
Evidentials worldwide

Evidentiality systems across the world vary in how complex they are, and in what meanings they encode. I start with some general observations about how evidential systems are organized and what labels will be used, and then discuss the kinds of systems attested, exemplifying their typical representatives. We first consider relatively simple systems with just two evidential options (§2.1). In §§2.2–3, we look at systems with three and four evidentials, and in §2.4 at larger systems. The recurrent semantic parameters in evidentiality systems are summarized in §2.5. Evidentials tend to spread across linguistic areas. A detailed discussion and a map illustrating their geographical distribution are in §9.2.1.

Evidentiality systems vary in terms of the number of information sources encoded and in terms of how these are marked. In a system with two choices, one term can be ‘firsthand’, and the other ‘non-firsthand’ (A₁ below). Not infrequently, there is just one, overtly marked, evidential contrasted to an evidentiality-neutral ‘everything else’ form. The most frequent system of this latter kind is reported or hearsay versus ‘the rest’ (A₃), or ‘non-firsthand’ versus ‘the rest’ (A₂). Strictly speaking, systems of this kind have only one evidential ‘term’. They have been included on a par with two-term systems because of the semantic similarities and tendencies towards historical development (see §5.1 and §9.1). Markedness in evidentiality systems is addressed in §3.2, with a typological perspective on systems with and without a ‘default’ or ‘neutral’ member.

The simplest evidentiality systems have just two choices. More complex ones involve more than six. The semantic domain covered by each evidential interrelates with that covered by others: in some systems a ‘non-visual’ evidential may extend to cover things heard and felt by touch, and in others it may be restricted just to what was heard. The labels we use for evidentials may sometimes be misleading if taken literally. For instance, in a small two-term system ‘firsthand’ may in fact cover information obtained through any physical sense: vision, hearing, smell, taste, and touch. In 2.1, from Jarawara (Arawá: Dixon 2003, 2004), a ‘firsthand’ evidential marks what the speaker could see, and the ‘non-firsthand’ refers to what he could not see. This may cover inference.

Jarawara

- 2.1 Wero kisa-me-**no**,
 name get.down-BACK-IMM.P.NONFIRSTH.m
 ka-me-**hiri**-ka
 be.in.motion-BACK-REC.P.FIRSTH.m-DECL.m
 ‘Wero got down from his hammock (which I didn’t see), and went out
 (which I did see)’

The speaker saw Wero go out of the house and inferred he must have got down from his hammock. But he did not see Wero get down from his hammock. This explains the use of the non-firsthand evidential on the first verb.

In 2.2, also from Jarawara, the firsthand evidential describes the noise of the boat that the speaker hears (before he could see the boat itself).

- 2.2 [moto ati] ka-tima-**re**-ka
 motorboat(m) noise be.in.motion-UPSTREAM-IMM.P.FIRSTH.m-DECL.m
 ‘The noise of the motorboat was coming upstream (the noise could be
 heard)’¹

Similarly, in Yukaghir the ‘firsthand’ evidential can refer to any appropriate sense, be it seeing, hearing or smelling. Alternatively, a visual term may cover a combination of visual information and something personally witnessed, but can never refer to strictly auditory data. This is the case in Kalasha and Khowar, both Dardic (Bashir 1988: 48–54).

The non-firsthand in a two-term system may have a fairly wide range of meanings: it may imply that the speaker heard about the action from some secondary source, or made inferences about it, or participated in it directly but was not in control. It is unlikely to refer to secondhand information if there is a separate ‘reported’ evidential forming a special subsystem, as is the case in Mýky (isolate from Brazil: Monserrat and Dixon 2003).

In a multiterm system ‘visual’ most often refers to information obtained through seeing, and not through other senses. Or there can be a catch-all ‘direct’ evidential, referring to any appropriate sense, as in Shipibo-Konibo (Valenzuela 2003). These systems have no ‘catch-all’ non-firsthand, or non-sensory, term. Non-firsthand information is marked depending on whether it was reported (acquired through other people by ‘hearsay’), or inferred on the basis of physical evidence or reasoning and common sense. In Chapter 5, we provide a detailed discussion of meanings and meaning extensions of each evidential depending on the system it is in. Many linguistic traditions have attempted to provide their own terminological flavours to essentially the same

¹ These two evidentials are called ‘eyewitness’ and ‘non-eyewitness’ by Dixon (2003, 2004).

concepts. In order to streamline the existing diversity, I have chosen the following cover-terms for each set of choices.

- ‘Firsthand’ and ‘non-firsthand’ has been reserved for systems with two choices in opposition to each other. (Alternatives found in the literature include ‘experienced’ and ‘non-experienced’, ‘eyewitness’ and ‘non-eyewitness’, and ‘confirmative’ and ‘non-confirmative’.)
- If a language has a ‘non-firsthand’ form without its opposite value, we call it ‘non-firsthand’. (Alternative terms in the literature include ‘non-eyewitness’, ‘inferential’, ‘non-confirmative’, ‘indirective’, and ‘mediative’).² (See §1.3.)
- The evidential whose meaning is ‘verbal report’ is termed ‘reported’; alternative terms are hearsay and quotative. Here, ‘quotative’ is reserved for a reported evidential which involves exact indication of who provided the information.

If in doubt, the reader can check the terminological conventions and their equivalents in the literature in the Glossary. Throughout this book, I will mention terms used by individual authors in brackets (if different from the consensus).

A further note on presentation is in order. Individual systems have been assigned letter-nicknames, for ease of reference. Two-term systems are under A; three-term systems are under B; four-term systems under C, and five-term systems under D. Since there are rather few examples of well-analysed systems with more than five choices, these have not been assigned any letters. Problematic cases where it is hard to decide, on the basis of the available grammars, how many evidential choices there are, and whether these are at all obligatory, are mentioned at the end of each section.

2.1 Evidentiality systems with two choices

Systems with two choices cover:

- A1.** Firsthand and Non-firsthand;
- A2.** Non-firsthand versus ‘everything else’;
- A3.** Reported (or ‘hearsay’) versus ‘everything else’;
- A4.** Sensory evidence and Reported (or ‘hearsay’);
- A5.** Auditory (acquired through hearing) versus ‘everything else’.

² For ‘mediative’, see Lazard (1957, in his analysis of Tajik dialects, and also 1999). Johanson (2000a, 2003) uses ‘indirective’, for basically the same concept.

An overview of the systems is under §2.1.1. Typical difficulties in analysing small evidential systems and distinguishing between them are discussed in §2.1.2.

2.1.1 Evidentiality systems with two choices: an overview

We will now present a brief overview of evidential systems with just two choices. Of these, A₁–A₃ are widespread worldwide, while A₄ and A₅ occur rarely. The latter are somewhat problematic, since neither of them has been attested in a fully spoken living language.

A₁. FIRSTHAND AND NON-FIRSTHAND. The firsthand term typically refers to information acquired through vision (or hearing, or other senses), and the non-firsthand covers everything else. Examples 2.1–2, from Jarawara, illustrate an A₁ system. The meaning of non-firsthand may be more diversified. Cherokee (Iroquoian: Pulte 1985) distinguishes ‘firsthand’ and ‘non-firsthand’ past.³ To use the firsthand suffix, the speaker must have perceived the action or state described by the verb with one of the senses. They may have seen it, as in 2.3, or heard it, as in 2.4.

Cherokee

2.3 wesa u-tlis-Λ?i
cat it-run-FIRSTH.PAST
‘A cat ran’ (I saw it running)

2.4 un-atiyohl-Λ?i
they-argue-FIRSTH.PAST
‘They argued’ (I heard them arguing)

They may have felt it, as in 2.5; or smelled it, as in 2.6. In these cases also, the firsthand suffix is appropriate.

2.5 uhyΛdla u-nolan-Λ?i
cold it-blow-FIRSTH.PAST
‘A cold wind blew’ (I felt the wind)

2.6 uyo ges-Λ?i
spoiled be-FIRSTH.PAST
‘It was spoiled’ (I smelled it)

The non-firsthand past suffix covers information acquired in some other way. It occurs if the statement is based on someone else’s report, as in 2.7.

³ This distinction is described as ‘experienced’ and ‘nonexperienced’ by Pulte (1985).

- 2.7 u-wonis-**eʔi**
 he-speak-NON.FIRSTH.PAST
 ‘He spoke’ (someone told me)

This same suffix is used for inferences of any sort. In 2.8 all the speaker saw was the result rather than the rain itself.

- 2.8 u-gahnan-**eʔi**
 it-rain-NON.FIRSTH.PAST
 ‘It rained’ (I woke up, looked out and saw puddles of water)

If the statement is based on logical assumption, the same suffix is appropriate:

- 2.9 guso-ʔi u-wonis-**eʔi**
 Muskogee-at s/he-speak-NON.FIRSTH.PAST
 ‘She spoke at Muskogee’ (I knew she planned to speak on Sunday. It is now Monday, and I assume that she spoke as planned.)

Yukaghir employs the firsthand to mark information acquired through any appropriate sense, be it seeing or hearing (Maslova 2003: 222–3), just like Jarawara in 2.1–2. During a hunting trip the speaker HEARS the sound of something bursting (the sound of a shot)—hence the firsthand form in the second clause. He INFERS that his fellow hunter (whom he cannot see) fired a bullet—hence the non-firsthand in the first clause.

Yukaghir

- 2.10 [. . .] aji:-**lʔel**-u-m, šar **qoha-s'** [. . .]
 shoot-NON.FIRSTH-O-TR:3 something burst + FIRSTH-INTR:3sg
 ‘. . . (then) he shot (I infer), something burst (I heard). . .’

The non-firsthand form describes things inferred from visible traces, as in 2.11.

- 2.11 taŋ me:me: naha: motlorqo-j-ben=**ŋo:-lʔel**
 that bear very thin-ATTR-NOMN=COP-NON.FIRSTH(INTR:3sg)
 ‘That bear was very thin [as can be seen from his traces]’

The same form marks information obtained through hearsay, as in 2.12.

- 2.12 mieste-ge alaŋcin aŋil'-ge nodo nojdi:-t
 place-LOC Alanchin mouth-LOC bird watch-SS:IMPF
 modo-**lʔel-ŋi**
 sit-NON.FIRSTH-3pl:INTR
 ‘[As people who once roamed together with him in their youth told,] they were sitting at a place called Alanchin mouth, watching for birds’

These systems are found in a variety of North and South American Indian languages, and in a number of languages in Eurasia, including Northeast Caucasian and Finno-Ugric. The distinction often, but not always, is made just in the past tense (see §8.4, on the correlations between evidentiality and tense). This is the case in Tsez (Bokarev 1967: 413; Bernard Comrie p.c.). In Godoberi (Northeast Caucasian: Dobrushina and Tatevosov 1996: 94–7) the firsthand and non-firsthand forms are distinguished in the perfect (both present and past). Hewitt (1979) mentions reconstruction of firsthand ('witnessed', marked by *-rā*) and non-firsthand ('nonwitnessed', marked by *-nā*) in proto-Nax.

In a number of languages from the Finno-Ugric family one of the past tenses (usually the one with perfect meaning, if the perfect/imperfect distinction is available) has a non-firsthand meaning, and the other one refers to firsthand information, as in Mari (Permic, Finno-Ugric: Perrot 1996: 160, Alhoniemi 1993). Both Komi and Udmurt have two past tenses—one usually described as firsthand ('witnessed') past, the other as non-firsthand ('unwitnessed') past (this form is based on a past participle: Leinonen 2000: 421); see examples 10.32–3.⁴

In Kalasha (Dardic: Bashir 1988: 48–54) past tense forms have an obligatory distinction between firsthand (called 'actual', that is, 'personally witnessed' and/or 'having long standing in one's conceptual repertoire': p. 58) and non-firsthand (called 'inferential', covering assumed, inferred, new information, and mirative; see §5.1). In Khowar (Dardic: Bashir 1988: 54–7) the opposition of firsthand and non-firsthand ('actual vs. inferential') is available in all tenses. Tibetan (DeLancey 1986: 210–11) distinguishes between firsthand and non-firsthand information within the perfective system (also see §8.4).

In South America, firsthand and non-firsthand (called visual and non-visual) are distinguished in Yanam, a dialect of Yanomami (Gomez 1990: 97), and in Secoya (West Tucanoan: Terry Malone p.c.). Similar distinction appears to occur in Mangap-Mbula, one of the few Oceanic languages with evidentiality (Bugenhagen 1995: 132–3).⁵

The semantic breadth of each evidential differs, depending on the language. In Cherokee and Yukaghir, a non-firsthand refers to reported information.

