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Evidentials: Their links with other grammatical categories

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Abstract: Evidentiality – a grammatical expression of information source (Aikhenvald 2004, 2014a) – is often expressed on a clausal level, and its marking is associated with the verb. In a few languages, a noun phrase can acquire its own evidential specification. Evidentiality can be expressed autonomously, or be fused with another grammatical category, including aspect, tense, or mood for verbs, or spatial distance and topicality for noun phrases. We investigate interactions and dependencies between evidentiality and other grammatical categories, both verbal and nominal. A number of such dependencies is supported by the diachronic development and history of evidentials.

Keywords: aspect, evidential, inflection, information status, mirative, modality, mood, person, polarity, semantic change, syntax, tense

1 The essence of evidentials

Every language has a way of saying how one knows what one is talking about, and what one thinks about what one knows. In some languages, one always has to specify the source on which the information is based – whether the speaker saw the event, or heard it, or inferred it based on visual evidence or on common sense, or was told about it by someone else. This is the essence of evidentiality, or grammatical marking of information source – an exciting category loved by linguists, journalists, and the general public, because it would require them to be specific about how they learnt what they are talking about.¹

¹ As Franz Boas (1938: 133) put it, “while for us definiteness, number, and time are obligatory aspects, we find in another language location near the speaker or somewhere else, source of information – whether seen, heard, or inferred – as obligatory aspects”. See Aikhenvald (2004, 2014a) and also Aikhenvald & Dixon (eds.) (2003) for the discussion of evidentials in typological perspective, and additional references. This article expands on generalizations in my previous work. The discussion here is based on the investigation of about 700 languages with evidentiality

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In many languages, evidentiality is a grammatical category in its own right. Its scope is typically a clause, or a sentence. It then tends to be marked on the verb. Sometimes a noun phrase can have its own information source, different from that of a clause. This is non-propositional evidentiality.

It is not uncommon for a linguistic term to have a counterpart in the real world. The idea of time in the real world translates into tense when expressed in a language. Time is what our watch shows and what often passes too quickly; tense is a grammaticalized set of forms we have to use in a particular language. Not every time distinction acquires grammatical expression in the language: the possibilities for “time” are infinite, but for tenses they are rather limited. Similarly, an imperative is a category in the language, while a command is a parameter in the real world. Along similar lines, evidentiality is a linguistic category whose real-life counterpart is information source.

Evidentials stand apart from other categories in a number of ways. Evidentials in questions may reflect the information source of the questioner (as in Hinuq, a Nakh-Daghestanian language; see Forker 2014), or that of the answerer (as in Tsafiki (Barbacoan),² Quechua (isolate), Tariana (Arawak), and Tucano (East Tucanoan); Aikhenvald 2004: 245–246). An evidential can be questioned, as in Wanka Quechua (Floyd 1999: 132). An evidential may be within the scope of negation, as in Akha, a Tibeto-Burman language (Hansson 1994: 6). A clause can contain two evidentials: one may elaborate the source of the other, or refer to another source by another person (see Aikhenvald (2012a: 259–262) for examples from Amazonian languages).

Semantic parameters grammaticalized in languages with evidentiality cover physical senses, several types of inference and of report. The following list summarises recurrent meanings in evidential systems attested in human languages. For instance, a number of languages distinguish inference based on visible results from deduction based on reasoning and prior knowledge rather than on results one can see (some examples are discussed in Aikhenvald (2004, 2012a: 252–258, 2014a, forthcoming a) and Fleck (2007)).

(extending my database from Aikhenvald (2004)). This has involved a systematic study of grammars and discussions of languages with grammatical evidentials, and of languages with other means of expressing information source. I have taken account of generalizations based on earlier typological surveys checking them in the original sources on relevant languages.

² Each language is accompanied by its genetic affiliation (at its first mention). We follow traditional and well-established genetic classifications of languages eschewing unconfirmed macrogrouping (see, for instance, Aikhenvald (2012a) on terms such as Arawak (or Aruak, Maipuran), Tucanoan, and others).

- (I) VISUAL covers evidence acquired through seeing;
- (II) SENSORY covers evidence through hearing, and is typically extended to smell and taste, and sometimes also touch;
- (III) INFERENCE based on visible or tangible evidence, or visible results;
- (IV) ASSUMPTION based on reasoning and conjecture (and not on visible results);
- (V) REPORTED, for reported information with no reference to who it was reported by;
- (VI) QUOTATIVE, for reported information with an overt reference to the quoted source.

Further parameters may involve general knowledge, different kinds of assumption and reasoning, and degrees of verbal report – secondhand and thirdhand. Some languages have a special evidential just for general knowledge.

Languages with evidentials fall into a number of subtypes, depending on how many information sources require distinct grammatical marking. So, for instance, languages with a two-term evidentiality system may have one form for parameters (I) and (II), and the other term for (III)–(V), as does Jarawara: this is a system A1.

Alternatively, a language may have one term for the meaning under (V), and not express any other source: this is a system A3, as exemplified by Nheêngatú and Estonian below. In three-term systems, one term can cover (I), or (I) and (II), another term can cover (III) and (IV), and a further term could cover (V), as in Shilluk: this is an example of system B1. Smaller evidential systems have more semantic complexity in their terms, since each term may subsume numerous semantic parameters.

The following is a taxonomy of the attested types of evidentiality systems (see also Aikhenvald 2004):

- (i) Systems with two choices are referred to with the letter A and a number, as follows:
 - A1: Firsthand and non-firsthand
 - A2: Non-firsthand versus everything else
 - A3: Reported (or hearsay) versus everything else
 - A4: Non-visual sensory evidence and reported (or hearsay)
 - A5: Auditory (acquired through hearing) versus everything else
- (ii) Systems with three choices are referred to with the letter B and a number, as follows:
 - B1: Direct (or visual), inferred, reported
 - B2: Visual, non-visual sensory, inferred
 - B3: Visual, non-visual sensory, reported
 - B4: Non-visual sensory, inferred, reported
 - B5: Reported, quotative, and everything else

- (iii) Systems with four choices are referred to with the letter C and a number, as follows:
 - C1: Visual, non-visual sensory, inferred, reported
 - C2: Direct (or visual), inferred, assumed, reported
 - C3: Direct, inferred, reported, quotative
- (iv) The only kind of system with five choices in more than one language is referred to as D1:
 - D1: Visual, non-visual sensory, inferred, assumed, and reported

Naturally, evidentiality interrelates with other categories (both verbal and nominal). A language may have fewer evidentials in commands than in statements: that is, evidentiality may correlate with mood, or sentence type. Evidentiality may be expressed in the past tense and in the present tense, but not in the future. Evidentials may occur together with just a selection of modalities. The meaning of a non-visual or reported evidential may acquire overtones of surprise – known as mirative meanings – if used when the speaker is 1st person.³

Categories within each language interact with each other. This article aims at offering a systematic investigation of the ways in which grammatical evidentials may depend on other, non-evidential categories, in terms of their realization, the meanings expressed, and historical development. The idea of dependencies between grammatical systems follows the leads in Aikhenvald & Dixon (1998, reprinted with minor corrections in 2011), where we considered possible interrelationships involving polarity, reference classification, tense, aspect, person, number, and case, and also evidentiality. Our knowledge, and database, on languages with evidentials, their grammar and development, has subsequently advanced since the tentative dependencies between evidentials and other grammatical systems were outlined in Aikhenvald & Dixon (1998). It is now time to revisit the issue of how evidential systems synchronically interrelate with the rest of the grammar. For instance, one might expect fewer evidential distinctions to be made in negative clauses (following the principle outlined in Aikhenvald & Dixon (1998), that many categories show fewer distinctions under negation). The ways in which evidentials may depend upon choices made in tense systems may point towards interactions between the time of the speaker's access to the information source and the time of the event. Interrelationships between evidentials and other categories can be indicative of the origins of evidentials.

³ See Aikhenvald (2014a, 2011b) for a preliminary study, and some references, on crosslinguistic correlations between evidentials and other categories.

In the previous literature, hardly any attention has been accorded to non-propositional evidentiality – that is, grammaticalized information sources encoded within noun phrases rather than on a clausal or sentential level. This article takes up the issue of specific ways in which non-propositional evidentials (many of them described within the last decade) interrelate with nominal categories.

Our analysis here focuses on crosslinguistically recurrent dependencies between evidentials and other grammatical systems. To claim that this typological study could offer an exhaustive analysis of how evidentials link to other categories would not be realistic. The generalizations here are inductively based using the linguistic materials available.⁴

Links between evidentiality and other categories can be of SYNCHRONIC and of DIACHRONIC nature. Synchronic links can be classified along the following lines.

