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Indirect evidentiality and related domains: some observations on the current development of the Romanian presumptive
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One distinguishing feature of the Romanian tense-aspect-mood (henceforth, TAM) domain is the presence of a morpho-syntactic paradigm traditionally labelled the *presumptive mood*. As noticed several times (Slave 1957, Goudet 1977, Dimitriu 1979, Irimia 1983, Friedman 1986, 2004, Avram and Hill 2007, Squartini 2001, 2005, Irimia 2010, etc.) this class poses particular theoretical challenges regarding its composition and morphology. Its highly idiosyncratic character is manifested by the presence of unique morphological patterns which nevertheless make use of morphological pieces (auxiliaries, participials) which can also be mapped to slightly distinct semantics when combined with other building blocks in the present forms. Nevertheless, in the perfect forms, the indirect evidential semantics of the presumptive illustrates formal syncretism with interpretations corresponding to other modals, like the conditional, or the future, which are normally considered to create individual paradigms (as they are morphologically individuated in the non-perfect uses). And yet another important observation is that in modern Romanian some non-perfect (present) sub-paradigms of the presumptive are morphologically decaying, while their semantics is transferred to the non-perfect forms of the related TAM paradigms. The Romanian presumptive constitutes therefore an excellent testing ground for at least two aspects of human language grammar: i) the structure and development of indirect evidentiality; ii) the morphological distribution of TAM notions, and their interactions. This paper proposes a morpho-semantics analysis of the structure of indirect evidentiality in Romanian, with the purpose of understanding both the composition, as well as the particular current evolution of the presumptive.

1.   *Introduction: the Romanian presumptive*

The Romanian presumptive is a strategy used to construct *indirect evidentiality* (I.E.), more specifically to signal the fact that the speaker does not vouch for the information conveyed (Irimia 2010, Squartini 2001, 2005). An interesting fact about the presumptive is its morphological shape: *modal auxiliary + be + present/past (perfect) participle.* The alternation *present/perfect participle* has a reflex in the actual interpretation; present participial forms can only refer to non-past eventualities (taken here to include states and events, following Bach 1986). An exemplification is in (1), where the verbal presumptive is built from the conditional-optative auxiliary (C.O), the short infinitive of *be*, and the present participle (PRS.PRT.):

(1) (Cică) *ar   fi   având*   mulți   bani.
     (They say)   C.O. = IE.3.SG[1].   be   have.PRS.PRT.   much   money.
     "(They say that) there is hearsay that s/he has lots of money."
     * "(They say that) there is hearsay that s/he had lots of money."

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[1] Abbreviations used in this paper: AUX. = auxiliary, CL. = clitic, C.O. = conditional-optative, CF. = counterfactual, COND. = conditional, FUT. = future, HRS. = hearsay, IE = indirect evidential, IMP. = imperfect, IND. = indicative, INF. = infinitive, INFER. = inferential, PL. = plural, PRES. = present, PRESM. = presumptive, PRF. = perfect, PRT. = participle, PST. = past, SG. = singular, SE = impersonal reflexive, SUBJ. = subjunctive, SUP. = supine.

The perfect participial (PRF.P.) forms, on the other hand, can refer only to the past, as in (2), where the same (C.O) auxiliary is used:

(2) *Ar*   *fi*   *avut*   mulţi   bani.
     C.O.3.SG. = IE.3.SG.   be   have.PRF.PRT.   much   money.
     "There is hearsay that s/he had lots of money."
     ≠"There is hearsay that s/he has lots of money."

This class is also puzzling in several other respects; first of all, with the perfect participle, indirect evidential meanings and other modal meanings create syncretism. This problem can be perfectly illustrated in (2). As illustrated by the glosses, the 3.SG. form *ar* is the conditional-optative auxiliary, whose primary function is to construct *counterfactuality*, when combined with the infinitive, as shown in (3):

(3) C.O. + INFINITIVE = COUNTERFACTUAL/SUBJUNCTIVE CONDITIONAL
     Dacă   *aş*   *avea*   bani,   *aş*   *cumpăra*
     If   C.O.1.SG.   have.INF.   money   C.O.1.SG.   buy.INF.
     o maşină.
     a car.
     "If I had money, I would buy a car".

When the C.O. auxiliary attaches to *be* and the perfect participle, and if the context is left unspecified, both the I.E. meaning and the counterfactual readings are possible, as seen in (4), repeated from (2):

(4) *Ar*   *fi*   *avut*   mulţi   bani.
     C.O.3.SG.   be   have.PST.PRT.   much   money.
      1. *Counterfactual reading* = "S/he would have had lots of money (if…)".
      2. *Indirect evidential reading* = "S/he probably had, s/he presumably had, s/he possibly had lots of money."

The PRF.PRT. pattern contrasts sharply with the PRS.PRT. which cannot obtain a *present counterfactual* reading:

(5) *Ar*   *fi*   *având*   mulţi bani.
      C.O. = IE.3.SG.   be   have. PRS.PRT.   much money.
     1. *Indirect evidential reading* = "There is hearsay that s/he has lots of money."
     2. *Counterfactual reading – impossible* ≠ "S/he would have lots of money (if…)."

Interestingly enough, the I.E. forms constructed with the PRS.PRT. are decaying in modern Romanian; to some speakers they sound archaic, or at least regional and even marginal. Their semantics is instead subsumed under the present counterfactual morphology, which is equivalent to the combination of the C.O. AUX. and the INF. (as shown in 3 and 6). When the (grammatical/pragmatic) context is not strictly specified, the C.O. + INF. *can* obtain the two interpretations, as seen in (6), an example taken from the webpage of a television channel in Romania:

(6) Shakira   *ar*   *cânta*   la   Bucureşti.
     Shakira   C.O.3.SG.   sing.INF.   at   Bucharest.

    1. *Counterfactual reading*: "Shakira would sing in Bucharest." (possible continuation: 'if the Romanian organizers invited her.'

    2. *Indirect evidential reading*: "There is hearsay that Shakira might sing in Bucharest (but I cannot vouch for this information)."

Nonetheless, the decaying of the present participial forms is not pervasive across the whole presumptive paradigm. There are some interesting gaps, but in order to better present them it is necessary to make a detour which touches on the third interesting property of this modal class – namely, its malleability in using *any* of the modal auxiliaries in Romanian.

1.1. Romanian modal auxiliaries and the presumptive

As mentioned above, the presumptive is not only the unique paradigm in Romanian which assembles the combination (*modal*) *auxiliary + be + present participle*. The presumptive also allows all modal auxiliary (AUX.) forms in the language. This is in sharp contrast to other "moods" which accept only one set of modal AUX./inflectional endings (which therefore can be conceived as being specialized for that specific function). Romanian contains the following modal AUX. forms (omitting here the indicative AUX.), each carrying the corresponding broad interpretation shown in Table 1:

Conditional-Optative Auxiliary (C.O.)	SG: *aş* [1], *ai* [2], *ar* [3] PL: *am* [1], *aţi* [2], *ar* [3]	From the verb *have* (avea)
Future 1 auxiliary	SG: *voi* [1], *vei* [2], *va* [3], PL: *vom* [1], *veţi* [2], *vor* [3]	From the verb *want* (vrea)
'Future'[2] *auxiliary - Epistemic Inferential*	SG: *oi* [1], *oi* [2], *o* [3] PL: *om* [1], *oţi* [2], *or* [3]	From the verb *want* (vrea)
Subjunctive marker	*să* – uninflected	Etymology unclear

TABLE 1. MODAL AUXILIARIES IN ROMANIAN

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[2] The *o* modal auxiliary is traditionally described as a *future* marker in Romanian grammars. Using examples like (i), Irimia (2010) shows that there are contexts of use that indicate that its semantics is not that of the future. What these examples have in common is the presence of simple statives (like *be sick*); forward shifting of the temporal setting, and future oriented adverbials are rejected in such instances (as opposed to contexts constructed with the *va* future marker). What one obtains instead is an epistemic interpretation about the present:

(i)   *O*   fi   bolnav   *mâine.
     INFER.3.SG.   be   sick.M.SG.   tomorrow.
     "He might be sick (now)."
     ≠ "He will be sick tomorrow"; ≠ "He might be sick tomorrow."

As discussed by Condoravdi (2001), Stowell (2004), a.o., the impossibility of forward shifting the temporal reference in the context of pure statives is characteristic to many epistemic modals (encoding notions related to reliability, possibility, probability). As the interpretation of this auxiliary in Romanian appears to be epistemic, more specifically *inferential*, the *o* morpheme is labeled in this paper INFERENTIAL (INFER.).

