ENCODING SPEAKER PERSPECTIVE : EVIDENTIALS

1. Introduction

The main point of this paper is to argue that evidentiality is a deictic category, not a modal one, despite many current assumptions in the literature (see, e.g. Palmer 1986, Willett 1988, Frawley 1992).[1] I will argue that the basic meaning is to mark the relation between the speaker and the action s/he is describing.[2] Evidentiality thus fulfills the same function for marking relationships between speakers and actions/events that, say, demonstratives do for marking relationships between speakers and objects. Evidentiality is not a priori concerned with the modal aspects of the proposition although it must be stressed that (epistemic) modality may enter the picture at some point. Anyone listening to linguistic information containing evidentials is free to interpret that information however they wish but that does not make modality part of the basic meaning of evidentiality. Rather the situation is similar to the Past tense in English, which can have modal interpretations but that does not mean that modality is part of the basic meaning of the Past tense in English.

Evidentiality is traditionally divided in two main categories: *direct evidentiality*, which shows that the speaker has directly witnessed the action, and *indirect* evidentiality, which shows that the speaker has no direct evidence for his/her statement, but has other sources for making the statement. Typical direct evidential categories are *visual* and *auditory* evidence, stating that the speaker has respectively seen and heard the action. Indirect evidentials can be *inferentials*, which mean that the speaker has inferred the

action from available evidence, and *quotatives* (also referred to in the literature as reportative or hearsay evidentiality), which states that the speaker knows about the event from being told by another person. It is not unusual to think of these two categories as representing different degrees of commitment to the truth of the action: indirect evidentials show that the speaker is not as committed to the truth of what s/he is saying than when a direct evidential is used. This view may be correct in some cases, but this is not the reason why evidentials are employed. It is argued here that they are used to denote the relative distance between the speaker and the action. A speaker will use an indirect evidential to state that the action takes/took place outside the speaker's deictic sphere, whereas the use of a direct evidential shows that the action takes or took place within that deictic sphere.

The body of this paper consists of the following sections: section 2 discusses some reasons why a modal interpretation of evidentiality is not appropriate. Section 3 deals with the relation between first person and evidentiality. Section 4 discusses visual evidentiality while section 5 covers the relation between inference and deixis. Section 6 discusses the similarities and differences between auditory evidentials and quotatives. Section 7 compares evidential and demonstrative systems. Section 8 draws some conclusions.

Evidentiality and epistemic modality

The relationship between epistemic modality and evidentiality seems obvious, especially when looked at from the perspective of English. A typical view is Palmer (1986) who

divides epistemic modality into judgments, speculation about the action described, and evidentials, assessment based on some type of evidence.[3] From that perspective it is indeed not hard to conclude that there is a link between the two categories. In English *must*, for instance, both interpretations appear to be present, since strong Epistemic *must* is indeed used to make an assessment that an action took place based on some type of evidence. A more limited approach is taken by Van der Auwera and Plungian (1998:85-6) who only admit inferentiality as a modal category, but not the others.

As argued in De Haan (1999), there is no good reason to consider evidentiality a part of epistemic modality or even to consider them to be interchangeable terms. Evidentiality *asserts* the evidence, while epistemic modality *evaluates* the evidence. A good example which shows the difference is shown in (1). This example from Dutch is part of a newspaper account of murders committed in January of 1929 by a craftsman called IJje Wijkstra. The victims were four policemen who came to his house in the woods to arrest him on charges of abduction. This is a historical account and direct evidence does not come into play here. The evidential used is the verb *moeten* 'must' which can be used for both evidential uses and epistemic uses. In this example the epistemic reading is not present. The evidential occurs in the last sentence.

(1) *IJje Wijkstra was timmerman en klompenmaker, hij stroopte, was op zijn vrijheid gesteld en had een hekel aan autoriteit. Maar voor IJje hield de wereld niet op bij de harde strijd om het dagelijkse bestaan. Hij las boeken over spiritisme en occultisme, waagde zich aan Hegel en Nietzsche en* ***moet*** *zelf een boek hebben geschreven, 'Dualisme van het Heelal', al is het manuscript daarvan nooit gevonden.*

"IJje Wijkstra was a carpenter and maker of wooden shoes, he was a poacher, loved his freedom and hated authority. But for IJje the world did not end with the harsh struggle for daily survival. He read books about spiritualism and the occult, dared to tackle Hegel and Nietzsche and **allegedly** wrote a book himself, called 'Dualism of the Universe', but the manuscript has never been found."

Dagblad van het Noorden, February 11, 2003

The use of *moet* in (1) is not epistemic. The author does not evaluate the evidence but rather asserts that there is evidence to support the statement that Wiekstra wrote a book. He does not state what that evidence is and indeed the evidence itself is in general never stated when *moeten* is used as an evidential. The author also does not evaluate the evidence but rather leaves the matter open whether there actually was a manuscript or not. In its epistemic reading, the author would evaluate evidence and, given the status of *moeten* as a strong modal verb, would believe that it is very likely that there is or had been a manuscript. This can be compared to English *must* which is wholly evaluative, as example (2) shows:

(2) *He must have written a book himself called 'Dualism of the Universe', but the manuscript has never been found.*

Sentence (2) has to be interpreted in such a way that the speaker believes that there likely was such a manuscript. In no way can (2) be interpreted as a neutral statement about the existence of evidence. Hence English *must* is not an evidential.

