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Evidentiality in Dutch

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1. Introduction

This paper examines the properties of evidentiality in Dutch. In particular, it will be shown that there are good reasons to make a sharp distinction between evidentiality, the marking of the source of the statement, and epistemic modality, the degree of confidence a speaker has in his/her statement, even though these two notional categories are (partly) expressed by the same forms, namely modal verbs. Several scholars have analyzed evidentiality as a 'sub-category' of epistemic modality (see e.g., Palmer 1986, Willett 1988; and De Haan 1999 for discussion), but this analysis is suspect for a number of reasons. For one, evidentiality is frequently expressed by different forms from epistemic modality. As shown in (1), evidentiality in Dutch can be expressed by a variety of forms.

- (1) a. Modal verb *moeten* 'must'
 De film *moet* uitstekend zijn.
 'The film is said to be excellent.'
- b. Past tense modal verb *zou(den)* 'should'
 Bij de brand *zouden* alle bewoners zijn omgekomen
 'All inhabitants are said to have perished in the fire.'
- c. Raising verb *schijnen* 'seem'
 Jan *schijnt* ziek te zijn.
 'John seems to be ill.'
- d. Complements of perception verbs
 Ik *hoor*, dat Jan ziek is.
 'I hear that John is ill.'
- e. "Quotative"
 "Douane controleert El Al niet"
 'Customs [officers] do not check El Al [planes]'
 (NOS Teletekst, February 11, 1999)

Only (1a), a sentence with the verb *moeten* 'must', and (1b), the past tense *zou(den)* 'should', have modal meanings beside the evidential reading. The use of the modal in sentence (1b) is equivalent to the use of the subjunctive in other Germanic languages. A raising verb like *schijnen* 'seem' (1c) is not normally considered to be evidential, even though it exhibits all properties of grammaticalized evidentials (see sections 2 and 4 below). The perception verbs *zien* 'see' and *horen* 'hear' (1d) also exhibit some grammaticalization properties: one, the use of the present tense *hoor*, even though the act of hearing has taken place in the past; two, the complement of *horen* in (1d) does not refer directly to John's illness (the speaker does not hear John's groans, for instance), but rather to the indirect event of someone's report of John's illness. See Dik and Hengeveld (1991) for a crosslinguistic discussion of this type of sentences. Finally, the use of

quotation marks in sentence (1e), common in journalistic prose, conveys the fact that the sentence is a direct quote. As a side-effect, it has also come to mean unverified information. In this paper, I will only deal with two evidentials, the verbs *moeten* 'must' and *schijnen* 'seem'.

2. Criteria for evidentials

It has often been asserted that evidentiality is an 'exotic' notion, mainly to be found in the languages of the Americas and in certain areas of Asia. However, with the appearance of such studies as Chafe and Nichols (1986) and Willett (1988), it is clear that evidentiality does not occupy a marginal position within the area of modality and in the broader picture of information structure, but that it must be viewed as an integral part of any theory that attempts to explain the linguistic interaction of speaker and hearer.

On the other hand, defining evidentiality is not an easy task. There is in general no real agreement on what exactly constitutes an evidential. Even though the semantic range of evidentials appears to be obvious, an evidential is a morpheme which shows the source of information the speaker has for his or her utterance, yet in the literature one can find numerous studies in which 'evidentials' are listed that do not have any evidential properties. Even if we agree on the definition given above, is it the case that all forms that show the source of evidence should be called evidentials? Adverbs like *yesterday* and *tomorrow* are not considered to be grammaticalized tense morphemes, so, following the same line of reasoning, adverbs like *evidently* and *seemingly* should not be considered grammaticalized evidentials.

