Epistemic Modality in Romanian: the role of BE

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This paper contributes to the view that the epistemic/root distinction in modals across languages relies on structural differences. I will address the behavior of Romanian modals in combination with perfective Aspect, in comparison with other Romance languages (French, Spanish and Italian). It is a well-known fact that Romance languages, inasmuch they distinguish between perfective and imperfective Aspect, have ambiguous modals in the perfective; they allow either the root or the epistemic reading. In Romanian the root, veridical reading is triggered with perfective on the Modal. I will claim that the explanation for that relies in the fact that Romanian Modals have bi-clausal structures. I will also address the conditions in which the epistemic readings can arise, and provide an explanation of their preference for embedded verbs (or Small Clauses) denoting stative situations, further developing the idea of a structural difference between the relevant readings. I will also propose a possible connection between epistemics and evidentials in Romanian.

1. Introduction

Romanian Modals – in particular CAN – and Romanian modal *presumptive* periphrases have properties that allow for a better understanding of syntactic mechanisms at work in epistemic readings.

1.1 Ambiguities of modal verbs relying on scope-reordering of Asp and Mood

It has been shown that cross-linguistically, perfective aspect affects the veridicality of the event, inducing an Actuality Entailment [AE] in languages that distinguish between perfective and imperfective Aspect (cf. Bhatt (1999), Condoravdi (2002), Demirdache & Urribe-Extebarria (2005), Laca (2005), Hacquard (2006), Borgonovo (2008)). Perfective modals allow for both epistemic and root readings, as illustrated in (1) for French.

(1) *Pierre a pu ouvrir la porte*
→It is possible that Pierre opened the door (OK if he didn't)
→Pierre managed to open the door (*he didn't)

A contrast arises between Romanian and other Romance languages with respect to the optionality of AE in the context of perfective modals, cf. (2); Romanian forces the AE in those contexts.

(2) a. *Petre a   putut   să deschidă uşa* (perfective; ability reading)
     Peter has could Subj open door-the
  b. *Petre a putut deschide uşa*   (perfective; ability reading)
     Petre has could open door-the
         → *It is possible that P opened the door
         → P managed to open the door

A first question that naturally arises is why Romanian should lack scope-reordering. I will argue that this is so because of the bi-clausal structure of Romanian modals, especially CAN, and that Bhatt's (1999) and Hacquard's (2006) analyses should be completed with one more parameter, the bi-clausal vs. mono-clausal construction for modal verbs. The monoclausal construction allows the modal to be inserted at different levels in the sentence, hence the ambiguous readings. This is confirmed by the fact that, in some contexts, the epistemic reading is allowed with the monoclausal construction of CAN in the languages where, like Romanian, the two possibilities exist. The particular contexts where the relevant reading appears indicate that the epistemic operator still has to scope over a proposition. In structural terms, the category of the complement would is in this case be CP/ForceP, whereas in the root case, it would probably be a mere vP.

1.2 An 'evidential' periphrasis in Romanian : the presumptive
Romanian has another way of expressing epistemic modality and evidentiality, namely the presumptive paradigm, illustrated in (4) (cf. Irimia 2008). The Romanian presumptive can be compared with the French modal future, illustrated in (3), or to Italian and Spanish progressive, but it only has the modal reading.

(3) *Il aura lu le livre*
    he may have read the book

(4) a. *o fi citind cartea*
       will be reading book-the
       "he may be reading the book"
   b. *o fi citit cartea*
      will be read book-the
      "he may have read the book"

On the basis of the Romanian data investigated here, and of the possible parallelism between the epistemic reading of modals and the periphrastic presumptive, I will claim that in both types of constructions (the first being bi-clausal and the second mono-clausal), epistemic modality relies on a syntactic structure in which the modal is inserted high, and on a stative semantics.