The next point regarding the status of the verb *moeten* in (1) above concerns the status of the context. Note that the evidential only occurs in the very last clause of the text fragment. The other sentences are without any qualification whatsoever. Again, the difference between the sentences with or without the verb *moeten* is not one of relative confidence in the truth of the statement. The difference is rather the difference between *confirmed* and *unconfirmed* information. This terminology is due to Friedman (1986, 1999, *inter alia*), who has analyzed South Slavic evidentiality in this manner.

The use of *moeten* in the last sentence indicates that the statement contains an unconfirmed fact. The author wishes to indicate that there is evidence of Wiekstra having written a manuscript, but that he could not confirm it, and explicitly states why. The only thing that could confirm the fact, the manuscript itself, is not found. All the other statements in the fragment (1) are independently verifiable and verified. The author does not use the verb *moeten* in these sentences to mark them as confirmed. Despite the fact that the last statement is an unconfirmed one, the statement is not presented as uncertain, merely as unconfirmed. Recall that this is a factual article in the newspaper genre, in which speculation is generally not encouraged (unlike, say, an editorial). The author presents a fact as unconfirmed and, crucially, it is up to the reader (and/or hearer) to interpret the truth value of the unconfirmed fact. Since the reader/hearer has to do that anyway, regardless of whether an evidential is present or not, it is not part of the meaning of *moeten*. Hence, evidentials do not have an intrinsic epistemic component. Any epistemic value comes from the contextual interaction with the hearer (reader). Note that this is different from real epistemic modals, because there the epistemic value is determined by the speaker (and the hearer can still disagree with that value).[4]

Having shown that epistemic modality may not be the underlying meaning of evidentiality. The rest of this paper investigates the interaction of speaker viewpoint and evidentiality, and the link between deixis and evidentiality.

Anderson and Keenan (1985:259) start their article on deictic marking in a typological framework with the following definition: "Following standard usage, we consider as *deictic expressions* (or *deictics* for short) those linguistic elements whose interpretation in simple sentences makes essential reference to properties of the extralinguistic context of the utterance in which they occur." Although Anderson and Keenan do not discuss evidentiality, this definition covers evidential usage very well.[5] Their usage makes crucial reference to the extralinguistic context. For instance, an auditory evidential can only be used in those situations in which the speaker has heard the action or event he/she is describing. This also implies that that action or event is capable of making sounds. Each individual evidential category has similar extralinguistic properties. As with deictic expressions like demonstratives, evidentials have as deictic center the speaker of the utterance. The speaker and its grammatical correlate first person singular, therefore has special properties in evidential systems. This is the topic of the next section.

3. First person and evidentiality

As the presumed deictic center of evidentiality, first person singular occupies a special position in evidential paradigms. There is an apparent incompatibility between indirect

evidentiality and first person subjects. The reason is of course that it is very hard to have only indirect evidence for actions in which the speaker himself was the main participant.

In Tuyuca (E. Tucanoan; Barnes 1984:258, 261), there is no morpheme for First person, Inferential, Present tense because of the incompatibility of present tense and inferential evidence (there is a separate form for First person, past tense, however).

A similar situation is found in Komi (Finno-Ugric, Permian; Baker 1983, Leinonen 2001, Leinonen and Vilkuna 2000). There are two past tenses in Komi, usually referred to as the First and Second Past tense. The Second Past tense is used to denote indirect evidence. It is defective in that it has no separate First person morpheme, at least not in Standard Komi. A sample paradigm is shown in Table 1 (Baker 1983:69)

Table 1

Past tenses of Komi munny 'to go'

	First past	**Second past**
1SG	mun-i	---
2SG	mun-in	mun-ömyd
3SG	mun-is	mun-öma
1PL	mun-im	---
2PL	mun-innyd	mun-ömnyd
3PL	mun-isny	mun-ömaös'

The different usages of the Past tenses are shown in example (3a) below. The use of the First Past in the final verb marks direct evidence while the use of the Second Past on the

verb *vöć-ömyd* 'do-PST2.2SG' shows that the speaker was not present at the act of doing. Thus, the different uses mark different deictic distances between speaker and action. This can also be seen in (3b) where the action took place outside of the speaker's presence, hence the use of the Second Past. Note that in neither case there is a marked difference in epistemic modality: all actions are presented as true.

(3) a. *Sidzkö myjkö abu na sidzi vöć-ömyd kydz me*
so something NEG yet so do-PST2.2SG as I
tšöktyl-i
order-PST1.1SG
'So, something you have not done as I told you to.' Leinonen (2001:427)

b. [It is morning. A. wakes up, looks out of the window and sees that the courtyard (or the street) is wet]
vojnas zer-öma
night.INESS.3SG rain-PST2.3SG
'It has rained last night.' Leinonen and Vilkuna (2000:499)

Although Standard Komi does not have separate forms for First person Second Past, such forms do occur in certain dialects (Leinonen and Vilkuna 2001:502, Baker 1983:79-80). These forms are identical to the corresponding 3rd person forms (i.e., *-öma* for 1sg, *-ömaös'* for 1pl). When such forms are used, the speaker disavows any responsibility for his actions ("I didn't know what I was doing, but …" according to Baker 1983:80). The speaker performs a deictic shift from 1st person participant to 3rd person bystander[6] and

effectively makes a separation between speaker and subject even though both are the same person.

In the case of Komi, the choice of tense, and consequently the choice of evidentiality, is motivated by deictic forces, or as aptly put by Baker (1983:79): "The [Second Past] tense reflects the narrator's deliberate spacing of himself from the action of the verb."

