

# Evidentiality, Part II

By Johan Rooryck

## 4. Complementizers and evidentiality: direct vs. indirect speech

### 4.1. 'Source of information' in direct and indirect speech

Ross (1970) famously argued that every declarative sentence is underlyingly selected by a covert performative verb. The subject of that performative was claimed to be the speaker, on the basis of arguments that anaphors as in (43b)–(44b) took this speaker as their antecedent:

- (43) a. Jules said that as for himself he wouldn't be invited  
b. I said that as for myself I wouldn't be invited  
c. As for myself, I won't be invited  
d. \* As for himself, he won't be invited
- (44) a. I told Monk that composers like himself are a godsend  
b. Composers like myself/\*himself are a godsend

Ross's underlying performative can now be reinterpreted in terms of Cinque's adverbial  $Mood_{evidential}P$ . The 'default' interpretation of  $Mood_{evidential}P$ , in the absence of other indications, is that the speaker (source of information) assumes responsibility (evidence type) for a sentence uttered (Cinque, 1999). This speaker can be represented by a 1st person feature in the  $Mood_{evidential}^{\circ}$  of main clauses.

Such a formalization immediately evokes a host of questions with respect to the representation of  $Mood_{evidential}P$  in complementation, more in particular in direct and indirect speech. Such a discussion is important here in view of the evident relationship between direct speech and the evidential category of quotative.

Reinterpreting ideas of Banfield (1982), I would like to propose that the person features which function as 'Source of information' in  $Mood_{evidential}^{\circ}$  differ considerably in direct and indirect speech. The data in (43a,b) suggest that the person features in  $Mood_{evidential}^{\circ}$  of indirect speech are anaphoric in nature: they take the

matrix subject as the 'Source of information'. This analysis also reflects the idea that the matrix subject is responsible for the information status of the sentential complement. This does not mean that the matrix subject is necessarily responsible for the degree of reliability with which the sentential complement is presented. With verbs of saying and believing, the degree of reliability covaries with the reliability of the matrix subject, but with factive verbs, the degree of reliability of the sentential complement is entirely independent of the reliability of the matrix subject, and is presented as a fact.

In direct speech complements, the person feature functioning as 'Source of information' in  $Mood_{evidential}^{\circ}$  could be argued to be identical to that in main clauses, i.e. 1st person. A comparison of direct speech in (45) with the sentences in (43) shows that the 'point of view' adjunct *as for my/himself* in (45) patterns with main clauses, not with embedded clauses:

- (45) a. Jules said: 'As for myself, I won't be invited'  
b. I said: 'As for myself, I won't be invited'.

The 1st person 'Source of information' feature in the  $Mood_{evidential}^{\circ}$  of direct speech complements is coreferential with the matrix subject, even when this subject is not 1st person. The analysis does not give an explanation as to why direct speech allows such coreference (see also Schlenker, 2000). However, although such cases of 'switch reference' are commonly taken to be intertwined with evidentiality, they seem to constitute an independent problem (see Stirling, 1993). I will therefore not concern myself with this issue here.

Johan Rooryck's State-of-the-Article on Evidentiality appears in two installments. Here is the complete table of contents of both Part I and Part II.

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The idea that Mood<sub>evidential</sub><sup>o</sup> in indirect speech complements is ‘anaphoric’ can now be used to explain the fact that parentheticals cannot appear in embedded indirect speech clauses, while adverbials can, as observed in (29) repeated here.

- (29) a. Sarah told me that (she<sub>i</sub> admitted,) Jan has (\*she<sub>i</sub> admitted) strong qualifications (, \*she<sub>i</sub> admitted)  
 b. Sarah told me that (admittedly,) Jan has (admittedly) strong qualifications (, admittedly)  
 c. Jules told me that (reportedly,) Dubya (reportedly) bombed Bagdad (, reportedly)  
 d. Jules told me that (they say) Dubya (, \*they say,) bombed Bagdad (, \*they say)