⁴ For Mari, Kovedjaeva (1966) describes the meaning of the 'evidential' past (past I) as referring to a recent action 'vividly imagined by the speaker who is often a participant of it'. Alhoniemi (1993: 114–15) gives 'minimal pairs' exemplifying the 'firsthand' meaning of Preterite 1, and the 'non-firsthand' meaning (which covers inference) of Preterite 2. In Komi and Udmurt the two are termed 'obvious' and 'unobvious' past tenses. Other references for Komi and Udmurt include Tepljashina and Lytkin 1976: 179–81; Tepljashina 1967: 271; Lytkin 1966a, b).

⁵ The exact semantic content of 'firsthand' and 'non-firsthand' is often hard to ascertain from the description available. For instance, Gomez (1990: 93, 97) describes the two evidential particles in Yanam as simply 'witnessed' and 'nonwitnessed'. This vague gloss is simply insufficient to determine whether or not the 'non-firsthand' has the meaning of reported or of inferred, or of both.

Not so in Jarawara: this language has a dedicated reported marker which forms a subsystem independent of the firsthand/non-firsthand opposition (see §3.3). Similarly, a past tense verb in Archi (Northeast Caucasian: Kibrik 1977: 87–9, 228–31) can be marked for ‘non-firsthand’, whose meaning is ‘speaker and/or hearer were not eyewitness to the action X before the moment of speech’. The unmarked verb implies that the speaker and/or the hearer witnessed the action. Archi has a separate reported marker (Kibrik 1977: 231–8) as a distinct grammatical subsystem. Not surprisingly, the non-firsthand term does not have the reported as one of its meanings. Further aspects of the semantic complexity of two-term evidentiality systems is discussed in §5.1.

A2. NON-FIRSTHAND VERSUS ‘EVERYTHING ELSE’. The non-firsthand evidential covers a large domain of information acquired through senses other than seeing, by hearsay and by inference of all sorts. Just like A1 systems, the non-firsthand evidential may be distinguished only in past tense. This is the case in many Caucasian languages. Hunzib (Northeast Caucasian: van den Berg 1995) is reported to have a non-firsthand ‘evidential’ perfect which denotes ‘an uncompleted, repeated or habitual (-č(o)), or completed event (-(*V*)n) that took place in the past and was not witnessed by the speaker’.

Evidentiality does not have to interact with tense. Abkhaz (Hewitt 1979; Chirikba 2003) has a tense-neutral non-firsthand (‘inferential’) evidential; it can relate to past, present, or future. The markers are *-zaap'* (occurs with present, aorist, perfect, and one of the futures) and *-zaarən* (with imperfect, past indefinite, pluperfect, and one of the future conditionals). The non-firsthand can describe inference from visible results, as in 2.13 (Chirikba 2003: 246–7): that the woman was crying is inferred from the fact that her eyes are red.

Abkhaz

- 2.13 a-laša + ra-x', a-mca-x' d-an-aa-j-ø,
 ART-light-DIR ART-fire-DIR (s)he-when-hither-come-AOR:NFIN
 lə-la-k^oa ø-q'apš'-za jə-q'a-n d'əwa-**zaarən**
 her-eye-PL it-red-ADV it-be-PAST (s)he + cry-NONFIRSTH2
 ‘When she came up to the light, to the fire, her eyes were very red;
 apparently, she had been crying’ (speaker’s inference)

The same form can refer to something learnt through verbal report:

- 2.14 l-x^oəč'ə d-anə-l-ba-ø a-c'əwa-ra
 her-child him/her-when-(s)he-see-AOR:NFIN ART-cry-DN
 d-a-la + ga-**zaap'**
 (s)he-it-begin-NONFIRSTH1
 ‘When she saw her child, she reportedly started crying’

How do speakers distinguish between the two meanings of the same non-firsthand form—‘inferred’ and ‘reported’? The exact meaning is often understood from the context, as in 2.13–14. Or the speaker may choose to emphasize the precise source. In 2.15 the reported meaning of the non-firsthand is reinforced by stating exactly who gave the information to the speaker: it was ‘recounted by old people’:

- 2.15 \emptyset -až^oə+t^o+w-aa jə-z+l-a-r-h^o-wa a-la,
 ART-old+human-PL it-how-about-they-tell-PRES:DYN:NFIN it-by
 a-p'ap' jə-w+aa-h^o-c^oa a-h^oa əə-r-q'aa-nə, a-la
 ART-priest his-helper-PL ART-pig it-CAUS-shriek-PABS ART-dog
 ə-r-zə-j-š'**-zaap'**
 it-them-for-he-kill-NONFIRSTH1
 ‘As it was recounted by old people, having made the pig cry, the priest reportedly killed (and served) the dog for his helpers’

Note that the non-firsthand evidentials in Abkhaz are restricted to declarative main clauses; this is why there is no evidentiality marked in subordinate clauses in any of 2.13–15 (see §8.1).

The non-firsthand in Turkish and many other Turkic languages (called ‘indirective’ by Johanson 2003) is semantically even broader than in Abkhaz. The information source could be a report, as in 2.16; inference, as in 2.17; or simply non-visual perception, as in 2.18 (Johanson 2003: 274–5).⁶ Inference can be based on visual perception (Johanson 2003: 282).

Turkish

- 2.16 *bakan hasta-ymış*
 minister sick-NONFIRSTH.COP
 ‘The minister is reportedly sick’ (said by somebody told about the sickness)
- 2.17 *uyu-muş-um*
 sleep-NONFIRSTH.PAST-1sg
 ‘I have obviously slept’ (said by somebody who has just woken up)
- 2.18 *iyi çal-ıyor-muş*
 good play-INTRATERM.ASP-NONFIRSTH.COP
 ‘She is, as I hear, playing well’ (said by somebody listening to her play)

A similar system has been described for Xakas, a Turkic language spoken in the area of the Sayan mountains (Anderson 1998: 35–6). Further systems of

⁶ For a discussion of further functions, developments, and semantic complexities within such systems, see Johanson (2003), Csátó (2000), and other papers in Johanson and Utas (2000), papers in Guentchéva (1996), and §5.1.

such kind are found in Megrelian (South Caucasian: Hewitt 1979: 88), Svan (Sumbatova 1999), Mansi (Ugric, Finno-Ugric: Rombandeeva 1966: 353; Rombandeeva 1973: 137–8, 141–2; Majtinskaja 1979: 40; Skribnik 1998), Khanty (Nikolaeva 1999, and 5.4–6), and Nenets (Samoyedic: Uralic).⁷ Meithei (Tibeto-Burman: Chelliah 1997: 221–4) has a marker *-ləm* which marks indirect evidence gained through a non-firsthand source, usually inference based on past or present experience.

The non-firsthand in Hare (Athabaskan: DeLancey 1990a) refers to information obtained through inference and hearsay. DeLancey reports similar distinctions in Chipewyan and Kato, also Athabaskan (we need further information on this as a grammatical category; see below, on a completely different system in Hupa and in Western Apache, other Athabaskan languages). A non-firsthand marker—used when ‘the speaker perceives the evidence and infers the event or action that produced the evidence’—(Nichols 1986: 247) in Chinese Pidgin Russian appears to be the only obligatory, or inflectional, category of the verb.

A3. REPORTED VERSUS ‘EVERYTHING ELSE’. Systems of this sort with one, reported, evidential, which covers information acquired through someone else’s narration, are widespread all over the world. (Alternative terms for ‘reported’ are ‘secondhand’, ‘quotative’, and ‘hearsay’. Of these, ‘quotative’ is the most unfortunate. As we will see in §2.2, it may refer to something quite distinct from an ordinary reported evidential.) According to Silver and Miller (1997: 38), in North American Indian languages, ‘if there is a single obligatory evidential in a language, it is almost always the quotative, which discriminates hearsay from eye-witness reports’. The reported term is marked, and the non-reported (‘everything else’) term is not marked. There are no markings of the opposite sort. The reported evidential tends to be semantically rather uniform across languages (see §5.4).

Lezgian (Lezgitic, Northeast Caucasian) has a reported marker *-lda* added to a finite indicative verb form. This suffix comes from recent grammaticalization (and subsequent phonological contraction) of *luhuda*, ‘one says’ (Haspelmath 1993: 148). In 2.19 the information is known through hearsay.

Lezgian

2.19 Baku.d-a irid itim gülle.di-z aqūd-na-**lda**
 Baku-INESS seven man bullet-DAT take.out-AOR-REP
 ‘They say that in Baku seven men were shot’

⁷ In Nenets the non-firsthand (a so-called ‘auditive’ mood) has a paradigm of its own. It is not compatible with any moods; and is said to indicate ‘that the speaker knows about the action or event in question only from hearsay’ (Décsy 1966: 48). This kind of system appears to be found in a number of other Samoyedic languages (Tereschenko 1979; Kuznetsova et al. 1980).

In contrast, 2.20 specifies the authorship of the report: it is the smart people who say that knowing too much is harmful.

- 2.20 Gzaf čir ŋu-n, aq'ullu insan-r.i
 much know ANTIC-MSD smart person-PL(ERG)
 luhu-zwa-j-wal, zarar ja-Ida
 say-IMPf-PART-MAN harm COP-REP
 'As smart people say, knowing too much is harmful'

In Enga (Engan family, Papuan area), reported utterances are marked with the suffix *-na* added to the last syllable of the predicate (Lang 1973: xli). Another example of a similar system is Tauya (Madang-Adelbert Range, Papuan area: MacDonald 1990b: 301). Potawatomi (Algonquian: Hockett 1948: 139) has a pre-verb *?e* used in story-telling. Or the reported evidential can be a particle, as in Cupeño (Uto-Aztecan: Hill forthcoming: 86) and in Kham (Tibeto-Burman: Watters 2002: 296–300):

Kham

- 2.21 ba-zya di
 go-CONT REP
 'He is going (it is said)'

Simple A₃ systems are found in numerous Tibeto-Burman languages, and in many languages of South America, e.g. Arabela, from the Zaparoan family in northeast Peru (Wise 1999: 329), Dâw (Makú: Martins and Martins 1999), South Arawak languages such as Terêna, Ignaciano, Waurá, Pareci, and Piro, North Arawak languages such as Resígaro (on the border between Peru and Colombia), Piapoco (in Colombia), Baniwa of Içana (on the border between Brazil, Colombia, and Venezuela), and Achagua (on the border between Colombia and Venezuela), as well as in Suruí, Karitiana and Gavião, from the Tupí family (Rodrigues 1999: 119); in the Paraguayan Guaraní (Guasch 1956: 264; Krivoshein de Canese 1983: 102); in Guahibo languages (Aikhenvald and Dixon 1999: 376 and references therein); and in Cashibo (Pano: Shell 1978: 29–31). A few Western Austronesian languages also have reported evidentials (e.g. Philippine languages: Ballard 1974; Josephine Daguman p.c.). In all these languages, evidentiality is part of the grammar of a language.

The primarily hearsay, or reported, particle *ré* or *é* in Sissala, a Gur (Voltaic) language spoken in Burkina Faso, is among the few instances of evidentiality in Africa (Blass 1989). Besides its straightforward use to mark reported information, this particle occurs in a wide variety of contexts, including passing on information attributed to general opinion; echoing traditional wisdom (for instance, in proverbs); and also to mark inference. In the latter case, it is accompanied by the expression 'it seems' (Blass 1989: 316) (see §5.4.3).

The reported evidential is marked with a special verbal form in a number of North American Indian languages. Menomini (Algonquian: Bloomfield 1962: 51–2, 161) has a quotative mode marked by the suffix *-en*. A special reported form not compatible with declarative or other mood inflection is found in Estonian, Livonian, and Latvian. In Standard Estonian, the present reported relates historically to the partitive form of the present participle, *-vat* (see Campbell 1991; and discussion in §9.1). The past reported coincides with the past participle.⁸ Consider 2.22–3.

Estonian

- 2.22 Ta on aus mees
 he is honest man
 ‘He is an honest man’
- 2.23 Ta olevat aus mees
 he be.REP.PRES honest man
 ‘He is said to be an honest man’

A reported particle (commonly, a clitic) features in a few Australian languages. In Mparntwe Arrernte, it occurs in traditional Dreamtime narratives which are said to ‘have been handed down to the present generation from their ancestors’ (Wilkins 1989: 392) (such genre-defining use is typical of reported evidentials; see §10.2.1):

Mparntwe Arrernte

- 2.24 Pmere arrule-rle **kwele** ne-ke; artwe nyente . . .
 camp long-ago REP be-PC; man one
 ‘A long time ago, so they (the ancestors) say, there lived a man . . .’