The C.O., the future, and the inferential auxiliary can be combined with the short infinitive (which lacks the infinitival marker *a*), as in examples (7) – (9) below. The C.O. normally conveys present counterfactual interpretations; the future marker accepts future readings, while the approximate (≈) translation of the inferential morpheme might resemble the future in (9):

(7) C.O. + INFINITIVE = COUNTERFACTUAL/SUBJUNCTIVE CONDITIONAL
Dacă   *aş*   *avea*   bani,   *aş*   *cumpăra*
If   C.O.1.SG.   have.INF.   money   C.O.1.SG.   buy.INF.
o   maşină.
a   car.
"If I had money, I would buy a car."

(8) FUTURE 1+ INFINITIVE = FUTURE
Vom   *veni*   mâine.
FUT.1.PL.   come.INF.   tomorrow.
"We will come tomorrow."

(9) INFERENTIAL + INFINITIVE = INFERENTIAL/EPISTEMIC MODAL
Om   *vedea*   ce   putem   face.
INFER.1.PL.   see.INF.   what   can.INDIC.PRES.1.PL.   do.INF.
≈ "We'll see what we can do."

The subjunctive (SUBJ.), used in various non-factuality contexts, has its specific morphology; although the SUBJ. marker is not inflected, the embedded verb does carry idiosyncratic SUBJ. endings, as seen in (10):

(10) SUBJUNCTIVE
Nu   poate   *să*   *doarmă*.
Not   can.INDIC.PRES.3.SG.   SUBJ.   sleep. SUBJ.3.SG.
"S/he cannot sleep."

The auxiliaries above also enter into another paradigm, with the short infinitive *fi* (be) and the past participle (PST.PRT). A perfect modal interpretation is obtained, as seen with the C.O. AUX. in examples (2) or in (11) below:

(11) C.O. + BE + PST.PRT. = COUNTERFACTUAL PERFECT
Dacă   *aş*   *fi avut*   bani,   *aş*   *fi*
If   C.O.1.SG.   be have.PST.PRT. money   C.O.1.SG.   be
cumpărat   o maşină.
buy.PST.PRT.   a car.
"If I had had money, I would have bought a car."

And yet another option for the modal AUX. forms above is to combine with *fi,* and the present participle (ending in–*nd*) [3]. Romanian grammars have long observed that in this instance the

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[3] Etymologically, the –*ind* morphology is related to the Latin gerund(ive), and is sometimes referred to as the *gerund*; nonetheless, its actual status in modern Romanian has been under much debate. Some researchers (Edelstein 1972)

meaning of the auxiliaries is altered, resulting in notions of *probability, unvouchability, mediated information*. This is precisely the interpretation traditionally referred to as the *presumptive* (PRESM.). The verb *avea* (have) is illustrated in the presumptive paradigm in (12):

(12) PRESUMPTIVE - FORMAT:
      AUX BE   PRESENT PARTICIPLE (PRS.PRT.)
      Ar   fi   având ⎫
      Va   fi   având ⎬   "s/he might have, s/he probably has,
      O   fi   având ⎬   s/he possibly has"
      Să   fi   având ⎭

The presumptive meaning is also seen when the AUX. forms combine with *be* and the PST.PRT. Therefore, as already said, the perfect structures are ambiguous between a non-presumptive, perfect modal interpretation, and a presumptive reading about the past. For example, when taken out of the context, the perfect with the C.O. AUX. (in 13, or as in 4 above) can be interpreted either as a perfect counterfactual, or as a presumptive about the past:

(13) Ar   fi   venit.
      C.O.3.SG.   be   come.PRF.PRT.
      1. = "S/he would have come." (if ....)
      2. = "S/he probably came, s/he presumably came, s/he possibly came."

The ambiguity with perfect participles has opened a debate about what precisely is to be included under the *presumptive* class. Some linguists claim that the presumptive contains only *present tense* forms (as in the general discussion in the Romanian Academy Grammar). Yet some other analyses agree on the observation that the presumptive is a paradigm with both present/perfect forms. For example, Iordan and Robu (1978: 473), Irimia (1983), Goudet (1977), Halvorsen (1973) all discuss about a *presumptive mood*. But the past/perfect forms are seen as deriving from other primary non-evidential structures. The latter claim amounts to saying that there is one modal perfect series in the language, which can be mapped to both a presumptive and a non-presumptive reading, which are closely related (and therefore non-distinct). The synchronic evolution of the presumptive, on the other hand, might support a view which takes this class to contain only present forms – as only (some of those) those forms are decaying. The conceivable picture one obtains could therefore be the following: i) the presumptive is disappearing from the language; ii) the ambiguity with the perfect is not necessarily real – the so-called *presumptive* readings are in fact subtypes of modal interpretations (for ex., counterfactuals).

One of the claims in this paper is that such an analysis is incorrect for Romanian for three main reasons: i) as noticed more recently, the various morphological instantiations of the presumptive are not semantically identical; instead they convey reference to various subtypes of indirect evidentials (IE, see the discussion in part 2); ii) the IE vs. non-IE readings with perfect modals are subject to distinct grammatical conditions (as shown in section 3) - the superficially identical morphology is in fact mapped to distinct structures; iii) not all present presumptive forms are decaying; for example, the inferential-based ones are quite robust. If the precise structure of

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analyze it as a present participle, and not as a gerund, as it lacks nominal features. A detailed investigation of the *–ind* forms is beyond the scope of this paper; in order to make a sharper distinction between this form and the past participle, the label *present participle* will be preserved here for convenience.

indirect evidentiality is fleshed out in detail, it rather becomes clear that some of the pieces necessary for constructing this type of semantics are also needed by other modal forms (and what results is imperfect identity, nevertheless). What the Romanian TAM system does at this stage is undergo formal simplification. In order to understand the basic constitution of the system, the interactions between its subcomponents, and the alterations they undergo, it is necessary to answer the following questions:

(i)   What is the semantic organization of the presumptive?
(ii) How are the morphological pieces mapped to the specific presumptive meaning?
(iii)Why are superficially identical pieces mapped both to indirect evidential readings, and to other modal readings?
(iv)Why does the system prefer to reduce independent morphology characteristic to IE readings, while mapping the corresponding broad semantics to morphology used by other modals?

The answer to these questions requires a more detailed presentation of the presumptive. Hence an important goal of this paper is to further introduce the *indirect evidential* (IE) nature of the PRESM. (see also Friedman 2004, Squartini 2005). Then, various tests are examined which demonstrate that the perfect constructions with evidential semantics are not "contextual extensions" of other modal categories. These tests indicate that modal auxiliaries enter into the morpho-semantic paradigms seen in Table 2:

AUX	AUX + INFINITIVE	AUX + BE + PAST PARTICIPLE		AUX + BE + GERUND
C.O.	simple counterfactual	perfect counterfactual	Evidential - past	Evidential - present
Future	future	future perfect	Evidential - past	Evidential - present
Inferential	broad epistemic	perfect epistemic	Evidential - past	Evidential - present
Subjunctive	subjunctive	perfect subjunctive	Evidential - past	Evidential - present

TABLE 2: ROMANIAN AUXILIARIES - SEMANTICS

The AUX. organization illustrates intricate morphology-semantics mappings, a feature which has not been addressed before for the presumptive. More specifically, how do the individual pieces compose in order to obtain evidential semantics? And what is the contribution of each of these pieces?

It is proposed in this paper that the answer resides in a decomposition of indirect evidentiality, following the model introduced by Comrie (1976), and more recently Izvorski (1997), and Iatridou (2000). The basic intuition is that the IE meaning signals that the speaker is not aware of the core eventuality itself, but gets to know about it via its results, consequences, abstract representation. Languages can have various morphological strategies for conveying IE semantics. As discussed in Izvorski (1997), the present perfect is a common means, via its interpretation in the modal (possible world) domain. Romanian does not have a present perfect

form; instead, it uses a perfect of result morpheme (the perfect participle), which encodes the feature *distancing* (similarly to the present participle), and the auxiliary *be;* the latter is analyzed here as introducing the selection of the worlds which are mapped to the speaker's deictic centre. Intuitively, what this morpheme spell-out is the process by which the feature *distancing* is combined with a feature signalling inclusion of the *distancing* to the speaker's deictic centre. This account correlates with previous findings (Avram and Hill 2007) which attribute to this morpheme an *irrealis* feature. Moreover, the feature *distancing* is also a component of the feature specification of other modal constructs.