Recall that the verb in parentheticals needs to move to Mood<sub>evidential</sub><sup>o</sup>. This movement ensures that the ‘Source of information’ subject of the parenthetical verb will agree in features with the ‘Source of information’ features of the evidential head. In matrix sentences, such agreement will take place without problems. In embedded sentences, however, Mood<sub>evidential</sub><sup>o</sup> is anaphoric and therefore its ‘Source of information’ features are determined by the matrix subject. Also recall that in the analysis of parentheticals assumed in (32), it is the parenthetical verb that embeds the sentential it modifies. The embedded Mood<sub>evidential</sub><sup>o</sup> in (29) thus is in the sentential domain of *admitted* in (29a) and *say* in (29d). As a result, in (29d), there will be a feature conflict between the subject *they* of the parenthetical verb moving to the embedded Mood<sub>evidential</sub><sup>o</sup>, and the features of this embedded Mood<sub>evidential</sub><sup>o</sup> as determined by the matrix subject *Jules*. In the case of (29a), there appears to be no feature conflict, as the matrix subject *Sarah* and the subject of the parenthetical *she* are coreferential. However, parentheticals in (29a) are ruled out by Principle B of the Binding theory. Since the embedded Mood<sub>evidential</sub><sup>o</sup> is bound by the matrix subject *Sarah*, the pronoun *she* and the anaphor coindexed with *Sarah* share the same Binding domain. As a result, the pronoun and the Mood<sub>evidential</sub><sup>o</sup> anaphor, hence the matrix subject, cannot be coindexed. This ‘double jeopardy’ (feature conflict or Principle B) effectively excludes parentheticals in embedded clauses. Evidential adverbials are not subject to this restriction, since they do not have a subject specifying a ‘Source of information’. Evidential adverbs can therefore be licensed by Mood<sub>evidential</sub><sup>o</sup> both in matrix and embedded clauses.

Direct speech complements are often treated as quotations involving verbatim reproduction by the speaker. Clark & Gerrig (1990) show convincingly that this is not the case. Many examples illustrate that quotations only have a degree of resemblance to the original. They argue that in quotations, speakers only take responsibility for aspects of the **presentation** of the quote (intonation, style, register), and not for its contents or information status. The use of *blah blah*

*blah* in (46) for instance allows the speaker to ignore the propositional content, while commenting on John’s longwindedness.

- (46) John said: ‘I just can’t stand it anymore, it is too much, and blah blah blah’

In other words, in quoting, speakers are only responsible for their comment or judgment of the form of the information, and they dissociate themselves from its contents. Direct speech complements differ with respect to the extent to which their form and contents are reproduced faithfully. Direct speech complements can be marked by intonation, but they can also be introduced by the manner/degree markers *thus* and *so* or by the pronominal *this*. Van Gelderen (1999) observes that these elements are not equivalent. The use of *this* requires the speaker to be faithful to the propositional content of the original utterance. In (47a), the speaker must have literally uttered *blah blah blah*.

- (47) a. John said this: ‘I just can’t stand it anymore, it is too much, and blah blah blah’  
 b. ‘I just can’t stand it anymore, it is too much, and blah blah blah’, so said John.

*Thus* and *so* are even more restrictive and strongly suggest that the speaker is including the manner of speaking of the person quoted in his rendition of the quote.

These observations can easily be interpreted in terms of the definition of evidentiality in §1. As an essential property of evidentiality, I suggested that the information status of the sentence is measured on a scale whose type varies: the sentence is measured with respect to reliability, probability, expectation, or desirability. In the case of quotations, the reliability of the **form** of the sentence is measured and evaluated, not its **contents**.

This analysis now yields an interesting problem. I have argued that main clauses and direct speech complements share the same Mood<sub>evidential</sub><sup>o</sup>, i.e. they have a 1st person ‘Source of information’ feature. However, direct speech complements and main clauses differ considerably in their evidential properties. Contrary to direct speech complements, in main clauses the form of the sentence is not evaluated or measured by the speaker. If we hear (48) uttered, we are in the presence of a literal, verbatim, utterance, and the speaker will have literally uttered *blah blah blah*. This is in contrast with (46), where *blah blah blah* reflects the comment/judgment of the speaker on the form of the utterance of the person quoted.

