

The Romanian Presumptive Mood: The key to the Romanian *will*-Future¹

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Abstract: The goal of this paper is to show that the Romanian *will*-Future is best analyzed as an epistemic modal. In Section 2 I investigate the Romanian Presumptive Mood and its relation to future morphology. In Section 3 I look into the relation between modals and temporality, and point out its relevance for an understanding of the temporal properties of the Romanian Future auxiliary. In Section 4 I measure the epistemic force of the Romanian Future morphology. In Section 5 I explain why it is reasonable to treat the Romanian Future auxiliary as a modal. In Section 6 I propose a semantic analysis for the Romanian Future morphology aimed to unify its 'presumptive' and 'temporal' uses. And, finally, in Section 7 I sum up the conclusions.

Keywords: Presumptive Mood, epistemic modality, Future Tense, Progressive aspect

1 The Romanian Presumptive Mood

According to Zafiu (2009), in Romanian, the label 'presumptive' dates from Manliu (1894: 248). As defined in Rosetti (1943: 77) and Rosetti and Byck (1945: 161), this label is used to refer to the expression of "an uncertain event, suspected only by the speaker" [my translation]. Since many structures potentially fit this description, the Romanian Presumptive Mood has long been an object of controversy. Despite recent attempts to resolve the issue (in Romanian: Zafiu 2002, 2009, Reinheimer-Rîpeanu 1994a,b, 2007; in French: Reinheimer-Rîpeanu 1998, 2000; in English: Irimia 2009, 2010), many parts of the debate still remain

1 This paper is based on my MA major research paper.

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List of abbreviations: FUT = Future morphology (with *va*); COND = Conditional-Optative morphology (with *ar*); SUBJ = Subjunctive morphology (with *SĂ*); INF = Infinitive morphology (with *A*); UT = utterance time; ET = event time; RT = reference time; PFV = Perfective aspect morphology; PF = Perfect aspect morphology, PROG = Progressive aspect morphology; RO = Romanian.

open to discussion. In this section I will try to outline some facts, and reach some conclusions regarding the forms, the morphosyntax, and the evidential and epistemic uses of this mood, as well as its interesting correlation with Progressive morphology.

As a starting remark I would like to point out that, as a grammaticalized expression of inference, the Romanian Presumptive Mood is essentially very similar to the Hindi Presumptive Mood, the Uzbek Assumptive and Presumptive Moods, or, among European languages, the epistemic uses of the Future morphology in languages such as Greek and Italian, Spanish, German, French, or English. Put in this perspective, many of the facts that follow will sound familiar.

1.1 Forms

There have been many controversies surrounding the number of aspects and paradigms within the Romanian Presumptive mood. In the maximal approach (Friedman 1997: 174), for example, the Romanian Presumptive Mood has been taken to include as many as three different ‘formats’ or morphologies. These three morphologies are based on three different auxiliaries/markers, the Conditional-Optative auxiliary (a *have* derivative), inflected as *aș, ai, ar, am, ați, ar,* the Future auxiliary *voi, vei, va, vom, veți, vor* (with the colloquial counterparts, *oi, oi/ei/ăi, o, om, oți/eți/ăți, or*), and, finally, the Subjunctive conjunction *SĂ*. These auxiliaries/markers combine with a bare infinitive (FUT, COND) or with the SUBJ form of the verb (SUBJ) to make up the ‘Presumptive Simple / Present (Perfective)’ morphology; with *fi* ‘be’ + the Past Participle form of the lexical verb to make up the ‘Presumptive Perfect’ morphology; with the invariable auxiliary *fi* ‘be’ + the Gerund form of the lexical verb to make up the ‘Presumptive (Present) Progressive’ morphology; with *fi fost* ‘be been’ + the Past Participle form of the lexical verb to make up the ‘Presumptive Past Perfect’; and with *fi fost* ‘be been’ + the Gerund form of the lexical verb to make up the ‘Presumptive Past (?Perfect) Progressive’.² Based on similar combinatorial

2 This Presumptive Past (?Perfect) Progressive morphology isn't very well known. Based on my observation of the data, the temporal scope that it covers could be either that of an English Past Progressive or that of English Past *Perfect* Progressive. I tend to think it is a Past

properties, one more marker (which is usually neglected in the literature) must be added to this list, that is, the Infinitive conjunction *A*. I display these facts below, conjugating for the verb ‘to sing’:³

Table 1: The four ‘presumptive’ formats

	FUT	COND	SUBJ	INF
PFV	va cânta	ar cânta	să cânte.[SUBJ]	a cânta
PF	va fi cântat	ar fi cântat	să fi cântat	a fi cântat
PROG	va fi cântând	ar fi cântând	să fi cântând	a fi cântând
Past PF	va fi fost cântat	ar fi fost cântat	să fi fost cântat	a fi fost cântat
Past PROG ⁴	va fi fost cântând	ar fi fost cântând	să fi fost cântând	a fi fost cântând

The Simple and the Perfect forms of these formats are homonymous with the Simple (Perfective) and the Perfect forms of the Romanian Future Tense, Conditional Mood, Subjunctive Mood, and Infinitive Mood, respectively.

1.2 Uses

Some of the alleged presumptive uses of these formats cited in the literature (adapted from Friedman 1997: 173-75) include:

- (1) *Context*: Do they call you Nick the Liar?

Mi-or fi zicând.
me.DAT-will.3PL.colloq be calling.
‘They [supposedly] do call me that.’ (FUT)

- (2) Doar n-o fi având purici!
surely not-will.3SG.colloq be having fleas!
‘Surely s/he doesn’t have fleas!’ (FUT)

- (3) Oare să fi existând strigoi?
I.wonder(adv.) SĂ be existing ghosts?

Progressive, so, for now, I will label this the ‘Presumptive Past Progressive’.

3 The FUT and COND auxiliaries are inflected for person; in Table 1 I give only the 3SG forms, for simplicity. *SĂ* and *A* are uninflected.

4 Absent from contemporary grammars but nevertheless attested in grammars dating from c.100 years ago, e.g. Manliu (1894) (cited in Zafiu 2009, after Berea-Găgeanu 1974).