4. Visual evidentiality

The category of visual evidentiality refers to the deictic situation in which the speaker is in visual distance of the action described. Pure visual evidentials are relatively rare (as opposed to general direct evidentials), and, based on the WALS database, the presence of a visual evidential implies the presence of at least one other direct evidential (either an auditory evidential or a nonvisual direct evidential).

It was argued in De Haan 2003 that visual evidentials typically come from deictic sources, such as tense morphemes or spatial deictic morphemes. In this section I will discuss two cases involving each scenario.

In Tuyuca (E. Tucanoan; Barnes 1984), visual evidentiality, and evidentiality in general, is expressed as a portmanteau morpheme together with person, number, gender, and tense. The paradigm is shown in Table 2:

Table 2

The Visual evidential paradigm in Tuyuca (Barnes 1984:258)

	past	**present**
3 sg. masc.	*-wi*	*-i*
3 sg. fem.	*-wo*	*-yo*
3 pl.	*-wa*	*-ya*
3 sg. inan, 1/2	*-wɨ*	*-a*

Examples are shown in (4) below. In (a) the Past tense form is shown, and in (b) the Present is used, which involves a Progressive construction with an auxiliary verb. In both cases the speaker was/is in visual distance of the action.

(4) a. *díiga apé-wi*.
soccer play-VIS.3SG.MASC.PAST
'He played soccer (I saw him play).' (Barnes 1984:257)

b. *díiga apé-gɨ tií-i.*
soccer play-3SG.MASC AUX-VIS.3SG.MASC.PRES
'He is playing soccer.' (Barnes 1984:259)

Interestingly, the Visual evidential in Tuyuca is used not only to report on events witnessed personally, but also for cases in which strictly speaking a visual evidential cannot be used, namely (a) in a compound, resultative, construction to describe the end result of a state or event when the state or event itself was not seen but the end result was

(example (5a)), and (b) for timeless events that are known to the speaker, such as "two plus two equals four" and an example is shown in (5b).

(5) a. *wesé* *sóe-ri-gɨ́* *nĩĩ́-wi.*

field burn-RES-MASC.SG AUX-VIS.3SG.MASC.PAST

'He burned his field. (I saw his field and it had been burned)'

b. *ã́nã* *wãmẽ́kɨ́ti-yo*.

Ana is.called-VIS.3SG.FEM.PRES

'She is named Ana.' (Barnes 1984:259)

Strictly speaking, an Inferential should have been used (which is present in Tuyuca) in (5a) instead of a Visual evidential because the act of burning was not witnessed by the speaker, only the end result. This shows that visual presence of the speaker at any stage of the process can override the normal evidential used, in this case the Inferential. Note that the use of the Visual in no way implies that the action is more certain than it would have been if an Inferential had been used. In either case the speaker was not present at the act itself.

Sentence (5b) is the kind of sentence which would probably be expressed without an evidential were it not for the fact that evidentiality is an optional category in Tuyuca. The Visual is apparently the default category for cases like (5b) and it shows that there are some uses of the Visual which are non-evidential in nature. In this respect it is interesting to compare the Visual morphemes in Tuyuca with the usage of their cognate morphemes in the related languages Tucano and Carapana. Examples are shown in (6)

below. The Carapana morphemes appear to be simple tense morphemes, without any evidential interpretations, while the corresponding morphemes in Tucano are general direct evidentials. The logical analysis is then that the evidential interpretations in Tuyuca are the result of a shift from pure tense morphemes to hybrid tense/evidential morphemes (a shift attested in many languages around the world).

(6) a. **Carapana** (E. Tucanoan; Metzger 1981:34)

pa-wõ

work-3.SG.FEM.PAST

'She worked.' (no evidential reading)

b. **Tucano** (E. Tucanoan; West 1980:29)

ní-wõ

be-3.SG.FEM.PAST.DIRECT

'She was.' (witnessed past)

It appears that the Eastern Tucanoan languages are in various stages of this shift. The use of the Visual evidential in cases like (5b) is likely a remnant of the old tense system.

The next language we will consider is Sanuma, a Yanomami language spoken in Brazil and Venezuela (Borgman 1990:165 and *passim*). Visual evidentiality is expressed by a mix of spatial and temporal deictic morphemes. There is an interesting distinction between past witnessed events and present witnessed ones. In the past, an action or event is located with respect to its temporal distance from the present (Table 3), while in the

present, actions are located with respect to the position of the speaker (Table 4), i.e. spatially.

Table 3

Past witnessed morphemes (Borgman 1990:169)

morpheme	**gloss**
ke/kehe/kuhe	immediate past (same part of day)
kupi/köpi/kipi	recent past (same 24 hour period, but not same part of day)
kupili/köpili/kipili	distant past (yesterday or before)

Table 4

Present witnessed morphemes (Borgman 1990:166)

morpheme	**gloss**
kule	near speaker.
kulai/kulaai	fairly near, having been seen by the speaker, but at the moment hidden by some obstruction.
kulati/kulahati	farther away from the speaker but on the same level.
kulali/kulahali	upriver or across the river or even on land when there are one or more low spots or valleys between the speaker and the other person or object.
kulatili	far away inland from the river.
kulakili	far away downriver.
kupoli/kupoholi	up above in air, tree, etc.
kupokili	down below in hole, earth, etc.
kimati/kuimati	going away from speaker on same level.
kimani/kimahani/ kuimani/kuimahani	going away from speaker upriver or across river.
kimakili	going away from speaker downriver.
kimi	toward speaker.