- (48) I just can’t stand it anymore. It is too much. Blah blah blah.

It therefore seems that separate evaluation of form and contents of a sentence can only occur with (direct or indirect) complement clauses.

The question thus arises how this difference between direct speech complements and main clauses

can be captured if we want to maintain that both have a 1st person Mood<sub>evidential</sub><sup>o</sup>. The problem is only an apparent one, however. Sentences featuring direct speech complements have two Mood<sub>evidential</sub>Ps, one for the matrix clause, and another in the direct speech complement. Both of these involve 1st person 'Source of information' features. These features are nonidentical, since the direct speech complement's 1st person 'Source' is coreferential with the matrix subject.

This means that the direct speech complement's 1st person 'Source' is responsible for the information contents of the quote, while the matrix sentence's 1st person 'Source' is responsible for the form of the direct speech complement. In the same way, it is the matrix 1st person 'Source' which is responsible for adjuncts in the matrix clause which modify or comment on the form of the direct speech complement:

- (49) John said loud and clear/in a threatening tone: 'I won't do it'

Note that direct speech complements pose all sorts of interesting syntactic questions, such as its argumental status, and the syntactic relation between the direct speech complement and the expletive-like elements *thus*, *so* and *this*. Barbiers (1998) observes that sentential complements in Dutch necessarily receive a quotative interpretation when moved to the canonical DP object position in SpecAgrOP:

- (50)
- a. Jan heeft (een verhaal) aan Marie (een verhaal)  
    Jan has a story to Marie a story  
    verteld (een verhaal)  
    told a story  
    'Jan has told Mary a story'
  - b. Jan heeft aan Marie gezegd dat hij komt  
    Jan has to Marie said that he comes  
    'Jan has said to Mary that he is coming'
  - c. Jan heeft '(dat) hij komt' aan Marie gezegd.  
    Jan has dat hij comes to Marie said  
    'Jan has said to Mary: '(that) he is coming'

In light of what was observed about *this*, *thus* and *so*, it is important to point out that this 'configurational' quotative involves a literal quote. If *dat* 'that' is included in (50c), then Jan must have uttered it verbatim.

Barbiers (1998) derives the quotative interpretation of the CP from his Principle of Semantic Interpretation (PSI), which relates the interpretation of complements to their configurational position with respect to the selecting head. When a CP occurs in SpecAgrOP, the PSI determines that this CP must be interpreted as an element of the set denoted by the selecting verb. Since the selecting verb is a verb of saying, the CP will have to be interpreted as a quote. Barbiers' PSI also derives factive and propositional interpretations obtained when CPs occur in configurations other than SpecAgrOP.

## 4.2. Complementizers

The relation between direct speech complements and the evidential category of quotative raises the question as to whether indirect speech complements also encode indications of evidentiality.

Typologically speaking, sentential complementizers in the world's languages are derived from verbs of saying or reporting (so-called SAY-complementizers), from pronouns (English *that*, French *que* < Latin *quod*) or from elements indicating comparison translated in English by *such*, *as*, or *like* (Lord, 1993). It cannot be a coincidence that the grammaticalization source of evidentials similarly includes verbs of saying and pronouns, and that the evidential measuring of the information status of the sentence often involves verbs of comparison, such as English *seem* or French *paraître*, *sembler* (cf. Tasmowski, 1989; Rooryck, 2000, ch 1).

This observation predicts that complementizers will to some extent carry evidential information. In this context, questions arise as to the relationship between the 'proximate' direct speech pronoun *this* mentioned above, and the 'distal' pronoun *that* which diachronically evolved into an indirect speech complementizer. It is often assumed that complementizer *that* is optional with verbs of saying, and obligatory with factive verbs (see Bolinger, 1972 for the factors influencing the appearance of *that* in complement and relative clauses). But even with verbs of saying, interpretive differences arise that can be related to evidentiality, as Van Gelderen (1999, 10(16)) shows.