The discussion in this paper is further divided in five sections. Section 2 describes the PRESM. variants in detail. Section 3 addresses the issue of the syncretism in the perfect/past forms, and demonstrates that indirect evidential interpretations are not "contextual extensions" of other modals. Using this observation, section 4 develops the morpho-semantic analysis of the PRESM., and explains the sources of morphological simplification with the IE. Section 5 provides some further remarks about the structure of IE in Romanian, and section 6 has the conclusion.

2.   The presumptive - a strategy for indirect evidentiality

Human language contains various devices by which reference can be made to the source upon which a speaker's statement is based. These devices are part of the category named *evidentiality*, which has been subject to intense investigation recently (Chung and Timberlake 1985, Chafe and Nichols 1986, De Haan 1999, Johanson and Utas 2000, Dendale and Tasmowski 2001, Squartini 2001, Rooryck 2001, Faller 2002, Aikhenvald 2004, Speas 2008, a.o). Broadly speaking, it could be the case that the speaker has personally witnessed an eventuality (*direct evidentiality*); but it is also possible for someone to simply report, or make inferences about an event, which was not directly witnessed (*indirect evidentiality - IE*). Recent theoretical and empirical findings have concluded that human languages make extensive use of this category, which is also mapped to various morphological devices.

The conditions of use of the presumptive indicate that in Romanian this "mood" is the grammatical strategy for conveying IE. A common meaning component of all the presumptive AUX. constructs is to entail that the speaker did not have direct access to the eventuality presented. Nevertheless, there is a distinction in the type of indirect source, and this is signalled by the different auxiliaries; for example, indirectness can imply that the speaker heard the statement from someone else, or via general hearsay (*hearsay evidential*), or that s/he is making a conjecture, a guess, an inference based on the empirical data available *(inferential evidential)*. The following subsections illustrate the IE semantics of each of the four constructs of the PRESM; while the conditional based morphology triggers hearsay semantics (see also Squartini 2005), the future and the inferential AUX. (less discussed in previous accounts) are specialized in *inferential* evidentiality, and the conjunctive marker can be used only in interrogative contexts. The presentation will illustrate the four variants, as well as the specific developments they undergo in current Romanian.

2.1. *Conditional-based morphology*

A detailed examination of the forms constructed with the conditional morpheme shows that they are felicitous when reinforced by "*verba dicendi*", as in examples (14) and (15):

(14) (Se   spune   că)   *ar*   *fi*   *având*
     SE   say.IND.PRES.3.SG. that   C.O. = IE.3.SG.   be   have.PRS.PRT.
     mulţi   bani   *ieri.
     many money yesterday.
     a.   "(They say that) it is said that s/he has lots of money (and I am surprised about this).'
     b.   Intended counterfactual reading - impossible: *"(They say that) S/he would have lots
          of money, if...."

(15) (Se   spune   că)   *ar*   *fi*   *avut*
     SE   say.IND.PRES.3.SG. that   C.O. = IE.3.SG.   be   have.PST.PRT.
     mulţi   bani   (ieri).
     much money (yesterday).
     a.   "(They say that) it is said that s/he had lots of money"

Three important observations can be made about the evidential forms in (14) and (15). As already mentioned, the aspectual contribution of the participles appears to be that of temporally setting the eventuality embedded under the evidential – the PRES.PRT. supports an evidential claim about the present, while the PST.PRT. is felicitous in statements about the past.

Secondly, the italicized form in (14) presents an apparent morphology-semantics mismatch; although it contains the conditional AUX., it never allows a counterfactual/optative interpretation (see 14b). The main contribution of the C.O.-based construct is rather to signal the idea of *hearsay*; this is the inherent meaning of the modal itself, and not deriving from the presence of the *verbum dicendi* (as a preliminary look at the translation of 8a might suggest). An indication that this is indeed the case is that the hearsay evidential can also be used without a *verbum dicendi*[4]. But similarly to the cross-linguistic behaviour of hearsay IE, the C.O.-derived form is also possible with various source-reporting adverbials. The sentence in (16) contains the adverbial *cică* ("they say", "it is said that"); in (17) contexts with the locutions *după cum spune el* ("according to what he says") /*după spusele sale* ("according to him/her") are also found:

(16) **Cică**   *ar*   *fi*   *având*   mulţi   bani.
     They say C.O. = IE.3.SG.   be   have. PRS.PRT.   much money.
     "They say that there is hearsay that s/he has lots of money."

(17) *După   cum   spune*   *el/după   spusele   sale*,
     According to how   say.INDIC.PRES.3.SG.   he/accordingto saying.PL. his
     Madonna *ar*   *fi   venit*   la Bucureşti.
     Madonna C.O. = IE.3.SG.   be   come. PST.PRT.   at Bucharest.
     LIT.: "According to what he says, Madonna would have come to Bucharest."
     "According to what he says, it is said that Madonna came to Bucharest."

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[4] Romanian is not unique in allowing reinforcement of embedded indirect evidentials by *verba dicendi*. This behaviour has in fact been illustrated for various languages (see Sauerland and Schenner 2007 for an analysis of embedded evidentials in Bulgarian, or the general discussion in Aikhenvald 2004).

That the C.O. AUX. is *not* the general strategy of making reference to all types of indirect evidence is confirmed by its infelicitous use in an inferential context - cf. the sentence in (18), as opposed to example (16):

(18) *Luminile   sunt stinse în apartamentul   lor.   S-*ar*
     Light.PL.the   are off   in apartment.the   their.   SE C.O. = IE.3
     fi   culcat.
     be   go to bed.PST.PRT.
     Intended reading: "The lights are off in their apartment. They probably went to bed."

And the same form is impossible when reference to direct (visual, auditiory, olfactive, etc.) evidence is made:

(19) *Professorul *ar*   *fi*   *intrat*   în   clasă.
     Teacher.the   C.O. = IE.3   be   enter.PRF.PRT.   in   classroom.
     l-am   văzut   eu.
     CL.3.SG.M.-have.1.SG.PRES.   see.PRF.PRT.   I.
     INTENDED: 'It is said that the teacher entered the classroom. I have seen him.'

The third important observation is that the IE present participial form with hearsay semantics is replaced in current Romanian by the C.O + INF. construct; therefore, the preferred way of conveying the semantics associated with (14) in moderm Romanian is by using the morphology whose main function is that of counterfactuality:

(20) Se   spune   că)   *ar*   *avea*
     SE   say.IND.PRES.3.SG.   that   C.O. = IE.3.SG.   have.INF.
     mulţi bani   *ieri.
     much money   yesterday.
     a. (They say that) it is said that s/he has lots of money.'
     b. *Intended counterfactual reading* - impossible: ≠"S/he would have lots of money, if...."

The two uses are not completely synonymous, nonetheless; one respect in which they differ is the absence of mirativity (surprise) effects with C.O + INF. (which are entailed by the present participial form, as seen in the translation of 14). Also, if the present participle form is strictly bound to a present tense interpretation, more flexibility is allowed with the C.O + INF., which can also make reference to a non-progressive, "future"-oriented event. Compare the examples in (21) and (22). As the gloss in (21) shows, the present participle does not permit an IE future-oriented/temporally unspecified reading; the only interpretation is strictly bound to the present – generic or progressive. The C.O + INF., on the other hand, permits any temporal binding/specification with the exception of the past – that is, (22) cannot be interpreted as meaning that there is hearsay that Shakira sang in Bucharest.

(21) (Cică)   Shakira   *ar*   *fi*   *cântând*   la Bucureşti.
     They say that Shakira   C.O. = IE.3.SG. be   sing. PRS.PRT.   at Bucharest.

"(They say that) there is hearsay that Shakira is singing/sings in Bucharest now (but I cannot vouch for this information, and I am surprised about this)."
*"(They say that) there is hearsay that Shakira might/will sing in Bucharest (but I cannot vouch for this information, and I am surprised to hear this)."

(22) (Cică)   Shakira *ar*   *cânta*   la   Bucureşti.
(they say that)   Shakira C.O. = IE.3.SG. sing.PRES.PRT. at   Bucharest.
'(They say that) there is hearsay that Shakira is singing/sings/might/will sing in Bucharest (but I cannot vouch for this information).'

2.2. *Inferential-based morphology*

The hearsay interpretation is not possible with any of the other PRESM. forms. For example, the INFER. AUX. is not felicitous with hearsay morphology (as in 23). Its function is rather that of an inferential evidential; it encodes reasoning/inferences based on indirect evidence (as in the approximate translation of 24, and 25). Also, the information source meaning is collapsed with interpretations related to the speaker's epistemic evaluation (non-vouchability, non-confirmativity) of the proposition. Similarly to what is seen in (21), the INFER. + PRES.PRT. is only possible when referring to the present (24 B, 25). An indirect evidential with the past is only possible if the PRES.PRT. is replaced by the PRF.PRT., as shown in (25):

(23) *Cică   *o*   *fi*   *având*   mulţi bani.
They say   INFER.3.SG. be   have. PRES.PRT.   much money.
Intended: "They say that it is said that s/he has lots of money."