In (7) examples of the Past tense forms are shown, and (8) shows some examples with Present tense evidentials. the form *kule* ‘near speaker’ in (8a) appears to be the default form, inasmuch as it is the only evidential that can be used with all verbs. All other evidentials have restrictions of some kind placed on them (see also (9) below)

(7) a. *ipa sai ha hama töpö hasu-ki ke.*
my house by visitor 3PL pass.by-FOC IMM.PAST.WIT
‘The visitors passed by my house.’ (p. 28)

b. *ĩ naha ĩ a ku-la-so kupili.*
REL like REL 3SG say-EXT-FOC DIST.PAST.WIT
‘Like that that one finally said.’ (p. 153)

(8) a. *hi ti-nö a hĩta ku-le.*
stick CLASS-INST 3SG stand.upright PRES.WIT-near
‘It is standing upright by means of a stick.’ (p. 23)

b. *hi ai kutiata pö kalol(o)-a ku-lai.*
this other canoe 3PL float-DUR PRES.WIT-obstructed
‘There are other canoes floating here (beyond the trees).’ (p. 166)

Example (9) below shows a typical deictic shift. The speaker is not near the action, and therefore the action is not witnessed at the precise moment of speech. However, the two are close enough in the mind of the speaker to warrant the use of *kule* ‘near speaker’.

(9) *ĩ* *na* *töpö* *ku* *kule*.

REL like 3PL say PRES.WIT

'That is what they are saying.' (p. 166)

(the speaker had just come from a conversation in another house and reports what they are talking about)

The use of these evidentials with first person subjects can yield interesting results. Some forms in Table 4 above would seem incompatible with a first singular subject, namely those like *kuimati* 'going away from speaker on same level.' Nevertheless, such examples do occur. Sentence (10), from a personal narrative about an attempt to find fresh tapir tracks shows that the two are perfectly compatible. This deictic shift appears to be motivated by pragmatic and/or stylistic reasons (see also p. 168, ex. (672) for an explanation of a similar case). Note that the Present tense is used, even though a past event is described.

(10) *hena* *tehe* *ma* *tu* *kase* *hamö* *sa* *samo* *kuimani*

early TEMP water CLASS edge along 1SG go.upriver PRES.LOC

'The next morning I go away upstream along the bank of the river.' (p. 243)

[Text 2, line 3 (personal narrative, reciting a past event)]

5. Inferentiality

The evidential category of inference is used for those instances in which the speaker has not witnessed the action personally, but has witnessed evidential traces of that action.[7] An example is shown in (11) in which the action, the rotting of the plant, was not observed but rather deduced from the end result.

(11) **Tuyuca** (E. Tucanoan; Barnes 1984:260)
bóahõã-yu.
rot-INFER.OTHER.PAST
'It rotted.' (Said of a plant after pulling it up to examine it.)

Although the inferential is usually grouped with the quotative to form the category of indirect evidentiality (see e.g. Willett 1988 and Palmer 2001), it is in fact a hybrid direct/indirect evidential category, because the speaker is aware of the evidence for the action. Thus, in example (11) above, the Inferential can be used because the speaker has personally witnessed the evidence. If s/he had not, then the Inferential would not have been used.

This is why many languages make a distinction between witnessing an event and witnessing the result of an event in their choice of complement clauses (see Dik and Hengeveld (1991), among others, for a discussion of perception verbs and their complements). A common example is (12), from English:

(12) a. *John saw Mary cross(ing) the road*.

b. *John saw that Mary had crossed the road*.

Sentence (12a), with its infinite embedded clause, is used to denote witnessing of an event, while (12b), with a finite embedded clause, is used when the result of an action is witnessed, but not the action itself. Hence, (12a) denotes simultaneity of perception and action, while (12b) denotes that perception is subsequent to the action (as also evidenced by the choice of verb tense in the embedded clause). This pattern occurs frequently across languages.

This hybrid nature of inferentiality is also found in languages with grammaticalized evidentials. In some languages inferential morphemes are grouped with quotatives, while in other they are grouped with (parts of) direct evidentials, which are typically the nonvisual sensory meanings. And of course they can group with neither of these two other categories. I will present here two languages which show these two cases.

In Patwin, the evidential *–boti* can be used for both Inferential and Quotative. Example (13a) shows the Inferential use and (13b) the Quotative use. This means that in Patwin the morpheme *–boti* functions as a general indirect evidential.

(13) **Patwin** (S. Wintun; Whistler 1986:70)

a.	*ma-ne:n*	*we:ł*	*tiwnana*	*hara:-boti.*
	your-mother	salt	buy	go-INDIR

'Your mother must have gone to buy salt.'

b. *yirma* *hayba?a-boti* *pi.*

leg.OBJ hurt-INDIR he

'(He told me) his leg hurts.'

Kashaya Pomo shows that an inferential evidential may be combined with direct evidence. The Inferential morpheme *–qa* can be used for inferring an action (as shown in (14a) below) but also for denoting sensory evidence from smell, taste and touch, as shown in (14b).

(14) **Kashaya Pomo** (Pomoan; Oswalt 1986:38)

a. *mu* *cohtoc-qa* */ mu* *cohtoc$q^{h}{}^{h}$ /*

he leave-INFER

'He has left.' (Said on discovering that the person is no longer present)

b. *cuhni:* *mu?t'a-q^{h}.*

bread cook-INFER

'Bread has been cooked.' (on coming into a house and detecting an odor)

Kashaya Pomo has separate evidentials for Auditory and Visual evidence and so these evidential notions are not grouped together with Inferentials. That does not mean that they can't, as witnessed by the following example from Hualapai, a Yuman language from Arizona (Watahomigie *et al.* 1982).