Reported evidentials vary in the degree of their semantic complexity. The reported evidential in Estonian and in Latvian has overtones of unreliable information (Stolz 1991: 47–9; Haarmann 1970: 60; Metslang and Pajusalu 2002). Example 2.23 may also imply that the speaker does not vouch for the man’s honesty. The Mparntwe Arrernte particle *kwele* also has epistemic extensions to do with speaker’s belief in how reliable the information is, and so do reported particles *kunyu* in Yankunytjatjara (Goddard 1983: 289) and *nganta* in Warlpiri (Laughren 1982: 137–41); see §5.3. In contrast, the reported evidential in Kham and in Lezgian does not have any additional overtones of uncertainty.

Rules of usage of the reported evidential vary, depending on the language. In Shoshone (Uto-Aztecan: Silver and Miller 1997: 38), in Omaha, and in Ponca

⁸ Additional forms are perfective past (*täisminevik*) formed with the suffix *-vat* on the copula ‘be’ and the past participle of the main verb; and the pluperfect formed with a past participle of the copula ‘be’ and the past participle of the main verb.

(Siouan: Koontz 2000), every sentence in a story has to be marked with a reported evidential. In Kham, every final verb in a narrative is marked with the reported. In contrast, the reported marker in Baniwa of Içana and in Piapoco, two Arawak languages from South America, typically occurs just once, on the first sentence in a paragraph.

A4. SENSORY EVIDENCE AND REPORTED. Ngiyambaa (Donaldson 1980: 275–8) and Diyari (Austin 1981: 173–4, 184–5), both Australian, have just two evidentiality values: sensory evidence and reported. In Ngiyambaa, the enclitic *-gara* indicates that the speaker has some sensory evidence for the statement. Exactly what evidence the speaker has is likely to be clear from the context. In 2.25, *-gara* refers to information obtained visually: one can see that someone is sick.

Ngiyambaa

- 2.25 **ŋindu-gara** girambiyi
 you + NOM-SENS.EV sick + PAST
 ‘You were sick’ (one could see this)

In 2.26, *-gara* is used for auditory information.

- 2.26 **gabuga:-gara=lu** ŋamumiyi
 egg + ABS-SENS.EV = 3ERG lay + PAST
 ‘It’s laid an egg’ (by the sound of it)

In 2.27, *-gara* refers to information acquired by taste; and in 2.28 by smell.

- 2.27 **dhagun-gir-gara** ŋina dhiŋga: ga-ŕa
 earth-NASTY.WITH-SENS.EV this + ABS meat + ABS be-PRES
 ‘This meat tastes nasty with earth’ (I have tasted it)
- 2.28 **wara:y-gara=dhu=na** bungiyamiyi
 bad + ABS-SENS.EV = 1NOM = 3ABS change.with.fire + PAST
 dhiŋga: = dhi:
 meat + ABS = 1OBL
 ‘I have burnt my meat, so it’s no good (to judge by the smell of it)’

The same evidential morpheme can mark information obtained through physical touch. The speaker has her hand in the rabbit’s burrow, and can feel the rabbit there, and says 2.29. A lexical reinforcement is added: the speaker explicitly says that she can feel the rabbit.

- 2.29 **yura:bad-gara** ŋidji guŕuga-nha
 rabbit + ABS-SENS.EV here + CIRC be.inside-PRES
 ŋama-ŕa-baŕa = dhu = na
 feel-PRES-CATEG.ASSERT = 1NOM = 3ABS
 ‘The rabbit is in here (I can touch it), I feel it for sure’

The reported enclitic describes information obtained by hearsay, as in 2.30 (see Donaldson 1980: 276, on its allomorphs). It occurs together with irrealis, demonstrating how evidentiality is independent of the realis–irrealis opposition (see §8.3):

Ngiyambaa

- 2.30 bura:y-**dja**=lu ga:-y-aga
 child+ABS-REP=3ABS bring-CONJ.M-IRR
 ‘It’s said that she’s going to bring the children’

This reported evidential has epistemic extensions: just as in Estonian, it may be used to refer to information one does not vouch for; see examples in §5.4.3.

Diyari (Austin 1981, 1978) also distinguishes a sensory evidential (marked with suffix *-ku*) and a reported evidential (marked with particle *piṅṅi*). The sensory evidential indicates that ‘a new action, event or state or a new participant is being added to the discourse and that the speaker identifies the referent of the word suffixed by *-ku* on the basis of sensory evidence’ (Austin 1978: 471). In 2.31, the suffix *-ku* indicates that the information was acquired by sight; in 2.32 it was acquired by hearing, and in 2.33 by a combination of senses (Austin 1981: 184–5).

Diyari

- 2.31 ṅawu wakaṛa-yi-**ku**
 3sgnfS come-PRES-SENS.EV
 ‘He is coming (I saw him)’
- 2.32 wadukaṭi-**ku**, ṅawu kanpu-ṅa-ṅa ṅama-yi
 emu+ABS-SENS.EV 3sgnfS boom-PROD-PART sit-PRES
 ‘[If an emu comes along booming someone gets up (and says)], there is an emu making a sound’
- 2.33 ṅapa ṭalaṛa wakaṛa-ḷa ṅana-yi-**ku**
 water rain+ABS come-FUT AUX-PRES-SENS.EV
 ‘It looks/feels/smells like rain will come’

The reported particle *piṅṅi* marks secondhand information, and is also used as a token of narrative genres. Similarly to Ngiyambaa it may have overtones of ‘I was told, but I don’t vouch for it’ (Austin 1981: 175–6).

- 2.34 **piṅṅi** ṅawu wakaṛa-yi
 REP 3sgnfS come-PRES
 ‘They say he is coming’

The two markers in Ngiyambaa are in a paradigmatic relationship, while in Diyari they belong to completely different sets of grammatical morphemes. From the available literature, it is hard to tell whether either language has an

obligatory evidential system and what the meaning of verbal forms unmarked for evidentiality would be.

A similar system, with just two choices—visual sensory and reported—had survived until the time Pitkin did his fieldwork on the Wintu language in the 1950s. The full system of evidentials recorded by Lee in 1930 (Pitkin 1984: 147 and Lee 1938, 1944) consisted of five terms: visual, non-visual sensory, inferential (‘information inferred from logic applied to circumstantial sensory evidence’: Pitkin 1984: 133–4), experiential (‘information deduced from experience’ which ‘involves the exercise of judgement’: Pitkin 1984: 134), and reported (see 2.96 in §2.4). We return to the fate of evidentials in language obsolescence, and how the restructuring of the Wintu system fares in terms of ‘gain’ and ‘loss’ in language obsolescence, in §9.3.

Of the three languages with A4 systems, none comes from a language unaffected by language obsolescence. The two Australian languages were remembered by just a few old people, while in Wintu the system arose as a result of restructuring and reduction of an earlier and larger one. We can only conclude that the typological validity of type A4 remains doubtful.

A reduced system of evidentials similar to the one discussed here is found in Latundê/Lakondê, a moribund Northern Nambiquara language (Telles 2002: 20–4). Unlike other Nambiquara languages which have multiple evidentials (see §2.4 below), Latundê/Lakondê has just two: auditory and reported (Telles 2002: 289–90), as in:

Latundê/Lakondê

2.35 ā-'pat-ho'te-'ten-'se?-ø-'tān-hi

AG-leave-for.someone-DES-AUD-3S-IMPF-NEUT
‘She is going to leave it (for me)’ (I heard this)

2.36 wet-'nāw ta'wɛn-'naw loh sūn-ø-ø-setaw-'tān

child-PL jungle-LOC jaguar hit-3O-3S-REP-IMPF
‘The children in the jungle, the jaguar got them’ (they say)

As is typical for a situation of advanced language obsolescence, evidentials appear to be used sporadically. They are often replaced with periphrastic expressions, e.g. ‘he left, I saw (him)’, or ‘he left, I heard’. (See §11.2 on the lexical reinforcement of evidentials.) In 2.37, a quotative construction with the verb ‘say’ is used instead of the reported evidential (Telles 2002: 290).

2.37 hejn-ka-ø-'tān hajn-ø-'tān

wash-BEN-3S-IMPF say-3S-IMPF
‘He washed (the clothes), he said’

Lakondê is spoken just by one person; only two of nineteen speakers of Latundê are monolingual. Most other speakers are bilingual in Portuguese, a language with no grammatical evidentiality. The reduced evidential system in Lakondê/Latundê may well be a consequence of language attrition.

A5. AUDITORY VERSUS ‘EVERYTHING ELSE’. Such a system has been so far found only in Euchee (or Yuchi, an isolate spoken in Oklahoma by about a dozen elders: Linn 2000; Mithun 1999: 571). A typical use of auditory evidential is shown in 2.38. A sentence like 2.38 can be rephrased with a lexical verb ‘hear’ (see 11.4). The possibility of such rephrasing confirms the primarily auditory meaning of this evidential. (This is somewhat similar to lexical reinforcement of evidentiality, to be addressed in §11.2.)

Euchee

2.38 'ahe 'i-gō-ke
 here 3sg(EUCHEE).ACTOR-come-AUD.EV
 ‘They are coming (I hear them)’

A sentence or a clause may be left unmarked for evidentiality, and then the source of information remains simply unspecified, as in 2.39. Here, the (female) speaker may know that the man is in the woods because she saw him walking towards the woods; or because he is always out in the woods at this time, or because he said he was going to the woods, or because someone else told her. This is similar to the ‘everything else’ term in A2 and A3 systems.

2.39 'yapho-he s'e-nō
 woods-LOC 3sg(EUCHEEMALE).ACTOR-be.located
 ‘He’s out there in the woods’

The auditory evidential in Euchee does not have any epistemic overtones: it never refers to the probability of the event, or truth of the assertion (Linn 2000: 318).

Once a language is no longer actively spoken, it becomes obsolescent. This process can affect any grammatical category, and evidentials are no exception (see §9.3). Euchee is a dying language. So, could it be the case that such an unusual system is simply the result of the drastic reduction so frequently observed in the situations of language obsolescence? We do not find any mention of evidentials in previous grammars of Euchee. In fact, Wagner (1934: 325, 370), in his grammar, interpreted *-ke* as just a locative marker. Linn (2000: 318) analysed this same morpheme as polysemous, with a locative meaning ‘there, far away’ and as an auditory evidential referring to ‘something so far away that it can only be heard and not seen’. Could an auditory evidential meaning have

developed in Euchee during the last few decades while the language was still actively used? We will never know the answer.

2.1.2 *Evidentiality systems with two choices: analytic difficulties*

Analytic difficulties which typically arise with respect to small systems concern (a) distinguishing between primarily evidential forms and evidential extensions of other, non-evidential, categories; (b) distinguishing between A1 and A2 systems; and (c) distinguishing among A1, A2, and A3 systems. These recurrent problems are now discussed one by one.

(a) DISTINGUISHING BETWEEN PRIMARILY EVIDENTIAL FORMS IN A2 SYSTEMS AND EVIDENTIAL EXTENSIONS OF NON-EVIDENTIAL CATEGORIES.

The status of forms with non-firsthand evidential meanings can be analytically ambiguous: is a form with an evidential meaning indeed evidential-only, or maybe it just has an evidential extension, and its main meaning is something else? In other words, does a language have an evidentiality strategy of a kind described in Chapter 4, or a fully fledged evidentiality? To qualify for the latter, the form should have information source as its main meaning rather than as just one of its usages. Compare Georgian and Abkhaz. In Georgian ‘non-firsthand’ is just one of the meanings of the perfect forms (called ‘screeves’ by Hewitt 1995; also see Tschenkéli 1958: 482–96 and §4.1). In contrast, Abkhaz has a dedicated marker *-zaap*’ which marks non-firsthand evidentiality. See further discussion in §§4.1–2, and a summary by Chirikba (2003: 266–7).

Numerous Eurasian languages are problematic in this respect: many of them have a form often described as ‘evidential perfect’ with the full range of non-firsthand meanings (as shown in 2.16–18, for Turkish). Synchronically speaking, some of these forms can either be analysed as an evidential proper, or be considered an evidential strategy (§4.2). Such problematic, borderline cases include Vlach Romani (Matras 1995), some Northeast Caucasian languages, such as Avar (Friedman 1979), and a number of Iranian languages, e.g. Persian (Lazard 1985, 1999; Hadarcev 2001) and Ishkashim (Pamir: Nazarova 1998).