- (i) The expression of evidentiality can be fused with another category – see Section 2.
- (ii) The choice of evidentiality values may depend on choices made within another category. For instance, fewer evidentiality values are usually expressed in non-declarative sentences – see Section 3.
- (iii) Exponents of evidentiality may have special meanings in the context of other categories. So, a reported evidential may acquire an overtone of politeness in a command. Evidentials may have additional, non-evidential meanings shared with other categories – see Section 4.

Non-evidential categories may develop meanings related to information source. A conditional form may be used for non-firsthand information, and a nominalization can acquire overtones of something one has not witnessed. Such uses of categories other than evidentials with evidential overtones are called evidentiality strategies. These may historically give rise to evidentials, creating diachronic links with evidentiality – see Section 5.

A further, more formal, kind of interaction between evidentials and other clausal (or verbal) categories can be reflected in the slot which evidentials occupy in the verbal word, and their paradigmatic relations with other categories. In many languages – e.g., Yukaghir (isolate), Archi (Nakh-Daghestanian),

⁴ In the spirit of Bloomfield (1933: 20): “The only useful generalisations about language are inductive generalisations. Features which we think ought to be universal may be absent from the very next language that becomes accessible [...] The fact that some features are, at any rate, widespread, is worthy of notice and calls for an explanation; when we have adequate data about many languages, we shall have to return to the problem of general grammar and to explain these similarities and divergences, but this study, when it comes, will not be speculative but inductive.”

Samoyedic (Uralic), and Wakashan – evidentials occupy the same slot in the verbal word as do exponents of mood and are mutually exclusive with this (more examples and references are in Aikhenvald (2004: 241–242)). There are thus no evidentiality distinctions in non-declarative moods. In the Yanomami language Yanam (Gomez 1990: 96–98) evidentials appear to occupy the same slot as do aspect markers; this is the reason why they appear to be mutually exclusive. A typological investigation of the position of evidential markers within a verbal word goes beyond the scope of this study.

2 The expression of evidentiality: Autonomous versus fused

Evidentiality – that is, the grammatical marking of information source – can be expressed by its own marker, that is AUTONOMOUSLY. Or it can be FUSED with another category. We start with clausal evidentiality in Section 2.1. Then, in Section 2.2, we look at non-propositional evidentiality.

2.1 Clausal evidentiality

Nheêngatú or Língua Geral, a Tupí-Guaraní lingua franca of north-west Amazonia, is a straightforward example of autonomous evidentiality (Floyd 2005). The language has an A3 system, that is, just one reported evidential. Suppose you saw Aldevan go fishing. After that, Aldevan's aunt Marilha arrives at the house and asks where he has gone. You then reply, *u-sú u-piniatika* [3_{SG}-go 3_{SG}-fish] 'he went fishing'. Then a friend comes to visit and asks Marilha where Aldevan has gone. She replies, using a reported evidential *paá* – she did not see the man go (evidential markers are in bold throughout this section).

- (1) *u-sú* *u-piniatika* ***paá***
 3_{SG}-go 3_{SG}-fish REP
 'He went fishing (they say/I was told).'

Jarawara, an Arawá language from Brazil, has a firsthand and a non-firsthand information source whose expression is fused with the past tense (system A1). A typical conversation in Jarawara is as follows. One speaker asks the other (Dixon 2003: 168):

- (2) *jomee tiwa na-tafi-no* *awa?*
 dog(M) 2SG.O CAUS-wake-IMMPST.NONEYEWIT.M seem.M
 ‘Does it appear that the dog wakened you up?’

He uses the non-firsthand evidential in his question: he didn’t himself see or hear the dog; perhaps he was just told about this. The other speaker – who had indeed been woken up by the dog and thus saw it or heard it or both – answers using the firsthand evidential fused with immediate past:

- (3) *owa na-tafi-are-ka*
 1SG.O CAUS-wake-IMMPST.EYEWIT.M-DECL.M
 ‘It did waken me (I saw it or heard it).’

A similar example comes from Hinuq, a Nakh-Daghestanian language from Daghestan (Forker 2014, personal communication). Here, the firsthand evidential covers any personally acquired information (parameters I–II), and the non-firsthand one ranges from III to V:

- (4) *dižo obu-y yi-y-iš* *uqino qu lebu*
 1SG.GEN father-ERG CL:IV(M)-spend-PST.WIT 4 20 years
 ‘My father got to be 80 years old.’

The witnessed evidential in (4) indicates that the speaker knew his father personally. In (5), the speaker used a non-witnessed evidential, because he did not know the man personally – the information could have come from inference, assumption, or verbal report (hearsay). This illustrates the semantic complexity of the unwitnessed term in this language.

- (5) *hailo reku-y yi-y-no* *bison=no qu lebu*
 that.OBL man.OBL-ERG CL:IV(M)-spend-PST.NONWIT 100=and 20 years
 ‘That man got to be 120 years old.’

Evidentials in Jarawara and in Hinuq are distinguished in the past tense only, and the expression of evidentiality is FUSED with tense. Indeed, in many languages evidentials are restricted to past tense only: this is intuitively plausible, as the source of information is easier to gather for what has already occurred.

Evidentials can have autonomous realization in a system of any size. Ersu, a Tibeto-Burman language, marks three information sources (Zhang 2014) in a B1 system. If information is acquired directly, that is, through seeing, hearing, feeling, or smelling, the verb is formally unmarked. There is a special marker (=pà:)

for inferred and assumed information, and a reported evidential form used if the speaker's statement is based on something someone else had told them.

In contrast, in Shilluk, a Nilotic language with a semantically similar system, the markers of directly acquired information are fused with past tense, and inferred information is fused with perfect aspect. The reported evidential is expressed autonomously (Miller & Gilley 2007).

We expect to find an autonomous expression of evidentiality in languages with analytic profile, and agglutinative morphology, e.g., Nheêngatú, Kamaiurá (Tupí-Guaraní), and Baniwa (Arawak). Fused expression of evidentiality tends to be a feature of more synthetic languages with fusional tendencies, including Caucasian, Arawá, and numerous Arawak languages. However, there is no one-to-one correspondence between degree of fusion and agglutination in other areas of the grammar and the expression of evidentiality.⁵ Which of the evidential specifications is more likely to acquire an autonomous expression, and which one a fused expression, is a matter for further study.

We have seen that in the overwhelming number of examples of fused evidentiality, evidentiality is fused with tense, and with aspect. An explanation for this is twofold. Firstly, an evidentially marked proposition is typically based on something which has already happened, and thus is intrinsically linked to the past tense.⁶ Secondly, the way in which evidentiality is expressed can be further accounted for by the tendencies in grammaticalization and historical

⁵ This may take us to a more general issue of the applicability of notions of agglutinating and fusional to all the structures within one language, or, in other words, the validity of agglutinating or fusional as a single parameter for determining the morphological type of a language (the "Agglutination Hypothesis" discussed, and refuted, by Haspelmath (2009)). We concur that agglutination and fusion are best considered as kinds of morphological techniques rather than type-defining parameters for a whole language (see also Dixon 2010: 226–227; Aikhenvald 2007, 2014b: 30–31, 318). As noted in Aikhenvald & Dixon (1998 [2011: 171]), many of the dependencies investigated are found in agglutinative and fusional languages. They appear to be rare in isolating languages. However, the fact that there are few dependencies in isolating languages should not be taken as an indication that these languages have been ignored. On the contrary, I have assiduously investigated grammars of isolating languages. That few isolating languages have evidentials is an empirical fact for which I have no explanation at present. A notable example of an isolating language with evidentials is Cantonese (see a tentative description in Matthews (1998)).

⁶ Further similar examples of fused expression of evidentiality and tense can be found in San Roque & Loughnane (2012). According to these authors, evidentials can combine information about "relative tense" – that is, some languages distinguish "current evidence" observed at the time of speaking and "previous evidence" observed before the time of speaking. Similar distinctions are outlined by Skribnik & Seesing (2014: 153–154) for Kalmyk, a Mongolic language. The distinction between absolute and relative tense and its interaction with evidentiality requires further in-depth study.

development of evidentials. Fused evidentiality tends to arise if the evidential develops out of an evidential strategy. If an evidential arises out of an independent lexeme via grammaticalization, the marking is likely to be autonomous. The autonomous reportative in Hinuq =(e)λ may have originated from the verb eλi- ‘say’. The reported evidential dzẽ in Ersu grammaticalized from dzi ‘speak, say’; Ayoreo (Zamucoan; Bertinetto 2009) -chi ‘reported evidential’ also comes from a verb of speech. In both Ersu and Ayoreo reported evidentials are autonomous.