‘Do ghosts really exist?’ (SUBJ)

- (4) -Va fi citit el acest roman? -Mă îndoiesc.
‘will.3SG be read he.NOM this novel?’ ‘me.CL.ACC doubt.1SG’
‘Do you think he has read this novel?’ ‘I doubt it.’ (FUT)
- (5) Zice că Ion ar fi citit deja lecția.
says that John have.AUX.COND.3SG be read already lesson.the
‘S/he says that John he has read the lesson.’ (COND)
- (6) Va / să / ar fi ajuns el până acolo?
will.3SG / SĂ / have.AUX.COND.3SG be arrived he.NOM until there?
‘Has he gotten there?’ (FUT/SUBJ/COND)

Together with Dimitriu (1979: 271), whom he cites, Friedman (1997: 175) collectively marks the three formats in (6) as equivalent and ‘presumptive’. My observation is, however, that, far from sharing a common meaning, these formats should actually be glossed differently, as: (1) Is it likely/Do you think that he has arrived there yet? (2) Has he arrived there yet, I wonder? And (3) [Is it reported that] he has arrived there yet?

Collected from a number of different authors who have written on the Romanian Presumptive Mood, these examples of ‘presumptiveness’ are a good reflection of the diverse understanding in the literature of what the Presumptive Mood is all about. A variety of meanings spanning surprise or supposition, inference, doubt, or reportiveness, are bundled together under the label of ‘presumptiveness’. Underlying this is the assumption that the identical combinatorial properties of FUT, COND, SUBJ and INF are an indication of their common meaning.

In the next section I will test this assumption of identity between the four formats from the point of view of their morphosyntactic properties.

1.3 Morphosyntax

As can be seen in Table 1, the FUT, COND, SUBJ and INF formats look very similar indeed. This surface similarity has been the winning argument for many adepts of the maximal approach (as noted by Zafiu 2002). A closer look at the

morphosyntax of these formats will nevertheless reveal that the only thing that these formats truly have in common is their ability to combine with Progressive and Perfect aspect morphology via the invariable auxiliary *fi* ‘be’. For the rest, the FUT and the COND particles are auxiliaries inflected for person, whereas the SUBJ and the INF particles are uninflected mood markers. Moreover, while all the four particles are monomorphemic and unstressed, and form a complex with the verb, in the case of SUBJ and INF this is interrupted by negation and clitics, in this order. Finally, in raising constructions, FUT and COND require a complementizer, whereas *SĂ* and *A*, themselves conjunctions, do not. In sum, these particles seem to be different syntactically, at least, in the left periphery.

Due to their patterning with complementizers, I assume *SĂ* and *A* should occupy C_0 . As aspect head, the invariable auxiliary *fi* ‘be’ will occupy Asp_0 . Now, tests of distribution, word order, and interpretation of clauses with the auxiliary *fi* ‘be’ show that this auxiliary occurs in contexts with non-specific time frame and irrealis interpretation, and is generally in complementary distribution with the Romanian *have* auxiliary, which appears only in contexts with definite time and realis interpretation Avram & Hill (2007: 47). An alternation should be allowed, therefore, in this place between aspect and tense, with Asp_0 relabelled as Asp_0/T_0 (Avram & Hill 2007: 57).

This leaves us in a quandary about what to do with the FUT and COND auxiliaries. Although they are clearly inflected for person, they do not seem to be in paradigmatic contrast with any past form: *va* does not have any ‘Past Tense’ counterpart in Romanian (as English *will* has in *would*); also, although *ar* is generally considered a derivative of *have*, it is not clear that it stands in a tense-related contrast with it. Taking the data at face value, *va* is simply a marker of ‘presumptiveness’ or of Future Tense,⁵ and *ar* is simply *have.COND*, that is, that form of *have* that helps build the Conditional-Optative Mood.

Adopting the basic left-periphery structure for the Balkan clause (Rivero 1994: 72), I assume that *va* and *ar* occupy the Mood head. This does not clash

5 Which is not to say that it is itself a verb form in the Future Tense!

with these particles being inflected for person: according to Chomsky (1995), agreement features are parasitic, in this case, on M_0 . In what regards the place of negation and clitics, I assume, based on the data, that the pronominal clitics are affixed to the right of negation. The general structure for the Romanian FUT, COND, SUBJ, and INF would then be:

$$[_{CP} C [_{NegP} Neg(+Clit) [_{MP} M(+Agr) [_{Asp/TP} Asp [_{VP} V(+Asp)]]]]]$$

Based on which the structure for SUBJ and INF is then:

$$[_{CP} S\check{A}/A [_{NegP} Neg(+Clit) [_{MP} M(+Agr) [_{Asp/TP} \hat{f}i [_{VP} V(+Asp)]]]]]$$

And that of FUT and COND:

$$[_{CP} C [_{NegP} Neg(+Clit) [_{MP} va/ar [_{Asp/TP} \hat{f}i [_{VP} V(+Asp)]]]]]$$

In conclusion, the Romanian FUT, COND, SUBJ, and INF do not share the same morphosyntactic structure.

1.4 Evidentiality and epistemicity

The intermediary approach regarding the contents of the Romanian Presumptive Mood assumes that this mood is merely the collection of epistemic uses of the FUT, COND, SUBJ, and (although the literature seems to neglect it, we may add) the INF. A detailed comparison of the various uses of FUT, COND, SUBJ, and INF reveals however that the property that all these formats share is not epistemicity but rather a certain ability to feature in evidential contexts.⁶ The table below indicates their respective evidential behaviour (filtered through the taxonomy in Willett 1988: 57):

Table 2: Evidential distribution

	Direct ⁷	Indirect-reported	Indirect-inferential
FUT	yes	citation of inference	yes
COND	yes(+EV)	yes(+EV)	yes(+EV)
SUBJ	yes(+EV)	citation of inference(+EV)	yes(+EV)
INF	yes(+EV)	citation of inference (+EV)	yes(+EV)

6 This has been suggested before in Reinheimer-Rîpeanu (2000), Zafiu (2002), or Irimia (2009). These authors do not distinguish, however, between FUT as intrinsically evidential and COND, SUBJ, and INF as potentially only *compatible with* evidentiality via external evidential markers.