The answer to the crucial question of whether a language has a grammatical category of evidentiality or simply evidential meanings as extensions of another category often depends on a grammarian’s analytic stance. Most grammars of Iranian languages consider a non-firsthand meaning as one of the connotations of perfect. In his grammar of Zazaki (Iranian), Paul (1998: 91–2) demonstrates that perfect forms do not necessarily have an interpretation associated with information source. This provides justification for treating them as ‘evidentiality strategies’ rather than evidentials proper. Windfuhr (1982) argues

in favour of non-firsthand ('inferential') forms as a separate category in Persian. Lazard (1985) shows that the term 'distant past' (*passé distancié*) adequately describes the use of these forms in Persian, thus arguing in favour of analysing the perfect forms in Persian as primarily not associated with information source. He points out (pp. 41–2) that such an analysis is not necessarily valid for all Iranian languages—in Tajik as analysed by Lazard (1957: 148) the non-firsthand (called 'inferential') ought to be considered a separate category rather than a special usage of perfect or past.

In actual fact, the semantic extensions of evidential strategies are often strikingly similar to the extensions of the non-firsthand term in A2 systems (see §4.2 and §5.1). This similarity was captured by Paul (1998: 91–2) in his analogy between the Turkish non-firsthand forms in *-miş* and the non-firsthand uses of perfect in Zazaki, to refer to verbal report and inference. Historically many A2 systems originate in the reanalysis of evidentiality strategies (see §9.1); and this adds an additional dimension of complexity to an analysis which aims at combining a synchronic and a diachronic perspective.

Similar problems arise with forms other than past or perfect. In Western Armenian, non-firsthand evidential meanings are expressed through a set of forms which go back to perfect. Synchronically, it is an analytic construction which consists of a participle in *-er* and an auxiliary (Donabédian 1996). As expected, its meanings cover hearsay, inference, and surprise or unexpected information; it is also used in stories, value judgements, and to express temporal, aspectual, and modal nuances (p. 100). The particle *eγer*, which goes back to an *-er* participle of the verb 'be', expresses inference and hearsay; its use is comparable to a lexical strategy (except for the fact that its occurrence is associated with perfect and indirect speech) (pp. 95–6). Since it is a special verbal paradigm, it may qualify as an evidential system, which goes back to grammaticalization of a strategy (using participles in a 'non-firsthand' sense: a possibility of this interpretation was suggested by Lazard 1999). Wasco-Wishram (Silverstein 1978) is reported to have an 'evidential' passive (with inference as one of its meanings) which goes back to a locational construction. But the existing data are not sufficient to decide whether this is an evidentiality system or just an extension of passive.

(b) DISTINGUISHING BETWEEN A1 AND A2 SYSTEMS.

Languages with an A2 evidentiality system contrast between evidentially marked forms (covering non-firsthand information sources) and evidentiality-neutral forms. There is, however, a certain amount of controversy in how to interpret forms that do not contain reference to any information source.

Consider Turkish. According to Johanson (2003: 275), ‘functionally marked terms expressing the evidential notions explicitly stand in paradigmatic contrast to non-evidentials’. Every form marked for evidentiality has an unmarked counterpart, e.g. *gel-miş* (come-NONFIRSTH.PAST) ‘has obviously come’ (the speaker may know this by inference, or hearsay) versus *gel-di* (come-PAST) ‘has come/came’; and *gel-iyor-muş* (come-INTRATERM.ASP-NONFIRSTH.COP) ‘is/was obviously coming, obviously comes’ versus *gel-iyor* (come-INTRA) ‘is coming/comes’. The unmarked term is used if ‘the speaker considers the evidential distinction unessential and thus chooses not to use it’. The unmarked terms simply do *not* signal that the event is stated in an indirect way, i.e. ‘acknowledged by a recipient by means of report, inference or perception’ (Johanson 2003: 276). They are ‘neutral’: the speaker ‘considers the evidential distinction unessential and thus chooses not to use it’ (p. 275). This is in stark contrast to A1 systems, which have a paradigmatic distinction between firsthand and non-firsthand, without any unspecified, ‘everything else’ term. Johanson (2003: 275–6) emphatically points out that ‘the widespread opinion that unmarked terms such as *gel-di* “has come/came” consistently signal “direct experience” or “visual evidence” is incorrect’, though ‘evidentially unmarked terms may suggest that the source of information is direct experience’ (p. 282). This tendency towards an unmarked interpretation of the *-di* past as that of ‘direct experience’ has been signalled by Grunina (1976), Aksu-Koç and Slobin (1986: 165), and Aksu-Koç (2000); also see Kornfilt (1997: 337–8), on its overtones to do with ‘certainty’ and commitment ‘to the truth of the statement’.

Historically, individual languages tend to reinterpret the ‘everything else’ term as primarily ‘firsthand’ and ‘direct experience’. Johanson (2003: 279) reports that in some Turkic languages the *-di* past, the ‘non-evidential’ counterpart of the non-firsthand *-miş*, has acquired meanings associated with ‘firsthand’ evidentials. Examples are Uzbek, Turkmen, Uyghur, and Kazakh.

Along similar lines, Balkan Slavic languages developed an A1 system out of an erstwhile A2 system—which, in its turn, goes back to the grammaticalization of an evidential strategy (Friedman 2003: 212). We will see in §4.1 and in §9.1 that most A2 systems result from grammaticalization of an evidentiality strategy, whereby a verbal category develops an additional, evidential meaning. This meaning gradually becomes obligatory. Later, it becomes the only meaning of these categories. Friedman (2003: 193) shows how the languages of the Balkans—in particular, Macedonian and Albanian—grammaticalize the erstwhile evidentiality strategies into obligatory categories—that is, ‘a meaning which is encoded into certain paradigms cannot be avoided when those forms are used’.

Any process of grammaticalization and reinterpretation is best viewed as a continuum. Verbal forms with an evidential meaning may occupy different places on this continuum: evidentiality-neutral forms ‘drift’ towards acquiring the meaning

complementary to their ‘non-firsthand counterparts’ and thus gradually become associated with ‘firsthand’ information. Some may even be interpreted by linguists as a variety of A₁, as has been suggested for Turkish (e.g. Grunina 1976, and discussion in Aksu-Koç and Slobin 1986 and Aksu-Koç 2000).

Additional difficulties may arise if the ways in which the description of evidentials is phrased make it hard to decide whether the language has an A₁ or an A₂ system. The ‘inferential’ in Takelma (Sapir 1922: 158) ‘implies that the action expressed by the verb is not directly known or stated on the authority of the speaker but is only inferred from the circumstances of the case or rests on the authority of the one other than the speaker’. That is, if a statement ‘the bear killed the man’ is cast in inferential, it implies that it is either inferred from ‘certain facts (such as finding the man’s corpse or the presence of a bear’s footprints in the neighbourhood of the house)’, or that ‘the statement is not made on speaker’s own authority’. In contrast, if one says ‘the bear killed the man’ stating the event ‘as a mere matter of fact, the truth of which is directly known’ to speaker from their or another’s experience, the aorist form would be used. Notably, the inferential is not used in myths—‘either because the constant use of the relatively uncommon inferential forms would have been felt as intrusive and laborious, or because the events related in the myths are to be looked upon as objectively certain’. (Such ‘epistemic’ extensions of evidentials will be discussed in §5.1.) The question whether the zero-marked form in Takelma can be considered analogous to firsthand evidentials in an A₁ system or not remains open. If it is an evidential, the system is of A₁ type. If the unmarked form is evidentiality-neutral, the system is of A₂ type.

(c) DISTINGUISHING BETWEEN A₁, A₂, AND A₃ SYSTEMS.

The exact boundaries between all the three commonly attested evidential systems can be blurred, and different language analysts can produce different results. Consider Cherokee; Reyburn (1954: 64) described the non-firsthand (‘non-experienced’) past suffix as ‘reported past’ marker, thus implying that ‘reported information’ is its core meaning. One could infer from Reyburn’s discussion that Cherokee has an A₃ system. However, the analysis of various contexts of the usage of two evidentials fused with past tense by Pulte (1985) demonstrated that ‘the Cherokee past suffixes . . . constitute a simple evidential system distinguishing information obtained by the senses from information obtained [in] other ways’, and that ‘the “reported past”, previously thought to be central to the system, is only a special case of the nonexperienced past’; that is, we are dealing with an A₁ system. This is fully confirmed by examples such as 2.3–9 above.

Not all languages are so well served in their documentation. In Tarascan (isolate: Foster 1969: 50), the enclitic *naa* marks reported speech. Apparently, it can also be used to refer to ‘what one does not know from one’s own experience’,

marking inference, as in expressions like ‘it appears that she will die’. The available descriptions make it difficult to decide whether the reported meaning is primary. The question whether Tarascan has an A2 or an A3 system remains unanswered.⁹

On a more positive note: a careful synchronic and diachronic analysis of the non-firsthand form in an A2 system can help establish the paths of its semantic evolution. Cree, Montagnais, and Naskapi—the three northernmost members of the Algonquian family which form a dialect continuum (James, Clarke, and MacKenzie 2001)—have two evidential suffixes fused with tense: *-tak* ‘present tense non-firsthand’ and *-shapan* ‘past tense non-firsthand’. Both can be used to mark inference based on perceived results (for instance, when the speaker hears someone snoring they infer that the person is asleep). The same morphemes are also used to convey reported information, or simply ‘unspecified’ indirect evidence (see further examples and semantic extensions in §5.1). A cross-dialectal analysis reveals that the two suffixes originally referred to inference and were only later extended to reported information; this expansion has occurred only in some dialects. It is thus a clear case of an A2 system.

The reported term in an A3 system often develops connotations of ‘disclaimer’ of firsthand knowledge on the part of the speaker. In Arizona Tewa (Kiowa-Tanoan: Kroskirty 1993: 144–5), the ‘reported’ particle *ba* has ‘the “hearsay” qualification of the assertion’ as its primary meaning; it has also been extended to disclaim ‘first-hand knowledge or novelty on the part of the speaker’ (p. 144). (Also see §10.2.1, on how this particle is used in traditional narratives.) There is enough evidence, however, to classify it as primarily ‘reported’.¹⁰

Importantly, in each case evidentiality is distinct from modal expressions (involving ‘epistemic’ meanings relating to probability and possibility). In §8.5, we return to the question of how modalities interact with evidentials.

2.2 Evidentiality systems with three choices

Three-term systems involve at least one sensory specification. Five types have been attested so far:

- B1.** Direct (or Visual), Inferred, Reported
- B2.** Visual, Non-visual sensory, Inferred
- B3.** Visual, Non-visual sensory, Reported

⁹ A recent grammar of Tarascan (Purépecha) by Chamereau (2000) does not mention this clitic. The so called ‘reportative’ suffix *-(ü)rke* in Mapuche (an isolate from Chile) presents a similar problem (Smeets 1989: 322; Zúñiga MS).

¹⁰ Along similar lines, the hearsay suffix in Kiowa (Watkins 1984: 174) indicates that the speaker is giving information which was not ‘personally experienced’. Since most often the source of information is someone else’s verbal report, the evidential can be safely classed as ‘reported’ and the system as A3.

B4. Non-visual sensory, Inferred, Reported

B5. Reported, Quotative, 'everything else'

All of these are attested in more than one language, but B2 and B3 systems are relatively uncommon. Analytic problems arise with respect to the expression of visually acquired information in B4 systems together with the status and interpretation of evidentiality-neutral forms. B5 systems are different from other systems discussed here but similar to A3 systems in that they provide for an 'everything else' default choice.

B1. DIRECT (OR VISUAL), INFERRED, REPORTED. Depending on the system, the first term can refer to visually acquired information, as in Qiang; or to information based on sensory evidence, usually visual or auditory, as in Shasta. Jaqi languages (Aymara: Hardman 1986) have three evidentials—personal knowledge (acquired visually), hearsay (knowledge through language), and non-personal knowledge (inferred). The semantic complexity of individual terms and their extensions are discussed in §5.2. All the Quechua languages have three evidentiality specifications: direct evidence (*-mi*), inferred (traditionally called conjectural) (*-chi*, *chr(a)*), and reported (*-shi*)¹¹ (Floyd 1997). Their semantic complexity is addressed in §5.3.

The following examples are from Wanka Quechua (Floyd 1997: 71; 1999: 48).