The evidential morpheme *–o* can refer to visual evidence as well as inferential evidence (this in itself is unusual), depending on its placement in the verb. If the

evidential is placed verb-finally it denotes visual evidence (see example (15a) below). If, however, -*o* is placed immediately after the verb root, as in (15b), it has an inferential interpretation.

(15) **Hualapai** (Yuman; Watahomigie *et al.* 1982:392)

a. *Jóhnach sma:kyunyo.*

John(a)-ch *sma:-k-yu-ny-o*

John-SUBJ 3:sleep-SS-AUX-PAST-VIS

'(I witnessed that) John slept.'

b. *Jóhnach wa:hm a:mokyuny.*

John(a)-ch *wa:-h-m* *a:m-o-k-yu-ny.*

John-SUBJ house-DEM-by 3.go.by-INFER-SS-AUX-PAST

'(I have evidence that) John went by the house.'

When the morpheme –*o* has an Inferential interpretation it can be used to denote a wide variety of evidence, as the following quote illustrates: "When the speaker has not actually witnessed the event, but has deduced the occurrence from some other evidence (e.g. some trace of the event such as some left-over food on the table, the wrinkled sheet on the bed, etc.; hearing the noise that sounds like someone playing; smelling something being cooked; and so on), the speaker may use the evidential marker -*o* just before the same-subject marker -*k*." (Watahomigie *et al*. 1982:393-4). The last two elements of the list of evidence in the quote refer to auditory and nonvisual, nonauditory sensory evidence,

respectively. This means that in Hualapai direct evidentiality, excluding visual evidence, can be grouped with inferential evidence.

The grouping of any kind of direct evidence with inferentials is hard to reconcile with the theory that evidentiality is a modal category. It could conceivably be argued that types of evidence have different truth values in different languages (i.e. inferential evidence has a different, lower, truth value in Patwin than in, say, Kashaya Pomo), which would allow direct evidence to be classified with the Inferential in Kashaya, but not in Patwin. This would mean, however, that evidentiality as a category cannot be compared from language to language and thus that evidentiality is no uniform category which can be studied from a typological point of view.

In a deictic view, no such problem exists. When inferentials are grouped with (kinds of) direct evidence, the deictic presence of the speaker to the result of the action is highlighted. This places the speaker in the sphere of the action and the fact that the action itself may not have been witnessed becomes unimportant. When inferentials are kept separate the fact that there is a temporal separation between the action and the speaker is brought to the forefront. In the first case, the speaker's presence at the place of the action is deemed to be more important than the action itself. In the second case the action is more important than the fact that the speaker is now at the place where the action took place.

6. Auditory evidentiality vs. quotative

Although these two evidential categories are usually not thought of as having much in common, they do have in common the fact that the speaker receives auditory input in both cases. In the case of the quotative the input is verbal, namely a description of an event relayed by a third person. In the case of auditory evidentiality the input consists of sounds from the event itself. In this respect the relation between these categories is identical to the one between visual and inferential (see example (12) above), and it should come as no surprise that this distinction is marked in the complement clauses of verbs like 'to hear', as in (16) and (17) below. The difference between the (a) and the (b) sentences is that the (a) sentences show the hearing of the singing, while the (b) sentences mark the hearing of the report of the singing.

(16) a. *I hear Sally sing*.

b. *I hear that Sally had sung.*

(17) a. *I heard Sally's singing*.

b. *I heard of Sally's singing*.

There are then differences and similarities between the role of the speaker in both cases and this can be reflected in the coding of the evidential. In the case of the (a) sentences the speaker serves as the experiential center of the act of hearing, but in the (b) sentences he is the recipient of the act of somebody else's report. In other words, the deictic relation between the speaker and the action is closer in the (a) sentences than in the (b) sentences.

The relationship between the speaker and the perception is the same in both cases, however. Languages with grammaticalized evidentials therefore have the option of encoding both cases differently, in which case the auditory evidential and the quotative will be marked differently. This is the most common option, based on the WALS study. Nevertheless, there are a number of cases in which both types of evidence are marked with the same morpheme.

When the two types are marked differently, typically (but not necessarily) the quotative will be derived from a 'say'-verb, and the auditory evidential from a 'hear' verb. The path from a 'say'-verb to a quotative has been extensively documented in many languages. An example from Ocotepec Mixtec (Alexander 1988:190) is shown in (18), in which the Quotative particle *chi* is derived from the verb *káchi* 'to say' (there is no auditory evidential in this language).

(18) *uu* *vwélta* *n-sahá* *de* *chi*.
two time COM-do he.RES QUOT
'He did it two times, they say.'

Auditory evidentials appear to be routinely derived from the verb 'to hear'. Examples (19) are from Koasati (Muskogean; Kimball 1991:206-7) where the Auditory evidential –*ha(wa)* comes from the verb *há:lon* 'to hear'.

(19) a. *nipó-k* *aksóhka-ha*
meat-SUBJ char-AUD
'It sounds like the meat is charring.'

b. *ihá:ni-k* *atawohlí:ci-ha*

earth-SUBJ reverberate-AUD

'One can hear the earth reverberating.'

These cases are very well-described and not much time needs to be spent on them. Many languages have constructions with *hear*-type verbs like English (16)-(17) to mark the distinction between auditory evidence and quotative. These cases are also well-known. What is of interest here is the fact that there are languages in which there is a formal correspondence between the auditory evidential and the quotative and with full grammaticalization. Two such languages are Nenets (Perrot 1996) and Sanuma (see section 4 above).