(24) A. Nu   văd   pisica pe   nicăieri.
    Not   see.1.PRES.IND.   cat.the on   anywhere.
    "I do not see the cat anywhere."
   B. *O*   *fi*   *dormind*   pe undeva   *ieri.
    INFER.3.SG.   be   sleep. PRES. PRT.   on somewhere yesterday.
    ≈ 'It might be sleeping somewhere (but I do not vouch for this).'
    ≠ ≈ 'It will probably be sleeping somewhere (but I do not vouch for this).'

(25) Luminile sunt stinse în apartamentul lor. S-*or*   *fi*   *culcat.*
    Light.PL. are off   in apartment.the their. SE INFER.3.SG. be   go to bed.PST.PRT.
    ≈ "The lights are off in their apartment. They might have gone to bed."
    ≠ ≈ "The lights are off in their apartment. They might go to bed (but I do not vouch for this)."

As opposed to the present IE with PRS.PRT. which is decaying in Romanian, the inferential-based present one is quite robust. There is one condition which grammatically restricts its formation; but this condition holds for all present IE forms, no matter what modal auxiliary they're constructed from. More specifically, present IE (with PRS.PRT.) can be constructed with all verbs in Romanian, with the exception of the verb *be*:

(26) *O   *fi*   *fiind*   bolnav.

INFER.3.SG.   be   be.PRS.PRT.   sick.M.SG.
INTENDED READING = "He might be sick (but I cannot vouch for this)."

(27) *O*   *fi*   bolnav.
INFER.3.SG. be   sick.M.SG.

(28) **Ar*   *fi*   *fiind*   bolnav.
C.O. = IE.3   be   be.PRS.PRT.   sick.M.SG.
Intended reading = "There is hearsay that he is sick (but I cannot vouch for this, and I am surprised to hear this)."

2.3. *Future-based morphology*

The examples discussed above indicate that PRESM. forms, although unified under the same evidential paradigm, are distinct in that they spell out various subtypes of reference to information sources (see also Squartini 2005). The literary-future constructs, although decaying in modern Romanian (just like to C.O.-based ones) - give a further hint in this direction. Speakers who still accept[5] sentences like (29) have the intuition that the statement is based on "more probable" evidence. Note that the form below, although containing a FUT. AUX., does not have a future meaning (or an evidential reading about the future (contrast this sentence with example 8). And a hearsay interpretation is - impossible (29 d):

(29) Milionarii   *vor*   *fi având*   mulţi bani.
Bilionnaire.PL.the   FUT=IE.3.PL. be have.PRES.PRT.   much money.
a. "Billionaires probably have lots of money (I do not vouch for this, but it is highly probable that the statement is true.)"
b. *"Billionaires will have lots of money."
c. * "Billionaires will probably have lots of money."
d. * "There is hearsay that billionaires have lots of money."

2.4. *Subjunctive-based morphology*

The function of the SUBJ. with PRES.PRT. evidential is the most obscure; this form is also decaying in modern Romanian. It appears to be restricted to inferential readings in interrogative contexts, and does not accept hearsay interpretations:

(30) *Să*   *fi existând/existat*   astfel   de   oameni?
SUBJ. =IE.   be exist.PRES.PRT./exist.PST.PRT.   this kind   of   people.
a. ≈ "It is possible to infer that such people exist/existed?"
b. ≠"Is there hearsay that such people exist/existed?"

That the SUBJ. + PRES.PRT. construct has a distinct nature than what is called the SUBJ. mood in modern Romanian is demonstrated by the existence of examples like (31), in which only the SUBJ. mood is possible, but not the SUBJ. + PRES.PRT. form:

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[5] The majority of native speakers consulted have mentioned that the future with present participle construct has a highly archaic flavor.

(31) Nu poate/nu vrea/ e imposibil / e greu
    Not can /not want/ is impossible /is difficult
    *să   fi   dormind   /să   doarmă.
    SUBJ. be   sleep.PRES.PRT.   /SUBJ.   sleep.3.SUBJ.SG.
    'He cannot/does not want to/it is impossible/it is difficult for him to/sleep.'

To resume, the contexts examined above have illustrated the following: (i) PRES.PRT. forms construct indirect evidential meanings, and are non-ambiguous; as such, the COND. morpheme does not allow a counterfactual interpretation in that context (see example 14), and the FUT. AUX. does not accept a meaning related to temporal posteriority (see example 29); (ii) the SUBJ. + PRES.PRT. is not possible in canonical subjunctive contexts (sentence 31); (iii). past (perfect) participle forms, on the other hand, are ambiguous between an IE meaning and another modal interpretation. This last point is best illustrated in the case of C.O. and FUT. AUX, as shown in examples (32) and (33). When uttered out of the blue, sentence (32) has both a perfect counterfactual and a past indirect evidential reading (hearsay):

(32) C.O. + BE + PERFECT PARTICIPLE
    Ar   *fi*   *avut*   bani.
    C.O.3.SG.   be   have.PST.PRT.   money.
    1. = *Perfect counterfactual reading*
        "S/he would have had money." (possible continuation – if s/he had had saved it)
    2. = *Indirect evidential reading - hearsay (about the past)*
        "It is said that s/he had money."

Similarly the example in (33), which contains the FUT. auxiliary and the PST.PRT, allows an anterior future reading and an indirect evidential (inferential) interpretation about the past:

(33) FUTURE + BE + PAST PARTICIPLE
    Va   *fi*   *terminat*   de   scris.
    FUT.3.SG.   be   finish. PST.PRT.   SUP.   writing.
    1. = *Future anterior/perfect reading*
        "S/he will have finished writing" (possible continuation – tomorrow at 5 pm)
    2. = *Indirect evidential reading –inferential*
        ≈ "Apparently/presumably, s/he finished writing" (possible continuation – yesterday).

Because of the existence of ambiguous sentences of the format in (32) and (33), the presumptive paradigm is sometimes attributed present tense forms only. It is also common to find works where the exact nature of the sentences above is left unaddressed (Squartini 2005). There are also contributions that, after using some tests (usually adverbial interactions), recognize the necessity of adding the past constructs to the presumptive class; but, as already mentioned, the idea is that PRESM. meanings are some types of "extensions", derived from the other modal meanings (Dimitriu 1979), which are considered basic. Section 3 evaluates various diagnostics which demonstrate that evidential forms are not simple "extensions" of the homonymous constructs; instead, they are subject to distinct syntactic, pragmatic, and semantic constraints.

3. Indirect evidentials vs. other modals

The examination of various tests reveals a picture in which two distinct meanings are mapped to the same morphology; the behaviour under various diagnostics does not easily support an analysis according to which evidentials are derived from other modals. This finding is important in that it demonstrates that not all types of "extensions" have the same status. More specifically, it is sometimes claimed that the PRESM. can also obtain "mirative" (surprise, unexpectedness) readings. But mirative uses respect the same types of grammatical rules as evidentials; specific lexical choices, in determined contexts, are rather responsible for triggering them. Mirative uses will not be further investigated in this chapter; instead three classes of tests will be examined which show that evidential forms are subject to idiosyncratic constraints which do not hold with the other modals. These tests are supplementary to the observation that IE with PRES.PRT. cannot be constructed from the pure stative *be*, while the corresponding MOD. + INF. can. The three tests examine: a). adverbial interactions, b). subject placement, c). pragmatic specifications.

a. Adverbial interactions

This first diagnostic focuses on an interesting characteristic of perfect counterfactuals. Despite the fact that in many languages they are constructed with overt *past tense* morphology (Comrie 1976, Palmer 2001, Iatridou 2000, Ippolito 2002), they allow future-oriented adverbials. Examine example (34) below, which contains a pluperfect and a future adverbial in the antecedent:

(34) ENGLISH- PERFECT COUNTERFACTUAL WITH FUTURE ADVERBIAL
If he had come *tomorrow*, we would not have left yesterday.

Although Romanian CF. might not be constructed with past tense (but via a dedicated modal AUX., as shown in 7 or 11), in the PRF. the same type of interaction is seen:

(35) ROMANIAN -PERFECT COUNTERFACTUAL WITH FUTURE ADVERBIAL

Dacă	ar	fi	venit	*mâine*,	nu	am
If	C.O.3.SG.	be	come.PST.PRT.	tomorrow	not	have.1.PL.
mai	fi	plecat	ieri.			
more	be	leave.PST.PRT.	yesterday.			