Wanka Quechua

- 2.40 Chay-chruu-**mi** achka wamla-pis walashr-pis
 this-LOC-DIR.EV many girl-TOO boy-TOO
 alma-ku-lkaa-ña
 bathe-REFL-IMPF.PL-NARR.PAST
 'Many girls and boys were swimming' (I saw them)
- 2.41 Daañu pawa-shra-si ka-ya-n-**chr**-ari
 field finish-PART-EVEN be-IMPF-3-INFR-EMPH
 'It (the field) might be completely destroyed' (I infer)
- 2.42 Ancha-p-**shi** wa'a-chi-nki wamla-a-ta
 too.much-GEN-REP cry-CAUS-2 girl-1P-ACC
 'You make my daughter cry too much' (they tell me)

Shilluk, a Western Nilotic language of the Northern Luo subgroup (Miller and Gilley forthcoming), is the only language in Africa with a similar three-fold evidentiality system. The direct and the inferred evidentials are verbal prefixes,

¹¹ Other Quechua varieties have somewhat different allomorphs of these. Here and elsewhere I keep the morphemic gloss in the source, unless indicated otherwise.

while the reported evidential is a particle preposed to the verb. In Mosestén, an isolate from Bolivia (Sakel 2003: 266–8), the sensory evidential particle *ishtyi'* occurs if either visual or auditory evidence is available to the speaker. If the information has been obtained by hearsay, the enclitic *-katyi'* is employed. The clitic *-(a)ke* is used if the information has been inferred, and the speaker has not heard or seen the action happen (as, for instance, in a situation when somebody found a dead body and concludes that the person died).

Shasta appears to have had a fused marking of evidentiality, tense, mood, and person with three specifications (apparently, evidentials are only used with third person: Silver and Miller 1997: 38): direct evidential non-past; inferential non-past; inferential near past; inferential distant past; quotative near past; and quotative distant past (see §8.4, for correlations between tense and evidentiality).

The visual term in a three-term system may be formally unmarked. Bora (Bora-Witoto family, Peru: Thiesen 1996; Weber and Thiesen forthcoming: 254–6) has two evidential clitics *?ha* 'inferred' (called 'nonwitnessed') and *-bà* 'reported'. The absence of an evidential clitic implies firsthand information. The fact that the zero-marked form has an evidential value is corroborated by the observation: 'if a speaker fails to include an evidential clitic when reporting an event he or she did not witness, they may be challenged by the hearer' (see §11.2). Koreguaje (West Tucanoan: Barnes 1999: 213; Cook and Criswell 1993: 86–7; Gralow 1993) is a similar example. In this language 'if speakers were present for the event or state they are speaking of, there is no special marker. If they obtained the information from another source, they include an auxiliary verb which indicates that they are not giving a first person account. If they assume that the assertion is/was true, they use an auxiliary verb that indicates probability' (Barnes 1999: 213).

Qiang (Tibeto-Burman: LaPolla 2003a: 67–70) also has a three-way evidential system. If the event was seen, the overt visual marker *-u/-wu* can be used, as in 2.43.

Qiang

2.43 the: *ʒdzyta:* *fiə-qə-(w)u*
 3sg Chengdu+LOC OR-go-VIS
 'He went to Chengdu' (the speaker saw the person leave)

The visual evidential is not obligatory; in fact, it is used mostly to emphasize that the speaker actually did see the other person perform the action, as in 2.43. If no such emphasis is required, and the event was witnessed, the evidential marking can be simply omitted, as in 2.44. The default reading for a clause unmarked for evidentiality is visually acquired information; see §3.2.

2.44 *?ū tɕɛχun tu-pu-ji-n*
 2sg marry OR-do-CSM-2sg
 'You got married' (I saw you get married)

If the evidence for the statement is based on inference, the suffix *-k* is used, as in 2.45. Here, the statement is based on inference from seeing the broken pieces in the person's hands.

- 2.45 panə-le: fi-a-χə-k-ən
 thing-DEF:CL OR-broken-INFR-2sg
 'It seems you broke the thing'

Information obtained by hearsay is marked with the suffix *-i*.

- 2.46 the: zɔdʒyta: fi-a-qə-i
 3sg Chengdu+LOC OR-go-REP
 'He went to Chengdu (I heard)'

A similar system has been reported for Amdo Tibetan (Sun 1993: 950). Example 2.47 implies that the knowledge was acquired through 'direct, visual perception of event'.¹²

Amdo Tibetan

- 2.47 tʃaɕ^{hi}=kə ^htæ ŋu=t^hæ
 Bkra.shis=ERG horse buy(COMPL)=DIR.EV
 'Bkra-shis bought a horse' (speaker saw it)

Example 2.48 refers to knowledge acquired by inference, circumstantial evidence, or even hearsay, while 2.49 is an assertion made on the basis of a verbal report by someone other than the speaker.

- 2.48 tʃaɕ^{hi}=kə ^htæ ŋu=zəg
 Bkra.shis=ERG horse buy(COMPL)=INFR
 'Bkra-shis bought a horse' (speaker inferred it)
- 2.49 tʃaɕ^{hi}=kə ^htæ ŋu=t^hæ/zəg se
 Bkra.shis=ERG horse buy(COMPL)=DIR/INFR REP
 'Bkra-shis bought a horse' (speaker was told about it)

Similar systems are probably found in a number of other languages of the Americas. Ponca (Siouan: Anonymous n.d. 108–11)¹³ had three evidential choices (described under the cover term 'quotative mode'): 'witnessed by

¹² Along similar lines, Hopi (Hill and Black 1998: 892) appears to distinguish an inferential marker *kur* and a hearsay or quotative *yaw*; statements based on direct experience are unmarked. Potential mood marker *kyu* is used as an evidential strategy to mark assumptions. At present the exact number of evidentiality distinctions are difficult to ascertain, since the status of the verb with no evidentiality marking remains unclear.

¹³ The author is probably Frida Hahn; however, this cannot be known with certainty (John Koontz, p.c.).

speaker', assertion made by the speaker 'but repeating the experience of a third person', and 'hearsay'. Loos (1999: 246) mentions a three-term system—which he terms 'factual', 'reported', 'assumed'—in Capanawa, a Panoan language. Maidu has a three-term evidentiality system: visual, reported, inferred (Shipley 1964: 45). Skidegate Haida (Swanton 1911: 248, 264) distinguished 'experienced past', 'inexperienced past', and 'quotative'. Sanuma (Yanomami: Borgman 1990: 165–73) has at least three evidentiality markers—'direct' (used in present and past tenses), 'verification', by seeing evidence or by hearing from someone who has firsthand knowledge of the state or event (also with a distinction of present and past), and 'supposition' (used in present, past, or future). Reported evidentiality is marked by a combination of inferential plus an additional morpheme. The exact structure of the system requires further investigation.¹⁴

B2. VISUAL, NON-VISUAL SENSORY, INFERRED. Washo (Jacobsen 1964: 626–30; 1986: 8) has visual, auditory, and a marker of 'ex post facto inference with some connotation of surprise' (which Jacobsen termed 'mirative'; also see Appendix to Chapter 6). A similar system appears to be found in Siona (West Tucanoan: Wheeler 1987: 152–3), with three evidentials interacting with tense: visually acquired information (implying full participation of the speaker), partial participation (implying non-visual sensory information and lack of control on the part of the speaker), and 'total separation' of the speaker (a judgement based on inferred or on reported information).

B3. VISUAL, NON-VISUAL SENSORY, REPORTED. Oksapmin (isolate from Papua New Guinea, Sandaun province: Lawrence 1987: 55–6) has three evidentiality choices. If the information was acquired visually, the verb is formally unmarked, as in 2.50.

Oksapmin

2.50 yot haan ihitsi nuhur waaihpaa
two men they:two we went:down
'Two other men and I went down' (I saw it)

If the speaker acquired the information from someone else, the 'reported' clitic *-ri* is used, as in 2.51.

2.51 Haperaapnong mahan kuu gaamin tit
Haperap:to over.there woman husband.and.wife one

¹⁴ A three-term system of reported, inferred, and unmarked appears to have been used in Bahwana, a North Arawak language spoken on the Middle Rio Negro in Brazil (Ramirez 1992: 64–5). Materials on this language are, unfortunately, very limited (being based on work with the last speaker who is now dead) and it is impossible to say under what conditions an evidentiality specification was obligatory, and what its interrelations were with other grammatical systems.

pipaa-ri

went-REP

‘A husband and a wife went (reportedly) over there to Haperap’

Events perceived through senses other than sight (hearing, tasting, smelling, or feeling) are expressed by using a verb stem (with a sequential marker) plus the verb ‘do’. In 2.52 the speaker can hear the plane which is too far away to be seen.

2.52 barus apri-s ha-h
plane come-SEQUENCE do-IMM.PAST
‘I hear the plane coming’

And 2.53 can be said by someone walking along the trail and smelling pork being cooked somewhere in the bushes.

2.53 imaah gapgwe na-ha-m hah-h-mur
pig good:smell to:me-do-SEQUENCE do-IMM.PAST.SG-STATEMENT
‘Some pork is roasting (to me) (I smell it)’

The non-visual evidential is also used to refer to something felt—2.54 was produced by an old speaker of Oksapmin who was getting an injection.

2.54 gin sur oh mara-s hah
now needle it come.in-SEQUENCE do-IMM.PAST
‘Now I feel the needle going in’

Similar systems are attested in Maricopa (Gordon 1986*a*; 1986*b*: 112–13) and in Dulong (LaPolla 2003*c*).

B4. NON-VISUAL SENSORY, INFERRED, REPORTED. Nganasan and Enets, of the Samoyedic branch of Uralic, distinguish non-visual sensory (traditionally called ‘auditive’), inferential, and reportative (‘renarrative’) forms. (See §§5.2.1–3, for further semantic overtones of each term.) The auditive marks what can be heard and not seen. Examples 2.55–60 are from Nganasan (Gusev forthcoming: 4).

Nganasan

2.55 Nogutə-munu-t'i miiʔa
come.close-AUD-3Du here
‘The two of them are coming close’ (one can hear them come)

The non-visual sensory evidential can refer to any sort of non-visual perception. In 2.56 it refers to a smell, and in 2.57 to tactile sensations.

2.56 Ma-tənu hihie koli neluaj-müñü-t'u
house-LOC boiled fish feel/smell-AUD-3sg
‘There is a smell of boiled fish in the house’

- 2.57 ... kobt^ua ŋatə-**munu**-t'u nənd'i-tiə maʔ
 ... girl found-AUD-3sg stand-PART.PRES house
 ... 'a girl (who has left her house during a snowstorm and cannot see anything) felt (i.e. found by feeling) a standing house'

The inferential is used to mark inferences made on the basis of visual evidence, as in 2.58.¹⁵ The speaker infers that a fox had been walking around the abandoned settlement and that it had broken a tooth—a broken-off piece of the tooth is lying on the ground.

- 2.58 Tərədi'-ʔ maʔad'ə-mənu tunti-rə
 this-GEN.PL abandoned.settlement-PROL.PL fox-2sg
 d'oðür-**h^uatu** ... t'imi-mti ləhəra-**h^uaðu**. T'imi
 go.round-INFR tooth-ACC.3sg break-INFR tooth(-GEN)
 ləhumuə dübəə-ti məu nini
 piece lie-PRES ground(-GEN) on
 'A fox must have been going round by these abandoned settlements . . . it must have broken a tooth—a (broken-off) piece of tooth is lying on the ground'

Inference can be made on the basis of reasoning, as in 2.59. That the men did brake when their master told them to implies that he is an authority for them.

- 2.59 T'eliʔimid'i-ʔə-ʔ baarbə-ðuŋ huntə-ðuŋ i-**h^uaðu**
 brake-PERF-3pl master-3pl authority-3pl be-INFR
 'They braked (following the master's order); (one infers that) their master was an authority for them'

A reported evidential marks any secondhand information. It can come from some specific person, as in 2.60, or from hearsay in general. The main character, by the name of SünəðiʔNənikü, instructs the girl to ask her brother for permission to go away with him.¹⁶

- 2.60 Munə-ʔ: "Sünəðiʔ Nənikü mənə kontu-nantu-**banhu**"
 say-IMP (name) I(-ACC) take.away-VOL-REP
 'Say (to your brother): "SünəðiʔNənikü wants to take me away, reported"'

¹⁵ Forms -*h^uatu* and -*h^uaðu* are allomorphs of the inferential marker -*hatu*.

¹⁶ Similar examples from Enets are in Künnap (2002).

The three evidentials in Retuarā (Central Tucanoan: Strom 1992: 90–1; Clay Strom, p.c.) form a similar system. If one can hear people talking, one says 2.61, with the auditory evidential.