Fused expression of evidentiality creates the basis for dependencies between the grammatical systems of tense, aspect, mood (or sentence type) with evidentials. We return to this in Section 3.

2.2 Non-propositional evidentiality

Evidentiality can be expressed non-propositionally – that is, with a noun phrase as its scope. Crosslinguistically, this appears to be a rarity. In Jarawara (Dixon 2004, personal communication) different information sources can be marked in one sentence, one on the verb and one on a noun phrase. (Jarawara allows many, but not all, exponents of verbal categories, to occur on an NP with an NP in their scope; Dixon 2004: 306–309.) They are expressed using the same system of evidentiality markers fused with tense (as shown in (2) and (3) above). A speaker was talking about what had happened to him and his companions, using far past tense eyewitness evidential (referring to what had happened more than two years ago): they had seen a place which had been reported to be another group’s old village:

- (6) [[*mee* *tabori* *botee*]-*mete-moneha*]_{NP:O} *otaa*_A *awa-hamaro*
 3_{NSG} home.F old-FARPST.NONWIT.F-REP.F 1_{NSG.EXC} see-FARPST.EYEWIT.F
ama-ke
 EXT-DECL.F
 ‘We were seeing in the far past what was reported to be their old camp from far past.’

The speaker used the far past (to reflect that it was some time ago) and a firsthand (or eyewitness) evidential (to reflect that he had been there and had seen everything himself). And he used the non-firsthand version of far past tense plus the reported evidential suffix with the name of the location – reportedly known to have been another group’s old village (but not seen by the speakers). This is why the old village is marked with reported evidential.

If I were to attempt translating this word for word, I would come up with a tortured and clumsy sentence, like what one reads in English newspapers now and again – *The reported killer was allegedly seen to be captured by the police*. But unlike English, the Jarawara sentence is natural and compact. The same set of tense-cum-evidentiality markers is used to express information source at a clause, and at a noun phrase level.

In a few languages, information source is marked only at the NP level. These appear to always include a term with visual, or firsthand reference. The expression tends to be fused with another category.

Dyirbal, an Australian language (Dixon 2014), has a three-term system of noun markers which combine reference to visibility and spatial distance of the noun: *bala-* ‘referent is visible and THERE (that is, not near speaker)’; *yala-* ‘referent is visible and HERE (near speaker)’; and *ɲala-* ‘referent is not visible’. These distinctions are reminiscent of a crosslinguistically rather common evidential system, with a basic opposition between firsthand and non-firsthand information source (A1). The non-visible marker covers something that is not seen but heard, or only known from its noise; something previously visible but now just audible; something neither visible nor audible; or something remembered from the past and not currently visible.⁷

Somewhat more complex systems of non-propositional evidentiality whose scope is just the noun phrase have been described for Mataco-Mataguayan languages of Argentina and Paraguay. The markers combine reference to information source and to distance. Chorote distinguishes the following markers: ‘visually perceived’; ‘distant (or dead/consumed)’; ‘not visible now but visible before’; ‘invisible or unknown (used in myth)’ (Carol 2011). The information-source markers in Maká, from the same family, cover the following meanings: ‘close (can be reached by hand)’; ‘close (cannot be reached by hand)’; ‘far and visible; far and non-visible’; ‘absent, seen before’; ‘absent, never seen before’ (Gerzenstein 1994: 166).

Santali (Munda; Neukom 2001: 42–44) has a special series of demonstrative pronouns referring to what is seen, or to what is heard. Both distinguish six

⁷ An anonymous reviewer suggested a possible analogy between reported evidentials and anaphoric use of demonstratives. This is fanciful. A reported evidential explicitly indicates the source of information – that the speaker acquired it through speech report, rather than through other means (see example (6), from Jarawara). An anaphorically used demonstrative is employed as a substitute for a participant which appears in the previous text (substitution anaphora) or for a stretch of text (textual anaphora). Anaphora (both substitution and textual, in the sense of Dixon (2010: 248–249)) does not imply a secondhand or any other type of information source. It concerns the status of the referent in the discourse, and not the way in which information about the referent was obtained.

degrees of distance combined with emphasis. The semantic extensions of these demonstratives are parallel to those in evidentiality systems: the visual demonstrative can refer to what is visible, while the auditory one may also refer to smell, taste, and feeling (Neukom 2001: 42). (Note that a two-term audible versus inaudible demonstrative system has not been found in any language.)⁸

Perceptual meanings are encoded within the case system in Tsou, a Formosan language (Pan 2010, based on Tung 1964; Yang 2000a). Once again, the expression is fused with distance. Tsou has two cases, nominative and oblique (Yang 2000a). Both case markers combine information on how distant the object is from the speaker and the addressee, and whether the object was seen by both speaker and hearer, or just by the speaker, or not seen at all (but is nearby and can be heard, or is known to both). In (7), the speaker cannot see the child, but its cries can be heard:

- (7) *m-o mongsi co oko*
 AFF-R cry.ACTOR.VOICE NOM.NOTSEENHEARD child
 ‘The child is crying.’

None of these languages have any grammatical marking of these information sources in a clause.

Some languages have different systems of evidentiality within a clause, and within a noun phrase. Nominal phrase evidential markers in Maaka, a Chadic language, indicate information source of a topicalised noun phrase (Storch & Coly 2014). Here the expression of information source is fused with that of the discourse-pragmatic status of a noun. They encode visually acquired information, assumed information, and information acquired through joint perception by the speaker and the addressee. In (8), the speaker has already seen the butterfly, to which the addressee’s attention is directed. The butterfly from Mecca is marked with the visual evidential. This reflects the information source of the speaker.

8 The expression of evidentiality within demonstrative systems (which may or may not involve distance and deictic notions) and its fusion with “distance” is reminiscent of some attempts to analyse clausal non-visual or non-witnessed evidentials interrelated with tense as exponents of “spatial deixis” (see Faller 2004, Hintz & Hintz (forthcoming)). This involves a broader semantic approach to deictic categories, which runs the danger of obfuscating the nature of NP-based evidential distinctions and their interactions with grammatical categories and meanings typical for nouns and demonstratives as distinct word classes (a summary is in Aikhenvald (2014b)). Note that Faller’s (2004) distinction between propositional and event-based evidentiality founded on formal semantic analysis is tangential to the issue of interactions between grammatical categories discussed here.

- (8) *móy* [*pàrpàr* *ním* *mákkà*]_{NP}-*mú*
 see.IMPV butterfly REL Mecca-VIS
 ‘See the butterfly from Mecca!’

In (9), the child was seen by both the speaker and the addressee; the suffix *-diyà* marks this joint perception:⁹

- (9) [*làa* *nàmaa*]_{NP}-*diyà* *sáy* *mìnè-pódí-ní*
 child this-JOINTVIS must 1PL-REMOVE.TEL-OBJ.3SG.MASC
gè-gòrkù-wà
 LOC-village-DEF
 ‘This child [whom we can both see], we must chase him from the village.’

The nominal evidential *-kà* refers to the speaker’s assumption and intuition about an object (on which they have no firsthand information). In (10), the speaker talks about the addressee going to ‘that very market’ which is assumed to be taking place:

- (10) *ʔáa-kè-góm* *gè-gòmà-à-kà* (...)
 COND-2SG.M-GO LOC-market-DEF-ASSM
 ‘If you go to that very market (assumed to be taking place)...’

There are no interactions between clause types and the nominal assumption marker in Maaka. The assumption marker can be used in any clause type (including conditional, temporal, complement, and other non-main clauses, and main clauses).

The two clausal evidentials in Maaka are the quotative *nà* and the reported *kònò*. An NP can be within the scope of the reported evidential, while the quotative cannot. If the whole clause is within the scope of the reported evidential, it appears at the beginning of the clause:

- (11) *kònò* *dóoshé* *mínée-gòm* *ʔáshàakà*
 REP tomorrow 1PL.FUT-GO Ashaka
 ‘Rumour has it that tomorrow we will go to the Ashaka cement factory.’

If the evidential has an NP as its scope, it follows that NP, as in (12):

⁹ A special evidential reflecting joint perception by speaker and addressee in Maaka is reminiscent of a newly discovered evidential category of “mutual knowledge” in some Quechua varieties (Hintz & Hintz (Forthcoming)) and in Nambiquara (Lowe 1999: 275; see especially example (14)). This kind of evidential category remains a matter for further study.

- (12) *sà-ndée* *ɓà* [límó-wà]_{NP} *kòndò ɓà* *láà-n-tò*
 3SG.M-COME.NARR with camel-DEF REP with child-LINK-POSS.3.F
 ‘He came with the reported camel and with its calf.’