- (51) They all looked at each other across the table, but none of them dared to say anything. There was an uncomfortable silence. Finally, John said \*(that) the wine was corked.

In (51), the context implies that the propositional content of the CP complement *the wine was corked* is common knowledge shared by everyone at the table. The absence of *that* suggests, according to Van Gelderen (1999), that the propositional content of the CP complement is John's personal opinion. This is then in contradiction with the presentation of that information as common knowledge. The use of *that* therefore seems to mark a CP whose evidential information status/truth value is more 'definite' or 'presupposed'.

Similar evidential effects can be observed for infinitival complementizers. Van Craenenbroeck (2000, 2001) observes that the presence or absence of complementizer *van* in the variant of Brabant Dutch spoken in Belgium correlates with a meaning difference.

- (52) a. Freddy probeert den auto te repareren.  
       Freddy tries the car to fix  
       'Freddy tries to fix the car.'
- b. Freddy probeert van den auto te repareren.  
       Freddy tries of the car to fix  
       'Freddy tries to fix the car.'

In (52b) the speaker doubts whether Freddy will actually be able to fix the car. The use of *van* carries the interpretation that Freddy's efforts will most probably be in vain, and that they only constitute an attempt. The sentence (52a) is perfectly neutral with respect to Freddy's chances of success. When contrasted with (52b), it acquires a reading where the speaker is fairly confident that Freddy will succeed. Other cases with similar, testable meaning differences are construed for other verbs. The data suggest that the use of *van* introduces uncertainty about the actual realization of the state of affairs described in the complement clause. As a result, Van Craenenbroeck (2000, 2001) argues, the matrix predicate acquires focus: the speaker emphasizes that Freddy's efforts constitute but an attempt.

Van Craenenbroeck (2000, 2001) then derives this interpretation along the lines of Kayne's (1999) analysis for the Romance complementizer *de/di* 'of'. *Van* does not form a constituent with the infinitival clause it introduces, but it is merged as a preposition with the complement clause in its Spec-position. Van Craenenbroeck explicitly draws an intriguing parallelism between the use of *van* in the nominal domain in constructions such as *die heks van een Eva* 'that witch of an Eve' (see §5 below), and its use in the verbal domain with respect to complementation. In both cases, a comparative/evaluative operation is instrumental in the interpretation of the DPs and CPs involved.

Typologically, it seems that pronominal complementizers are mostly restricted to indirect speech. By contrast, in languages featuring SAY-complementizers, these often function both for direct and indirect speech complements.

- (53) a. He said that it is not good/He said:  
'(\*that) it is not good'  
b. He said (this): 'it is not good'/'It is not good',  
(so) he said
- (54) a. Na-lua haromu wà-na-ngga  
3sN-go tomorrow report-3sG-1sD  
'She told me that she is leaving tomorrow'  
'She told me 'she is leaving tomorrow''  
(Kambera, Klammer 2000, 74)  
b. Mi táki táa á bunu  
3SG say say 3SG-NEG good  
'He said that it is not good/he said: 'it is not good''  
(Saramaccan, Veenstra 1996, 155)  
c. ŋ-ká sè: sé oyeé me no sã'  
NEG-speak say as he-did me DEF, thus  
nà méye no  
FOC I-FUT-do him  
'Say not, 'I will do so to him as he has done to me.''  
(Twi, Lord 1993, citing Christaller 1875)

Lord (1993) also mentions similar facts for other languages. When SAY-complementizers do not function both for direct and indirect speech complements, they carry extra morphology typing them as indirect speech complementizers, or the language has other,

more specialized complementizers (e.g. Biblical Hebrew's *le'mor* (to-say.inf) for direct speech vs. *ki* for indirect speech, Guy Deutscher p.c.).

- (55) a. tɛtɛ le á-kà ayí tsù nû lè  
Tete know part+say Ayi work thing the  
'Tete knows that Ayi did the work.'  
(Ga (Ghana), Lord 1993, 190)  
b. ram [kal aSbe (bole)] bollo  
Ram tomorrow come.FUT.3 SAY+PERF said  
'Ram said that he will come tomorrow.'  
(Bangla, Tanmoy Bhattacharya, p.c.)