In Nenets, a Samoyedic language of Russia, the morpheme *–wonon* (and its allomorphs, such as *-won*) are used for both types of evidentiality. This morpheme is a suffix, placed after the verb root, but before the person suffix. Examples are:

(20) a. *pydoʔ* *to-won-doʔ*

they come-QUOT-3PL

'They are coming, it is said.'

b. *pyda* *laxanā-wonon-da*

he speak-AUD-3SG

'He is speaking, it is perceived.' (Perrot 1996:162)

In Sanuma the particle *ha* (or *a*) denotes both auditory evidence and quotative evidence. It is a preverbal particle. Its origin is unknown, although it may come from the verb 'to hear', which is *hini*. Some examples are shown in (21). Examples (a) and (b) show the Auditory evidential reading, example (c) and (d) the Quotative:

(21) a. *wa namo hu a-so-lö noai ha, au*
2SG hunt go leave-FOC-DIR INDEF.PERF upon your
nao a wani ha huama hisa hãto-ma
mother 3SG DEPR AUD converse at.home secret-COM
'After you had gone out hunting, your mother conversed secretly at home.' (p. 92)

b. *... ti a thama-ti ku-a kölö-a*
wood AUD do-CONT be-DUR LOC-DUR
'… he is down there making firewood.' (p. 99)

c. *kolo hamö ai töpö a wele-o-ki*
bottom LOC other 3PL QUOT go.downriver-PUNCT.ITER-FOC
'Others are going downriver.' (p. 178)

d. *ĩ a sai ha töpö a ku-ki*
REL 3SG house at 3PL QUOT be-FOC
'They stay at that house.' (p. 187)

In neither Nenets or Sanuma does there appear to be a formal difference between the two readings. Borgman (1990:212) states that sometimes the Sanuma examples are

ambiguous between the two readings. Indeed, out of context (and none is provided), it is not possible to determine whether the speaker in sentence (21a) above learned about the action directly or indirectly. Nevertheless, from the examples in the Sanuma grammar it appears to be the case that the auditory interpretation occurs almost always with verbs of speaking, such as *ku* 'say', *kateha* 'discuss', or at least denoting situations describing activities that make noise (as in (21b) above). In its quotative interpretation, the particle *ha* occurs with all types of verbs. The same is true for the Nenets examples, but due to the limited amount of data no fixed conclusions can be drawn from that.

In both languages it would seem that the quotative reading is much rarer than the auditory evidential reading. Perrot (1996:163) makes an explicit statement to that effect regarding Nenets, and out of the 22 Sanuma examples with the particle *ha* in Borgman 1990 only four have a quotative interpretation. This particle only occurs twice in the accompanying texts, both cases with the auditory evidential reading. The text in which they occur is a mythical text, a genre in which normally we would expect quotatives to occur, but this is not the case. One of the examples is shown in (22):

(22)	*ĩ*	*a*	*hekula*	*pö*	*ama*	*pö*	*a*	*to-pa*	*kölö*
	REL	LOC	spirit	PL	song	PL	AUD	join-EXT	LOC
	'It is down there that the songs of the *hekula* spirit are clear.'								(p. 238-9)
									[TEXT 1, line 29 (myth)]

The facts of Nenets and Sanuma are hard to reconcile with a modal account of evidentiality, given that auditory evidence and quotative are usually analyzed as having

different levels of confidence (see e.g., Palmer 2001). In a deictic-based theory it is easy to account for these data if one recognizes that what is encoded here is the deictic relation between the speaker and the perception, which is the same in both cases.

7. Spatial deixis

In this section it will be shown that spatial deictic elements, commonly referred to as demonstratives, are organized remarkably like evidential systems. While a full discussion is beyond the scope of the present paper, the demonstrative systems discussed here do point further to a close link between deixis and evidentiality.

Spatial deictic forms can be either based on fixed reference points (e.g., the cardinal points like *north*, or geographical features, such as *upstream, inland*) or on points relative to the speaker and/or hearer. A full deictic system is usually made up of a combination of these two possibilities. It is the latter, the location of objects relative to the speaker, which interests us here due to its obvious connections to evidentiality.

In many languages, a visible/invisible distinction is made in their demonstrative system. This happens for instance in Native American languages of the Pacific Northwest, perhaps most notably in the Salishan languages, in certain Australian languages and the Oceanic languages of New Caledonia. In (23) the definite demonstrative system of Yidin^{y} for humans and inanimates (Dixon 1977: 181) is shown. Such systems can be mapped without problem onto the direct/indirect evidential distinction.

(23)

	HUMAN	INANIMATE
'this'	*yiɲɖu-*	*yiŋgu-*
'that'	*ŋuɲɖu-*	*ŋuŋgu-*
'far, invisible'	*yuɲɖu-*	*yuŋgu-*

Such deictic elements can extend their meaning to temporal relations as well. In Ouvea Iaai (New Caledonia; Ozanne-Riviere 1997:96, citing Ozanne-Riviere 1976), some spatial deictic elements denote temporal deixis as well, as shown in (24) below. These data reinforce the link between the various deictic categories, including evidentiality.

(24)

	SPATIAL	TEMPORAL
-ang	near speaker	near in time
-e	near hearer	near in time
-lee	far from speaker and hearer	distant future
-jii[8]	down; toward sea	past; introduces past relative clauses

In example (25) from Cèmuhî (New Caledonia; Ozanne-Rivierre 1997:97; Rivierre 1980:156-7), the parameter of (in)visibility plays a role in spatial and temporal deixis.