In (12), the information about the camel comes from a speech report, or hearsay. In each case, the noun phrase marked with an evidential has to be definite and also the topic.

The Southern Nambiquara dialect complex has a remarkably intricate set of nominal tense markers fused with information source. The meanings expressed are observational, inferential, and quotative. Nouns are also specified for whether they are definite or not, and represent given or new information (raised numbers stand for tones). Some examples for *wa³lin³-su³-a²* [maniOC-CLF;BONELIKE-DEF] ‘the manioc root’ (Lowe 1999: 282–283) are in (13). In (13a), the marker ‘definite and current’ implies visual information source for the manioc root.

- (13) a. *wa³lin³-su³-ai²na²*
 maniOC-CLF;BONELIKE-DEF.CURRENT
 ‘This manioc root which we both see before us now.’
 b. *wa³lin³-su³-nū¹tā²*
 maniOC-CLF;BONELIKE-INFER.DEF.UNMARKED
 ‘The manioc root that must have been at some time past, as inferred by me (but not by you).’

The verbal categories of tense, aspect, evidentiality, and given information are different, in form and in meaning (Lowe 1999: 275). The meanings expressed include observed by speaker alone (OBSSP), observed by both speaker and hearer (OBSSPH), inferential, internal evidence (INTERN), and quotative. Each is expressed autonomously. Some examples are in (14).

- (14) a. *wa³kon³-na³-ra²*
 work-OBSSPH-PFV
 ‘He is working (we both see him).’
 b. *wa³kon³-na²-ra²*
 work-OBSSP-PFV
 ‘He worked (I observed, recently).’
 c. *wa³kon³-ta¹-hē¹-ra²*
 work-QUOT-MIDPST.INTERN-PFV
 ‘He worked (I was told, in the past).’

Southern Nambiquara and Maaka are the only languages we know of with different systems of evidentiality expressed on a clausal, and on an NP level. This is reminiscent of how tense can be expressed independently within an NP, and within a clause (see Nordlinger & Sadler 2004, 2008).¹⁰ In most cases discussed here, NP-level realization of evidentiality is intertwined with either distance in space, or with definiteness and topicality; Tsou adds to this grammatical function.¹¹

3 Dependencies between evidentiality and clausal grammatical categories

We now turn to the ways in which choices within an evidentiality system may interrelate with other clausal categories. The choices available in the evidentiality system may correlate with choices made in (A) the tense system, (B) the aspect system, (C) sentence types, (D) polarity, (E) types of clauses, (F) modality, and (G) person and number. These correlations create dependencies between grammatical systems. No other correlations have been found so far.

A. Evidentiality depends on tense: TENSE > EVIDENTIALITY¹²

The maximum number of evidential specifications is found in past tenses. In Hinuq, Tatar, Jarawara, and Matses (Panoan) evidentiality is only distinguished

10 That nominal temporal markers (which are distinct from propositional tense) can indeed be interpreted as tense with a noun phrase as its scope has been conclusively demonstrated by Nordlinger & Sadler (2004) and especially Nordlinger & Sadler (2008), in their reply to an alternative suggestion by Tonhauser (2007). Special features of nominal tense (with the basic opposition of present, past, and future, expressed independently from propositional tense and from other nominal categories such as possession) have been further described by Haude (2010) and Aikhenvald (2012a: 158–160). In a number of Amazonian languages, including Jarawara (from the Arawá family; Dixon 2003, 2004: 193, personal communication) and Ashéninka Perené (from the Arawak family; Mihas 2013), a selection of verbal tense, aspect, modality, and evidentiality markers can occur on verbs and also on noun phrases (having noun phrases as their scope, as shown in (6)). In these instances, nominal and verbal TAME have the same meanings and the same basic form.

11 In Sheko and Benchnon, two Omotic languages, non-firsthand information source on a clausal level is marked in the same way as spatial distance on verbs, and on noun phrases; see Hellenthal (2010), Rapold (2006), and Aikhenvald (forthcoming b) for some discussion. The category of extralocality in nouns as described for Movima (Haude 2006) and Tariana (Aikhenvald 2003a) may have non-visual overtones.

12 This notation follows Aikhenvald & Dixon (1998 [2011]) which discusses dependencies mentioned here under (A) and (G). Other dependencies involving evidentials are not addressed in Aikhenvald & Dixon (1998 [2011]).

in past tenses. The choices made in the tense system thus determine the choices made in the system of evidentials.

There may be fewer evidential distinctions in non-past tenses than in past tenses. Tuyuca, an East Tucanoan language (Barnes 1984), has five evidentiality choices – visual, non-visual, apparent, secondhand or reported, and assumed – in the past tense. There are just four choices in present tense: this has “no secondhand evidential”. No evidentiality specification can be made in future tense. Tucano (Ramirez 1997: 120) distinguishes four evidentials – visual, non-visual, inferred, and reported – in the recent past and in the remote past tenses. Only visual and non-visual distinctions are made in the present tense, and none in the future. In Tariana five evidentiality distinctions (visual, non-visual, inferred, assumed, and reported) are made in the past tenses, and only three (visual, non-visual, and reported) in the present tense (see (15)).

This is intuitively plausible: an information source refers to something already perceived and interpreted. This is especially so if we have to deal with inference, and non-firsthand information, and perhaps also verbal report.¹³ Future, in many languages including those mentioned in this section, has strong epistemic meanings, and is not compatible with information source (see also C below, and Fleck (2007) on Matses). In just a few languages evidential distinctions are made in the future, including Kalmyk (Skribnik & Seesing 2014, and discussion there).

B1. Evidentiality depends on aspect: ASPECT > EVIDENTIALITY

The choice of evidentials may depend on the choice made in the aspect system. Evidential distinctions made in perfective aspect in Kurtöp, a Tibeto-Burman language from Bhutan, cover personal knowledge versus lack thereof, and shared versus non-shared knowledge (Hyslop 2014). Only expectation of knowledge is distinguished within the imperfective aspect. Evidentiality is expressed only within perfective aspect in Lhasa Tibetan (Tibeto-Burman; DeLancey 1986: 210–211, 2003: 278),¹⁴ and Georgian (South Caucasian; Comrie 1976: 110). In Barasano and Tatuyo, two East Tucanoan languages spoken in Colombia, non-visual perception is marked only within imperfective aspect (perfective aspect offers fewer choices in evidentials) (Gomez-Imbert 2014).

¹³ Analysts may vary as to whether to interpret an evidentially marked form as that of tense, or that of aspect (see, for instance, discussion by Molochieva (2010: 88–90) on Chechen).

¹⁴ Other studies in tense-aspect systems of Tibetan varieties, including Zeisler (2011) and Tournadre (2004, 2011), do not clearly focus on interrelationships between evidentiality and perfective and imperfective values.

B2. Aspect depends on evidentiality: EVIDENTIALITY > ASPECT

In the opposite direction, a choice made in another system may depend on the choice made in the evidentiality system. The choices available in a combined tense/aspect system may depend on the choice that is made in the evidentiality system. In Kashaya (Pomoan; Oswald 1986: 37), aspectual distinctions (perfective versus imperfective) are not expressed in auditory and inferential evidentials. Other evidentials (visual, quotative, and performative) have these distinctions. Bulgarian (Slavic) has a grammatical system combining tense, aspect, and evidentiality; this has nine choices available in non-reported but just five in reported evidentiality; so, for instance, present and imperfect fall together, as do perfect and past perfect, and future perfect and past future perfect (based on the analysis by Scatton (1984: 319, 330–331); see also Jakobson (1971) and Friedman (1986)).

C. Evidentiality and modality: MODALITY > EVIDENTIALITY

Various modalities – conditional, dubitative, and so on – may allow fewer evidential specifications than the indicative. This is so because in many languages – including Matses (Fleck 2007) – information source is irrelevant for statements which are epistemic in nature and for statements about the future (which may be considered on a par with modality). In Estonian the reported evidential does not occur with the conditional modality. In Tariana and !Xun (König 2013) evidentials do not occur with any modality. However, this is not a steadfast rule. In some languages, as in Quechua (Adelaar 1977: 98–99), all evidentials can occur together with modality markers. The non-firsthand evidential in Abkhaz does not occur with debitive, conditional, optative, or intentional because they occupy the same slot within the verb. The evidential can occur together with the potential marker, with the meaning of inference and potentiality of action (Chirikba 2003: 252–254).