7 Inference based on direct but inconclusive evidence.

This table shows that, to express evidential meanings, COND, SUBJ, and INF require support from other lexical items, which act as carriers of evidentiality ((+EV) in the table). For example, to express reported evidence, COND requires the help of a *verbum dicendi*.⁸ Likewise, to express an inference, COND, SUBJ, and INF require the help of matrix verbs such as *seem*. To express an estimative guess, COND and SUBJ require the presence in the clause of lexical items such as *about*, *approximately*, etc., or, SUBJ, the presence of interrogation. FUT seems to be the only format that is able to express (indirect inferred) evidentiality all by itself. If we define an evidential as the grammaticalized expression of a source of information (see De Haan 2001b, Squartini 2004), then FUT seems to be the only genuine evidential in our list.⁹ In conclusion, the Romanian FUT, COND, SUBJ, and INF do not seem to share the same evidential properties either.

As for their epistemicity, FUT is again the only one¹⁰ to genuinely display epistemic force (more about this in Section 4). Taken in isolation, COND is either a counterfactual or an incomplete reportative or inferential evidential, and SUBJ is either an incomplete inferential evidential, or a general marker of subordination.¹¹ Therefore, there is no question of these formats bundling together

8 Many of the COND examples given in the literature seem to imply that COND *can* act evidentially on its own too (Irimia 2010, Zafiu 2002, Friedman 1997). However, all the Google results that I have been able to retrieve seem to indicate that such uses of COND are restricted to ‘headline’, and are not actually fully grammaticalized (also see De Haan 2001b:214).

9 However, the that COND does seem to encode a different temporal orientation in evidential contexts than it does in non-evidential contexts. I am leaving this for future research.

10 Irimia (2009) confirms the fact that the semantics of the formats assumed to belong to the Presumptive Mood is that of indirect evidentials. On the other hand, she doesn’t make any distinctions regarding the various degrees of grammaticalization of evidentiality in the four formats. Also, she implies that FUT, COND, and SUBJ should all be treated as epistemic modals, although the only reason she cites in support of this is the fact that these formats are also evidential and the fact that evidentials have been treated as epistemic modals in the literature before. However, in keeping with De Haan (2001b), I will assume no obligatory overlap between evidentiality and epistemic modality.

11 Some say that SUBJ as in (*E*) *posibil să fie...* ‘Is possible SĂ be.3SG+SUBJ...’ encodes weak epistemic force, whereas FUT as in *Va fi...* ‘Will.3SG be...’ encodes strong epistemic force. Such a claim is unsupported since in this case SUBJ appears in a *be*-elliptical clause under the scope of an adverb, which is not the case for FUT. Moreover, SUBJ is equally compatible with

as a mood *because of* their epistemic properties.

In conclusion, FUT seems to be the only one of the candidates to the Presumptive Mood that can both (1) express an inference made on the basis of direct but inconclusive evidence, indirect evidence, or reasoning, on its own, and (2) express, on its own, an epistemic judgement. If it is still defined as the grammaticalized expression of inference, then the Romanian Presumptive Mood (if we still need to posit one) basically consists of one format: FUT.

1.5 Progressive morphology

A third approach to the Romanian Presumptive Mood, the minimal approach, assumes that this mood consists only of the 'Present Progressive' forms (see the FUT PROG, COND PROG, SUBJ PROG, and INF PROG in Table 1). These forms are presumed to be synonymous. Moreover, Progressive aspect - which doesn't appear anywhere else in Romanian grammar - is assumed to be a marker of epistemic uncertainty. Given what has been said so far, this presumption of synonymy and across-the-board epistemic uncertainty does not seem warranted.¹² On the other hand, the presence of Progressive aspect in these formats remains striking. Could it be that in one format - the FUT - Progressive aspect is responsible for epistemic uncertainty, and in the three remaining formats it is responsible for something else? Such a polysemy is unlikely. A more reasonable conclusion would be that, regardless of the role of Progressive aspect in these formats, epistemic uncertainty does not depend on it.

What exactly *is* the role of Progressive aspect then?

The problem could boil down to the aspectual head *fi* 'be', which in Romanian seems to mark a split between *realis* and *irrealis* verb forms.¹³ *Fi* 'be'

probabil 'probably', which again points to its actual agnosticism with regard to epistemic force. FUT, on the other hand, tolerates externally-marked epistemic possibility only marginally, since it already has an epistemic bias.

12 My conclusion echoes the results of an ampler investigation in the literature regarding the Greek particles *tha*, *na*, and *as* (see Roussou & Tsangalidis 2010).

13 In Romanian, *fi* 'be' occurs only in FUT, COND, SUBJ, and INF. On the other hand, in English, for example, 'be' appears, in a form or another, in Past Perfect, Past Perfect Progressive, Present Progressive, Future Progressive, Future Perfect, etc.

feeds an irrealis interpretation, where ‘irrealis’ is defined as covering possibility and doubt, on the one hand, and non-factuality, on the other (Avram & Hill 2007: 55). Insofar as the FUT is concerned, this hypothesis correctly predicts that FUT PROG is always irrealis (it cannot be used in the sense of an English Future Tense Progressive). On the other hand (perhaps more controversially) it also predicts that the so-called Future Tense Perfect is basically irrealis too.

Apart from its interesting coincidence with meanings leaning towards an irrealis interpretation, or at least a non-indicative one, Progressive aspect also displays an interesting distribution with regard to stative vs eventive verbs. Basically, to express an epistemic judgement about the present, Progressive aspect is required for eventive verbs, whereas for stative verbs it is merely optional:¹⁴

(7) *epistemic judgement about the present: stative predicate*

Va fi acasă. / Va fi fiind acasă.
will.3SG be home / will.3SG be being home
‘She is probably home.’

(8) *epistemic judgement about the present: eventive predicate*

*Va cânta. / Va fi cântând.
will.3SG sing / will.3SG be singing
‘She is probably singing (now).’

An exact parallel can be found in Greek, where, in the case of eventive verbs, the FUT marker *tha* is obligatorily followed by the imperfective nonpast form of the verb (Giannakidou & Mari 2012).¹⁵

But Progressive aspect is not relevant only for events in progress at utterance time (UT). It is relevant for whatever reference time (RT) value is available from the context. The FUT Simple locates the event time either at UT (epistemic use) or in the future (Future Tense or epistemic judgement about the

14 Anticipating a little the next section: "The correct generalization is that modals for the present have a future orientation optionally with stative predicates and obligatorily with eventive predicates. The presence of the progressive results in a stative predicate" (Condoravdi 2002: 11).

