepen its significance for the field of syntax-pragmatics interface.

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