D. Evidentiality and clause types: CLAUSE TYPE > EVIDENTIALITY

Evidentials are typically not expressed in non-main clauses (including complement clauses, relative clauses, and temporal subordinate clauses). This issue has been extensively addressed in Aikhenvald (2004: 253–256) and alluded to in Aikhenvald (2012a: 10). Additional examples of languages in which evidentials cannot appear in dependent clauses include Matses (Panoan; Fleck 2007), Tariana (Arawak; Aikhenvald 2003a), Tucano (East-Tucanoan; Ramirez 1997), Cavineña (Tacanan; Guillaume 2008), Hinuq (Northeast Caucasian; Forker 2013, 2014), Tatar (Turkic; Greed 2014), and Kalmyk (Mongolic; Skribnik & Seesing 2014). For all of these languages, it can be argued that evidentials are expressed

Crosslinguistically speaking, the most frequent evidential in commands is reported (meaning ‘do what someone else told you to!’; see Aikhenvald 2010).¹⁶ Tariana and many neighbouring Tucanoan languages are no exception (see Aikhenvald (2008) on the expression of commands in these languages). An example of such a “secondhand” command, from Tariana, is in (16):

(16) *karaka pi-merita-pida!*

chicken 2SG-fry-REP.IMPV

‘Fry chicken (someone else told you to, the speaker is reporting this command)!’

In a number of languages, fewer evidential choices are available in interrogative clauses than in statements. In Mamaindê evidentials are restricted to declaratives only (Eberhard 2009: 471–476). Shipibo-Konibo, a Panoan language, has four evidentials (visual, non-visual, assumed, and reported). Only the assumed evidential *-mein* is used in questions (Valenzuela 2003: 47–49). In Bora (Bora-Witotoan; Weber & Thiesen 2012) only the reported evidential occurs in questions, while visual and non-visual do not. In contrast, in Eastern Pomo (Pomoan) and in Tariana all evidentials, except the reported, occur in questions. (The meanings of evidentials in questions may differ from those in statements; see Aikhenvald (2014a) for details.)

F. Evidentiality depends on polarity (negation): POLARITY > EVIDENTIALITY

In some languages there are fewer evidentiality choices in negative clauses than in positive ones; that is, certain evidentiality contrasts may be neutralised in the negative, just as certain tense and aspect choices are, in some languages. In M̄yky, an isolate from Brazilian Amazonia (Monserrat & Dixon 2003; Monserrat 2010), no evidentials at all can be distinguished if the clause is negative. Fewer evidentiality distinctions are available in negative than in positive clauses in Kalmyk (Skribnik & Seesing 2014: 160–163). In the Luchuan dialect of Ryukyuan (Arakaki 2013: 159), the direct evidential is not used in non-past tense in negative clauses. This is an instance of a more complex dependency POLARITY/TENSE > EVIDENTIALITY.

G. Evidentiality and person/number: EVIDENTIALITY > PERSON/NUMBER

The choices available for person and number of the participant may depend on the choices made in the evidentiality system. In Estonian, three persons and

¹⁶ In just a few languages – including the isolates Maidu (Shipley 1964: 51) and Nivkh (Gruzdeva 2001: 70), and Innu, an Algonquian language (Baraby forthcoming) – other evidential meanings are expressed in commands.

two numbers are expressed if reported evidentiality is not specified. This is shown in (17).

- (17) *mina tule-n* ‘I come’
 sina tule-d ‘you (SG) come’
 tema tule-b ‘he/she comes’
 meie tule-me ‘we come’, and so on

These are not expressed in reported evidentiality, e.g., as in (18).

- (18) *mina/sina/tema* *tule-**vat***
 I/you/he/she/etc. come-REP.PRS
 ‘I/you/he/she etc. are reportedly coming.’

Along similar lines, in Trio, a Carib language, the non-witnessed past form marked with a confix *ti-... -se* does not express person or number of the subject (Carlin 2004: 340–347). That is, the choice of non-witnessed past overrides the choice in person and number system. This dependency, EVIDENTIALITY > PERSON/NUMBER, has to do with evidential forms arising out of essentially nominalized (non-finite) forms (see Section 5).

In Kashaya, the performative evidential is used only with 1st person. Its meaning is described as follows: ‘speaker knows of what he speaks because he is performing the act himself or has just performed it’ (Oswalt 1986: 34–42). Other evidentials (visual, auditory, inferential, and quotative) are used with all persons. This is an example of a dependency in the opposite direction, PERSON > EVIDENTIALITY.¹⁷

The dependencies established here can be summarised as in Figure 1 (the direction of the arrow reflects direction of a dependency).

That evidentiality should depend on polarity, or the contrast between positive and negative, goes together with the general principle – that polarity, as a clausal category, is at the top of the hierarchy of grammatical categories (Aikhenvald & Dixon 1998 [2011: 197]). The dependencies between evidentiality and clause type, and evidentiality and sentence type, can be accounted for by

¹⁷ Person marking may correlate with speaker’s control in conjunct-disjunct (or locutor-non-locutor) person-marking systems, as described for Tibetan languages (see DeLancey 2003) and Barbacoan languages (Dickinson 2000, and the survey in Curnow 2002b); further discussion and examples are in Aikhenvald (2004: 123–129, 2012b). Conjunct-disjunct systems do not mark information source (see DeLancey 1986: 206–210, Caughley 1982: 84–85). None of them display any mutual dependencies with evidentials, since the same choice of evidentials appears to be available for each person value.

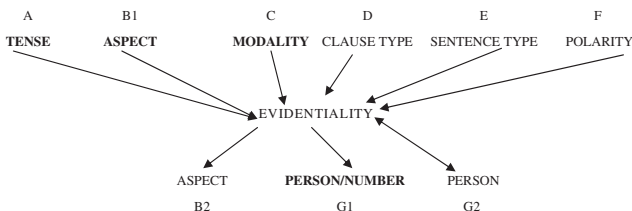


Figure 1: Evidentiality and its dependencies with other grammatical systems.

the fact that evidentiality which shows such correlations is a clause-based (or even a sentence-based) category. A number of further dependencies stem from a diachronic development of evidentials – see Section 5 (where we will explain the bold face in Figure 1). In Section 4.2, we turn to non-evidential meanings expressed through evidentials.

4 Meanings of evidentials, and other grammatical categories

Evidential terms may have additional meanings which are not related to marking the source of information in the context of other grammatical categories categories discussed above. In Section 4.1, we focus on those categories for which we have found such meanings. These are evidentiality and person, evidentiality and expectation of knowledge (or mirativity), and evidentiality and politeness. Non-evidential meanings expressed through evidentials are addressed in Section 4.2, to show the possibilities which are attested crosslinguistically.

4.1 Special meanings of evidentials in the context of other grammatical categories

4.1.1 Evidentiality and person

Using a non-visual, a non-firsthand, or a reported evidential to talk about oneself may seem counter-intuitive. This is where we encounter special meanings of these evidentials. A non-visual evidential may refer to something I cannot quite see, and am not quite sure about. A Mamaindê man had just taken a second wife, but is not quite certain if he had done the right thing, and so uses the non-visual evidential in talking about this (Eberhard 2009: 466).

When used with a 1st person subject, the non-visual, non-firsthand evidentials and reported evidentials in systems of various types may acquire additional meanings to do with lack of intention, control, awareness, and volition on the part of the speaker.

In Cavineña, the reported evidential with a 1st person subject implies that I was not consciously aware of what happened to me. In (19), the speaker relates how, as a young boy, he fell from a mango tree. After the fall, he was lying unconscious on the ground, still holding a mango in his hand. What he says about himself is based on what he was told later (Guillaume 2008: 646–647):

- (19) *ina-jaka-ya=ama=pa e-ra manga*
 grab-stop-IPFV=NEG=REP 1SG-ERG mango
 ‘I didn’t want to let go of the mango, they said.’

If I am talking about myself, I can use non-visual evidential if whatever happened was out of my control. Suppose I broke a plate by accident – it slipped out of my hands. I will then say, in Tariana (a similar example in Tucano is in Ramirez (1997: 133)):

- (20) *karapi nu-thuka-mahka*
 plate 1SG-break-REC PST.NVIS
 ‘I broke a plate by accident (lit., I non-visual broke the plate).’

This is referred to – in the literature on evidentials (see Aikhenvald 2004: 219–230, 2014a, and preliminary work by Curnow 2002a) – as “1st person effect”: when I talk about myself, evidentials have somewhat different overtones from those in other persons contexts. If I was drunk or unconscious, and do not really remember what I did, I can even use a reported evidential to talk about myself: “I spent the night drinking-reported” takes away all the responsibility from my being drunk all night. In Hinuq (Forker 2014), the unwitnessed evidential used with the 1st person subject implies the speaker’s lack of control over what happened to them, or simply lack of memory. The reported evidential may occur with a 1st person subject, with similar meanings – of lack of control or an unintended, unconscious participation. In Saaroa, a Formosan language, the reported evidential with 1st person has a similar semantic effect (Pan 2014). The 1st person effect is directly linked to the category of expectation of knowledge, or mirativity.