Therefore we need criteria to distinguish grammaticalized evidentials from lexical evidentials. For the most part, the literature is silent on this matter. The notable exception is Anderson (1986), who proposed just such a list of criteria. Many of his criteria are not crosslinguistically valid or need to be amended in some way (see De Haan 1997:147-50 for discussion). Thus, in order for a given morpheme to be considered fully grammaticalized, I propose the following four criteria:

1. Evidentials are not themselves the main part of the clause (Anderson 1986:274). This criterion ensures that constructions like *It is evident that ...* and *I see that ...* are not considered fully grammaticalized. Such construction can of course be the basis for subsequent grammaticalization processes.
2. Evidentials do not show agreement with the speaker (De Haan 1997). This criterion goes with the first one: with grammaticalized evidentials, the speaker is not present as a syntactic role, usually the subject, in the sentence.
3. The morphemes have the expression of evidentiality as their primary meaning (Anderson 1986:274). This criterion is used to distinguish between true evidentials and those elements for which evidentiality is only inferentially present. Such a category is the English perfect. From the sentence *The toast has burned* (Anderson 1986:275), one may infer the event *The toast burned*. The

perfect then denotes, secondarily, the evidential notion of “evidence for an action.” The perfect can then serve as the basis for grammaticalized evidentials, but is not in itself an evidential. Another such element is the English *must*. Unlike the Dutch cognate verb *moeten* (see below), *must* has not become a grammaticalized evidential, but is a true epistemic modal (see De Haan 1999 for details).

4. Evidentials cannot be in the scope of a negative element (De Haan 1997). This criterion is used to determine the place of evidentials in the structural hierarchy of the sentence. When an evidential and a negative element cooccur in the sentence, the evidential will have scope over the negation. This is the main reason for positing a separate evidential verb *moeten* in Dutch. As will be seen below, when *moeten* is an evidential, any negation present will have to be in the scope of the evidential verb.

3. Evidentiality expressed by modals: *moeten* ‘must’

Looking through reference grammars of Dutch (e.g. the ANS (1984) or De Schutter and Van Hauwermeieren (1983)) or studies of Dutch modality, one can easily get the impression that evidentiality as a separate grammatical category does not exist in Dutch. At most, some evidential readings of *moeten* ‘must’ are included in the discussion of epistemic *moeten*, but without calling these readings evidential. Droste (1956) lists evidential *moeten* as one of his subcategories, though it is not labeled as being evidential. The exception is Nuyts (1994:140) who considers *moeten* to be an evidential verb rather than an epistemic one, or allows for the possibility of both an evidential and an epistemic (judgment) verb *moeten*.

We will start by comparing the behavior of the two categories when a negative element is present in the sentence. We will take sentence (2) as our starting point:

- (2) Het moet een goede film zijn.
 It must:3SG:PRS a good film be:INF¹
 ‘It is said to be a good film.’

Sentence (2) has three different interpretations, depending on the context. The deontic reading (*It is required to be a good film*) does not interest us very much here. Rather, we are interested in comparing the epistemic interpretation (*It is probable that it is a good film*) with the evidential interpretation (*There is evidence that this is a good film*).

In Dutch, and in the Germanic languages in general, strong modal verbs tend to allow only one scope reading when they are combined with negation. In De Haan (1997), such verbs are called *uniscopal* verbs. When the verb *moeten* is combined with a negative element, *moeten* will have scope over the negation. This is shown in (3) below:

- (3) Jan moet niet naar Amsterdam gaan.
 Jan must:3SG:PRS NEG to Amsterdam go:INF
 'John mustn't go to Amsterdam.'
 'It is necessary for John not to go to Amsterdam.'

In order for the negation to have scope over the modal verb and to express the notion of *not necessary*, a different modal verb must be used. This verb is *hoeven* 'need', and it is shown in (4):

- (4) Jan hoeft niet naar Amsterdam te gaan.
 Jan need:3SG:PRS NEG to Amsterdam to go:INF
 'John needn't go to Amsterdam.'
 'It is not necessary for John to go to Amsterdam.'

Alternatively, especially in epistemic contexts, the verb *kunnen* 'can' is used as the suppletive form:

- (5) Jan kan niet naar Amsterdam gaan.
 Jan can:3SG:PRS NEG to Amsterdam go:INF
 'John cannot go to Amsterdam.'
 'It is not possible for John to go to Amsterdam.'

However, this sentence is more ambiguous, since *kunnen* (as is English *can*) is a verb which allows both scope readings when negation is present. It is a *biscopal* verb, according to De Haan (1997). Sentence (5) can also have the interpretation *It is possible for Jan not to go to Amsterdam*, with the modal having scope over the negation.