15 For Italian, however, Mari (2009) reports that imperfective aspect is not obligatory for an interpretation in the present of eventive predicates if these predicates refer to a habitual event.

future), so the FUT Progressive may be interpreted at either $RT(\text{present}) \subseteq ET$ or $RT(\text{future}) \subseteq ET$; in short, at a time RT such that $UT \leq RT$ and $RT \subseteq ET$. In other words, the Romanian Progressive aspect locates the reference time - be it in the past, present, or future - within the event time, and therefore behaves exactly like an imperfective in the sense of Kratzer (1998).

If it is true that Progressive aspect occurs only with meanings that can be labelled as irrealis, the opposite is not true. SUBJ, or COND Simple, for example, remain non-factual or evidential even in the absence of Progressive aspect. The same can be said about the FUT: even if the absence of Progressive aspect will result in forward-shifting for eventive verbs (Condoravdi 2002), these verbs will still be able to express epistemic (i.e. irrealis, in the sense defined above) meanings.¹⁶ Simple FUT is therefore ambiguous between an epistemic judgement about the future¹⁷ and Future Tense itself:

- (9) Va cânta
will.3SG sing
'She will sing. / She will probably sing.'¹⁸ ($RT(\text{future}) = ET$)

16 In keeping with much of the literature on the subject, Irimia (2009) and Irimia (2010) don't include the Simple form in their overview of the Presumptive Mood. This omission is surprising since it is pretty clear to any speaker of Romanian that the Simple morphology *can* be used epistemically. This is more obvious for stative verbs, but examples with eventive verbs have been attested too, and not only in Romanian (see Giannakidou & Mari 2012, for Italian). Some authors who do include the Simple form in the Presumptive Mood are Iordan, Guțu Romalo și Niculescu (1967: 221-223, cf. Zafiu 2002) and Zafiu (2001). The new grammar issued by the Romanian Academy also lists the Simple morphology among the forms of the Presumptive Mood (Manea 2008, in GALR, cf. Zafiu 2009).

17 Here the epistemic meaning can also be expressed using the colloquial form of *va: o* (and the corresponding forms for persons other than 3SG). Irimia (2010) considers this auxiliary to be the epistemic FUT *par excellence*, and argues that it cannot be used about the future: *O fi bolnav* – will.3SG.colloq be sick - she says - means 'He might be sick (now)' but cannot mean 'He will be sick tomorrow' or 'He might be sick tomorrow'. While she is correct in the first and the second observation, her third observation that this structure cannot read as a presumptive about the future is not confirmed by the data. Imagine, for example, that X keeps evading some duty. Yesterday he said he had to go to a funeral. Today he said his car broke down. You infer sarcastically: *Mâine-o fi bolnav!* - tomorrow-will.3SG be sick! - 'Tomorrow he'll be sick, I bet!' (The order of the time adverb doesn't make any difference; I changed it for rhetorical adequacy only.) These said, *o* does indeed seem to be exclusively epistemic (also see Zafiu 2009).

18 An anonymous reviewer remarks that "the 'probably' meaning can only be understood in context, otherwise 'va cânta' in (9) is understood as a statement about the Future and not as inference." My idea was that the 'statement about the Future' = 'Future Tense' reading *too*

This means that some occurrences of Simple FUT are statements about the future, whereas others are merely inferences about the future.

In conclusion, epistemicity in FUT, COND, SUBJ and INF does not depend on the presence of Progressive aspect. Instead, the role of Progressive aspect seems to be mainly to prevent forward-shifting of eventive predicates. We will see more about this in the next section.

2 Modals and temporality

The syntactic structure I gave for the four formats in 1.3 placed the FUT auxiliary *va* in M_0 , that is, higher than tense. This detail is significant because it suggests that the FUT patterns with epistemic modals, which are also generally assumed to be higher than T_0 (Portner 2009, Hacquard 2011).

If FUT patterns with epistemic modals, its property to forward-shift eventive predicates in the Simple morphology is actually to be expected: epistemic modals such as the English *might*, *may*, or *must* routinely display this property:

(10) She *might/must* be home (now/tomorrow). (ET = nonpast)

(11) She *might* sing (later). (forward-shifting to ET = future)

To hold a non-stative verb in the present, Progressive morphology is required:

(12) She might be singing (now/tomorrow). (ET = nonpast)

Future orientation in modals has been generally treated in the literature

depends on the context. In response to a similar doubt in the literature regarding the epistemic properties of the FUT PFV morphology, Zafiu (2009) shows that this morphology had epistemic uses as early as the second half of the 17th century. These uses belong as much to this morphology as the more commonly recognized temporal uses. In the absence of a context, therefore, examples such as (9) remain ambiguous between *two* glosses.

(Enç 1996, Condoravdi 2002) as an inherent property of the ‘modals for the present’ (Condoravdi 2002). "If modals have PERF in their immediate scope, they exhibit a backward-shifting reading due to the effect of PERF. If they do not have PERF in their immediate scope, they exhibit a forward-shifting or a non-shifted reading depending on the type of eventuality [stative, eventive] the sentence radical they combine with denotes and on the frame adverbials modifying the sentence radical" Condoravdi (2002: 19). Their evaluation time, however, remains in the present (Condoravdi 2002: 13).¹⁹

The Romanian FUT auxiliary seems to follow the exact same pattern as these English modals. Although not a conclusive proof of its modal status, these morphosyntactic, semantic, and pragmatic similarities between the FUT auxiliary and epistemic modals are nevertheless a powerful suggestion. If *va* is essentially a modal, then its future orientation, and possibly Future Tense itself, can be explained through the lens of its modality too.

3 The epistemic force of Romanian FUT

Supposing that *va* is an epistemic modal, then what epistemic force does it encode? It is known in the literature that *may* expresses epistemic possibility, and *must* expresses epistemic necessity. On the other hand, *va* seems to have a variable force ranging from mere speculation through good possibility to necessity or even certainty. A treatment that equates it to *must* will neglect its speculative uses. Likewise, a treatment that equates it merely to speculation or good possibility will leave out the Future Tense as a separate issue, when it need not be so.

In this paper I argue for a unified treatment of epistemic Future and Future Tense. In my proposal the FUT auxiliary is essentially a modal with a variable force. The fact that the force is variable should not be taken to mean that it is provided externally by a modifier. As the examples below show, if the force of *va*

¹⁹ Two arguments for this are: (1) in contexts where there is no information pointing to a future time, modals for the present with stative verbs imply that the UT is included in the time of the state; and (2) modals for the present with perfect aspect retain the perspective of the UT.