1.3 Goals
This paper aims, on the first hand, at supporting a multiple-layered analysis of modality in the context of bi-clausal vs. mono-clausal constructions of Romanian CAN. Secondly, it will investigate the role of BE in epistemic contexts; show that the high position of the modal and stativity (BE-insertion) play a crucial role in the epistemic constructions. Finally, it will show that there is a connection in terms of structure between epistemic and evidential construals.

2. Ambiguity of perfective modals in Romance
2.1 Modals and implicatives
Karttunen (1971) observes a difference in interpretation between modals and what he calls implicatives. In (5), the modal CAN does not entail the realization of the event denoted by the embedded verb, whereas the implicative *manage* in (6) does:

(5)   *He could open the door* -/$\rightarrow$ he opened the door

(6)   *He managed to open the door* $\rightarrow$ he opened the door

Bhatt (1999) and Hacquard (2006) observed that languages with perfective / imperfective morphology have 'implicative' constructions with modals in perfective sentences.
Let me first summarize the types of readings allowed by modals.
Imperfective modals allow for epistemic vs root (abilitative) readings, which are all averidical readings (cf the possibility to continue with "in fact, (s)he didn't")

(7)   a. *Pierre pouvait gagner la course (ou ne pas la gagner)*
        b. *Pierre pouvait gagner la course (il avait la meilleure voiture)*

(8)   a. *Pierre pouvait / devait gagner la course*
        b. *Pedro podia / debia ganar la carrera*

(9)   a. *Pierre peut / doit gagner la course* (epistemic, circumstantial)
        b. *Pedro debe ganar la carrera* (idem)

Perfective modals allow for root and epistemic readings. Veridicality arises in the root reading; note that the epistemic reading in this case is the marked, not the default option:

(10)   a. *Pierre a pu / a dû gagner la course* (epistemic/root)
         b. *Pedro ha podido / ha debido ganar la carrera* (epistemic/root)
         c. *Pedro pudo / debio ganar la carrera* (epistemic/counterfactual)

(11)   a. *Pierre a pu$_{ROOT}$ gagner la course #et il ne l'a pas gagnée.*
         b. *Pierre a pu$_{EPIST}$ gagner la course comme il a pu ne pas la gagner.*

(12)   *Pierre a dû$_{ROOT}$ sortir #mais il n'est pas sorti.*

In the case of the epistemic reading, the T/Asp is read on the lower verb, and the Modal Evaluation Time (MET) corresponds to the Utterance Time. In the case of the root reading, the MET is prior to the Event Time; T/Asp is read on the modal. The root reading yields A(ctuality) E(ntailment), hence the ambiguity of perfective modals in those languages that distinguish between perfective and imperfective past.
   In previous analyses, this situation has been explained by scope-reordering, triggered by Asp's raising at LF (Hacquard (2006)), by raising of the Modal (Cinque 1998), or by a difference in height (Stowell (2004), Borgonovo (2008), Zagona (2008)). For reasons of space, I will not discuss these analyses and their shortcomings. The data analyzed below bring support for the latter type of analysis, in

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which the different readings are triggered by the level of insertion of the Modal in the structure.

2.2. Bi-clausal constructions and unambiguous perfect

As pointed out above, Romanian do not show the same systematic ambiguity as the other Romance languages[1]: only root readings are available for perfect modals, as shown by the (obligatory) AE; epistemic readings are absent in (2b)/(13) with the perfect (compus) modal. Asp and Mood do not interact in the same way in French and Romanian – a situation not predicted by Bhatt (1999) and Haquard (2006).

(13)   a. *Petre a putut să deschidă/ deschide uşa   #şi n-a deschis-o.* (only root)
            Peter has could sbj open / open.Inf door-the and did not open it
            "Peter could have opened the door (and he didn't)"
        b. *Petre a trebuit să deschidă uşa #şi n-a deschis-o.* (only root)
            Peter has musted sbj open door-the and did not open it
            "Peter must have opened the door and he didn't"

Borgonovo (2008) establishes a classification of the position of Aspect connected with the kind of modal reading obtained. Thus, the order Mood>T>Asp corresponds to the epistemic reading; the ordering T>Asp>Mood corresponds to the implicative reading, and T>Mood>Asp corresponds to the counterfactual reading, that I do not discuss here.