We now turn to the behavior of evidential *moeten*. Consider sentence (6):

- (6) Het moet geen goede film zijn.
 it must:3SG:PRS no good film be:INF
 'It is said not to be a good film.'

As expected from the previous discussion, the verb *moeten* 'must' has scope over the negative element *geen* 'no'. In particular, sentence (6) does not have the interpretation *It is not said to be a good film*. This is of course unsurprising given the inherent characteristic that *moeten* always has the negative element in its scope, if one is present.

It also conforms to the criterion for grammaticalized evidentials that a negative element has to be in the scope of an evidential, if such an element is present. We can therefore ask ourselves what would happen if we replace *moeten* with a modal verb which is in the scope of a negative element. The prediction would be that such sentences are incompatible with an evidential reading, and this turns out to be the case. If we replace *moeten* by either *hoeven* or *kunnen*, we lose the evidential interpretation. Sentences (7) and (8) are only acceptable with a deontic or epistemic interpretation:

- (7) Het hoeft geen goede film te zijn.
 it must:3SG:PRS no good film to be:INF
 'It needn't be a good film.'

- (8) Het kan geen goede film zijn.
 it can:3SG:PRS no good film be:INF
 'It cannot be a good film.'

Thus, we can summarize in the following table the behavior of *moeten* 'must' with a negative element, where the asterisk signals ungrammaticality:

- (9) *Moeten and its negative reflexes*

	positive	negative	
		narrow scope neg.	wide scope negation
deontic mod.	<i>moeten</i>	<i>moeten</i>	<i>hoeven</i>
epistemic mod.	<i>moeten</i>	<i>moeten</i>	<i>kunnen</i>
evidentiality	<i>moeten</i>	<i>moeten</i>	*

In addition to criterion 4, the criterion that evidential morphemes always have scope over a negative element, we can demonstrate that the other evidential criteria mentioned in section 2 also hold.

The verb *moeten* is not used in a separate clause, nor does it show agreement with the speaker (criteria 1 and 2, respectively). If we pluralize the subject of (1a), *moeten* changes to its plural form. If *moeten* agreed with the speaker, this would of course not happen. We have already shown above that evidentiality is a separate grammatical category in Dutch, due to its behavior in negative sentences. Because of this, it can be maintained that evidentiality is the primary meaning of the verb *moeten* in a sentence such as (2). Although sentence (2) can be construed to be ambiguous, when out of context, between an epistemic, evidential and deontic (root) interpretation, there would be no doubt as to its interpretation in context. Just as there is sometimes ambiguity between an epistemic and deontic interpretation of modals, there is sometimes ambiguity between an epistemic and evidential interpretation. This ambiguity does not invalidate the existence of evidentiality as a separate category.

The primary meaning of evidential *moeten* in sentence (2) is the expression of the presence of evidence for the statement. The speaker makes no mention of the truth value of the sentence. As far as the speaker is concerned, he or she is not interested in whether the statement is true or not; the only purpose of the verb *moeten* is to denote the presence of evidence (specifically, the presence of indirect evidence). I have argued in De Haan (1999) that this is the difference between Dutch *moeten* and English *must*: *must* is always evaluative.

Having shown that judgments and evidentiality are two distinct, but related, categories in Dutch, we are left with the question: What is the diachronic path for these two categories? Assuming the standard analysis that epistemic modality develops from deontic (root) modality, we will posit here that judgmental *moeten* developed before evidential *moeten*. Bear further in mind that inference from available evidence is present in all judgments as a secondary layer. Given these two premises, then we can say that evidential *moeten* arises from epistemic (judgmental) *moeten* by grammaticalization. The primary meaning of probability is *bleached out* (see e.g., Hopper and Traugott 1993) of the modal, and the

secondary meaning of inference becomes the primary one. We can posit the following stages for *moeten*:

- I deontic
- II epistemic judgment: *probability based on evidence*
- III evidential: *evidence*

All three stages are attested in Modern Standard Dutch, creating a sometimes three-way ambiguity between the three notions, as can be seen in sentence (2), which is in isolation three-way ambiguous. There are good reasons for keeping judgments and evidentiality as separate categories, based on the diachronic pattern given above.