(or, for that matter, the English *will*) can (marginally) be modified (increased or decreased) externally, the force of *may* or *must* can (just as marginally) be modified too:

- (13) Perhaps it will be the mailman! (Cornillie 2009: 50; exact parallel available in RO)
- (14) Certainly it will be the mailman! (Cornillie 2009: 50; exact parallel available in RO)
- (15) She may certainly turn out to be a horrible mess. (Google)
- (16) ...it must possibly be one of the finest views in the South East. (cf. Dan Lassiter, p.c., cited in Giannakidou & Mari 2012)

What I mean by the variable force of *va* is different from these examples in the sense that, even without external modifiers, the quantificational force of *va* varies from weak through strong to absolute, depending to what extent a certain piece of information or evidence is assumed to bear on the hypothesized fact:

- (17) **va = may.** *Context: What do you think, isn't this war a complete aberration?*

O fi și n-o fi.
will.3SG.colloq be and not-will.3SG be
'It may and it may not be.'

- (18) **va = must.** *Context: X just came to see me. As we start chatting, we can hear someone singing. X asks, What's that? Now, my sister Amy is always singing. I infer:*

Va fi cântând Amy.
will.3SG be singing Amy.

'It must be Amy, singing.' In fact, the translation by 'must' can be confusing, since 'must' requires a sense of necessity which is not necessarily present in the Romanian FUT.²⁰ The best translation for the last example would

²⁰ Depending on the context, this example could also read as a mere speculation. Assume, for example, that 'I' has two sisters, and both like to sing. In such a context one could still use the FUT morphology, but the utterance would appear as a mere speculation to anyone who knows that

actually be: ‘It’s probably Amy singing.’

Finally,

- (19) **va = statement about the future = Future Tense.** *Context: X is Y’s secretary. W asks X, Where will Y be tomorrow? X replies:*

Va fi la birou.
will.3SG be at office
‘[Y] will be in office.’

In sum, variable force in the case of the Romanian FUT may range from mere possibility to high probability (the more obvious sense), or, otherwise put, from sheer speculation through educated deduction or inference to a statement that is not understood as being modalized. This species of variable force modal has been drawing special attention recently, especially through work on languages such as St’át’imcets (Rullmann et al 2008) or Gitskan (Peterson 2008), and has been labelled in the literature as a case of ‘variable upper-end degree epistemic modality’ (Kratzer 2012b: 46). Future Tense seems to arise from, on the one hand, a hypothesis regarded as having 100% probability of coming true and, on the other hand, either (1) a stative verb in the FUT Simple, with the ET disambiguated as future (as opposed to a general nonpast), based on context, or (2) a non-stative verb in the FUT Simple with the ET marked as future due to forward-shifting.

4 Why it’s not odd to treat FUT as essentially a modal

Whereas treating FUT as a modal has been a significant trend in recent years, there are still authors who find this trend objectionable (e.g. Kissine 2008, Salkie 2010).

Salkie (2010), for example, summarizes a list of traditional arguments both pro and against. Some of the common reasons given against a Future Tense treatment of English *will*, he says, are untenable. To say that *will* is a modal because the future is inherently uncertain is a ‘conceptual non-argument’ (cf.

it’s not only Amy that likes to sing.

Comrie 1989: 53, cited in Salkie 2010) since it won't prevent a *statement* about the future to be declared false if it is not borne out. And to invoke the fact that it is an auxiliary, and therefore a modal, is a 'formal non-argument' (cf. Comrie 1989: 54-5, cited in Salkie 2010), since it appears that, cross-linguistically, inflectional and, respectively, periphrastic Futures are in a ratio of about 1:1 (Dahl 2009). I won't make these arguments.

However, other arguments against the futurity of *will* criticized by Salkie are open to debate.

Salkie claims, for example, that the numerous modal meanings of *will* can be accounted for by a combination of basic futurity, lexical meaning of *will*, and pragmatic use of the context. On the other hand, it is even easier to imagine a *possible worlds* analysis for each and all of the ten²¹ different uses of *will* and *would* that he mentions.

Salkie's next argument invokes the frequency of *will* as a Future Tense marker as opposed to the rarity of its other modal meanings. This frequency count may be valid for English but it is not obvious that it is valid for other languages. In fact, according to Fleischman (1982: 101, cited in Reinheimer-Rîpeanu 2007), "the Romance Simple Future is now predominantly a modal form." For similar reasons, Vater (1975) argued that German does not have a Future Tense. In Uzbek, a language with a rich verbal system, what is labelled as 'the Future' comes in the largest number of forms, far more than the past or the present; moreover, with one exception, all these forms involve some kind or another of modality.²² The Romanian *va*-future too is in fact only one form of the future in Romanian, another one is, for example, a *have*²³-periphrasis (which has deontic overtones, as

21 (1) Future Tense; (2) 'Future perfect'; (3) intention; (4) volition; (5) characteristic properties or activities; (6) in questions - polite requests and invitations; (7) persistent habits; (8) strong belief in the truth of something, deduction, inference; (9) conditional apodosis; and (10) conditional protasis.

22 E.g. Uzbek has a 'Definite Future', a 'Presumptive Future', an 'Intentional Future', a 'Present-Future Assumptive'. Moreover, one of the Uzbek present tenses is actually dubbed 'Present-Future', in recognition of its systematic future uses. Such dubbing seems opportune for other languages too, Romanian included.

23 The lexical form of the verb.

opposed to the epistemic overtones of *va*). Hindi and Romanian, and probably many more languages, include in their grammar a 'Presumptive Mood', which is, at least in Romanian, nothing else than the epistemic use of the FUT. Frequency of the temporal use therefore appears to be a rather local argument.

On the other hand, according to Dahl (2009: 338), the "diachronic sources of what grammars refer to as Future Tenses typically have *exclusively nontemporal meanings*" [my emphasis], even if "the temporal meaning elements tend to grow stronger during the course of grammaticalization [...] as future markers gradually obtain an obligatory status." Since the temporal meanings are derived from the nontemporal ones, an attempt at a unified approach cannot ignore this connection - although it is true that, locally, and for some stages of temporal grammaticalization, "the traditional view of the Future as a tense can [...] be defended" (Dahl 1985: 107).