'If s/he had come tomorrow, we would not have left yesterday.'

This co-occurrence is not possible with the evidential reading; when a FUT. adverbial is forced, the hearsay interpretation disappears. The only possible temporal specification of the adverbial in this case is *past* (36):

(36) ROMANIAN-PST. EVID. INTERPRETATION; NO FUT. ADVERBIALS

(Cică)	*ar*	*fi*	*avut*	bani
(They say)	C.O.3.SG = IE.	be	have. PRF.PRT.	money
*mâine.				

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tomorrow.
Intended reading impossible: *"(They say that) it is said that he might have money tomorrow."

(37) (Cică)   *ar*   *fi*   *avut*   bani
   They say   C.O.3.SG = IE.   be   have. PRF.PRT.   money
   Ieri.
   yesterday.
   "(They say that) There is hearsay that he had money yesterday."

Similar interactions with temporal adverbials show that the FUT.PRF. also has different conditions of use than the past evidential constructed with the FUT. morpheme. The FUT.PRF. reading accepts a FUT. oriented adverbial (38), while the past evidential constructed from the FUT. morpheme allows only past oriented adverbials (39):

(38) ROMANIAN - FUT.PRF. INTERPRETATION; FUT. ADVERBS ALLOWED
   Vor   *fi*   *terminat*   de   redactat   documentele
   FUT.3.PL.   be   finish.PRF.PRT.   SUP.   editing   document.PL.the
   (până) mâine   la   ora 5.
   by   tomorrow   at   hour 5.
   "They will have finished editing the documents (by) tomorrow at 5."

(39) ROMANIAN – PAST EVIDENTIAL INTERPRETATION; ONLY PAST ADVERBIALS ALLOWED
   Vor   *fi*   *terminat*   de   redactat   documentele
   FUT.3.PL.   be   finish.PST.PRT.   SUP.   editing   document.PL.the
   *mâine   /ieri   la ora 5.
   *tomorrow   /yesterday at hour 5.
   Intended indirect evidential reading: "According to the information available, they probably finished editing the documents yesterday/*tomorrow (but I cannot endorse this)."

There is an important distinction between the two sentences above. For example, the FUT. PRF. can be used in a context like the following - assume that there is an inspection taking place tomorrow in an office. Then the manager of that office can utter today the sentence in (38), meaning by it that according to what is requested, tomorrow at 5 pm the situation will be such that the employees will have the editing of the documents finished (and if this does not happen, the employees might get fired). This context does not presuppose making inferences, or assumptions about the future. This type of reading is not permitted by the indirect evidential, which requires access to a source of information, and encodes inferences/assumptions made on the basis of the evidence available.

b. Subject placement

In non-topicalized/non-focussed configurations, evidential constructs require the subject to be placed post-verbally:

(40) POST-VERBAL SUBJECTS IN EVIDENTIALS

    a) (Cică)   ar   fi   furat   *hoțul*   banii.
       (They say that) C.O.3.SG.= IE. be   steal.PST.PRT.   thief.the   money.
       ≠ "(They say that) it is said that the thief stole the money."
    b) * Cică *hoțul* ar fi furat banii. (unless the subject is topicalized/focussed).

PRF. counterfactuals/FUT. PERF. are not subject to this constraint; sentence (41) illustrates this with a PRF. counterfactual context:

(41) PERFECT COUNTERFACTUAL: PREVERBAL SUBJECTS ALLOWED
    Hoțul   ar   fi furat   banii, dacă ar   fi
    Thief.the   C.O.3.SG. be steal.PST.PRT.   money if   C.O.3.SG.   be
    avut   ocazia.
    have.PST.PRT.   chance.the
    "The thief would have stolen the money, if he had had the chance."

c. Conversational implicature vs. presupposition

Following the arguments examined in Anderson (1951), it is generally assumed that counterfactuality arises as a *conversational implicature*, and is not asserted. The best known argument is that counterfactuality can be cancelled without producing a contradiction:

(42) If the patient had the measles, he would have exactly the symptoms he has now. We conclude therefore that the patient has the measles.

Moreover, the falsity of the antecedent can be asserted without producing a contradiction (Stalnaker 1975):

(43) If the butler had done it, we would have found blood on the kitchen knife. The knife was clean; therefore, the butler did not do it.

The examples above are relevant in that they demonstrate that the counterfactual component (operator) can be cancelled. In Romanian (as well as other languages, see Izvorski 1997 for a discussion on present perfect IE languages), indirect evidentials are also modal structures, in which an indirect evidential operator quantifies over a proposition: IE φ. But, as opposed to counterfactuals, the IE part cannot be cancelled, or contradicted. As such, in the examples in (44), what is negated is not the existence of indirect evidence, but the proposition itself:

(44) ROMANIAN
    a. Pisica   n-*o*   *fi*   *dormind*.
        Cat.the   not-INFER.3.SG.   be   sleep.PRES.PRT.
        = "The cat is not sleeping (I infer)."

≠ "I do not infer that the cat is sleeping."
b. (Cică)   nu *ar*   *fi*   *avut*
(They say)   not C.O. = IE.3.   be   have.PST.PRT.
nici   un   prieten.
none   a   friend.
= "It is said that s/he//they did not have any friends."
≠ "It is not said that s/he//they had friends."

Trying to assert the falsity of an IE statement yields the same result; in (45), the proposition embedded under the evidential is contradicted, and not the contribution of the operator. The sentence in (45) contains a hearsay (HRS.) marker, but the same behaviour is exhibited by all indirect evidentials in Romanian:

(45) ROMANIAN
   A. *Ar*   *fi*   *mâncat*   toate   pǎjiturile.
      C.O=HRS.3.SG.   be   eat.PST.PRT.   all   cakes.PL.the.
      "S/he ate all the cakes (it is said)."
   B. Nu   e   adevǎrat.
      Not   is   true.
      = "It is not true that s/he ate all the cakes."
      ≠ "It is not true that it is said that she ate all the cakes."

The behaviour under negation and contradiction tests has led various scholars (Izvorski 1997, McCready 2008) to propose that the (indirect) evidential component functions as a *presupposition.* For the purposes of this chapter, the contrast between the counterfactual and the indirect evidential use is significant, as it indicates that the two interpretations have distinct natures. But it is also true that the *presupposition* analysis of IE is not uncontroversial. Nevertheless, a detailed discussion about the presuppositional nature requires an extensive investigation of other forms in Romanian that might carry IE semantics; and as these forms go beyond the scope of this chapter, the precise account will be left open at this point.

4.   *Structure of indirect evidentials*

To review, the discussion in sections 2 and 3 above has illustrated the following: (i) PRES.PRT. constructs always encode an IE meaning; (ii) the AUX.+ be + PST.PRT. structures also carry evidential semantics, and are subject to specific grammatical restrictions, as compared to their homophonous modal counterparts; (iii) COND. AUX.+ be + PRES.PRT. does not allow a counterfactual interpretation; (iv) FUT.AUX. + be + PRES.PRT. does not obtain a future meaning. (v) with the exception of INFER + BE + PRES.PRT., all the other PRES. IE. forms are disappearing in modern Romanian, being replaced by the corresponding AUX.+ INF. forms.
    Given these restrictions, what is the relationship between form and meaning in the Romanian IE paradigm? What pieces construct this type of meaning? And how is the syncretism explained?
    In this section, a morpho-semantic account of indirect evidentiality will be proposed, following the implementations in Iatridou (2000), Izvorski (1997), as well as Irimia (201). But before doing

so, there are some theoretical clarifications that have to be made. They will demonstrate that some possible analyses of the Romanian presumptive are not on the right track.

One of them is the assumption of an accidental homophony between the past evidentials and their phonetically identical modals. That such an option has to be dismissed is motivated by a simple cross-linguistic examination; many languages use conditional morphology for constructing both counterfactuals and hearsay evidentials (the Romance family being one, see the detailed discussion in the various papers in Chafe and Nichols 1986); moreover, the relationship between indirect evidentiality and epistemic modality is so close in a great number of languages, that it sometimes proves quite difficult to tease them apart (see especially De Haan 1999, or McCready and Ogata 2007 for a discussion of recent debates on whether evidentiality is a subtype of epistemic modality, or the other way around, or whether the two are independent categories).