Retuarā

- 2.61 *peta-rā* *pōʔibāhā-re* *ibā-ko-yu*
 downriver-LOC people-TERM be-AUD-PRES
 ‘There are people downriver (I can hear them talking)’

The assumed evidential *-rihi* indicates that the statement is based on assumption. Since the child is small, I assume that he must be one year old.

- 2.62 *kūpahī-ki* *ki-ībē* *weheherāka*
 small-masc 3masc.sg-be year
ki-eya-waʔ-ri-rihi-yu
 3masc.sg-reach-AWAY-EP-ASSUM-PRES
 ‘He is small; he must be one year old (I assume this)’

If the speaker learnt the facts from someone else, the reported evidential would be used.

- 2.63 *limon* *eʔe-rī* *yi-aʔ-yu* *dā-re* *ki-ā-rape-re*
 lemon get-PURP 1sg-go-PRES 3pl-TERM 3masc.sg-say-PAST-REP
 ‘“I am going to get lemons”, he is reported to say to them’

Whereas B₁, B₂, and B₃ systems consisted of just three terms, B₄ systems have three marked terms and allow for the possibility of not using an evidential marker. The unmarked situation is, however, not to be regarded as a fourth evidential value, although it may be used for visually acquired information, in both Nganasan and Retuarā. If one saw the people downriver, the correct way to say this in Retuarā would be 2.64 (Clay Strom, p.c.). In Retuarā, visually acquired information is one of the readings for the verb not marked for evidentiality.

- 2.64 *peta-rā* *pōʔibāhā-re* *ibā-rape*
 downriver-LOC people-TERM be-PAST
 ‘There are people downriver (I see them)’

In Nganasan (Gusev forthcoming: 2–3), a verb without any evidential morpheme may be interpreted as describing visually acquired information, as in the last clause of 2.58, or information of which the speaker is certain. (The unmarked verbal forms are underlined. Also see 3.6 and 5.25.) An unmarked verb form in both languages allows for multiple interpretations. It may indicate that no evidential specification is being offered if the speaker deems it

unnecessary to specify the information source (Gusev forthcoming: 3, 11). Myths recounting events which happened in times immemorial are told using unmarked forms. Or the evidential value may be clear from the context (see 5.25). (This is in sharp contrast to many other evidentiality systems where the reported evidential is a recurrent feature of mythical narratives; see §9.2.1.) Verbs unmarked for evidentiality may occur together with all three evidentials in one sentence, without any meaning difference (see §3.2.2, example 3.6 and discussion there). Zero-marked forms in Retuarā appear in procedural discourse (see texts at the end of Strom's 1992 grammar) and generally if the source of information is unknown or unimportant. This shows that a formally unmarked verb in B4 systems is evidentiality-neutral (also see Usenkova forthcoming: 11, on the ambiguity of unmarked verb forms in Nganasan).

I conclude that 'visual' evidentiality is not a special term in B4 systems. If the verb is unmarked for evidentiality, it may refer to visual information, but does not have to. This interpretation is consistent with a general tendency for information acquired visually to be less formally marked than the information acquired through any other source, as will be shown in §3.2.2.

B5. REPORTED, QUOTATIVE, AND 'EVERYTHING ELSE'. Only reported information requires a special marker, similarly to A3 systems with only a reported evidential. The reported evidential in A3 systems has a wide range of meanings. It may refer to information reported by someone from an unspecified source, and also to information acquired from a specified person, that is, as quotative (see §5.4.1). The reported proper and the quotative are formally distinguished in a few North American Indian languages.

Comanche (Uto-Aztecan: Charney 1993: 188–91) has a narrative past particle *ki*, which marks narrative 'that lies outside the speaker's personal knowledge—both folktales and events that the speaker learned of from others'. The quotative particle *me* occurs when there is a direct quotation, as in 2.65.

Comanche

2.65 hāā **me**-se suti⁼ patsi
 yes QUOT-CNTR that.one older.sister
 'The older sister said, "yes"'

The reported and the quotative evidentials can appear together, if a quotation happens to occur in a text told in narrative past.

2.66 suti⁼-se 'yes' **me-ki**
 that.one-CNTR yes QUOT-NARRATIVE.PAST
 'He (Coyote) said "yes", it is said'

‘Reported’ and ‘quotative’ are distinguished in Dakota (Siouan: Boas and Deloria 1939: 106–7). The particle *śk'a* indicates ‘statements known by hearsay’, and ‘when the statement or thought of a definite person is quoted, the quotation may end with *lo* (*le*), *ye*, *c'e* (or *k'ɨ*). The first is used for the present or future; the second for an obligatory future; the third for the past’.

These two types of reported evidentials show similarities to how C₃ systems—with four evidentials altogether—distinguish between reported and quotative (see §2.3).

The difference between two reported evidentials may be of another sort: one may be a simple reported, the other a token of narrative genre for myths or stories acquired from someone else. Tonkawa (Hoijer 1933: 105–6) has two suffixes glossed as ‘quotatives’. The suffix *-no'o* means ‘one hears that’, or ‘it is being said that’. It does not appear to be restricted to any particular genre. The suffix *-lakno'o* occurs in myths, indicating that the events recounted happened a long time ago. It is added to every verb in a story, unless the clause is a direct quotation.

Chemehuevi (Uto-Aztecan: Munro 1978: 162–3) also has two quotatives (as opposed to evidentiality-neutral forms), but the semantic distinction between the two is quite different. One, (*m*)*aykani*, marks quotations, reported speech, and complement clauses of verbs like ‘hear’, ‘wonder’, or ‘think’. Historically, it developed from *ay/may* ‘say’. Another quotative-like element, *ayk'a*, possibly related to (*m*)*aykani*, appears only in Coyote’s speech. This is to do with a tendency of marking speech characteristics of animals, tricksters, and other characters widely attested in North American Indian languages (cf. Sapir 1915, on Nootka; and Jane Hill, p.c.).

2.3 Evidentiality systems with four choices

Four-term systems involve one or two sensory specifications. Three types have been attested:

- C1. Visual, Non-visual sensory, Inferred, Reported
- C2. Direct (or Visual), Inferred, Assumed, Reported
- C3. Direct, Inferred, Reported, Quotative

Four-term evidentiality systems, which involve just one sensory specification, mark inference and assumption (C₂), or two kinds of verbal report (C₃).

C1. VISUAL, NON-VISUAL SENSORY, INFERRED, REPORTED. Systems of this kind are found in a number of East Tucanoan languages spoken in the multilingual area of the Vaupés in northwest Amazonia—Tucano (Ramirez 1997, vol. II; my field data), Barasano (Jones and Jones 1991), Tatuyo (Gomez-Imbert 1986),

Siriano (Criswell and Brandrup 2000: 400–1), and Macuna (Smothermon, Smothermon, and Frank 1995). In these languages evidentiality specification is fused with person, number, and gender and there are dependencies with tense (see §8.4 below and Malone 1988). Traditional Tariana used by older speakers also had a system of this kind. A five-term system—which we have seen in 1.1–5—has developed comparatively recently.

Seeing the dog drag the fish from a smoking grid, one says 2.67 in Tucano, with a visual evidential fused with recent past tense.

Tucano

- 2.67 diâyî wa'î-re yaha-ámi
 dog fish-TOP.NON.A/S steal-REC.P.VIS.3sgnf
 'The dog stole the fish' (I saw it)

If one heard the noise of a dog messing around with the smoking grid, or of the fish falling down, one uses a non-visual evidential, as in 2.68.

- 2.68 diâyî wa'î-re yaha-ásĩ
 dog fish-TOP.NON.A/S steal-REC.P.NONVIS.3sgnf
 'The dog stole the fish' (I heard the noise)

If the owner of the fish comes into the kitchen area, and sees that the fish is gone, there are bones scattered around, and the dog looks happy and satisfied, the inferred evidential is appropriate.

- 2.69 diâyî wa'î-re yaha-ápĩ
 dog fish-TOP.NON.A/S steal-REC.P.INFR.3sgnf
 'The dog stole the fish' (I inferred it)

And if one learnt the information from someone else, the reported evidential is the only correct choice.

- 2.70 diâyî wa'î-re yaha-ápi'
 dog fish-TOP.NON.A/S steal-REC.P.REP.3sgnf
 'The dog stole the fish' (I have learnt it from someone else)

Eastern Pomo (Pomoan: McLendon 2003: 101–2) also has an evidential system of a similar kind, with four terms: a visual or direct knowledge evidential (2.71), a non-visual sensory evidential (2.72), an evidential covering logical inference from circumstantial evidence (2.73), and a reported (2.74).

Eastern Pomo

- 2.71 mí·-p-al P^ha·bé-k-a
 3.sg.-male-PATIENT burn-PUNCTUAL-DIRECT
 'He got burned' (I have direct evidence, e.g. I saw it happen)

- 2.72 bi·Yá p^ha·bé-k^h-**ink'e**
 hand burn-PUNCTUAL-SENSORY
 'I burned my hand' (I feel the sensation of burning in my hand)
- 2.73 bé·k-al p^ha·bé-k-**ine**
 3pl-PATIENT burn-PUNCTUAL-INFERENTIAL
 'They must have gotten burned' (I see circumstantial evidence—signs of a fire, bandages, burn cream)
- 2.74 bé·k-al p^ha·bé-k^h-**le**
 3pl-PATIENT burn-PUNCTUAL-REPORTED
 'They got burned, they say' (I am reporting what I was told)

The direct evidential (termed 'indicative' in McLendon's earlier work: McLendon 1975, 1996) indicates that the speaker has direct knowledge of the event because they 'performed or experienced the action, process or state'. This evidential occurs where there is visual evidence. However, unlike the visual evidential in Tucano, it has a wider meaning—that of firsthand experience. This evidential has an epistemic extension of 'certainty': if something had disappeared, and 'one knows for sure who took it', 2.75 would be appropriate (see §5.3.1).

- 2.75 bé·k^h p^hu·dí-yaki-**ya**
 3pl.AGENT steal-PL-DIRECT
 'They stole it'

Ladakhi (Tibeto-Burman: Bhat 1999: 72–3; Koshal 1979: 185–201) appears to have a similar system: evidential suffixes cover reported, 'direct observation', experienced (e.g. by speaker feeling), and inferred (e.g. 'he will die-inferred' on the basis of his being very sick). These occupy the same slot as mood markers. In addition, there are a number of suffixes which specify type of inference: whether it is based on sounds or habitual occurrence, or whether it has to do with 'observations not remembered correctly', or 'inferred from unobserved partial or vague knowledge', or simply 'guessed'. Whether all these are really evidentials, and how they correlate with other verbal categories requires further studies.

Goddard (1911: 124) reported a similar four-term evidential system for Hupa (Athabaskan). The choices are visual ('the object or act is within the view of the speaker'); non-visual sensory ('when the act is perceived by the sense of hearing or feeling'); inferred from evidence; and an additional inferred evidential, which differs from the other one 'in the fact that evidence is more certain'. Victor Golla (p.c.) reports that there may have been a number of other markers (for instance, a reported evidential).

A four-term evidential system in Shibacha Lisu (Tibeto-Burman: Yu 2003) also involves visual, non-visual, inferred, and reported, all expressed with particles.

C2. DIRECT (OR VISUAL), INFERRED, ASSUMED, REPORTED. Systems of this type vary in the semantic content of the sensory evidential. The sensory evidential may refer just to information acquired by seeing, or to any sensory perception. The inferred evidential typically refers to inference based on visible or tangible results, or direct physical evidence. The assumed evidential is to do with assumption, or general knowledge.

In Tsafiki (Barbacoan: Dickinson 1999: 37–8; 2000: 407–9; 2001), if an event was ‘directly’ witnessed—which appears to imply seeing—the verb is morphologically unmarked.

Tsafiki

- 2.76 Manuel ano **fi-e**
 Manuel food eat-DECL
 ‘Manuel ate’ (the speaker saw him)

If information was obtained by inference from direct physical evidence, 2.77 would be used.

- 2.77 Manuel ano **fi-nu-e**
 Manuel food eat-INFR-DECL
 ‘Manuel ate’ (the speaker sees the dirty dishes)

A nominalization followed by the verb class marker is employed if the inference is made on the basis of general knowledge. This is the assumed evidential.

- 2.78 Manuel ano **fi-n-ki-e**
 Manuel food eat-NOMN-VCLASS:do-DECL
 ‘Manuel ate’ (he always eats at eight o’clock and it’s now nine o’clock)

Other examples of this evidential discussed in Dickinson (2001) could be interpreted as involving assumption based on reasoning. These include ‘the warmth of the child must be what is causing her to sleep so long’, and ‘three or four or five, (I think) he must have killed five’.