The discussion can go on, but I will stop here. Given the facts listed so far, does it make sense to attempt a modal analysis of the Future? I turn again to Dahl (2009: 338) for a balanced answer:

Whether for instance the English auxiliaries *shall* and *will* should be seen as markers of Future Tense is a much-debated issue, the importance of which depends on the stance one takes on another, equally contentious, issue: how essential it is to uphold the discreteness of grammatical categories. If it is acknowledged that it is normal for the semantics of grammatical items to combine temporal elements with components of a modal, evidential, or aspectual character, it may become more important to study how the weight of these different factors shifts over time, in the process of grammaticalization.

Given that in Romanian notions of evidentiality, aspect, similarity with other epistemic modals, are all required in order to make sense of the FUT, adopting the Future Tense analysis would be rather limiting. On the other hand, adopting a modal analysis would help unify the Presumptive Mood with the Future Tense.

In what follows, therefore, I will try to outline a modal analysis based on Kratzer (1977, 1981, 1998, 2012a,b) and von Stechow & Heim (2009).

5 A semantic model

5.1 The working example

I will choose the simplest example of Romanian FUT that displays ambiguity between the Presumptive Mood and Future Tense: a stative verb with the Simple FUT morphology. I will provide a possible context for each possible interpretation of this morphology:

Context 1 (epistemic judgement about the present): It's 7 pm. Alice asks Bob if he knows where Carmen is. Bob doesn't have any direct information about this, but he knows that Carmen is often at the gym at this time of the day. He infers: She's probably at the gym.

Context 2 (Future Tense): Alice asks Bob if he knows where Carmen will be tomorrow at 7 pm. Bob knows from Carmen that at 7 pm tomorrow she will be at the gym. He states: She will be at the gym.

Context 3 (epistemic judgement about the future): Alice asks Bob if he knows where Carmen will be tomorrow at 7pm. Tomorrow is Thursday. Bob knows that on Thursdays at 7 pm Carmen is usually at the gym. He infers: She will be at the gym.

(20) Va fi la sală.
will.3SG be at gym.

Context 1: 'She will *probably* be at the gym (now).'

Context 2: 'She will *certainly* be at the gym (tomorrow at 7 pm).'

Context 3: 'She will probably be at the gym (tomorrow at 7 pm).'

As can be seen, stative verbs in the Simple FUT morphology can be interpreted as either: (1) an inference about the present; (2) a statement about the future; and finally (3) an inference about the future.

5.2 The theoretical toolkit

5.2.1 Syntax

Syntactically, my model assumes the structure introduced a little earlier:²⁴

[_{CP} C [_{NegP} Neg(+Clit) [_{MP} va [_{AspP} fi [_{VP} V(+Asp)]]]]]

24 Since *fi* 'be' is untensed, I simplify to Asp the T/AspP notation justified in 1.3.

with the only difference that my working example is in the Simple FUT morphology and therefore does not have the invariable aspect head *fi* ‘be’ and the aspect suffix on the verb.

5.2.1 Semantics

Semantically, my model requires the following concepts and tools:

Semantic types: e (entities), t (truth values), l (events), s (possible worlds), i (times).

Event semantics: λe_i . The argument structure of the verb contains a hidden ‘event’ argument. Every part of the VP is construed as a predicate of the event. Event participants are added via thematic roles.

Aspect, defined as a mapping from events to possible worlds via times (Kratzer 1998) such that:

- Progressive²⁵ (‘reference time included in event time’): $\lambda P_{\langle l, \langle s, t \rangle \rangle}. \lambda t_i. \lambda w_s. \exists e_i [t \subseteq \text{time}(e) \ \& \ P(e)(w) = 1]$.
- Perfective (‘event time included in reference time’): $\lambda P_{\langle l, \langle s, t \rangle \rangle}. \lambda t_i. \lambda w_s. \exists e_i [\text{time}(e) \subseteq t \ \& \ P(e)(w) = 1]$. I assume that eventualities are already specified in the lexicon as eventive or stative (Condoravdi 2002).
- Perfect (‘event over by reference time’): $\lambda P_{\langle l, \langle s, t \rangle \rangle}. \lambda t_i. \lambda w_s. \exists e_i [\text{time}(e) < t \ \& \ P(e)(w) = 1]$.

To which I add two more definitions (for simplicity, I assume that the past is always established with respect to UT):

- Past Perfect (‘event over by past reference time’): $\lambda P_{\langle l, \langle s, t \rangle \rangle}. \lambda t_i. \lambda w_s. \exists e_i [\text{time}(e) < t' < t_0 \ \& \ P(e)(w) = 1]$.
- Past (?Perfect) Progressive. I defer defining this aspect until further examination of the data.

No tense projection. Romanian clauses with the *fi* ‘be’ auxiliary do not seem to have a tense projection (see Section 2). This seems to fit in well with

25 In Kratzer (1998), ‘imperfective’. In light of the distinction made in Rivero et al (to appear), in the Romanian Presumptive Progressive it seems more adequate to adopt the ‘progressive’ label.

Condoravdi's (2002: 8) view that there is no tense in the scope of a modal.²⁶ Forward-shifting is due to the modal. Backward-shifting is due exclusively to the Perfect. Degrees of 'pastness' are counted from UT, which is the default evaluation time. *Va* being a generic nonpast, disambiguation between the present and the future (especially in the case of stative verbs, which do not undergo forward-shifting) will be done based on context via a time pronoun attached to the modal, e.g. $[[pro_3]]^{w,g} = g(3) = T_3$ (Kratzer 1998), where $UT \leq T_3$.

Possible worlds: w_s . The valuation of a sentence is not absolute (either true or false), as in standard propositional logic, but relative to a possible world: a sentence is true or false in a world w , depending on the facts in w . It may be true in one world, and false in another.

Conversational backgrounds: The meaning of a modal statement is relative to two conversational backgrounds. In what follows I will adopt Kratzer (1977, 1981)'s theory of conversational backgrounds.

First, let there be W , the set of all possible worlds.

$$W = \{w_1, w_2, \dots, w_n, \dots\}$$

Second, let there be $P(W)$, the powerset of W :

$$P(W) = \{\{w_k, \dots, w_k\}, \{w_k, \dots, w_k\}, \dots, \{w_k, \dots, w_k\}, \dots\}$$

where k is a random index assignment with values in the set of natural numbers. Basically, $P(W)$ is the set of all subsets of W , including the empty set and W itself.