At the beginning of this section, I suggested that the 'Source of information' in Mood<sub>evidential</sub>° of indirect speech is anaphoric in nature, taking the matrix subject as the 'Source of information', while the Mood<sub>evidential</sub>° of direct speech complements is 1st person. SAY-complementizers introducing both direct and indirect speech complements thus require a 'Source of information' that can be both anaphoric and 1st person. One proposal could be that this 'Source of information' is radically underspecified featurewise, accommodating both 1st person for direct speech and anaphoric interpretations for indirect speech.

## 5. Evidentiality in DP: insults, inversion structures, and evaluation

In this section I would like to show that evidentiality is not only relevant for sentential structure, but that it also extends to the syntactic structure of the DP. This suggestion is not new: Banfield (1982) already suggested that the analysis of DPs such as *that idiot of a doctor* is to be related to the speaker's perspective active at the sentential level. As such, this take on things adds to the similarities between the functional structure of DP and CP which has been driving a lot of work of the last decade.

It is well known that the syntax of quantitative (56a) and qualitative (56b) constructions shares a structure of the type (Det) N1 de NP2 in e.g. French:

- (56) (Det) N1 de NP2  
a. Beaucoup de livres Quantitative  
a-lot of books  
b. Ton phénomène de fille Qualitative  
your phenomenon of daughter

Especially the syntax of qualitative constructions has received a lot of attention in recent years (den Dikken, 1995, 1998; Español-Echevarría, 1996; Hulk & Tellier, 1999a,b). Quantitative constructions have been studied by Doetjes (1997). However, we have to go back to Milner (1978) for the observation that quantitative and qualitative constructions share the same syntactic structure (see also Ruwet, 1982).

Kayne (1994) innovated the thinking about the syntactic structure of possessive constructions. He analyzes possessive and qualitative constructions by making use of 'predicate inversion', in the same way as relative clauses:

(57)

- a. la <sub>[CP [NP voiture]<sub>j</sub></sub> **de** <sub>[IP [NP Jean] I° [e]<sub>j</sub> ...</sub> (Kayne, 1994)  
 the car of Jean  
 b. ce <sub>[CP [NP bijou]<sub>j</sub></sub> **de** <sub>[IP [NP église romane] I° [e]<sub>j</sub> ...</sub>  
 that jewel of roman church  
 c. the <sub>[CP [NP picture]</sub> **that** <sub>[IP Bill saw [e]]]</sub>

Following Kayne (1994), den Dikken (1995, 1998) proposes a structure for qualitative constructions in which Det is generated in a DP outside of a CP headed by *de* as in (58). In this structure, qualitative constructions are uniformly derived by predicate inversion, with movement of NP1 to SpecFP, and incorporation of the head of XP into *de/of* (see also Bennis, Corver & den Dikken, 1998)

(58) den Dikken (1995, 1998)

[ <sub>DP</sub> D[ <sub>FP</sub> NP1	de/of+X	[ <sub>XP</sub> NP2 t <sub>X</sub>	t <sub>NP1</sub> ]]
ce bijou	d'	église romane	
ton phénomène	de	filles	
that idiot	of + a	doctor	

Hulk & Tellier (1999a,b) further elaborate the 'inversion' analysis. They observe an important difference among qualitative constructions in terms of agreement. Agreement can be triggered by the element preceding *de* or by the element following *de*.

(59)

- a. Ton phénomène de fille  
 your phenomenon-MASC of daughter-FEM  
 est distrait\*(e)  
 is absent-minded-FEM/\*MASC  
 b. Ce bijou d'église romane  
 that jewel-MASC of roman church-FEM  
 a été reconstruit\*(e)  
 was rebuilt-MASC/\*FEM

Hulk & Tellier (1999a,b) introduce special mechanisms to cope with feature conflicts among the functional heads of the DP structure: features cannot be copied onto a functional head if they conflict.