A second point is related strictly to the form of the present hearsay evidential. As said above, this construct uses the conditional AUX., but does not accept CF. meanings; as expected, it cannot be used in the antecedent (or the consequent) of a PRES. CF. sentence (46 a, b), which permits only the C.O. + infinitive morphology (47 c):

(46) ROMANIAN C.O. + PRES.PRT: CF. MEANING NOT PERMITTED
(Cică)   *ar*   *fi având*   mulţi bani.
(They say that) C.O. = IE.3.SG.   be have.PRES.PRT. much money.
a. "(They say that) it is said that s/he has lots of money."
b. *Intended counterfactual reading* - impossible: ≠"S/he would have lots of money, if.."

(47) ROMANIAN C.O. + PRES.PRT: COUNTERFACTUAL MEANING NOT POSSIBLE
a. *Dacă *ar*   *fi având*   bani,   *ar*   *cumpăra* o casă.
    If   C.O. 3.SG. be have.PRES.PRT.   money   C.O. 3.SG. buy.INF. a house.
    Intended reading: "If s/he had money, s/he would buy a house."
b. *Dacă *ar*   *avea*   bani,   *ar*   *fi*
    If   C.O.3.SG. have.INF.   money,   C.O. 3.SG.   be
    cumpărând   o casă.
    buy.PRES.PRT.   a house.
    Intended reading: "If s/he had money, s/he would buy a house."
c. Dacă *ar*   *avea*   bani,   *ar*   *cumpăra*   o   casă.
    If   C.O.3. have.INF. money,   C.O.3.   buy. INF.   a   house.
    "If s/he//they had money, s/he//they would buy a house".

One could also assume that sentences similar to 47 (a, b) are ill formed due to the fact that IE forms cannot be embedded under *if*; but in Romanian, IEs can in fact be embedded under *if,* constructing a special type of interpretation, the so-called *acknowledgment reading*[6]:

(48) Dacă *ar*   *fi având*   aşa   de   mulţi bani
     If   C.O. = IE.3.SG. be have.PRES.PRT. so   of   much money
     (precum se   spune),   atunci   este   foarte bogat.
     (as   REFL. say.3.INDIC.SG.) then   is   very   rich.M.SG.
     'If he has so much money (as it is said), then he is very rich.'

---

[6] The only possible interpretation in these sentences seems to be the one in which the conditional operator scopes under the IE operator.

(49) Dacă *o*   *fi*   *dormind,*   atunci să   nu
     If   INFER.= I.E.3.SG.   be   sleep.PRS.PRT.   then   SUBJ.   not
     îl   deranjăm.
     CL.3.M.SG.   disturb.1.SUBJ.PL.
     "If he is sleeping (as we infer), then let's not disturb him."

And yet another possibility that has to be dismissed is that the PRES.PRT. itself might carry a type of aspectual specification which is not a possible ingredient of counterfactuality. This would in turn require us to perform an aspectual analysis of the PRES.PRT. As said in section 2, there are no other verbal forms in modern Romanian that have the PRES.PRT. in their composition. But the PRES.PRT. can function as an adjunct, and in such environments it appears to encode *imperfective* aspectual specifications. In sentence (50) there is no entailment that John actually finished crossing the street:

(50) L-am   văzut   pe   Ion   *traversând*   strada.
     CL.3.M.SG.-have   see.PST.PRT. ACC. John   cross.PRES.PRT.   street.the
     "I saw John (while he was) crossing the street".

Assuming, simplistically, that the gerund spells-out imperfective (IMPF.) aspect, one could entertain the idea that counterfactuality (in Romanian) cannot be constructed with *imperfective* aspect. But *imperfective* forms are indeed possible in counterfactuals. For example, the so called *imperfect* (imperfective past) is one of the means of constructing perfect counterfactuals in Romanian (and in Romance):

(51) Dacă *ar*   *fi*   *avut*   bani,
     If   C.O.3. be   have.PST.PRT.   money,
     cumpăra   o   casă.
     buy.IMPF.PST.   a   house.
     "If s/he had had money, s/he would have bought a house."

Nonetheless, in both the present IE, and the imperfect with counterfactual semantics, the imperfective aspectual marker is not necessarily interpreted imperfectively. In (51) the reading obtained in the consequent of the conditional clause is not "s/he would have been in the process of buying a house". The normal interpretation could in fact be perfective, just like in canonical IE. What these examples indicate, therefore, is that the gerund does not use its imperfective feature in evidential contexts.

After the possibilities above are eliminated, two other important assumptions about the indirect evidential are still to be carefully examined: (i) as the AUXs. used by IE are employed in other structures, it cannot be postulated that only the AUX. themselves give rise the IE interpretations; the presumptive structures also contain some aspectual heads that make a contribution to the modal interpretation. The challenge is in pointing out that contribution; (ii) the IE, as opposed to the other modals, does not appear to allow temporal shifting towards the future. What specifically is responsible for this behaviour?

The main gist of the analysis proposed in this chapter is that, following Iatridou (2000), and Izvorski (1997), aspectual/temporal heads can be interpreted in the domain of times or, modally,

in the domain of worlds. In the latter case, they contribute to specifying the worlds quantified over. The indication that the speaker has only indirect evidence for his/her statements is obtained by a decomposition of the perfect/present participle aspectual heads. The main claim is that in past evidentials, the past participle spells out the contribution of a *perfect of result*. The perfect part makes reference to worlds which are outside the speaker's deictic centre (worlds the speaker is aware of). What is included in the speaker's deictic centre is the *result* component, which specifies the resultant state of an event having culminated (Kratzer 1998, Izvoski 1997). Therefore, the indirect evidentiality semantics obtains because the speaker is aware of the results of an action only, and not of the action itself. Romanian turns out to follow the same strategy as languages which use the present perfect to convey indirect evidentiality. But there is one important distinction. Romanian does not have present perfect forms for the indicative (the temporal aspectual system of the language has undergone simplification). This analysis proposes that instead in Romanian the inclusion of the resultant state to the speaker's deictic centre has a morphological spell-out by the morpheme *fi*. The same line of reasoning applies to the analysis of the present indirect evidentials. The gerund is specified as [-Perf.], therefore no past interpretation is possible. But the gerund has other important features, among which the property of abstracting over eventualities. In this case, what is included in the speaker's deictic centre is an abstract image of the eventuality, and not the eventuality itself. The result is that the speaker has only incomplete/indirect evidence.

Counterfactuals, futures, and inferentials are related to indirect evidentials as they intuitively encode reference to possible worlds. The main difference is how access to possible worlds is given, and their role in the construction of featural specifications. This ultimately boils down to how aspectual heads are interpreted in these forms. Adopting a standard analysis of counterfactuals, it is assumed here that the perfect (past) component of the counterfactual acts as an operator indicating how close the selected worlds are to the speaker's deictic centre. In futures, following Copley (2002) the selection of the worlds is made according to a *director*, and not according to the result/abstract component seen in IE. Inferentials are the closest to IEs in that they do not encode possible worlds ordering in the same way as counterfactuals, and do not presuppose the presence of a *director* feature. The issue of the inferential is more complex than that, but for the purposes of this chapter this brief characterization should do. The detailed analysis is presented in the subsection below.

4.2 *Decomposing indirect evidentials*

Just like in other languages, Romanian indirect evidentials can be claimed to have a modal nature. Very intuitively and simplistically said, modals make reference to eventualities which are not characteristic to the current situation, but which are seen as possible, probable, hypothetical. One of the theoretical ways of modelling these notions is to use the concept of possible worlds. Following a rich philosophical tradition, Kratzer (1981, 1991) analyzes modals as quantifiers over possible worlds. The proposition expressed by the sentence (without the modal) is interpreted in the nuclear scope of the quantifier; the restriction is a variable which is assigned an accessibility relation, either linguistically (*in view of what I know, given the actual circumstances, etc.*) or by the context; the accessibility relation selects the specific sets of words the modal quantifies over, which are called *modal bases*.

In this framework, two important contributions which address the problem of the connection between (mismatched) morphology and semantics in the modal domain are Izvorski (1997), and

Iatridou (2000). Their basic idea is that aspectual heads can have not only a temporal interpretation, but also a modal interpretation; that is, aspectual heads can be interpreted as making reference to worlds. This chapter employs extensively this intuition in order to further explain the contribution of the aspectual morphology seen in the presumptive.

One important fact is the difference between the PRES. PRT. and PRF.PRT.; only the latter is specified with an aspectual feature [+perfect]. Assuming a canonical approach to aspectuality, *perfect* maps properties of events to properties of times "true of times that follow the events" (Kratzer 1998). In the past forms (which are constructed in Romanian with the PRES. PERF.), the particular IE meaning is contributed by the "resultant-state" type of perfect, which gives as an output the state of the event having culminated. The evidential interpretation arises because what is mapped to the speaker's deictic centre is only the result component. That is, to follow a classic decomposition of IE (namely Izvorski 1997), what the speakers are aware of are only the results of an eventuality, and not the eventuality itself.