In (14) vs (15), we see that languages like French and Spanish may have "opaque" morphology, in that they allow Asp of the lower verb to be read on the Modal, whereas Italian seems by default not to have this possibility. Romanian is like Italian, as illustrated in (16).

(14)   FR : Pierre a pu sortir. = P. peut être sorti   (epist)
        SP : P. pudo salir   = P. puede haber salido.   (epist)
        IT *P. è potuto uscire; P. può essere uscito   (epist)
        Mod T Asp

(15)   FR : P. a pu sortir   (root)
        IT : P. è potuto uscire   (root)
        SP: P. pudo salir   (root)
        T Asp Mod

(16)   a. *P. è potuto uscire; P. può essere sortito*
        b. *P a putut să plece; P (se) poate să fi plecat*
            P has could sbj leave; P (se) can sbj be leaved

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[1] Note that otherwise, Romanian Modals [RM] exhibit the same ambiguities as modals in other languages (in the present and the imperfective):
(i) *Petre poate/putea imita / să imite orice sunet; e foarte talentat*   (ability)
    Petre can/could imitate any sound, he is very talented
(ii) *Petre poate/putea imita / să imite pe oricine; n-o să-l pedepsim*   (deontic)
    Petre may/could imitate anyone, we will not punish him
(iii) *Petre poate/putea fi / să fie beat la ora asta /aia*   (epistemic)
    Petre may/could be drunk by now/then
(iv) *Poate să plouă mîine/ a doua zi*   (epistemic)
    it may rain tomorrow/ the next day

Romanian *a putea* 'can' shares with a larger class of Italian modal and aspectual verbs the choice between the mono-clausal and the bi-clausal construction (Rizzi's (1982) restructuring). Romanian Modals combine with subjunctive, with one exception: *a putea* 'can', which still has the (bare) infinitive/subjunctive alternation (Dobrovie-Sorin (1994), Avram & Hill (2007), Hill (2008)), as illustrated below.

(17)   a. *Ioana poate să plece*
             Ioana can Subj.leave
         b. *Ioana poate pleca*
             Ioana can leave.Inf

(18)   a. *Ioana trebuie să plece*
             Ioana must   Subj.leave
         b. **Ioana trebuie pleca*
             Ioana must leave.Inf

A putea combining with Bare Infinitive shows 'restructuring' properties, with obligatory clitic climbing indicating that the modal and the infinitive form a V-complex (19a-b); the VP status of the complement of *a putea* is clearly shown by the absence of the inflectional infinitival particle [a] (19c) and the impossibility to insert the perfect auxiliary *fi* 'be'

(19)   a. *Petre (nu) (o) poate (*nu) (*o) citi*
             Petre (not) (her) can read
         b. *Petre (nu) (se) poate (*se) rătăci*
             Petre (not) (SE) can lose
         c. **Petre nu se poate a rătăci*
             Petre not SE can (to) lose
         d. **Petre nu se poate fi rătăcit*
             Petre not SE can BE lost

Subjunctive complements of Modals realize irealis ForceP/MoodP; they host pronominal clitics, negation, auxiliaries, as illustrated below:

(20)   se poate (impersonal)
         se can 'it is possible that'
         a. …să   (nu)-l   iau / să (nu) le iei / să (nu) le ia…
             part$_{SUBJ}$ (not) cl take$_{1sg/2sg/3sg}$
         b. …să   (nu) le fi luat
             part$_{SUBJ}$ (not) cl have taken

On the basis of the correlation between bi-clausal structure and unambiguous epistemic meaning, the following hypothesis can be formulated:

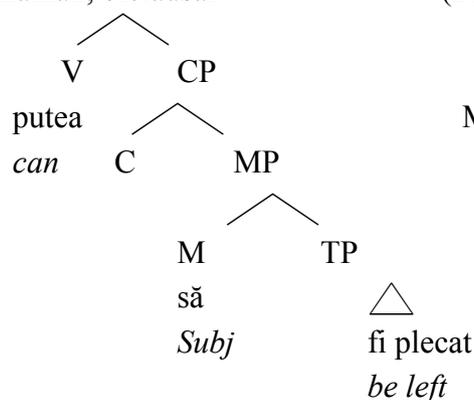(21)   The availability of the monoclausal construction is a condition for the ambiguity of perfective modals.

This hypothesis is supported by the fact that epistemic-only *a putea* 'may/can' and *a trebui* 'must' in bi-clausal constructions always disallow the perfective, cf. (22)[2]. The epistemic meaning is only possible with the perfective on the embedded verb, as shown in (23-24).

(22) a. *Trebuie / *a trebuit că știa el ceva*
         it-must/ has musted that knew he something
      b. *Poate / *a putut   să vină de la o clipă la alta.*
         he-can / he could Subj come from a moment to another

(23) a. *Petre poate / putea să fi luat trenul*
         Petre can / could Subj. aux taken the train
      b. *Petre trebuie / trebuia să fi luat trenul*
         Petre must / must.Ipf Sbj aux taken train-the
         "Petre must have taken the train"

(24) a. **Petre a putut să fi luat trenul*
      b. **Petre a trebuit să fi luat trenul*
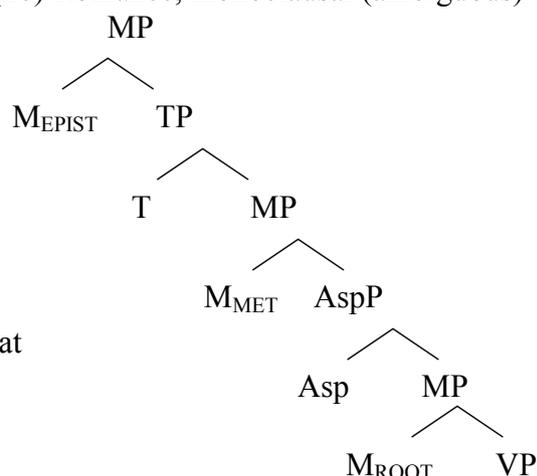   "Petre has could / must.ipf have taken the train"

2.4. Towards an analysis: bi-clausal epistemic construction
The analysis I would like to propose goes in the following terms. Modal constructions are multiple-layered: the level of insertion of the modal (basically corresponding to CP/TP, AspP, vP) determines the interpretation. Since Romanian modals have bi-clausal constructions, the "transparent morphology" condition follows: separate inflectional levels are present on the modal as well as on the lower verb, obeying semantic restrictions (epistemics cannot be in the scope of the perfective). In the (Romance) epistemic construal, the modal is inserted above T; in Romanian, it can be inserted clause-externally (as a main clause).

(25) Romanian, biclausal

```
          /\
         /  \
        V    CP
      putea  /\
      can   /  \
           C    MP
                /\
               /  \
              M    TP
              să    △
              Subj  fi plecat
                    be left
```

(26) Romance, monoclausal (ambiguous)

```
                MP
               /\
              /  \
         M_EPIST  TP
                 /\
                /  \
               T    MP
                   /\
                  /  \
              M_MET   AspP
                     /\
                    /  \
                 Asp    MP
                       /\
                      /  \
                  M_ROOT  VP
```

2.5. Some more arguments for the clausal-external position of epistemics
Romanian data clearly show the 'monadic' character of epistemic modals: they have only one argument, a full sentence. The impersonal construction, with the invariable, impersonal construction *se poate*, is always tied to the epistemic reading. In Romanian, in a structure like (27), the DP *Maria* would be in a Topic position, where it raised from the subject position of the embedded subjunctive clause.