(25)

	SPATIAL	TEMPORAL
cè	near speaker	present tense
ne	distant, visible	
naa	distant, invisible	future tense

Although they appear to be rare, there are languages that, in addition to a distinction in (in)visibility, make an auditory distinction in their spatial deictic system as well. Already mentioned in section 5 is the case of the Mihilakawna dialect of Southern Pomo (Pomoan, Hokan; Oswalt 1986:37), where the demonstrative *no-* 'that' is used for objects that are invisible but audible. (Pomoan languages in general make distinctions between visible and invisible objects). Another such language is Nyêlâyu (New Caledonian; Ozanne-Rivierre 1997:97-8), which is related to Cèmuhî. Nyêlâyu has four deictic suffixes, as shown in (26):

(26)

-ija	near speaker
-êlâ	distant, visible
-ili	distant, invisible, audible
-imi	absent, known

The use of audible demonstratives corresponds closely to the use of auditory evidentials. In Nyêlâyu, the audible demonstrative can only be used if there is no visual contact between speaker and the object. Obviously, the object must be capable of making a sound, hence the acceptability of *wang-ili* 'boat-AUDIB', but the ungrammaticality of **doo-ili* 'pot-AUDIB' (Ozanne-Rivierre 1997:98). This is identical to the usage of auditory evidentials, which are used when there is no visual evidence available, but a visual evidential will be used when such evidence is present.

Given the similarity between spatial demonstrative systems and evidentials, it should come as no surprise that there are languages that use the same morpheme for an

evidential and a demonstrative meaning. Such a language is Quileute (Wakashan; Andrade 1933:204-5), which makes a distinction between visible and invisible objects and between known and unknown (to speaker) objects. It does so in the pronominal as well as the demonstrative system. There is a formal identity between Quotative and the 3SG(/PL).FEM pronoun, as analyzed by Andrade. An example is shown in (27):

(27) a. *hé-tkul-i-**ku**-l-ač*

‘**It is said** that he is sick’

b. *hé-tkul-i-**ku**-ku*

‘**It is said** that she (invisible, unknown) is sick’.

The data in this section show that there is a conceptual link between demonstrative systems and evidential systems. This conceptual link is made explicit in languages like Quileute.

8. Conclusions

In the previous sections the relationship between various evidential categories and deixis was discussed. Based on this discussion I propose to add evidentiality to the category deixis as an example of *propositional deixis*. An evidential grounds an action or event with respect to the speaker, just as a demonstrative grounds an object with respect to the speaker. In other words, the relation between a proposition and an evidential is analogous to the relation between a noun (phrase) and a demonstrative.

Evidentiality has been considered to be a modal category, but based on the data discussed here such a view cannot be maintained. I do not wish to deny any relation between evidentiality and (epistemic) modality, but such a relation is secondary at best. It should not be thought that epistemic modality is part of the basic meaning of evidentiality but it can be added as a pragmatic feature.

Since I have argued for an analogy between demonstratives and evidentials, let us look at each category in modal view. It is fairly common to regard propositions with a quotative as less reliable than those with a direct evidential. To the best of my knowledge, a noun phrase containing an 'invisible, unknown' demonstrative have never been analyzed that way. Objects out of view have never been analyzed as being "less likely to be in existence" than objects in plain view. That does not necessarily mean that this is not a possible analysis in a given language, but modality is not considered to be part of the basic meaning of demonstratives. For that reason it is equally premature to talk of epistemic modality as being the basic meaning of evidentiality. Viewing the world in terms of relative truth may very well be a Western way of life. It would be wrong to assume a priori that other cultures share this outlook.

Abbreviations

AUD	auditive	MASC	masculine
AUX	auxiliary	NEG	negation
CLASS	classifier	OBJ	object
COM	completive	OTHER	1 / 2, 3PL
CONT	continuative	PAST	past tense
DEM	demonstrative	PERF	perfect
DEPR	depreciatory	PL	plural
DIRECT	direct evidential	PRES	present tense
DIST.PAST	distant past	PST1	first past
DUR	durative	PST2	second past
EXT	extent of action	PUNCT	punctiliar
FEM	feminine	QUOT	quotative
FOC	focus	REL	relativizer
IMM.PAST	immediate past	RES	resultative
INDIR	indirect evidential	SG	singular
INESS	inessive	SS	same subject
INFER	inferential	SUBJ	subject
INST	instrumental	TEMP	temporal
ITER	iterative	VIS	visual
LOC	locative	WIT	witnessed

References

Alexander, Ruth Mary. 1988. "A Syntactic Study of Ocotepec Mixtec". In: C. Henry Bradley; Barbara E. Hollenbach (eds.), *Studies in the Syntax of Mixtecan languages, Vol. 1*, 151-304. Dallas: Summer Institute of Linguistics.

Anderson, Stephen R.; Edward L. Keenan. 1985. "Deixis". In: Timothy Shopen (ed.), *Language typology and Syntactic description Vol. III, Grammatical categories and the lexicon*, 259-308. Cambridge: Cambridge University Press.

Andrade, Manuel J. 1933. "Quileute". In: Franz Boas (ed.) *Handbook of American Indian languages, Vol. 3*, 149-292. Washington: Smithsonian Press.

Baker, Robin W. 1983. "Komi Zyryan's second past tense". *Finno-Ugrische Forschungen* Band XIX, Heft 1-3, 69-81.

Barnes, Janet. 1984. "Evidentials in the Tuyuca Verb". *International Journal of American Linguistics* 50, 255-71.

Borgman, Donald M. 1990. "Sanuma". In Desmond C. Derbyshire and Geoffrey K. Pullum (eds.), *Handbook of Amazonian Languages*, *Vol. 2*,15-248. Berlin: Mouton De Gruyter.