This analysis can derive the assumption that Romanian past presumptive (indirect evidential) constructs have a similar structure as their semantically corresponding forms in languages that use the present perfect for this purpose. As an illustration, examine the two examples below from Bulgarian and Turkish which contain a present perfect form, and acquire indirect evidential interpretations:

(52) PRESENT PERFECT AS AN IE   (Izvorski 1997, e.g. 1 b, a)
     a. TURKISH
        Gel- miş-im.
        Come-PERF-1SG.
     b. BULGARIAN
        Az sâm   došâl.
        I   be-1SG.PRES.   come.PRF.PRT.
        'I have come' (*Present Perfect*)   and/or
        'I apparently came' (*Indirect evidential*)

Izvorki (1997) has analyzed the IE interpretation as resulting from a reinterpretation of the present perfect in the modal domain. Similarly to what is proposed in this chapter for Romanian, Izvorki (1997) assumes that the contribution of the perfect resides in specifying the "consequent state (CS) of a past eventuality (*e*) holding at a given time interval *t*, i.e '*hold (CS (e), t), and ¬ hold (e,t)*', while the present tense indicates that the "consequent state holds at the time of utterance." The epistemic interpretation of these temporal relations is the following: *hold (e,t)* indicates that a proposition *p* is known in a set of possible worlds. The set of worlds accessible to the speaker are those worlds in which the proposition *p'* holds, which makes reference to the *consequence/results of p*. This is how the inference that the core eventuality does not hold at the speaker's deictic centre is obtained. And this inference derives the IE semantics.

The proposal is that, at an underlying level, Romanian and the IE present perfect languages are similar. But how can the morphological distinctions be explained? In Romanian one can see the modal AUX.+ be + PST.PRT., while the languages Izvorki (1997) describes use the present perfect. This chapter proposes that what characterizes IE is the entailment that the speaker is not aware of the core eventuality. Languages vary in how they morphologically spell-out this crucial feature. Present perfect is a preferred strategy because it can link to the speaker's deictic centre only the culminating point/the result of an eventuality, and not the eventuality itself. As opposed

to languages like Bulgarian, Turkish, etc., Romanian does not have a present perfect (in the indicative paradigm). The past tense (known in Romanian grammars under the label *perfect compus* 'compound past'), constructed with the auxiliary *have* and the past participle, represents a strategy for making reference to the past, but does not pass necessarily pass canonical tests characteristic of present perfects. As throughout the Romance domain, the Romanian *perfect compus* can be used with specific temporal adverbials which set up the reference time to a time prior to the moment of speech (characteristic which present perfects do not allow):

(53) ROMANIAN PERFECT COMPUS
A   mâncat/dormit   ieri.
Have.3.SG.   eat.PST.PRT./sleep.PST.PRT.   yesterday.
'S/he slept/ate yesterday.'

Using Klein's framework, the role of the Romanian *perfect compus* is to assert that the Time of Situation (TSit), which overlaps with the Topic Time (TT), is in the past relative to the Time of Utterance (TU). As such, in an example like (54), the only interpretation possible in Romanian is that the characteristic state of the book being in Russian does NOT extend into the moment of speech. What (54) conveys is that the state of the book being in Russian does not hold anymore (as the book does not exist anymore):

(54) (Era   o carte   pe masă.) Cartea   *a*   *fost*
     Be.IMPF.   a book   on table. Book.the   have.3.SG.   be.PST.PRT.
     în limba   rusă.
     in language   Russian.
     "There was a book on the table. The book was in Russian (and the book is not (in Russian) anymore))."

The IE, on the contrary, requires a different setting of temporal relations. Following Izvorski (1997), the inference that the consequent state, and not the core eventuality holds at the moment of speech (speaker's deictic centre), can be explained by assuming that the Topic Time (the interval for which the assertion is made) overlaps with the TU (Time of Utterance), while the Situation Time (the interval where the eventuality actually holds) precedes the TT. Therefore, $TSit \nsubseteq TT$, and $TT \subseteq TU$. The present component of the present perfect in Bulgarian, Turkish, etc. is crucial as it indicates that the culminating point/result of an eventuality holds at TT. The proposal of this chapter is that although Romanian does not have a (canonical) present perfect, it contains the necessary pieces for constructing IE. This is where the auxiliary *be* comes into play. The parallel with the *perfect compus* constructs is very useful in explaining the exact contribution of *fi*. The perfect aspectual head of the *perfect compus* might encode the result/culminating point of a past eventuality, but this past construct does not have the means of linking this specification to the present. What it asserts is that the culminating point/result holds prior to the moment of speech. On the contrary, in the presumptive, the role of *be* is to signal inclusion of the culmination point to the speaker's deictic centre (the present). And another difference from present perfect languages is that in Romanian the modal base/ordering source might be spelled out overtly by the modal auxiliaries.

Assuming the analysis proposed above, what is the precise evidential contribution of the PRS.PRT.? The "present tense" inference obtained with this type of morphology indicates that the

PRS.PRT. has a [-Perfect] feature. The same conclusion results from an investigation of contexts in which the present perfect is used as an adjunct. In example (50) above, the only interpretation possible is that eventuality the PRS.PRT. makes reference to is simultaneous/ongoing with respect to the interpretation of the main predicate. We have also seen above that its imperfective character does not appear to be what is constructing IE, as PRS.PRT. forms are not interpreted imperfectively in evidential constructs. The proposal in this chapter is that the contribution of the PRS.PRT. is in abstracting over the characteristic properties of an eventuality. This contribution is similar to its function in oniric, imaginary, non-actuality contexts, as indicated by examples like (55):

(55) L-ai   visat   scriind.
     CL.3.SG.M.-have.2.SG.   dream.PST.PRT.   write. PRES.PRT.
    Lit. "You dreamt him writing."
    "You dreamt of him writing."

The precise proposal is that in the present evidential, what is linked to the speaker's deictic centre is the "abstract contour of the eventuality", the output of the PRS.PRT. And the function of *fi* is the same as in the perfect form.

    After the structure of the IE has been decomposed, it is also necessary to make some preliminary remarks about how the specific evolution of its forms is to be explained. As said in section 2, the subjunctive based form is the most obscure, and will not be further discussed here because of lack of space. Let us examine first the syncretism counterfactuality – hearsay IE, as illustrated in example (22) repeated here as (56), and in example (57), as well as (32) repeated here as (58):

(56) HEARSAY IE WITH CONDITIONAL MORPHOLOGY – PRESENT
    (Cică)   Shakira   *ar*   *cânta*   la   Bucureşti.
    (they say that) Shakira   C.O. = IE.3.SG.   sing.PRES.PRT. at   Bucharest.
    "(They say that) there is hearsay that Shakira is singing/sings/might/will sing in Bucharest. (but I cannot vouch for this information)"

(57) CONDITIONAL MORPHOLOGY – PRESENT COUNTERFACTUAL
    Shakira   *ar*   *cânta*   la   Bucureşti,   dacă   *ar*
    Shakira   C.O. 3.SG.   sing.INF.   at   Bucharest, if   C.O. 3.SG.
    fi   invitată.
    be   invited.F.SG.
    'Shakira would sing in Bucharest if she were invited.'

(58) HEARSAY IE WITH CONDITIONAL MORPHOLOGY – PERFECT
    Ar   *fi*   *avut*   bani.
    C.O.3.SG.   be   have.PST.PRT.   money.
    1. = *Perfect counterfactual reading*
       "S/he would have had money." (possible continuation – if s/he had had saved it)
    2. = *Indirect evidential reading - hearsay*
       "It is said that s/he had money."

An important characteristic of the counterfactual is that the perfect is not interpreted as past; therefore, future-oriented adverbials are tolerated in such contexts (see example 34). Adapting Condoravdi (2001), this structural characteristic can be explained by assuming that the perfect head is interpreted after the modal base has been specified; what the perfect spells-out is the precise ranking of the accessible worlds. In the IE, on the other hand, the contribution of the perfect/present participle can be extended to also encode source of information ranking, besides its regular temporal/aspectual contribution. But, crucially, in this latter structure, the modal base is interpreted after the contribution of the perfect has been specified. Because the conditional morphology can encompass both counterfactuality and indirect evidentiality with the infinitive (temporally unspecified) and the perfect participle, what the system in Romanian does is drop the very specific indirect evidential with present participle which requires idiosyncratic morphology (mapped to supplementary semantic features, as mirativity). The problem of the future is also straightforward. Some recent accounts dedicated to this very interesting TAM form agree that what is spelled out as the future has at least two sub-types: i) future proper; ii) epistemic future, which may permit backward temporal shifting (as in 59):

(59) EPISTEMIC FUTURE
    a.   The door bell is ringing. That *will be* John.
    b.   Knowing how hard-working John is, he'*ll be writing* now.