(27)   *(Maria) SE poate să fi luat trenul*
          Mary   SE can să have take the train

The behaviour of *a trebui* goes in the same direction; since it can only have the bi-clausal (+impersonal) structure, it always rejects the perfective in the epistemic meaning:

(28)   a. *Maria a trebuit să ia trenul* (deontic)
            Mary has must to take the train
            "Mary had to take the train"
         b. *A trebuit ca Maria să ia trenul* (metaphysical)
            It musted that Mary take the train
            "It was necessary that Mary take the train"
         c. *(Maria) trebuie că (Maria) a luat trenul* (epistemic).
            (Mary) has that (Mary) has taken the train
         d. *Maria trebuie să fi luat trenul* (epistemic)
            Mary must Subj be taken the train
            "Mary must have taken the train"

Invariable *poate* & *trebuie* with indicative clauses developed into epistemic adverbial operators taking scope over the whole clause:

(29)   a. *Poate că Petre s-a rătăcit*
            maybe that Peter se-has lost
         b. *Trebuie că Petre s-a rătăcit*
            mustbe that Peter se-has lost

The same connection between the epistemic reading and the impersonal construction holds in the case of Italian *potere,* unlike *dovere* (cf. Rocci (2005)):

(30)   a. *Devono essere le cinque, visto che si sta facendo buio.*
            It must be five p.m., given that it's darkening.
         b. *?Possono essere le cinque, visto che si sta facendo buio.*
            It may be five p.m., given that it's darkening.
         c. *Forse/ può darsi que sono le cinque, visto che si sta facendo buio.*

3. Monoclausal constructions and epistemic readings
3.1. A prediction and a further observation
If the present analysis is on the right track, the ambiguity of modals in the perfective is expected in languages where modals take monoclausal constructions. Since

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Romanian has access to the two types of constructions, the ambiguity should arise in the monoclausal construction only[3].

   We saw that Romanian *putea* 'can' also enters monoclausal constructions with bare infinitives; the prediction would be that, in this case, *a putea* allows epistemic readings in the perfect, and this prediction seems to be borne out, cf (31)a-b. This seems however to depend on the kind of embedded infinitive: there seems to be a preference for unaccusatives, since in (31)c involving an unergative activity, the entailment reading is again the only one available. Note the obligatory climbing of the clitic *se* (the hallmark of the impersonal epistemic construal).

(31)   a. *Petre s-a putut rătăci*
          Petre se-has could lose
          "Petre might be lost"
       b. *S-a putut întîmpla ceva rău.*
          se-has could happen something bad
          "something bad might have happened"
       c. *Petre a putut cînta*
          Petre has could sing
          "Petre was able to sing"

This is a new observation that I would like to further question in the following section. It would be indeed interesting to know why unaccusatives should favor epistemic readings in the monoclausal construction, and what this tells us about the structure associated with these readings.

3.2. Epistemic readings, unaccusatives and (may)BE
First, note that unaccusatives do not normally give rise to root readings:

(32)   a. *#les feuilles peuvent tomber (ou ne pas tomber)*
          the leaves can fall (or not fall)
       b. *#ça peut arriver (ou non)*
          this can happen (or not)

Passives are unlikely with root readings too:

(33)   a. *Jean peut être invité à la fête (*Jean est capable d'être invité à la fête)*
          John can be invited to the party (John is able to be invited to the party)
       b. *Le livre peut être lu (*le livre est capable d'être lu)*
          The book can be read (the book is able to be read)

Interestingly, there is a difference between s-level and i-level predicates in Small Clauses with respect to epistemic vs. ability readings; i-level predicates only allow epistemic readings, whereas s-level predicates allow both:

(34)   a. *Jean peut être intelligent (ou ne pas être intelligent)*
          John can be intelligent (or not be intelligent)

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[3] In Italian, the possibility of clitic climbing distinguishes the monoclausal – restructuring construction from the biclausal one (Giuliana Giusti, p.c.). The bi-clausal construction (without clitic climbing) seems to be associated to the epistemic meaning. Further investigation is needed to see how the restructuring construction behaves.