This grammaticalization process has occurred in other Germanic languages (for instance in German with the verb *sollen*), but not in English. The verb *must* has not (yet) reached stage III, and a sentence such as *John must be in school* is therefore only two-way ambiguous.

4. Raising verbs

This section is devoted to an analysis of the semantic and syntactic properties of the verb *schijnen* 'seem.' Just like its English translation, *schijnen* is generally analyzed as being a Raising verb. Raising has been studied extensively in the formal literature, but for the most part, attention was focused on the syntactic properties of Raising verbs. See e.g. Radford (1988) for the standard treatment of Raising verbs in the GB paradigm. The semantic aspect has been almost completely disregarded (an exception is Newman 1981).

Since *schijnen* is a verb which can appear in a variety of syntactic contexts, we must first discuss exactly in which contexts evidentiality can appear. Sentences (10a)-(10c) show the various contexts of *schijnen*. In (10a), *schijnen* is a full verb with the meaning *shine*; in (10b), *schijnen* appears as an impersonal verb with a dummy subject, while in (10c) *schijnen* appears as part of the matrix clause with a regular, non-impersonal subject:

- (10) a. De zon schijnt.
 the sun shine:3SG:PRS
 'The sun is shining.'
- b. Het schijnt, dat Jan ziek is.
 it seem:3SG:PRS COMP John ill be:3SG:PRS
 'It seems that John is ill.'
- c. Jan schijnt ziek te zijn.
 John seem:3SG:PRS ill to be:INF
 'John seems to be ill.'

Whereas sentence (10a) has no evidential meaning whatsoever, both sentences (10b) and (c) are evidential in meaning. They are in fact synonymous and can be used interchangeably. Sentence (10c) is more grammaticalized than (10b), however. If we apply the four criteria listed above, we see that *schijnt* in sentence (10b) fails two of the test, while *schijnt* in (10c) passes all four.

In (10b), the evidential is in a clause by itself with its own subject. In (10c) it is part of the main clause. Thus, *schijnt* in (10b) fails the first test, but the same form in (10c) passes the first test. As far as the second criterion goes, both instances of *schijnen* show agreement with the grammatical subject of the sentence, and not with the speaker. Both occurrences of *schijnen* therefore pass the second test. The primary meaning of the verb *schijnen* in sentences (10b) and (c), but not in (10a), is the expression of evidentiality. The verb *schijnen* is used when the speaker has no direct evidence of the event described, but he or she does have indirect evidence.

The question of whether *schijnen* can appear in the scope of a negation is a somewhat complex one. Consider the following pair of sentences:

- (11) a. Het schijnt niet, dat Jan ziek is.
 it seem:3SG:PRS NEG COMP Jan ill be:3SG:PRS
 ‘It does not seem that Jan is ill.’
- b. Jan schijnt niet ziek te zijn
 Jan seem:3SG:PRS NEG ill to be: INF
 ‘Jan doesn’t seem to be ill.’

Since *schijnen* is the main verb in the matrix clause of sentence (11a), it is in the scope of the sentential negation. On the other hand, the linear order of sentence is an accurate reflection of the scope relation, since the negation *niet* is in the scope of *schijnen*. Therefore, *schijnt* in (11a) fails the fourth test, *schijnt* in (11b) passes it. The placement of the negation in the matrix clause of (11a) is no doubt due to NEG-raising, but it is still a problem for the tests. The verb *schijnen* is certainly a evidential verb semantically in a sentence with a biclausal structure, like (10b) and (11a), because its primary meaning is that of showing that knowledge about the event in the embedded clause stems from indirect evidence. However it is obvious that biclausal *schijnen* is less grammaticalized than monoclausal *schijnen*.

This takes us to a discussion of how *schijnen* acquired its evidential meaning. I present here a diachronic analysis of the semantic shifts that *schijnen* has undergone. I base this analysis on the entry on *schijnen* in Verwijs and Verdam’s (1912) dictionary of Middle Dutch, and on some additional texts.² Although this is not meant to be an in-depth study on *schijnen*, it appears clear that in the earliest texts, the verb *schijnen* was decidedly less common than in later texts. In general, an increase in text frequency is usually a sign that a lexical item is becoming grammaticalized (cf. Thompson and Mulac 1991).