The reported evidential—marked with the suffix *-ti*—indicates that the information was obtained from someone else. We will see in §3.5 that it can occur together with any of the other three evidentials, and can even be repeated to distinguish between secondhand and thirdhand report.

The sensory evidential in a C2 system can refer to firsthand knowledge acquired through any physical sense, be it vision, hearing, smell, taste, or touch,

as in Shipibo-Konibo (Valenzuela 2003: 35–7). In 2.79 the ‘direct’ evidential *-ra* (which is a second position clitic: see §3.1) refers to something the speaker could see (and of which he was also a participant: see §7.1).

Shipibo-Konibo

2.79 westiora nete-**n-ra** ka-a iki nokon yosi betan
 one day-temp-DIR.EV go-PP2 AUX POSS1 elder CONJ
 e-a, piti bena-i . . .
 1-ABS fish:ABS search-SSSI
 ‘One day my grandfather and I went to look for fish . . .’

In 2.80 the direct evidential refers to non-visual sensory perception. The speaker can smell and hear that the fish is being fried, but he cannot see it.

2.80 shee a-**rá**-kan-ai yapa
 ONOM:frying do.TR-DIR.EV-PL-INC fish:ABS
 ‘Fish is being fried’ (I smell it and hear it, but cannot see it)

The inferential *-bira* encodes inference based on observable evidence or on reasoning. Someone hears a baby crying and says 2.81 to the mother.

2.81 mi-n bake pi-kas-**bira**-[a]i, oin-we!
 2-GEN child:ABS eat-DES-INFR-INC see-IMP
 ‘Your child must be hungry (inferred on the basis of him crying), come and see!’

The evidential *-mein* indicates that the information is based on assumption and speculation. If someone knocks on the door, one would use *-mein* to ask oneself ‘who could this be?’

2.82 tso-a-**mein** i-ti iki
 who-ABS-SPECL be-INF AUX
 ‘Who could it be?’

If ‘one is watching a soccer match on TV and sees that a player suddenly falls to the ground and others come to his help’, one would use *-bira* saying ‘He must have twisted his ankle’, as in 2.83 (see §3.5 on how evidentials in Shipibo-Konibo can occur together).

2.83 oa-**ra** taské-**bira**-ke
 DIST:ABS-DIR.EV sprain-INFR-COMPL
 ‘He must have sprained his ankle’

The assumed evidential *-mein* ‘would be preferred if one simply sees an unknown person on the street walking with difficulty’ (Valenzuela 2003: 47).

There is also a reported evidential, *-ronki*. (An additional reported marker *-ki* is almost synonymous with *-ronki*.) The reported can be used when the source of information is general hearsay; or when the speaker is quoting someone (Valenzuela 2003: 39).

- 2.84 a-**ronki**-a iki
do.TR-REP-PP2 AUX
'It is said that s/he did (it)' or 'S/he says that s/he did (it)'

In Pawnee (Caddoan: Parks 1972) the visual is formally unmarked; there is a prefix marking hearsay (also used for folklore), a prefix marking inference from results, and another prefix for unspecified indirect inference. Four evidentiality specifications—visual, inferred, assumed, and reported—are described for Xamatauteri (Yanomami: Ramirez 1994: 169–70, 175, 296, 316–17.).

Whether the only sensory evidential in a C2 type system can be strictly non-visual is problematic. The only putative example found so far is Wintu (Wintun) as described by Schlichter (1986). However, Schlichter's analysis leaves it unclear as to how visual information is marked. Pitkin (1984), in his full grammar of Wintu, postulates five evidentiality choices; see discussion under §2.4 below.

A four-term system similar to C2 above was described by Kroeker (2001: 62–5), for Mamainde (Northern Nambiquara), with the following choices: visual ('I am telling you what I saw the actor doing'); inference on the basis of visual evidence ('I am telling you my deduction of an action that must have occurred because of something that I saw/see'); assumption on the basis of general knowledge ('the speaker knows this to be true from what always happens that way'); and reported ('I was told that a certain action has occurred').

Mamainde

- 2.85 wa³kon³-Ø-na²hẽ³-la²
work-3sg-VIS.PAST-PERF
'He worked (yesterday; I saw him)'
- 2.86 wa³kon³-Ø-nũ²hẽ³-la²
work-3sg-INFR.PAST-PERF
'He worked (yesterday; I inferred this based on visual evidence)'
- 2.87 tĩ³ka³l-a² kai³l-a² yain-Ø-te²ju²hẽ³-la²
anteater-DEF ant-DEF eat-3sg-GENERAL.KNOWLEDGE.EV-PERF
'The anteater habitually eats ants (I know this as general knowledge)'
- 2.88 wa³kon³-Ø-ta¹hxai²hẽ³-la²
work-3sg-REP.PAST-PERF
'He worked (I was told)'

If both the speaker and the addressee saw, inferred, or were told about the action, a special set of evidentials is employed; see discussion in §7.3.1.

- 2.88a wa³kon³-Ø-ta¹tēxti²tu³-wa²
 work-3sg-REP.PAST-PERF
 ‘He worked (you and I were told)’

C₃. DIRECT, INFERRED, REPORTED, QUOTATIVE. The semantics of the two reported evidentials in C₃ systems may involve a distinction between reported and quotative. Cora (Uto-Aztecán: Casad 1984; Willett 1988: 68–9) distinguishes direct evidential (marked with a clitic *ku*, as in 2.89) and an inferred evidential marked with *seín* (as in 2.90), in addition to two reported evidentials. The visual evidential has an epistemic connotation—emphasizing the veracity of a statement.

Cora

- 2.89 a'ačú **ku** rí 'i na-a-rí 'h
 somewhat DIR.EV well me-COMPL-do
 ‘It made me a little better’
- 2.90 ah pú-'i há'a=hi-(y)a'-a-káa-va-čí **seín**
 then SUBJ-SEQ be=NARRATIVE-away-outside-down-fall-PAST INFR
 í t'yaška
 ART scorpion
 ‘Apparently the scorpion dropped down from there’

Events on which secondhand report is available are marked with the particle *nú'u*. This particle also occurs in folklore, as in 2.91 (Casad 1984: 179).

- 2.91 ayáa pá **nú'u** tyú-hu'-u-rí h
 thus SUBJ QUOT DISTR-NARR-COMPL-do
 ‘This is, they say, what took place’

In addition to this, Cora has another particle, *yée*, which marks ‘secondhand direct discourse’ (Casad 1984: 179; 1992: 152). In other words, they function as quotatives—this is illustrated in 2.92¹⁷—from a story (itself marked with a reported evidential *nú'u*).

- 2.92 y-én peh **yée** wa-híhwa m^wáa,
 here-top you:SUBR QUOT COMPL-yell you:sg
 yáa pú nú'u hí t'í-r-aa-ta-hée
 PROCOMP SUBJ REP SEQ DISTR-DISTR:SG-COMPL-PERF-tell
 ‘“From right up on top here, you will call out loud and clear”, that is what she called on him to do’

¹⁷ Casad (1984: 179) mentions additional quotative particles, *wí* (analysed as an emphatic in Casad 1992), and *yéewi*, a combination of *yée* and *wí* (Casad 1992: 153).

This particle goes back to a Proto-Uto-Aztecan verb of saying (Munro 1978; Casad 1992: 154); its semantic extensions are to do with expressing inference and other kind of information which the speaker acquired through indirect experience. These semantic extensions are reminiscent of the non-firsthand in A2 and of reported in A3 systems—we return to these in Chapter 5.

Northern Embera (Chocó family, Colombia: Mortensen 1999: 86–7) distinguishes between a reported and a quotative evidential. This language also marks inference or ‘conjecture’, and what appears to be ‘direct’ evidential. A quotative evidential *-pida* means that the speaker is repeating exactly what the other person said.

Northern Embera

- 2.93 o-s^hi-**pida**
 make-PAST-QUOT
 ‘[He_i said] he_i made one’

The reported evidential *-mana* is used as a general hearsay; it frequently occurs in legends.

The distinction between two reported evidentials can be of different nature. Southeastern Tepehuan (Willett 1991: 161–6) has four evidentials. The particle *dyo* marks information that was personally witnessed by the speaker, visually or through one or more physical senses. The particle *vac* marks all sorts of inference. There are also two reported evidentials: if the reported evidence was not previously known to the speaker, the particle *sap* is used, as in 2.94. The report can be based on something heard from a particular person, or on general hearsay.

Southeastern Tepehuan

- 2.94 oidya-'-ap gu-m tat.
 go.with-FUT-2sg ART-2sg father
 Jimi-a' **sap** para Vódamtam cavuimuc
 go-FUT REP.1 to Mezquital tomorrow
 ‘(You should) accompany your father. He says he’s going to Mezquital tomorrow’

This particle is also used in folklore, with an implication that the story comes from a reliable source, and in quotative formulas. If part of the information was previously known to the hearer, the particle *sac* is used, as a way of reminding the hearer of the information they should already be aware of, as in 2.95.

- 2.95 va-jí pir gu-m bí na-p **sac** tu-jugui-a'
 REL-get.cold ART-2sg food SUB-2sg REP2 EXT-eat-FUT
 ‘Your food is already cold. (You said) you were going to eat’

Is this particle a true evidential or a marker of ‘old’ knowledge (cf. Chapter 6)? This question remains open.¹⁸

There could be further kinds of evidentiality systems with three or four choices. However, the existing descriptions are too sketchy to be able to evaluate them. Kwakiutl (Boas 1911b: 496) distinguishes four evidential suffixes: ‘reported’ (‘it is said’), ‘as I told you before’, ‘seen in a dream’, and ‘evidently, as is shown by evidence’. Salish languages (Thompson 1979: 744) appear to distinguish several specifications, to do with ‘assumption’ and ‘observed situation’, besides the ubiquitous quotative. Lillooet (Salish: van Eijk 1997: 200–7) has a variety of enclitics which look like evidentials, including *an* meaning ‘the speaker concludes something from circumstantial evidence’, *kʷuʔ* ‘quotative’, and *qaʔ* ‘presupposed knowledge’. The Thompson language (Salish: Thompson and Thompson 1992: 140–2, 157) has a variety of particles with evidential-like meanings—reportive, conjectural, perceptual, presumptive; and a few other markers with similar meanings, such as ‘apparent’ and ‘recognitional’. In either case, there is not enough detailed discussion to be able to fully evaluate this information. Along similar lines, the exact number of evidentiality choices in Bella Coola (also Salish) is difficult to ascertain. Saunders and Davis (1976) discuss numerous ways in which a Bella Coola speaker can convey evidence for the information and how certain he or she is of its veracity; there are a number of dubitative constructions employed when the event was not acquired visually. The absence of these implies that ‘the evidence for the assertion is the speaker’s witnessing of the event’ (p. 35). In addition, there is a clear reportative marker *kʷ* (pp. 40–2), used both in quotative constructions (such as ‘Jeff said that Snac wiped the boat-reported’) and in general reported structures (such as ‘Snac wiped the boat-reported’). But are the dubitative markers evidentials, or do they express different degrees of doubt or certainty, and thus can only qualify as evidential strategies? At present, the available descriptions simply do not allow us to make a decision.

The difficulties of analysis are often to do with the status of a zero-marked term. Few authors go to the same length as Gusev (forthcoming), for Nganasan, in their analysis of various functions of the unmarked term. Wichita (Caddoan) appears to have a non-visual, an inferential, and a reported evidential;

¹⁸ In his overview of evidentiality systems, Willett (1988: 68–9) mentioned the possibility of distinct marking for secondhand reported and for thirdhand reported. Examples given included Cora and Southeastern Tepehuan; however, the analysis and examples discussed by Casad (1984, 1992) clearly show that Willett was incorrect as regards Cora; see examples 2.91–2 above. In his grammar (1991: 164, n. 53), Willett acknowledges that the Southeastern Tepehuan data ought not to be analysed as secondhand and thirdhand. I have been unable to find any other examples of secondhand and thirdhand information marked with distinct morphemes (see §5.4.2). In some languages, third- and fourthhand information can be simply expressed by repeating the reported evidential—see 3.29–30 from Tsafiki.

the absence of evidential marking appears to correlate with having personally observed the event (Rood 1976: 92; also see §3.3). Whether this unmarked term is indeed a zero-marked evidential or not remains unclear.

2.4 Evidentiality systems with five or more choices

Systems which contain five evidentiality choices may have two sensory evidentials, one inferred and one assumed evidential, and also one reported marker. Rather few systems of this sort have been clearly analysed.