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b. *Jean peut être malveillant (il est capable d'actes malveillants)*
John can be evil (he is capable of evil actions)

The types of predicates allowing epistemic readings in monoclausal constructions in Romanian look like a natural class. However, I would like to argue that there is more to be said. Actually, I propose that the reason why these predicates in the monoclausal construction favor epistemic readings is that they are statives, or allow stativizers; and BE is such a stativizer. In a sense, the three types of predicates having this property require BE-insertion at some level.

This intuition meets the one of Vetters (2004), who notes that the epistemic modality is a modality of BE, whereas root modality is a modality of DO. The fact that agentivity is connected to ability readings and raising verbs (which modify the relation between what is and what is apparent) to epistemic reading has often been noticed. See also Copley (2008) for the idea that epistemics need statives and reject eventives.

In a nutshell, I propose that epistemic operators select (an overt or covert) BE + propositional content, whereas root modals select activities (agentive vPs).
Further support for this idea comes from the fact that BE lexicalizes in clausal adverbs like *maybe*; like the clitic *se* in the impersonal construction, it modifies the th-grid of *can*:

(35)   a. *peut-être (il se peut) qu'il viendra*
            can-be (it se can) that he come.Fut
        b. *maybe he will come*
        c. *Could be !*
        d. *se poate !*
            se can

Another interesting fact concerns special forms of epistemic *can* in Italian. In Italian (36)b, we can notice a formal difference between the full *potere* verb and the truncated one. A similar phenomenon seems to exist in Romanian, and the truncated form also appears with the epistemic reading rather than with the root one (cf 36a-b); moreover, exclusive epistemic forms do not allow truncation, as shown in (37)c.

(36)   a. It *potere* → *può (darsi, essere)*
        b. Rom *putea* → *poate (+ că Ph) / poa' să*

(37)   a. *Poa' să plouă*
            can   to rain
            'it may rain'
        b. ??*Petre nu poa' să facă tema la matematică*
            John not can to do homework at mathematics
        c. **Poa' (poate) că va ploua*
            can that will rain
            maybe it will rain
        d. **Poa' ploua*
            can rain.Inf

The data strongly suggest that epistemic CAN appears in a truncated form when it is licensed by the insertion of BE and correspondingly acquires an epistemic meaning. I would like to propose that this insertion can be overt or covert. If BE is overt on

'can', the combined form may appear outside CP/TP (cf. peut-être que). If BE is covert on 'can', like I suggest it is the case for Romanian, the modal combines with a Mood/TP or attracts the Mood marker forming a verbal complex (poa' să). Further investigation is needed to establish the exact position of the modal with respect to the embedded verb. For now, I take these data as an indication for the presence of a covert BE in epistemic contexts.

On the basis of the above observations, I propose the following analysis for monoclausal CAN in Romanian:

(38)   Epistemic construal: M>BE+SC

(39)   Root construal: M>VP$_{agentive}$

This proposal is coherent with the longstanding intuition in the literature that the epistemic construal is monadic, whereas the root one is dyadic (involves two arguments).

3.3 More evidence from evidentials: BE in the Romanian presumptive
An interesting connection can be made between modal epistemic verbs and a modal periphrase encoding evidentiality. Irimia (2008) shows that evidentiality in Romanian is modal, and not a conversational implicature. It may appear as a side effect of epistemic construals with modal *a putea* 'can' & *a trebui* 'must' and in the presumptive paradigm, a marker of Indirect Evidentiality.