I will point here to a number of stages in the semantic development of *schijnen*. Most of these stages are still present in Modern Dutch, but the stages seem to have appeared chronologically as follows:

Stage I: full verb: ‘to shine’.

Most grammaticalization processes go from the concrete to the abstract (cf. Hopper and Traugott 1993), and *schijnen* is no exception. Its original meaning is that of ‘to shine’ with a celestial body as subject:

- (12) Die mane scheen scone ende clær.
 the moon shine:3SG:PST bright and clear
 'The moon shone bright and clear.'

As can be seen from sentence (10a), the full lexical meaning is still present in Modern Dutch.

Stage II: *extension of meaning: 'to be(come) visible'*

The first extension of *schijnen* is that this verb came to be used to denote physical appearance of concrete objects, as is shown in (13)

- (13) Haer arme, ..., haer been, haer hooft, daer bloet dor sceen.
 her arm, ..., her leg, her head, there blood through shine:3SG:PST
 'Her arm, her leg, her head, there was blood visible.'

The extension went from appearance of light source (moon, sun) to any physical appearance.

Stage III: *extension of meaning: abstract properties of physical objects*

The next stage is the extension of *schijnen* to denote abstract properties as well, as can be seen in (14):

- (14) Nonne die ooc heilich scinen.
 nun:PL that also holy appear
 'Nuns which appear holy as well.'

The extension of physical (appearance) to abstract (appearance) is a well-attested development in numerous grammaticalization studies.

Stage IV: *abstract situations*

Up until stage III, there was still a connection to the physical world. In sentence (14), for instance, the deduction of the abstract concept of holiness is still based on physical appearance; the speaker has to have seen the subjects. This is no longer a necessary requirement at this stage, as can be seen from (15) and (16):

- (15) Nu saelt scinen wat wi doen sulen.
 now shall:it seem:INF what we do:INF shall:1PL
 'Now will it become apparent what we will do.'
- (16) In groter ellendichede hebbic gheweest,
 in greater misery have:I been:PTC
 alst mi wel scijnt.
 if:it me:DAT so seem:3SG:PRS
 'I have been in greater misery, so it seems to me.'

The syntactic environments of evidential *schijnen* in the Middle Dutch texts fall into two broad categories:

1. *schijnen* as full verb with a NP complement, as seen in sentences (13) and (14) above.
2. *schijnen* as impersonal verb with dummy subject (15) or with an experiencer subject in the dative case (16).

Modern Dutch sentences which display subject raising, such as sentence (10c) above, do not appear until later. This is consistent with the development of German *scheinen* 'seem' (Newman 1981) and English *seem* (Denison 1993). Newman (1981:157-68) reconstructs the following syntactic stages for *scheinen*:

Stage I, Old High German: There appear to be no occurrences of *scinan* 'seem' with any complement (1981:157). Although there are some occurrences of *scinan* with an infinitival complement, those can be analyzed as being direct translations from Latin. Denison (1993:220-1) claims much the same for similar sentences in English.

Stage II, Middle High German: The verb *scinen* (< *scinan*) could appear with non-infinitival complements, such as adjectives, nouns, past participles, and PPs (1981:161-2). This mirrors the development of *schijnen* in Dutch, as can be seen in sentences (13) and (14) above.

Stage III, Early Modern High German: Infinitival complements start to appear, but only the verb *sein* 'to be' can appear as such (1981:162-3). This extension from non-infinitival complements to complements with *sein* 'to be' can be explained by noting that non-infinitival complements necessarily denote stative events. Since complements with a verb of being also denote stative events, this extension is not far-fetched. Denison (1993:222) gives other examples of infinitival complements with a stative interpretation in English, most notably *to have*.

I have been unable to reconstruct a similar syntactic stage in Dutch *schijnen*, due to the paucity of material. This stage does correspond to the semantic development of *schijnen*, however.

Stage IV: Modern German: Once the verb *scinen* became subcategorized for infinitives, the path was clear for other verbs to appear as complements, including verbs which denote active events, such as *machen* 'do' and *essen* 'eat.' This represents a broadening from stative events to all types of events.