Third, a proposition p is a set of possible worlds:

$$p = \{w_1, w_2, \dots, w_n, \dots\}$$

In view of this, $P(W)$ can be rewritten as: $P(W) = \{p_1, p_2, \dots, p_n, \dots\}$.

Then the power set of the power set of W , that is, that power set that includes all possible sets of propositions, can be written as:

$$P(P(W)) = \{\{p_k, \dots, p_k\}, \dots, \{p_k, \dots, p_k\}, \dots\}$$

where, again, k is an index assignment with values in the set of natural numbers.

26 Condoravdi (2002) however assumes that modals appear in the scope of present tense in extensional contexts and in the scope of zero tense in intensional contexts. Since my goal is to argue that all Romanian FUT contexts are intensional, such a distinction does not seem required for the Romanian FUT.

Now, "[a] conversational background will [...] be construed as a function which assigns sets of propositions to possible worlds. In particular, the meaning of what is known [for example] will be that function from W into the power set of the power set of W , which assigns to any world w of W the set of all those propositions which are known in w " Kratzer (1981: 43). In short:

$$f: W \rightarrow P(P(W))$$

or, translating into the terms spelled out above,

$$f: \{w_1, w_2, \dots, w_n, \dots\} \rightarrow \{\{p_{k_1}, \dots, p_{k_1}\}, \dots, \{p_{k_j}, \dots, p_{k_j}\}, \dots\}$$

But modals are relative to *two* conversational backgrounds.

One of these is called the *modal base* and it can be described as a function f which assigns to any input world a set of propositions P describing the relevant circumstances. The set of worlds accessible from the evaluation world will contain only the worlds where all the propositions in the input world are true, that is, the worlds which are at the intersection of all the propositions assigned to a particular world, i.e. $w \in \bigcap f(w_1)$, if the input world is w_1 .

Just like temporality before, this conversational background will be introduced in the semantics as a pronoun, e.g. $[[pro_5]]^{w,g} = g(5) = MB_5$ (modal base 5).

The second conversational background is called the ordering source and it can be described as a function h ²⁷ that assigns to any evaluation world a set of propositions Q which are known or believed²⁸ to be true in the evaluation world. This set of propositions Q is used to order the worlds in the modal base. For any pair of worlds w_1 and w_2 , w_1 comes closer than w_2 to the ideal set up by Q iff the set of propositions from Q that are true in w_2 is a proper subset of the set of propositions from Q that are true in w_1 . Following von Stechow & Heim 2009,²⁹ given a set of worlds $X \subset W$ and a set of propositions Q ,³⁰ this strict partial order $<_Q$ is defined as:

27 In original, g I am using h to avoid confusion with the variable assignment function g .

28 Since we are dealing with epistemic modals.

29 Von Stechow & Heim (2009) make the Limit Assumption.

30 In original, P . I use Q to avoid confusion with the set of propositions assigned by the modal base.

$$\forall w_1, w_2 \in X: w_1 <_Q w_2 \text{ iff } \{q \in Q: q(w_2) = 1\} \subset \{q \in Q: q(w_1) = 1\}.$$

Modals quantify over the best worlds in the modal base. These worlds are picked out as follows: for a given strict partial order $<_Q$ on worlds, a selection function max_Q is defined that selects the $<_Q$ -best worlds from any set X of worlds:

$$\forall X \subseteq W: max_{Q(X)} = \{w \in X: \nexists w' \in X: w' <_Q w\}.$$

Finally, an epistemic modal is defined as:

$$[[modal]]^{w,g} = \lambda f_{\langle s, \langle \langle s, t \rangle, t \rangle \rangle}. \lambda h_{\langle s, \langle \langle s, t \rangle, t \rangle \rangle}. \lambda r_{\langle s, t \rangle}. \exists / \forall w' \in max_{h(w)}(\cap f(w)): r(w') = 1.$$

where f is the modal base and h is the ordering source.³¹

Just like time and the modal base, the ordering source too is introduced in the semantics as a pronoun, e.g. $[[pro_7]]^{w,g} = g(7) = OS_7$ (ordering source 7).

In short, from a semantic point of view, the structure of the Romanian FUT clause looks as follows:

$$[_{CP} C [_{NegP} Neg(+Clit) [_{MP} [_{M} [_{M} [_{M} va [_{pro3} T_3]] [_{pro5} MB_5]] [_{pro7} OS_7]] [_{Asp/TP} (fi) [_{VP} V(+Asp)]]]]]]]$$

5.3 FUT as an upper-end degree epistemic modal

The denotation I adopted above for va is practically the same as the denotations given in the literature for *may* or *must* (cf. von Stechow & Heim 2009). In contrast to these, however, the Romanian FUT requires the extra Time pronoun for disambiguation between a present or a future evaluation time and, most importantly, a notion of *variable* quantificational force.

In regard to this variable modal force, Giannakidou & Mari (2012), who also aim towards a unified account for Future Tense and epistemic Future, argue that the distinction between the epistemic uses of FUT and its Future Tense use can be explained via the availability of direct or indirect evidence in the modal base. In my understanding, this approach is hazardous, since it correlates indirectness with uncertainty and directness with certainty, whereas many

31 f and h are functions that go [from worlds to (propositions that go to truth values)]. Since propositions are themselves functions from worlds to truth values, functions f and h actually go [from worlds to ((worlds to truth values) to truth values)]. In semantic terms, they are of type $\langle s, \langle \langle s, t \rangle, t \rangle \rangle$.

scenarios could be imagined that do not support such a correlation.³² A safer option instead would be to assume that epistemic readings arise when the modal base is restricted by an ordering source, whereas Future Tense readings arise when the modal base is unrestricted, the ordering source being empty in the sense of Kratzer (1981).

An alternative approach has been sketched in the literature in regard to the inferential epistemic modal *k'a* from St'át'imcets (described in Rullmann et al 2008). Kratzer (2012b: 46-9) remarks that variable-force modals should be glossed neither as *must*, nor as *may*, but rather as *it is somewhat probable that*. She calls such modals 'upper-end degree modals', and argues that they can be accounted for by the same mechanism of domain restriction via the ordering source. Depending on how much ordering shrinks the set of accessible worlds, the quantificational force of *va* will be weaker or stronger, with an admissible probability ranging from, for example, 50% to a maximum of 100%.