Furthermore, a visual, firsthand, or direct evidential with a 1st person speaker may be used in a somewhat different way from that with other persons. In a few Tibeto-Burman languages, including Denjongke (Yliniemi forthcoming),

it can be omitted if the 1st person speaker is not fully in control; in contrast, other evidentials are always obligatory.

4.1.2 Evidentials and the expectation of knowledge

The complex category of mirativity refers to “sudden discovery, unprepared mind, surprise (by the speaker, the addressee, or a 3rd person” (see Aikhenvald 2012b, DeLancey 2012). Numerous languages have a special mirative marker. These include Lisu (Yu 2005), Yongning Na (Mosuo) (Lidz 2007), Galo (Post 2007), Kham (Watters 2002), Dzongkha (Watters 2007), Denjongke (Yliniemi forthcoming), and many other Tibeto-Burman languages, and also Tariana, an Arawak language (Aikhenvald 2012b), and Kalmyk (a Mongolic language; Skribnik & Seesing 2014). A non-firsthand or a non-visual evidential can acquire a mirative meaning, if the result of the firsthand experience goes against the speaker’s or the participant’s expectations and lies beyond their control. This can be viewed as a reflection of Grice’s supermaxim of Quantity, whereby speakers are expected to make their “contribution as informative as required” (Grice 1989: 26). Here is an illustrative example from Jarawara.

The Jarawara story from which (21) is taken is told in far past firsthand. It is a personal reminiscence by the narrator about how he and his companions had gone up a strange river and come across a patch of forest full of game animals. Their surprise is expressed through using the immediate past non-firsthand marking (Dixon 2003: 172):

- (21) *bani_S mee wina-tee-hani*
 animal.M 3NSG live-HAB-IMPST.NONEYEWIT.F
 ‘There were surprisingly many animals.’

(22) describes the surprise experienced by Okomobi, the village chief – who thought he was being given a cup of cane whisky but it turned out to be water:

- (22) *Okomobi faha hi-fa-hani ama-ke*
 Okomobi water 0-drink-IMPST.NONEYEWIT extent-DECL.F
 ‘Okomobi (to his surprise) drank water.’

The surprise Okomobi experienced is coded through non-firsthand evidential. Okomobi drank water – so, his experience is firsthand. However, the result was not what he had expected. The use of non-firsthand evidential reflects Okomobi’s unprepared mind and subsequent surprise. Such examples are quite typical in Jarawara and in other languages.

In Khwarshi, a Northeast Caucasian language, the past unwitnessed form can be used with a 1st person subject. This refers to a situation where the speaker is not conscious or the speaker suddenly realizes something as a surprise (Khalilova 2009: 229), as in (23):

- (23) *do* *Ø-uh-un* *Ø-eč-un-ay-ko*
 1SG.ABS I-die-PFV.CVB I-be-PST.NONWIT-NEG-INTENS
 [Malla-rasan got up from the place where he was, thinking that he had died and then said:] ‘Apparently I had not died!’

A combination of 1st person and non-firsthand evidential, or 1st person and narrative enclitic (reported evidential) produces overtones of surprise to the speaker in Hinuq (Forker 2014, Example (5)). “Once again, the use of non-firsthand evidential or a narrative marker with 1st person reflects the speaker’s or the character’s ‘unprepared mind’ with regard to interpretation of their unexpected and surprising firsthand experience”.

A term in a larger evidential system can have a mirative extension. The Northern Nambiquara language Mamaindê (spoken in Brazil) has six evidentials: marking what one saw (visual); what one did not see but heard or smelt or tasted (non-visual); what one inferred based on visual traces or assumption; what belongs to general knowledge; what one knows as secondhand report; and what one knows as thirdhand report. The inferred evidential has mirative extensions, or the additional function of expressing surprise (Eberhard 2009: 466–467). An outsider returned to the village after many years of absence and has not forgotten the language. The inferred evidential is used in its mirative meaning:

- (24) *wa-sen-na-sq-le?i-tu* *mamãinsa-a-hai?ki*
 2SG-speak-1PL-NCL:SOUND-PST-FINSUFF Mamaindê-GEN-language
set-thahta-nu-sq-le?i-tu
 speak-O.1PL-2.SUBJ-NCL:SOUND-PST-FINSUFF
nakajuannün-?na-je?-le-Ø-n?-sihĩn-wa
 forget-2.OBJ-EMPH-1.PST-3.SUBJ-NEG-PST/INFER-DECL
 ‘Your old speech, the Mamaindê Your old speech, the Mamaindê language with which you used to speak to us, you clearly have not forgotten it!’

If a Mamaindê speaker heard someone say something, they would always use the non-visual evidential (Eberhard 2009: 466–467). This agrees with general principles of preferred evidentials use (see Aikhenvald 2004: 305–309 and references there). The sentence in (24) involves an interpretation of what the

speaker had heard with their own ears and which goes against the speaker's expectations. This is reflected in the use of the inferred evidential in a 1st person context.¹⁸

Here, the speaker's surprise comes as a result of "deferred realization".¹⁹ This is a post-factum inference made on the basis of something (in this case, the fact that the linguist still spoke the language) that the speaker had previously witnessed but only later could interpret and realise what it had meant. "Surprise" and deferred realization are independent from the way in which the information was acquired.

Several interconnected semantic paths may give rise to a mirative reading of evidentials. The first path is shown in (25).

- (25) unexpected interpretation of firsthand information or lack of it when it is expected → speaker's non-participation and lack of control → unprepared mind and new knowledge → mirative reading

This path explains a frequent link between non-firsthand specification, on the one hand, and new information and unprepared mind, on the other. We have seen in the examples above that mirative meanings can be linked with the speaker's lack of control and lack of awareness of what's going on. The "lack of control" and lack of awareness is a characteristic effect of the use of 1st person with non-firsthand evidentials in small evidentiality systems. The information was acquired firsthand, but it is not what the speaker expected. The lack of expectation is reflected in the mirative meanings in 1st person contexts.

Another, related path, involves deferred realization – whereby the speaker gives a post-factum interpretation to what they may have observed in some way. This is presented in (26).

- (26) deferred realization: speaker sees or learns the result but interprets it post factum → the newly understood result is unexpected and thus surprising

Deferred realization often involves a sudden revelation whereby a speaker is now able to interpret what has occurred. This sudden realization reflects the speaker's "unprepared mind". "Deferred realization" in this sense is an integral part of mirative meanings in all systems where mirativity is associated with

18 Contrary to anonymous reviewers' suggestions, (24) is not an ironic understatement. As Eberhard stresses, the main meaning of (24) is surprise.

19 To my knowledge, this term was first introduced and discussed at length by de Reuse (2003), with regard to mirativity and evidentiality marking in Western Apache.

inference. It involves distancing oneself from the actual event – which takes us to the next point.

4.1.3 Evidentials and politeness

Evidentials in commands develop correlations with imperative-specific meanings of degree of command. This is the only known instance of evidentials acquiring meanings to do with politeness. A reported evidential (which is the only one that typically appears in commands) may be used to express a “softer”, or a “politer” command. In Cavineña, a Tacana language from Bolivia, the second position reportative clitic =*pa* can be used to “soften” a command (it can also be used just to report someone else’s order; Guillaume 2008: 185, 646):

- (27) *Jeti=kwe=pa!* *Ba-diru-kwe=pa!*
 come=IMPV.SG=REP see-go.PERM-IMPV.SG=REP
 ‘(Daddy) come over, he says! Go see him, he says!’

Similar overtones of the reported evidentials in commands were described for the Australian languages Warlpiri and Arrernte (Laughren 1982: 138, Wilkins 1989: 393). In (28), from Mparntwe Arrernte, the reported evidential *kwele* is used to “soften” a command:

- (28) *Arrantherre kwele ntert-irr-Ø-aye!*
 2PL.S REP quiet-INCH-IMPV-EMPH
 ‘You mob are supposed to be quiet. (lit., Someone else has said that you mob have to shut up!)’

In this way, a command is attributed to someone other than the speaker. This makes the command less direct and less imposing, allowing the speaker (that is, the one who is “commanding”) to be less face-threatening (in the sense of Brown & Levinson 1987) and thus sound politer and more deferential.

This meaning of evidentials has so far been reported only for small evidential systems. In larger systems (such as Shipibo-Konibo with four evidentials (Valenzuela 2003: 42), and East Tucanoan languages and Tariana, see (16)), the reported evidentials are only used to express a command on behalf of someone else.