This stage also took place in the development of *schijnen* in Dutch. In the 16th and early 17th century texts I examined³ all occurrences of evidential *schijnen* are in the form of the biclausal structure exemplified in sentence (10b) above. *Schijnen* in Raising environments (monoclausal) does not appear until later, so the analysis here is that monoclausal *schijnen* represents a further stage of the grammaticalization of evidential *schijnen*. The grammaticalization process probably went the following way:

- (17) *Grammaticalization of schijnen*
 impersonal biclausal > personal biclausal > personal monoclausal

The evidence for the intermediate step comes from the presence of very few examples of this type:

- (18) Si schinen, dat si weten algader die verborgenheit des Vader.
 they seem that they know all the mystery of the Father
 'They seem to all know the mysteriousness of the Father.'

See also Denison (1993:241) for English examples of this construction. This type of sentence is no longer grammatical in Modern Dutch. The analysis is then that the biclausal structure was reanalyzed into a monoclausal structure. This type of reanalysis is not uncommon. See Harris and Campbell (1995) for several examples of this type of monoclausalization, including an analysis on the development of Quotative constructions.

Now that we have sketched the outline of the development of evidential *schijnen*, we can explain the peculiar raising properties of *schijnen*. Evidentiality is generally assumed to be in the outermost layer of the sentence, or, to put it differently, evidential markers have the entire sentence in its scope. Since *schijnen* is an evidential verb, it has the entire sentence in its scope and is therefore by necessity transparent with respect to most verbal properties. An example is case assignment in those Germanic languages (German, Icelandic) that still have morphological case. In these languages, the subject of the sentence receives its case from the main verb in the embedded VP, and not from the *seem*-verb. This can be demonstrated by examples from German:

- (19) a. Ihm geht es schlecht.
 he:DAT go:3SG:PRS it bad
 'He is doing badly.'
- b. Ihm scheint es schlecht zu gehen.
 he:DAT seem:3SG:PRS it bad to go:INF
 'He seems to be doing badly.'
- (20) a. Er geht zur Schule.
 he:NOM go:3SG:PRS to school
 'He goes to school.'
- b. Er scheint zur Schule zu gehen.
 he:NOM seem:3SG:PRS to school to go:INF
 'He seems to go to school.'

The only remaining verbal property is that of tense and agreement-bearing elements. A future development might be the loss of these properties as well, in which case only a modal particle-like element would remain. This is what appears to have happened in Afrikaans, in which the verb *glo* 'believe' developed into a modal morpheme *glo*, which developed evidential properties:

- (21) Sy boeke was glo baie populêr vroëër.
 his books were PRT very popular earlier
 'His books were said to be very popular earlier.'

Since *glo* is now incapable of bearing tense and agreement, the only remaining verb in the sentence, *wees* 'to be' must be used as inflected verb, rather than infinitive (as in the English translation).

5. Conclusions

It was shown in the previous sections that evidentials in Dutch can arise by very divergent ways, and that there is no *a priori* link between evidentiality and epistemic modality, as has been claimed in the past. The findings in the paper are consistent with crosslinguistic findings (see De Haan 1999).

The relationship between evidentiality and epistemic modality is an equal one, not one of subordination. The two categories encode different things: evidentiality asserts the presence of evidence, but does not evaluate the statement. Epistemic modality is evaluative in nature. Evaluation can be based on evidence, which makes it plausible for epistemic modals to turn into evidentials (and vice versa) but this is by no means a necessary step.

Evidentiality is a more widespread phenomenon than generally assumed. It is not just an exotic category found only in Native American and Tibeto-Burman languages, but in fact can be found in most language families around the globe. As was shown in the discussion on Raising verbs (section 4), an understanding of the mechanisms of evidentiality can help explain syntactic and semantic phenomena of a seemingly unrelated nature.

Notes

¹ The following abbreviations are used: COMP-complementizer; DAT-dative; INF-infinitive; NEG-negation; NOM-nominative; PL-plural; PRS-present tense; PRT-particle; PST-past tense; PTC-participle; SG-singular.

² These texts come from the Coster project, a project devoted to providing electronic versions of Dutch texts. It can be found on the World Wide Web at <http://www.dds.nl/~ljcoster>.

³ The texts used are all the texts in Van der Heijden (1968), with the exception of those texts which were either translations or adaptations from classical stories.

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