A five-term system of D1.VISUAL, NON-VISUAL SENSORY, INFERRED, ASSUMED, and REPORTED was illustrated in 1.1–5, from Tariana. The most frequently cited example of a similar system comes from Tuyuca, an East Tucanoan language (Barnes 1984) spoken in the same area as Tariana. A similar system is found in Desano, also East Tucanoan (Miller 1999: 64–8). Epps (forthcoming) describes a very similar system in Hupda, a Makú language spoken in the same area.

Traditional Wintu (Pitkin 1984: 147, 183, based on materials collected by Dorothy D. Lee in 1930) also distinguished a five-way contrast in evidentials. The meaning ‘he is chopping/chopped wood’ could be expressed in the following ways, depending on how the information was acquired:

Wintu

- 2.96 kupa-**be** ‘he is chopping wood (if I see or have seen him)’: VISUAL
 kupa-**nt^he** ‘he is chopping wood (if I hear him or if a chip flies off and hits me)’: NON-VISUAL SENSORY
 kupa-**re** ‘he is chopping wood (I have gone to his cabin, find him absent and his axe is gone)’: INFERRED
 kupa-**?el** ‘he is chopping wood (if I know that he has a job chopping wood every day at this hour, that he is a dependable employee, and, perhaps, that he is not in his cabin)’: ASSUMED (EXPERIENTIAL)
 kupa-**ke** ‘he is chopping wood (I know from hearsay)’: REPORTED

Complex evidentiality systems may involve further terms. Kashaya (Pomoan: Oswalt 1986: 34–42) has at least the following:

- ‘Performative’ (- *wela/-mela*) signifies that ‘the speaker knows of what he speaks because he is performing the act himself or has just performed it’ (it is used only with first person).
- ‘Factual/visual’ pair - *wǎ*, -*yǎ* (the two forms correspond to imperfective and perfective) signifies ‘that the speaker knows of what he speaks because he sees, or saw, it’.
- ‘Auditory’ -*ynnǎ* signifies that ‘the speaker knows of what he speaks because he heard the sound of the action, but did not see it’.

- ‘Inferential’ *-qã* marks ‘an inference based on circumstances or evidence found apart, in space or time, from the actual event or state.’ An additional inferential *-bi-* could be a distributional variant of *-qã* (p. 40; also see McLendon 2003: 125).
- ‘Quotative’ *-do* marks that the information was learned from somebody else.

There are two further terms in the system: ‘personal experience’ *-yowã*, which can replace any evidential—except for quotative—when employed in a narrative construction, and remote past *-miyã*, an archaic suffix used to mark descriptions of personal experiences in remote past. To what extent these are indeed evidentials is not clear from the analysis available.

This system is similar to the one in Tuyuca in that it distinguishes visual and non-visual sensory. Kashaya has an additional distinction within the ‘visual’, or ‘direct’ (the ‘factual’).

Further complex systems include Central Pomo (Mithun 1999: 181). Evidentials cover general knowledge, visual, non-visual sensory, reported, inferential, ‘personal experience of one’s own actions’, and a further one referring to ‘personal affect’.

Nambiquara languages, with the most complex evidentiality system in southern Amazonia (Lowe 1999: 275–6), seem to have a comparable set of specifications. Southern Nambiquara has an obligatory marking on the verb for whether a statement is (1) eyewitness (implying that the speaker had seen the action they are reporting), (2) inferred or (3) assumed (‘the speaker’s claim . . . based either on seeing an associated simultaneous action and making an interpretation therefrom, or on seeing a set of circumstances which must have resulted from a previous action and making an inference; different suffixes mark these two options’), (4) reported (‘the speaker is simply passing on information they have heard from another speaker’), and (5) ‘internal support’ (‘the speaker reports their “gut feeling” that which they assert must be so’). An additional complication in the system lies in the fact that each evidential is fused with the marker of either new or old information. More information is needed on this elaborate system (which appears to be rather different from the system in Mamainde, a Northern Nambiquara language: Kroeker 2001: C2 above and 2.85–9).

Another complex system, with six terms, was reported for Foe, a language of the Kutubuan family spoken in the Southern Highlands of Papua New Guinea (Rule 1977: 71–4). ‘Participatory’ or factual evidential implies that the speaker is participating in the action, or is making a statement of a generally known fact, as in 2.97.

Foe

- 2.97 na mini wa-**bugege**
 I today come-PRES.PARTICIPATORY.EV
 'I am coming today' (PARTICIPATORY EVIDENTIAL)

Visual implies that the action was seen.

- 2.98 aiya bare wa-**boba'ae**
 air plane come-VIS.EV
 'An airplane is coming' (can see it: VISUAL)

Non-visual ('sense perception') indicates that the action was perceived by hearing, smelling, feeling, or understanding.

- 2.99 aiya bare wa-**bida'ae**
 air plane come-NONVIS.EV
 'An airplane is coming' (can only hear it: NON-VISUAL)

Mental deduction implies an inference based on something for which the speaker has evidence perceived with his senses (for instance, hearing a hen cackling and deducing by the type of sound that she must have laid an egg), or as in 2.100.

- 2.100 Kabe Irabo wa-**ada'ae**
 Mr Irabo come-DEDUCTIVE.EV
 'Mr Irabo is coming' (can hear him speaking and can recognize his voice)

Visible evidence implies inference based on the visible results (such as an empty trap, or footprints), as in 2.101.

- 2.101 Agu amena wa-**boba'ae**
 Agu men come-VIS.EVIDENCE.EV
 'The Agu men are coming' (can see the smoke rising on the Agu track)

Previous evidence describes, for instance, an event the evidence for which the speaker had seen, but cannot see at the moment of speech (Rule 1977: 71–4).

- 2.102 Kabe Maduane minage wa-**bubege**
 Mr Maduane still come-PREVIOUS.EVIDENCE.EV
 'Mr Maduane is still coming' (both left together, but the speaker came faster than Maduane, and so he knows he's still on the way)

Fasu (Kutubuan, Papuan: May and Loeweke 1980: 71–4), distantly related to Foe (Franklin 2001), appears to have an even more sophisticated system.

Declarative ‘independent clause’ suffixes provide a number of specifications which cover: (1) visual (‘seen’), (2) non-visual sensory (‘heard’), (3) reported, and also (4) heard from an unknown source, or thirdhand, (5) heard from a known source, such as the original speaker, (6) statement about something in which the speaker participated directly, and a number of further specifications which are reminiscent of ‘inferred’: ‘statement about a thought’, ‘deduced from evidence’, as well as ‘obvious to the speaker’. However, the description is too sketchy to be able to evaluate the exact semantics of information source in each case. Karo (Tupi: Gabas Júnior 1999, 2002) has a complex system of evidential-like particles which encode visually acquired information, reported information, and eight more specifications based on different kinds of inference. However, it is not quite clear whether evidentiality in Karo constitutes one grammatical system.¹⁹

In some languages a wide variety of evidential meanings may be expressed in different slots of the verbal word or within a clause. Each evidential has its own restrictions on co-occurrence with other categories. At least some of these markers can be optional. In contrast to the systems discussed so far, different evidentiality specifications are ‘scattered’ throughout the grammar, and by no means form a unitary category. Examples of this sort cover heterogenous evidentials in Makah, and in Eskimo languages (also see de Reuse 2003: 97, on Western Apache). This ‘scattered’ coding of evidentiality will be addressed in §3.3.

2.5 Information sources throughout the world: a summary

We have established five kinds of systems with two evidential choices, and five types with three choices. Evidential systems with four choices can be of three kinds. Only one type of five-term system has been found in more than one language. Semantic parameters employed in languages with grammatical evidentiality cover physical senses, and several types of inference and of verbal report. The recurrent semantic parameters are:

- I. VISUAL: covers information acquired through seeing.
- II. NON-VISUAL SENSORY: covers information acquired through hearing, and is typically extended to smell and taste, and sometimes also to touch.
- III. INFERENCE: based on visible or tangible evidence, or result.
- IV. ASSUMPTION: based on evidence other than visible results: this may include logical reasoning, assumption, or simply general knowledge.

¹⁹ Hixkaryana (Carib: Derbyshire 1985: 255) has six ‘verificational’ particles, two of which convey evidentiality-like meanings (hearsay and deduction, while visual, or ‘eyewitness’, if contrasted to hearsay, is zero-marked). These require further analysis.

- V. HEARSAY: for reported information with no reference to those it was reported by.
- VI. QUOTATIVE: for reported information with an overt reference to the quoted source.

No language has a special evidential to cover smell, taste, or feeling. ‘Feeling by touch’ is treated differently by different systems. The ‘sensory’ evidential in Ngiyambaa (A4) can be used to refer to information one acquires by feeling something (e.g. a rabbit in its burrow: 2.29). Similarly, in Shipibo-Konibo (with a C2 system) the direct evidential covers a variety of senses (including touch). This is not the case in every system: in Tariana (D1) the sensory evidential does not refer to touch if the speaker touches something on purpose, for instance, touching a piece of cloth to check if it is dry. The assumed evidential is used then. The non-visual can be used if ‘touch’ is not controlled by the speaker—that is, if someone steps on one’s dress, as in 5.34, or gets bitten by a mosquito as in 5.37. (This is similar to how one describes getting an injection in Oksapmin (B3), in 2.54.) We return to this in Chapter 5.

The domain of ‘inference’ is subdivided differently in different systems. A major distinction appears to exist between an inferred evidential covering inferences made on the basis of visible or tangible results, and an assumed evidential involving general knowledge and assumption based on reasoning. Examples 2.77 and 2.78 from Tsfiki (C2) illustrate these. We return to the semantic complexity of inferred evidentials in §5.3.2.

A few languages of C3 type distinguish between hearsay and quotative. We will see in §5.4 that the hearsay and the quotative evidentials may differ in terms of how they correlate with a particular genre, and which epistemic extensions they may have (see, for instance, Casad 1992, on how the quotative *yée* in Cora has acquired epistemic overtones and can also be used to express inference).

Table 2.1 summarizes the semantic parameters attested in languages with grammatical evidentiality. The names used here for each evidential appear in the columns. As shown in this table, a number of these six parameters can be subsumed under one evidential specification. Some parameters may not be expressed at all. No systems have been found with all six specifications expressed.

The semantic parameters (I)–(VI) are operational in different kinds of systems: those which have a default ‘everything else’ specification: non-firsthand versus ‘everything else’ (A2); reported versus ‘everything else’ (A3); auditory versus ‘everything else’ (A5); and reported and quotative versus ‘everything else’ (B5). Since these systems are organized in different ways from those without an ‘everything else’ term, they have not been included in Table 2.1.

TABLE 2.1 Semantic parameters in evidentiality systems

		I. VISUAL	II. SENSORY	III. INFERENCE	IV. ASSUMPTION	V. HEARSAY	VI. QUOTATIVE
2 choices	A1	firsthand		non-firsthand			
	A1	firsthand	non-firsthand				
	A1	firsthand		non-firsthand		different system or <no term>	
	A4	<no term>	non-visual	<no term>		reported	
3 choices	B1	direct		inferred		reported	
	B2	visual	non-visual	inferred		<no term>	
	B2	visual	non-visual	inferred			
	B3	visual	non-visual	<no term>		reported	
	B4	<no term>	non-visual	inferred		reported	
4 choices	C1	visual	non-visual	inferred		reported	
	C2	direct		inferred	assumed		reported
	C3	direct		inferred		reported	quotative
5 choices	D1	visual	non-visual	inferred	assumed		reported

The ‘evidentiality-neutral forms’ will be discussed in §3.2.3, within the perspective of markedness in evidential systems.

Semantic parameters group together in various ways, depending on the system. The most straightforward grouping is found in B1 systems—where sensory parameters (I and II), inference (III and IV), and verbal report (V and VI) are grouped together. This corresponds to Willett’s tripartite ‘central domains’ of evidentiality (1988): ‘attested evidence’ (which, for him, covers visual, auditory, and other sensory evidence), ‘inferring evidence’, and ‘reported evidence’. However, this is not the end of the story. Visually acquired information can be marked differently from any other, and so can non-visual sensory. And inference and verbal report can be grouped together under one term. Alternatively, several inferential choices can be available.

The exact semantic details of each evidentiality specification may vary. For instance, inference based on other than result may involve general knowledge; however, in quite a few languages generally known facts are cast in visual evidential (see §5.3). Different evidentials may or may not acquire epistemic and mirative extensions. We return to this in Chapters 5 and 6.

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