According to Kratzer (2012b: 42), a plausible way to determine the probability of propositions is to start from the probability values of individual worlds. For example, if an ordering gives a ranking such as $w_3 <_Q w_2 <_Q w_1 <_Q w_0$, then we can assign probability values to each of these worlds in a way that respects this ordering, i.e. $\Pr(\{w_3\}) > \Pr(\{w_2\}) > \Pr(\{w_1\}) > \Pr(\{w_0\})$. One possible set of values is, for example, $\Pr(\{w_0\}) = .35$, $\Pr(\{w_1\}) = .55$, $\Pr(\{w_2\}) = .70$, and $\Pr(\{w_3\}) = .85$. Although these values do indeed obey the ordering of probabilities, they are not, however, adequate, since they add up to more than 1, whereas the maximum probability of a proposition $p = \{w_0, w_1, w_2, w_3\}$ is 1. To make sense, these values must therefore obey the following normalization condition: $\Pr(\{w_0\}) + \Pr(\{w_1\}) + \Pr(\{w_2\}) + \Pr(\{w_3\}) = 1$. A way to figure out some possible values for these singleton sets and for their combinations is to calculate the total number of possible combinations (which is in fact that total

32 De Haan (2001b) remarks, for example, that evidence such as the light being on in someone's room may justify any one of 'John must be home', 'John may be home', or 'John is home', depending on how strong the correlation between the light being on and John being at home is in someone's epistemic knowledge.

number of propositions one can get from 4 worlds), and then scale it to 1. Applying the combination formula ${}^nC_r = n!/(n-r)!(r!)$ for combinations of n possible worlds taken r at a time, and adding up the results for each of the possible values of r (i.e. 4, 3, 2, 1, or 0, since in all we have four worlds), we obtain a total of 15 possible combinations. Scaled to 1, this is 15/15. The sum of probabilities of all the worlds can now be rewritten as $\Pr(\{w_0\}) + \Pr(\{w_1\}) + \Pr(\{w_2\}) + \Pr(\{w_3\}) = 15/15$. The values for the remaining combinations can be then put in by hand³³ in a way that respects the ordering of the worlds, for singleton sets, and added up from the values of the singleton sets, for sets with more than one world. Kratzer assigns them as follows:

$\Pr(\emptyset) = 0$	$\Pr(\{w_2\}) = 4/15$	$\Pr(\{w_3\}) = 8/15$	$\Pr(\{w_2, w_3\}) = 12/15$
$\Pr(\{w_0\}) = 1/15$	$\Pr(\{w_0, w_2\}) = 5/15$	$\Pr(\{w_0, w_3\}) = 9/15$	$\Pr(\{w_0, w_2, w_3\}) = 13/15$
$\Pr(\{w_1\}) = 2/15$	$\Pr(\{w_1, w_2\}) = 6/15$	$\Pr(\{w_1, w_3\}) = 10/15$	$\Pr(\{w_1, w_2, w_3\}) = 14/15$
$\Pr(\{w_0, w_1\}) = 3/15$	$\Pr(\{w_0, w_1, w_2\}) = 7/15$	$\Pr(\{w_0, w_1, w_3\}) = 11/15$	$\Pr(\{w_0, w_1, w_2, w_3\}) = 15/15$

For all p, q from the set of propositions, p is a better possibility than q iff $\Pr(p) > \Pr(q)$.

In regard to the Romanian FUT, for ‘presumptive’ meanings the FUT proposition can be any one of these 15 combinations, except for the empty set and $\{w_0, w_1, w_2, w_3\}$, since the probability value associated with a ‘presumptive’ is greater than 0 and less than 1. If the proposition includes worlds such as w_0 or w_1 , the expectation is that this proposition will be understood as less certain than a proposition that includes world w_2 or w_3 . The former will be understood as a mere speculation or somewhat likely possibility, whereas the latter will be understood as a more highly likely possibility.

5.4 Variable force

In this very short section I will demonstrate how this model applies to special cases of probability such as the case of tied possibilities or the case of Future Tense. An illustration of tied possibility is example (17), repeated below:

33 For larger numbers, better statistical methods are required.

(21) **va = may.** *Context: What do you think, isn't this war a complete aberration?*

O fi și n-o fi.
 will.3SG.colloq be and not-will.3SG.colloq be
 'It may and it may not be.'

This example can be understood in terms of a function f that assigns to the actual world $w_{@}$, let's say, two propositions, p_1 , and p_2 , where $p_1 = \{w: \text{This war is a complete aberration in } w\} = \{w_1\}$, and $p_2 = \{w: \text{This war is not a complete aberration in } w\} = \{w_2\}$, and an ordering source that ranks worlds w_i , where p_1 is true, and w_2 , where p_2 is true, in a tie. Drawing up a probability table as the one before, we have:

$\Pr(\emptyset) = 0$	$\Pr(\{w_2\}) = 2/4$
$\Pr(\{w_1\}) = 2/4$	$\Pr(\{w_1, w_2\}) = 4/4$

A 'presumptive' being constrained to uncertainty, our example targets a possibility that has a probability that is less than 1 but still better than any other available possibility. In our case there are two possibilities that meet these requirements.

As for Future Tense uses of the Romanian FUT morphology, they can be understood in exactly the same way, with the constraint that the probability of the epistemic judgement has to be 1. Intuitively, an epistemic judgement in the FUT morphology can be interpreted as Future Tense iff, for all the best worlds selected by the ordering source for va , the probability for $r(w) = 1$ is 1.

6 Conclusion

The facts about the Romanian FUT, COND, SUBJ, and INF morphologies show that only FUT truly qualifies as the 'Presumptive Mood', or the grammaticalized expression of inference. This grammatical function of the FUT is achieved via its evidential and epistemic properties. The epistemic feature of the FUT is not present only in some of its uses but can actually be detected across the board. To treat FUT as a Future Tense is to preserve the discreteness of the notion of tense to

the neglect of many other of its properties that a modal approach would accommodate naturally. In this paper I adopted the modal approach, which led to the conclusion that FUT is essentially a variable force upper-end degree epistemic modal, of which the Future Tense is only a special case.

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