I hypothesize that the imperative-specific extension of evidentials to exponents of politeness could be associated with an overtone of distancing. A speaker chooses to avoid a direct command which would be face-threatening for them,

and also for the addressee (in the sense of Brown & Levinson 1987). Other strategies of distancing and “saving face” as a way of softening a command may involve using continuous aspect, irrealis, delayed imperative, or second plural form (where a singular addressee is implied; see Aikhenvald 2010: 212–223).

4.2 Non-evidential meanings through evidentials

Evidentials can have meanings associated with non-evidential categories. A reported evidential in small systems (type A3) often has epistemic extensions, to do with something one does not really believe. (29), from Estonian, may mean he is reportedly coming, or he is said to come, but I don’t really believe it and don’t vouch for it:

- (29) *tema tule-vat*
 he/she come-REP.PRS
 ‘He is reportedly coming (but I don’t believe it, or don’t vouch for it).’

Whether or not a reported evidential implies doubt can depend on the position of the evidential within a clause. The reported evidential *nana* in Tsou (Tsouic, Formosan, Austronesian) indicates that information was acquired through hearsay or a speech report if the marker appears before the verb of speech (Yang 2000b: 72–73), as in (30). The speech report is in square brackets.

- (30) *nehucma o-si nana [eainca to amo-su mainee hohucma]*
 yesterday AUX-3SG REP say OBL father-2SG go.home tomorrow
 ‘I heard from other people yesterday that your father said (you) go home tomorrow.’

If the marker *nana* occurs within the reported clause, the implication is that the speaker is not certain of the information in the speech report:

- (31) *o-si eUsvUta ao [nehucma tena cu la nana bumemealU]*
 AUX-3SG tell AUX.3SG? yesterday FUT PFV HAB REP work.hard
 ‘Yesterday she told me that she would work hard from then on (but I am not sure about work hard).’

The reported evidential in Maaka (see (11); Storch & Coly 2014: 198–199) has overtones of doubt if it is placed at the beginning of a clause. The quotative evidential *nà* has no such overtones.

Reported evidentials may not have any epistemic extensions. For instance, the reported evidential in Ayoreo (A3 system) does not have any overtones of uncertainty or disbelief. Reported evidentials in larger systems (e.g., Mamaindê, Tariana, Shipibo-Konibo, and others) do not have epistemic overtones.

A visual evidential may acquire a meaning to do with certainty and general knowledge. In Mamaindê, a visual evidential may be used if the speaker is certain of what they are talking about. The sentence in (32) was produced after listening to someone's voice in a recording the previous day. In Eberhard's (2009: 465) words, such a situation would typically call for a non-visual evidential, since the speaker was not there when the recorded story was told. The visual evidential emphasizes the speaker's certainty.

- (32) *wq-sen-na-sq* *nakqs-le-a-nān-wa*
 2SG-speak-SUBJ.2-NCL:LIQUID listen-INTPST-SUBJ.1-PST.VIS-DECL
 'I heard your speech (in intermediate past time).'

The joint perception noun evidential marker in Maaka has epistemic overtones of veracity and truth (e.g., the veracity of the existence of the child in (9): see Storch & Coly 2014: 196–197, for further examples). The reported evidential *kòndò* has an additional epistemic value of uncertainty when it has an NP within its scope. This is the only example of an epistemic extension of a non-propositional evidential (found so far).

The reported evidential *kwele* in Mparntwe Arrernte is used to report what someone else has said. It can be used, by a speaker, to quote something said about themselves, indicating that the speaker has no experience of the stated fact. In (33), the addressee is "supposed" to be my friend but is not behaving like one (Wilkins 1989: 393–394).

- (33) *tyewe ngkwinhe imerte kwele ayenge*
 friend 2SG.POSS then REP 1SG.S
 'You are said to be my friend.'

That is, an evidential can be manipulated to express criticisms and expose something that is not true, thus going beyond information source proper.

There are hardly any examples of evidentials with epistemic extensions in languages with larger systems. These tend to have numerous other means of expressing modal epistemic meanings, as is the case in Tariana, Mamaindê, Shipibo-Konibo, and many others. In Ersu, with a B1 system, the inferential evidential has epistemic overtones in combination with future (but not otherwise). In (34), the speaker infers that the man has gone to

search for their horse because he is not at home, and it is late in the afternoon when an Ersu is expected to go and look for their horses to bring them home for the night. This is the usual meaning of this evidential (Zhang 2014: 135–136).

- (34) *tʰə* *nbò* *tʂa* *duá=pà*
 3SG.PRESENTIAL horse search go=INFER
 ‘He has gone to search for his horse (inferred from his absence and the time of day).’

If the inferred evidential $\Rightarrow p\grave{a}$ is accompanied by future marker $\Rightarrow g\grave{a}$, there is an additional overtone of uncertainty, shown in (35). This overtone is not there in (34).

- (35) *metɕo* *su-ŋo* *tʰə-pʰu=gə=pà*
 sky next-day.tomorrow PREF:AWAY-change=FUT=INFER
 ‘The weather is going to change tomorrow.’

This can be interpreted as a special meaning of an evidential in the future context (similar to Section 4.1). (Similar meanings for the inferred evidential in future have been described for Shilluk; Miller & Gilley 2007: 194).

The choice of evidentials may depend on verb type. In East Tucanoan languages and in Tariana, the use of evidentials correlates with person for the verbs of feeling. You cannot “see” how you feel – so it is appropriate to use non-visual evidential when talking about yourself this way. In (36), from Tariana, the non-visual evidential used with the verb *kai* ‘be painful’ is the only means of referring to the fact that I am in pain:

- (36) *kai-mha*
 hurt-PRS.NVIS
 ‘(I, or a body part which can be pointed at) am hurting or am sick.’

When you talk about how someone else feels, you judge by what you see yourself: you cannot get into their skin and feel what they feel. So, a visual evidential or an inferred is then appropriate. If I were talking about someone else, I would use a visual or an inferred evidential: *kai-naka* [hurt-PRS.VIS] can mean you are hurting or are sick, or she, he, they are hurting or are sick. This is somewhat similar to how the non-visual evidential in Mamaindê is used to refer to internal states of the speaker (Eberhard 2009: 467). Evidentials with verbs of feeling can be considered as person-marking strategies (cf. Aikhenvald

2014a). A full investigation of the ways in which evidentials correlate with semantic types of verbs is a matter for further study.

5 Diachronic links between evidentiality and other categories

Grammatical categories and grammatical forms may give rise to evidentials, as a consequence of their reanalysis and reinterpretation. The basis for this lies in the evidential extensions of non-evidential categories which may acquire meanings related to information source, and thus similar to evidentials; for instance, a conditional form may be used for non-firsthand information.

5.1 From an epistemic modality and future to an evidential

Epistemic modalities may develop overtones of non-firsthand information (which is inherently uncertain), as does the conditional in French. They may then develop into non-firsthand evidentials. In Cree/Montagnais/Naskapi, an Algonquian language from Canada, conjunct dubitative forms have developed non-firsthand evidential meanings in contexts which prohibit the non-firsthand markers proper, for instance, under negation (see James et al. 2001: 230, 254–257). This phenomenon is considered an innovation of Cree. Since the non-firsthand meaning “has become conventionalised as a new meaning for dubitative suffixes in appropriate contexts”, we hypothesise that an erstwhile evidential strategy is on its way towards becoming an evidential proper.

The development of a non-firsthand evidential may involve future, which – by its nature – is close to a non-indicative modality. A future clause typically includes an element of prediction concerning something unwitnessed and of subsequent lack of certainty. It can easily come to be associated with a description of events which the speaker has not witnessed personally, and which they can only talk about on the basis of an educated guess, an inference, an assumption, or hearsay. The non-firsthand evidential in Abkhaz and Circassian, two Northwest Caucasian languages, goes back to the future marker (Chirikba 2003: 262–264). The indirect evidential in Hill Patwin, *-boti/-beti* (Whistler 1986: 69–71) comes from a combination of the auxiliary *bo/be* ‘be (locational)’ followed by the definite future suffix. Along similar lines, two non-sensory evidentials in Akha, a Tibeto-Burman language, developed from future markers: “assumptive” future and “speculative” future (Thurgood 1986: 221–222). According to Metslang &

Pajusalu (2002: 101), the reported evidential marker *-na-* in South Estonian originates in the potential mood.