I will not go into an analysis of evidentiality nor try to decide if epistemics and evidentials have to be kept distinct or rather as pertaining to the same category. I will try to put forward some common properties between the modal and the periphrastic construction, which happen to admit the both readings.
Below, I illustrate the general format of the presumptive paradigm:

(40)   o   fi   citind   /   citit
     MOOD + BE.Inf + GER (Present) / PST.PRT (Past)
     '(he) might read (present presumptive) / he might have read (past presumptive)'

The "Mood" marker may be an inflected one (i.e., a future or a conditional particle) or an uninflected one (a subjunctive particle)[4]. The presumptive though distinguishes itself from the other corresponding irealis paradigms by its meaning (which is not a futural or a conditional one) and formally by the fact that it involves an aspectual distinction reflected in the present vs. past participle alternation.
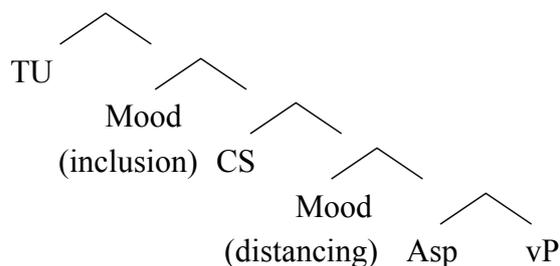My concern here is that the presumptive, as well as the whole irealis paradigm of the Romanian verbal system, involve BE as a perfective auxiliary[5]. Note that there is no have/be alternation in the Romanian indicative perfect. BE in these contexts has been previously analyzed as a perfect auxiliary (D'Hulst et al (2004)) or as bearing modal and tense features (Avram & Hill (2007)), both analyses coming with different problems. A new and interesting analysis is developed by Irimia (2008), which offers a modal analysis of Indirect Evidentials in Romanian, adapting Izvorski's (1997)

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[4] See Irimia (2008) for a detailed presentation of the Romanian presumptive.
[5] Notice that the position of BE corresponds to the one that BE takes in the parallel (i.e., conditional, futural or subjunctive paradigm), which can be shown by the different position of the clitics, high with the former and low with the latter (subjunctive) markers.

analysis for present perfect. In her terms, FI 'be' spells out the C[onsequent]S[tate] of (subpart of) an eventuality, as in (41).

(41)

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              /\
         TU  /  \
            /\
       Mood   /\
   (inclusion) CS  /\
                  /\
            Mood     /\
       (distancing) Asp   vP
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I take this semantic analysis to be in the same spirit as the one in the present paper. BE acts like a stativizer from a semantic point of view. Intuitively, it seems to me to mean "is true", "holds", and probably does the same job in 'maybe' adverbials combining with a CP/proposition.

The question that I would like to raise now is what is the syntactic role of BE. In this paper, I take BE insertion to provide a raising structure in epistemic-evidential constructions. It plays the same role in both constructions with *a putea* and with the presumptive, which both have been argued to express evidentiality. The origin of this construction is actually a (popular) modal future of BE combined with a propositional content.

(42)　　a. *cine-o   fi?*
　　　　　who-aux be?
　　　　　"who could (that) be?"
　　　　b. *o   fi   mama*
　　　　　would be mother
　　　　　"it would be my mother"

(43)　　A. *Cred că P [Paris 8 e în grevă/ a venit mama]*
　　　　　I-think that P [P8 is on strike/ has come mother]
　　　　B. *O fi!*
　　　　　"it could be so, maybe"

It is interesting to notice that in (3) and (4) in the Introduction, here above (44)-(45) (only) the future of BE in French seems to induce epistemic/evidential readings:

(44)　　*Il aura lu le livre / #il lira le livre* (wrong in the modal reading)

(45)　　a. *o   fi   citind cartea*
　　　　　will be reading book-the
　　　　　"he might be reading the book"
　　　　b. *o   fi   citit cartea*
　　　　　will be read book-the
　　　　　"he might have read the book"

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4. Still an open question: the control vs. raising distinction

The analysis sketched above for Romanian monoclausal constructions reminds the control vs. raising debate in the syntax of modals, which I think could be reopened. Ruwet's data (1983) discussed by Rooryck (1992) bring evidence that the modal ambiguity may be a structural one. The modal flavor associated to the expletive construction (46b) is an evaluative, attitude-like meaning. Raising diagnostics come e.g. from idiom chunks (cf. (46c)).