Regarding the interaction between future morphology and IE, Aikhenvald (2004) notices that cross-linguistically this is generally avoided. That is, languages prefer not to use future markers as (components of) indirect evidentials. Romanian (and few other languages) are an exception; but even in Romanian, the perfect future-based indirect evidential is not a preferred strategy, and the present form is highly degraded, as mentioned in (29). In this chapter, this incompatibility is explained as resulting from the constituency of the future, which contains a *director* operator. IE are modal forms which establish access to possible worlds in different ways, as already said. The epistemic future might be a more appropriate candidate, but this specification is also lost in Romanian. For example, FUT + INF. constructions cannot be interpreted epistemically (that is there are no corresponding examples to 59 in modern Romanian).

5. *Some remarks about the internal organization of the evidential class in Romanian*

The discussion in the previous subsections has shown the distribution of IE constructs in Romanian depicted in Table 3:

Morphology	*Broad evidential interpretation*	*Narrow evidential interpretation*
CONDITIONAL AUX.	Indirect evidential	Hearsay
INFERENTIAL AUX.	Indirect evidential	Inference
FUTURE AUX.	Indirect evidential	Inference – higher probability
SUBJUNCTIVE MARKER	Indirect evidential	Inference – interrogative

TABLE 3. INDIRECT EVIDENTIALITY IN ROMANIAN

Various examples have also demonstrated that none of the evidential forms is felicitous when reference to direct evidence is made. Therefore, Romanian has only IE grammaticalized. This picture is not infrequent cross-linguistically. As Aikhenvald (2004), Chafe and Nichols (1986), a.o. point out, it is quite common to find grammatical systems where direct evidentiality is left unspecified (usually encoded as the base meaning of the indicative), IE. arising either as "contextual extensions" of or being fused with other temporal/aspectual/modal categories.

Regarding the organization of IE itself, descriptions vary from the formulation of non-hierarchial listings (as in Chung and Timberlake 1985, etc.) to the development of taxonomic systems (as in Willett 1988, Frawley 1992, Anderson 1986). As noticed in several places (see especially the discussion in Squartini 2001, or Aikhenvald 2004), the distinction between these models is made by distinct notions taken to represent the organizational nexus. If for Willett (1988) this element is the *type of evidence*, defined as "the path by which the information was obtained" (Botne 1995, Palmer 2001, Chafe and Nichols 1986, Chung and Timberlake 1985, Squartini 2001), for Frawley (1992) the main organizational principle is the *source of evidence*. Frawley (1992), in fact, makes use of a narrow and restricted definition of the concept *source of evidence*, which is classified as internal (when the self is the source) or as external (when the source is someone else). As illustrated in Figure 1, Frawley (1992) proposes therefore a deictic account of evidentiality, in terms of contextual reference points (see also Squartini 2001).

Source of knowledge	*Strength of knowledge*
Self	
From	Scaled category inference
	Necessary > possible
To	Scaled category of sensation
	Visual > auditory> other
Other	
From	Scaled category of External Info
	Quote > report > hearsay >other
To	Scaled category of participants
	Other > all else

FIGURE 1. ORGANIZATION OF EPISTEMIC MODALITY (FRAWLEY 1992: 413)

Frawley's (1992) model has been shown to be adequate for a number of languages (Botne 1995). In the Romance domain, Squartini (2001) proposes that the distinction *Self* vs. *Other* is not salient. The taxonomy formulated by Willett (1988), and illustrated in Figure 2, is claimed to give instead a better picture of the internal classification of the Romance evidentials.

Types of Evidence
- Direct — Attested
  - Visual
  - Auditory
  - Other sensory
- Indirect — Reported
  - Second hand ⎫
  - Third hand ⎬ (hearsay)
  - Folklore ⎭

```
Inferring      { Results
                 Reasoning
```
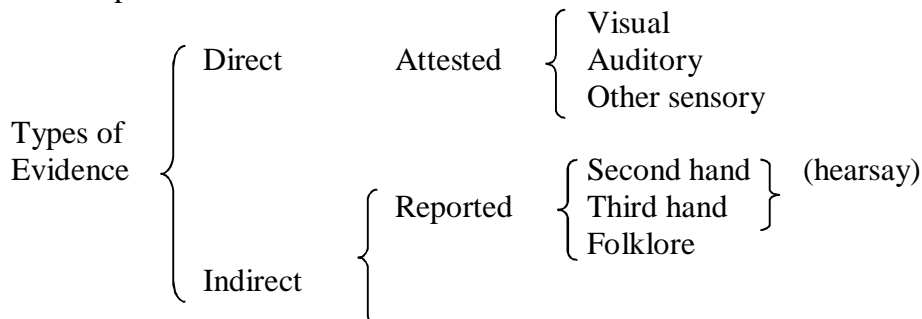
FIGURE 2. EVIDENTIAL TAXONOMY (WILLETT 1988:57)

In this last page, I would like to briefly comment on the two models proposed above, in order to evaluate some proposals about how the shared morphology seen in the Romanian modal AUX. system can be explained. Willet's main organizational principle of the evidentiality class is that *reported* and *inference* notions are part of the same classification sub-branch - *indirect*. In Frawley's (1992) system, *reported* and *inference* are separate categories, belonging to distinct classification branches. This chapter has examined only a very restricted set of evidential forms, namely the presumptive mood. This obviously makes it very premature to offer an evaluation of the two models with respect to Romanian (and Romance). But the simple observation that, in these languages, the conditional morphology acquires/constructs *hearsay* notions, and not simple *inferential* meanings, might suggest that Frawley's model captures the important distinction between the two indirect evidential subtypes. In very intuitive terms, *hearsay/reportatives* require access to worlds which are external to the speaker, and (logically) independent of the speaker's considerations. *Inferentials* necessarily involve the self, in that the speaker is evaluating the propositions available, and transmits the data necessarily supplemented by his/her own judgments. From this perspective, *counterfactuals* (conditionals) pattern more like *hearsay/reportatives*, by making reference to external, self-independent worlds. Epistemic modals, at their turn, also resemble inferentials. This aspect might be what is responsible for the shared conditional/hearsay morphology, on the one hand, and for the shared epistemic/inferential evidential forms, on the other hand. Obviously, this simple stipulation needs to be further tested.

Regarding the inferentials, as shown in the previous subsection, native speakers generally have the intuition that the literary future-based morphology signals that the conjecture is based on general knowledge, while the inferential auxiliary is adequate in more specific cases, which usually imply a visible result.

Such segmentation is, again, not unique to Romanian. The fact that inferential evidentials can come in different degrees has been remarked for many languages, especially those containing *true evidential* systems (see the discussion in Aikhenvald 2004, especially chapter 1 and chapter 2). For example, in Tariana (Arawak language spoken in northwest Amazonia), IE can be marked either as non-visual, inferential, or assumed. Unfortunately, as the dialectal and archaic flavour of the future based form in modern Romanian complicates extensive testing, it is at least incomplete to assume that the presumptive paradigm encompasses the indirect evidentiality degrees seen in languages like Tariana.

The presence of a dedicated evidential form in interrogative contexts (namely the subjunctive-based construct) also aligns Romanian to a common pattern observed cross-linguistically. Although initial accounts of evidentiality assumed that evidentials cannot be permitted in interrogative contexts, more recent investigations have demonstrated that this is not the case. For example, Japanese (see McCready and Ogata 2007) has specific evidential markers that are required in interrogative contexts.

6. Conclusion

This chapter has examined one modal paradigm in the Romanian verbal system, namely the *presumptive*. This class can make use of all the modal auxiliaries in the language in order to convey indirect evidential semantics. The main question addressed refers to how this specific reading is mapped to the morphology. By making a parallel with languages that use the present perfect as an indirect evidential (Izvorski 1997), it has been shown that the aspectual heads of the presumptive structures can be interpreted in the domain of worlds, indicating that the core eventuality does not hold at the speaker's deictic centre. What is mapped to the speaker's deictic centre is either the result (with the past participle), or the "abstract image" (with the present participle) of an eventuality. This is how the indirect evidential semantics is obtained.

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