De Haan, Ferdinand. 1999. "Evidentiality and Epistemic Modality: Setting Boundaries". *Southwest Journal of Linguistics* 18, 83-101.

De Haan, Ferdinand. 2001. "The Place of Inference within the Evidential System". *International Journal of American Linguistics* 67, 193-219.

De Haan, Ferdinand. 2003. "Visual evidentiality and its origins". Ms. University of Arizona.

Dik, Simon; Kees Hengeveld. 1991. "The hierarchical structure of the clause and the typology of perception verb complements". *Linguistics* 29, 231-59.

Dixon, R. M. W. 1977. *A grammar of Yidiny.* Cambridge: Cambridge University Press.

Frawley, William. 1992. *Linguistic semantics*. Hillsdale, NJ: Lawrence Erlbaum.

Friedman, Victor A. 1986. "Evidentiality in the Balkans: Bulgarian, Macedonian, and Albanian". In: Chafe, Wallace and Johanna Nichols (eds.), *Evidentiality: the linguistic coding of epistemology*, 168-87. Norwood: Ablex.

Friedman, Victor A. 1999. "Proverbial Evidentiality: On the Gnomic Uses of the Category of Status in Languages of the Balkans and the Caucasus". *Mediterranean Language Review* 11, 135-55.

Haspelmath, Martin; Matthew Dryer; David Gil; Bernard Comrie. Forthcoming. *World Atlas of Language Structures*. Oxford: Oxford University Press.

Kimball, Geoffrey D. 1991. *Koasati Grammar*. Lincoln: University of Nebraska Press.

Leinonen, Marja. 2000. "Evidentiality in Komi Zyryan". In: Lars Johanson; Bo Utas (eds.) *Evidentials*, 419-40. Berlin: Mouton de Gruyter.

Leinonen, Marja; Maria Vilkuna. 2000. "Past tenses in Permic languages". In: Östen Dahl (ed.) *Tense and Aspect in the Languages of Europe*, 495-514. Berlin: Mouton De Gruyter.

Metzger, Ronald G. 1981. *Gramática popular del Carapana*. Bogotá: Instituto Lingüístico de Verano.

Oswalt, Robert L. 1986. "The evidential system of Kashaya". In Chafe, Wallace and Johanna Nichols (eds.), *Evidentiality: the linguistic coding of epistemology,* 29-45. Norwood: Ablex.

Ozanne-Rivierre, Françoise. 1997. “Spatial references in New Caledonian languages”. In: G. Senft (ed.), *Referring to Space, Studies in Austronesian and Papuan Langauges*, 83-100. Oxford: Oxford University Press.

Palmer, Frank R. 1986. *Mood and Modality*. Cambridge: Cambridge University Press.

Palmer, Frank R. 2001. *Mood and Modality, second edition*. Cambridge: Cambridge University Press.

Perrot, Jean. 1996. “Un Médiatif Ouralien: L' auditif en Samoyède Nenets”. In: Zlatka Guentchéva (ed.), *L' Énonciation Médiatisée*, 157-68. Louvain-Paris: Peeters.

Van der Auwera, Johan; Vladimir Plungian. 1998. “Modality’s semantic map”. *Linguistic Typology* 2, 79-124.

Watahomigie, Lucille J., Jorigine Bender and Akira Y. Yamamoto. 1982. *Hualapai Reference Grammar*. Los Angeles: American Indian Studies Center, UCLA.

West, Birdie. 1980. *Gramática Popular del Tucano*. Bogotá: Instituto Lingüístico de Verano.

Whistler, Kenneth W. 1986. “Evidentials in Patwin”. In: Chafe, Wallace and Johanna Nichols (eds.), *Evidentiality: the linguistic coding of epistemology*, 60-74. Norwood: Ablex.

Willett, Thomas L. 1988. “A Cross-Linguistic Survey of the Grammaticization of Evidentiality”. *Studies in Language* 12, 51-97.

Notes

[1] I am very grateful for the audience at the Boulder symposium for helpful remarks. I am especially grateful to Janet Barnes, for discussing Tuyuca data, to Marja Leinonen, for discussing the Komi data, to Marianne Mithun, for discussing Pomo data, as well as general helpful hints, and to Zygmunt Frajzyngier and David Rood for general comments. None of them is in any way responsible for the conclusions I have drawn here.

[2] The material for this study is drawn from the World Atlas of Language Structures project (Haspelmath *et al.*, forthcoming).

[3] In the second edition, Palmer (2001), evidentiality and epistemic modality share equal billing under the heading of *propositional* modality, and some cases are discussed in which the link between evidentiality and epistemic modality is not obvious (p. 29-31). Nevertheless, Palmer remains committed to the view that evidentiality is a modal category.

[4] This analysis is a synchronic one. In no way is it implied here that evidentials cannot turn into epistemic modals (or, indeed, vice versa, as has happened in Dutch). The pragmatic forces can certainly become conventionalized. This, however, is a separate issue and has no bearing on the present discussion.

[5] Frawley (1992:387 and *passim*) subsumes evidentiality under epistemic modality (similar to Palmer 1986) and gives a deictic account, based on the relative distance of the epistemic modal to the actual world. This *epistemic* deixis is not what is meant in the present paper. Rather, I propose a conventional definition of deixis for evidentiality, namely relative distance to the speaker.

[6] This use is very similar to the use of English *one* in *One reads books* for *I read books*.

[7] This section is based on De Haan 2001.

[8] This is an example of a deictic morpheme based on geography, not on the speaker.