(46)   a. *cet home peut vous surprendre* (ambiguous)
          this man can you surprize
          "this man can surprize you"
      b. *ça peut vous surprendre*
          it may surprize you
      c. *justice peut être rendue*
          justice may be done

Interestingly, this contrast also shows up in the case of other verbs, being associated with a change in the verb's meaning, like *menacer* or *promettre* which exhibit an alternation between a control and a raising behavior.

(47)   a. *le toit de la cathédrale menace de tomber*
          the roof of the cathedral threats to fall
      b. *ce jeune homme promet d'être un grand pianiste*
          this boy promises to be a great pianist

Interestingly, the high, "modal-flavoured" reading is incompatible with the perfective:

(48)   a. *le toit de la cathédrale *a menacé / menaçait de tomber*
          the roof of the cathedral has threat.Pf / threated.Ipf to fall
      b. *#le jeune homme a promis (√a fait la promesse) / promettait de devenir président*
          the young man has promise.Pf (made the promise) / promised.Ipf to become president

These facts point into the same direction as our observations above. It seems to be the case that some verbs alternate between a raising and a control construction from a syntactic point of view, alongside with a high vs. root reading from a semantic point of view. The high reading would be connected to the raising construction, i.e. to the fact that the verb is unable to assign a th-role to its subject position, and takes only a CP complement; in semantic terms, it behaves like a propositional operator.

There are of course problems with the raising/control analysis of the epistemic/root distinction in modals, and I will not try to find a simple answer to this (cf. e.g. Wurmbrandt (1999), Avram & Hill (2007) for Romanian). However, I think that the split between monoclausal and biclausal construction in Romanian, as well as the observations regarding the conditions on which epistemic reading appears in monoclausal constructions (i.e., insertion of BE) strengthen the idea that the difference in readings does correspond to structural distinctions. A way of implementing this is a multiple-layered analysis of modality, as suggested above. One might also think in Rooryck's (1992) terms, and investigate the existence of "degrees of raising". In this case, Romanian modal constructions would show the first steps in developing raising configurations for epistemic meanings.

If the present observations and analysis are on the right track, we expect the 'implicative' effect to appear in other contexts in Romanian, which has a number of 'raising' periphrases expressing different relations between events. In fact, this is indeed the case: other Romanian periphrases also reject perfect, namely periphrases with *a urma*, which order a situation in the future with respect to another situation which can be the speech-act situation or another situation in the past. Here also, the perfective is out[6]:

(49)　　a. *urmează să plecăm*
　　　　　follows to leave.1pl
　　　　　we shall leave
　　　　b. *urma să plecăm*
　　　　　followed to leave.1pl
　　　　　we were supposed to leave
　　　　c. *?*a urmat să plecăm*
　　　　　has followed to leave

5. Conclusions

In this paper, epistemic readings have been shown to depend on the existence of a raising configuration: the Romanian data show that when this configuration does not obtain, veridical readings are induced with past modals.

The raising configuration is provided by merge of BE with a CP or a Small Clause; this explains why epistemic readings in monoclausal constructions are possible with unaccusatives, passives and adjectival predication. The same idea can be maintained for the role of BE in the Romanian presumptive paradigm, in agreement with the long-standing intuition of BE as a core raising verb.

This analysis could also capture observations by Mari & Martin (2008), concerning the lack of actuality entailment in some circumstantial (probably metaphysical) readings in the perfective; while these authors propose the existence of different kinds of abilities, I propose a structural distinction between the relevant uses of CAN.

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[6] The same for another Romanian future-in-the-past periphrasis with have: cf. *avea să plece* 'he would leave' which does not allow the perfective.

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