Doetjes & Rooryck (2000) approach the agreement mismatches in (59) in a different way. They observe that similar mismatches occur in quantitative constructions:

- (60) a. Beaucoup de livres sont/\*est tombé(s)  
 a lot of books are/is fallen  
 b. Une montagne de livres \*sont/est tombée  
 a mountain of books are/is fallen

They then formulate a generalization over agreement in quantitative and qualitative constructions. In *qua(nt/l)itative* constructions, the *qua(nt/l)ified* noun determines agreement iff the *qua(nt/l)ifier* has a 'pure degree' interpretation of *qua(nt/l)ity*. This is the case for qualitative (59a) and quantitative (60a): both *beaucoup* and *phénomène* have lost their lexical meaning and only serve as evaluations of a high degree of quality of quantity. By contrast, the *qua(nt/l)ifier* determines agreement iff the relation between the *qua(nt/l)ified* noun and the *qua(nt/l)ifier* is paraphrasable in terms of a comparison in which the

*qua(nt/l)ifier* keeps its lexical interpretation. This applies to qualitative (59b) and quantitative (60b): the quality of the church is such that it resembles a jewel, and the quantity of the books is such that it resembles a mountain.

Doetjes & Rooryck (2000) propose a radically different syntactic structure for both types of *qua(nt/l)itative* constructions. They restrict predicative inversion to those structures that are paraphrasable in terms of comparison. The predicative properties of the small clause are responsible for the relation of comparison between the *qua(nt/l)ifying* and the *qua(nt/l)ified* noun. The Spec-Head relation between C° and the inverted qualifier ensures that the entire CP carries the features of the qualifier.

(61) 'comparative' *qua(nt/l)ification*

- a. [<sub>CP</sub> [<sub>DP</sub> ce bijou ] **de** [<sub>SC</sub> [<sub>NP</sub> église romane] t<sub>cebijou</sub>]  
 that jewel of roman church  
 b. [<sub>CP</sub> [<sub>DP</sub> une montagne] **de** [<sub>SC</sub> [<sub>NP</sub> livres] t<sub>une montagne</sub> ]  
 a mountain of books

By contrast, the 'pure degree' constructions do not involve 'predicate inversion'. 'Pure degree' constructions have a syntactic structure containing an (adverbial) functional projection expressing Evaluation in the sense of Cinque (1999).

(62) 'pure degree' *qua(nt/l)ification*

- a. [<sub>EvalP</sub> ce phénomène Eval° [<sub>DP</sub> - **de** [<sub>NP</sub> fille ]]  
 that phenomenon of girl  
 b. [<sub>EvalP</sub> beaucoup Eval° [<sub>DP</sub> - **de** [<sub>NP</sub> livres ]]  
 a lot of books

The *qua(nt/l)ifying* noun is base-generated in Spec-EvalP. As EvalP is adverbial in nature, it cannot determine agreement. The *qua(nt/l)ifying* noun assumes the interpretation of evaluation of 'pure degree' associated with Eval°, losing the rest of its lexical meaning. In this, the *qua(nt/l)ifying* noun is similar to the verbs in parentheticals moving to Mood<sub>evidential</sub>°, and raising verbs such as *promise* and *threaten* which similarly lose their lexical meaning to assume a purely evaluative function by moving to an evaluative functional head. Such similarities between evidentiality in the DP and the CP domain should not surprise us. Evidential adverbs have their counterpart in the DP domain as adjectives:

- (63) a. Sarah is an apparent/alleged/supposed/  
 reported genius  
 b. Sarah is apparently/allegedly/supposedly/  
 reportedly a genius

## 6. 'Invisible' evidentiality

In a number of cases, evidentiality is not indicated by a specific morpheme, but 'rides piggyback' on another construction. Modal verbs for instance can receive evidential meanings as in (64):

(64)