5.2 From a perfect, perfective, resultative, or a past tense to an evidential

A perfect, a resultative, a past tense, and other forms with a completive meaning can acquire an additional overtone of inferred and generally of non-firsthand information. As Friedman (2003: 209) puts it, both Balkan Slavic languages and Albanian developed evidential strategies using native past forms, and as the contextual variant meanings became invariant the strategies became grammaticalised. The non-firsthand evidential in Turkic, Iranian languages, and in many Finno-Ugric languages originates in anterior and perfect forms (Johanson 2003: 287 and further references in Aikhenvald 2004: 279–280). The non-firsthand evidential marker *-shapan* in Cree/Montagnais/Naskapi goes back to a Proto-Algonquian perfect (James et al. 2001: 247). Complex resultative constructions (involving perfective converbs and a copula ‘be’) gave rise to non-firsthand evidentials in Dargwa and Archi (Tatevosov 2001: 460–461).

The connection between perfect (or anterior) in its resultative meaning and a non-firsthand evidential is a typologically widespread tendency. The result of an action or state, or of an action or state viewed as relevant for the moment of speech is reinterpreted as having the meaning of inference based on visible traces, and other non-firsthand sources, such as assumption and hearsay. Once this range of non-firsthand meanings becomes the main meaning of the form, it can be considered an evidential.

There is some evidence for perfectives or resultatives giving rise to evidentials in larger systems. The Tuyuca non-visual present marker may have evolved from an older perfect aspect construction (Malone 1988: 132). The emergence of the inferred evidential in Tariana involved the reanalysis of the anterior aspect marker *-nhi* accompanied by the visual evidential. Several past tenses may develop into different evidentials. In Kamaiurá, *je* ‘reported’ and *rak* ‘attested’ have clear cognates in past tense markers in other Tupí-Guaraní languages: the ‘attested’ evidential goes back to a recent past marker and the ‘reported’ to a remote past marker (Seki 2000: 344).

5.3 From a nominalized verb form to an evidential

Participles and other deverbal nominalizations are often used as evidentiality strategies, with the meaning of non-firsthand or reported evidential. In Nenets

(Perrot 1996) the non-firsthand (auditive) forms come from de-subordinated nominalizations which include infinitives, participles, and other denominal forms.²⁰ The non-firsthand past in Komi is based on a past participle (Leinonen 2000: 421). In Lithuanian, the reported evidentials developed out of active participles (Gronemeyer 1997: 93; see also Wälchli 2000 and Wiemer 2006). A similar path has been suggested by Overall (2014), for Aguaruna, a Jivaroan language (also see the meanings of participles in Panare discussed by Payne & Payne (2013: 349–350)). Nominalizations are used if the speaker had not witnessed what they are talking about. Their meanings may have a “1st person effect” (discussed in Section 4.1.1). That is, something that had happened to the speaker that he was not aware of can be phrased using a nominalization. As Overall (2014: 240) puts it, in his discussion of example (37), “the nominalized form is appropriate because the speaker cannot be said to have witnessed his own birth (despite having been present!). The rest of the narrative is couched almost entirely in finite past tense forms, in keeping with the fact that the speaker witnessed all the events.”

- (37) *mina daa-hu-k Pablo-i Aguaruna wi-ka*
 1SG.GEN name-1SG-TOP Pablo-COP.3.DECL 1SG-TOP
akiina-u-ait-ha-i comunidad Chikais
 be.born.PFV-NMLZ-COP-1SG-DECL community Chikais
 ‘My name is Pablo. I was born in the community Chikais.’

Nominalized speech complements are another frequent source for evidentials. The development of an evidentiality marker out of a complementation strategy involves “de-subordination” of an erstwhile subordinate clause. That is, a complement clause of a verb of saying acquires the status of a main clause. Then, if the verb in such a dependent clause had a special form, this form takes on the status of a reported evidential. This scenario has been reconstructed for reported evidentials in Standard Estonian (see Harris & Campbell 1995: 99; see Wälchli 2000: 194–196 for further developments in Latvian). The original construction consisted of the main verb of speech or perception and an active participle in partitive form. Once the main verb is systematically omitted, what was a non-finite verb form occurs in a main clause. The only indication that the information comes from someone else is the present participle in partitive case. This form is now the reported evidential (illustrated in (18) and (29)). The

²⁰ The mechanisms of creating new verbal forms through de-subordination of dependent clauses and deverbal forms are addressed in Aikhenvald (2010: 275–280); see also Vallauri (2004), and papers in Yap et al. (eds.) (2011).

nominalized forms (including participles) which gave rise to evidentials did not distinguish person or number of the participant in the first place. This historical path accounts for the lack of person – and number – distinctions in evidentials (see Figure 1 and discussion under G in Section 3), and the ensuing dependency.

5.4 Summary of development paths

Diachronic links account for the following interactions between evidentials and other grammatical categories, and also for the development of fused evidentiality:

- (i) The development path PAST TENSE/RESULTATIVE/PERFECT/PERFECTIVE > EVIDENTIAL can be explained by the mutual dependency between evidentials, aspect and tense.
- (ii) The development path NON-INDICATIVE MODALITY > EVIDENTIAL can be explained by dependencies with modalities.

These dependencies whose explanation is diachronic are in bold face in Figure 1 above.

6 Evidentials and other grammatical categories: A summary

Evidentials interact with tense, aspect, sentence types (or mood system), polarity, clause types, modality, and person and number. Dependencies between tense, aspect, modality, person-number (in bold in Figure 1), and evidentiality can be partly explained by their historical pathways.

Evidentials may acquire additional meanings, not directly related to information source. They may have epistemic meanings, and also have further values as tokens of person. This may create a further basis for development of dependencies between evidentiality, person systems, and modality. We have seen that evidentials can acquire overtones of uncontrolled action, deferred realization, and “surprise”, especially in the context of 1st person. When used in commands, a reported evidential may have overtones of politeness: it makes a command sound less direct, allowing a speaker to distance themselves from a potentially threatening direct order. That is, clausal evidentials may have an effect of establishing cognitive distance.

Perceptual meanings and meanings of information source can be expressed just within a noun phrase. They then interrelate with noun phrase categories –

including physical distance in space (especially in demonstrative systems), pragmatic status, and grammatical function (shown by case).

The synchronic relationship between evidentiality and the notion of distance in space may be explained diachronically. In a number of languages (including Wintu, Sissala, and Lega) clausal evidentials have been shown to have come from demonstratives (see Aikhenvald 2011a). This alerts us to further links evidentials may have, and a possible further connection between clausal and non-propositional evidentiality as a matter for future investigation.

Evidentials often correlate with discourse genres and can be considered tokens of genres. In many languages – including Mparntwe Arremte, Ersu, Tariana, and many more – the reported evidential is used in traditional narratives. The actual use of an evidential may depend on speaker's intention, and information structure. In !Xun, firsthand and non-firsthand evidentials are optional and are only used if the speaker wants to focus on the information source (König 2013). In Turkic languages, focus in discourse is associated with the use of the non-firsthand evidential (Johanson 2003). In Trio, the non-witnessed past is associated with the category of theticity whereby an event is taken as a whole (Carlin 2004: 247, 2011). In Abkhaz, an aside comment can be cast in the non-firsthand evidential (with the story told evidentially-neutral forms) (Chirikba 2003: 247–248; and further examples in Aikhenvald (2004: 317–318)). The pragmatic basis for evidential use – both clausal and NP-level – awaits further study.

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Abbreviations: 1/2/3=1st/2nd/3rd person; A=transitive subject; ABS=absolutive; AFF=affix; ASSM=assumption, assumed; AUX=auxiliary; CAUS=causative; CL=class; CLF=classifier; COND=conditional; COP=copula; CVB=converb; DECL=declarative; DEF=definite; EMPH=emphatic; ERG=ergative; EXC=exclusive; EXT=extent; EYEWIT= eye-witness; F=feminine; FINSUFF=final nominal suffix; FPST=far past; FUT=future; GEN=genitive; HAB=habitual; IMPST=immediate past; IMPV=imperative; INCH=inchoative; INFER=inferential, inferred; INTENS=intensifier; INTERN=internal evidence; INTPT=intermediate past; IPFV=imperfective; JOINTVIS=joint visual; LOC=locative; M=male; MIDPT=mid past; NARR=narrative; NCL=noun classifier; NEG=negative; NF=non-feminine; NOM=nominative; NMLZ=nominalization; NONEYEWIT=non-eyewitness; NONWIT=non-witnessed; NSG=non-singular; NVIS=non-visual; O=object; OBL=oblique; OBSSP=observed by speaker alone; OBSSPH=observed by both speaker and hearer; PERM=permissive; PFV=perfective; PL=plural; POSS=possessive; PREF=prefix; PRS=present; PST=past; QUOT=quotative; R=realis; RECPT=recent past;

REL=relativiser; REP=reported; S=intransitive subject; SG=singular; SUBJ=subject;
TEL=telic; TOP=topic; VIS=visual; WIT=witnessed.

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