- a. Es soll bisher vier Tote gegeben haben  
it must until now four dead occurred have  
There seem to have been four dead until now'  
(German; hearsay, Cinque, 1999)
- b. Jan zou in het geheim naar Brazilië geëmigreerd zijn  
Jan would in the secret to Brazil emigrated be  
'Rumor has it that Jan secretly emigrated to Brazil'  
(Dutch, hearsay)
- c. Jan mag dan een aardige jongen zijn, hij  
Jan may then a nice guy be, he  
moet nog veel leren  
must still much learn  
'Jan may be a nice guy, he still has to learn a lot'  
(Dutch, concession, Barbiers, 1995)

Such cases could still be analyzed rather simply as instances of grammaticalization by leftward movement of an epistemic modal, as epistemic modals and evidentials are quite close to each other in the Cinque hierarchy (cf. (9)).

More recalcitrant cases of 'invisible' evidentiality involve grammatical categories such as the present perfect and active and passive participles which can carry a rather more unexpected evidential meaning. Gronemeyer (2001) shows that Lithuanian participles have an interpretation of indirect evidence. The active participle carries reportative (hearsay) meaning, while the nonagreeing passive participle has an inferential value.

(65)

- a. Jo (yra) rašo-ma laišk-as  
he-GEN is write-PASS.PRS.NOM letter-NOM  
'He is evidently writing a letter' (inferential)
- b. Jis buv-ęs labai pa-varg-ęs  
he be-ACT.PST.NOM.SG very PFV-tire-ACT.PST.NOM.SG  
'He, they say, was very tired'

Gronemeyer (2001) explicitly relates these data to Cinque's (1999) Mood<sub>evidential</sub>P. She claims that this projection hosts an operator marked for indirect evidence in Lithuanian, leaving open the question whether the participle moves to Mood<sub>evidential</sub>P or not.

Izvorski (1997) observes that the present perfect in Turkish, Bulgarian and Norwegian expresses the evidential category of indirect evidence. She terms this phenomenon the perfect of evidentiality (PE).

- (66) a. Gel -miş -im. (Turkish)  
come PERF 1SG  
b. Azsâm došâl. (Bulgarian)  
I be-1SG.PRES come-P.PART

- c. Jeg har kommet (Norwegian)  
I have-1SG.PRES come-P.PART  
'I have come/I apparently came'

Izvorski (1997) assumes a universal epistemic modal EV-operator relating a presupposition of available indirect evidence to the truth of a proposition. She adopts Kratzer's (1991) 'possible world' semantics in which modals are viewed as existential or universal quantifiers over possible worlds. On top of their quantificational force, Kratzer proposes that modals possess two parameters. First, a **modal base** specifies for every world a set of worlds accessible to it. Secondly, the **ordering source** orders the accessible worlds defined by the modal base e.g. with respect to their closeness to the normal course of events in a given world. This notion of ordering source is of course very close to that of 'evidence type' introduced above, which measures the reliability of information. Both parameters are functions from worlds to sets of propositions. Izvorski (1997) argues that EV is distinct from 'ordinary' epistemic modals by the presupposition of available indirect evidence. This indirect evidence statement can be interpreted contextually as rumor or inference. The quantificational force of EV is variable, depending on the degree of reliability attributed to indirect evidence in the world of evaluation. Izvorski (1997) then derives the meaning of indirect evidentiality of the present perfect by assuming a common underspecified representation for the present perfect and the indirect evidential. The core idea is that the temporal interpretation of present perfect, which states that a temporally specified proposition *p* is not the case at the time of utterance, translates in the modal domain as the interpretation that the speaker has no directly available evidence for *p*.

## 7. Conclusion

It goes without saying that I have not been able to do justice to a rich subject as evidentiality in the scope of this two-part article. I have given a rather personal view and interpretation of the subject and the data. As a consequence, I have doubtlessly overlooked, simplified, or possibly even misrepresented a number of issues. The article and bibliography are far from being exhaustive. Rather, I have tried to indicate some avenues of research, potential relationships between phenomena, and tentative analyses where such seemed possible.

## An Evidentiality Bibliography

Note: For a large typological bibliography on evidentiality, see [www.unm.edu/~fdehaan/evidence.html](http://www.unm.edu/~fdehaan/evidence.html)

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