On the Syntax and Semantics of Evidentials

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Abstract
In some languages, every declarative sentence includes a morpheme specifying the speaker’s evidence or source of information. This article provides an overview of the central theoretical questions addressed in recent research on Evidential morphemes. First, I discuss the question of whether Evidentials constitute a coherent closed-class system, independent of other systems of grammar. Next, I briefly consider the evidence for an Evidential head in the syntactic representation. Finally, I review the ways in which Evidentials resemble and differ from epistemic modals.

1. Introduction
Chafe and Nichols’ (1986) seminal collection of papers on Evidentials brought Evidential systems to the attention of linguists working on languages that lack such systems. Cinque’s (1999) proposal that sentences include an Evidential functional head further sparked interest among syntacticians, semanticists, and language typologists. In the few years since Rooryck’s (2001a,b) review of the issues raised by Evidential systems, there has been significant progress in addressing the challenges that such systems pose for theories of morphosyntactic typology and the semantics–pragmatics interface. In this article, I will lay out the central questions raised in the recent theoretical work on Evidential systems and characterize the state of our current knowledge about these questions. My goal is not to provide a comprehensive overview of existing data, since Aikhenvald (2004) has already provided such an overview. Nor will I repeat Rooryck’s summary of the issues raised by Evidential systems. Instead, I will focus on the theoretical questions that have been addressed in recent research, much of which was inspired by Rooryck and Aikhenvald’s work.

Evidential morphemes are particles, suffixes, or words that express the source of information or type of evidence that a speaker has for the information being conveyed. While all languages have the means to convey information source, markers of information source are highly grammaticized or even obligatory in many languages. Aikhenvald (2004) estimates that about one-quarter of the world’s languages have a closed-class morphological system marking the source of information. Tariana is an example of a
language with an obligatory Evidential system distinguishing among four possible types of information source.

(1) Tariana (Aikhenvald 2003: 134–5)

a. Ceci tʃinu-nuku du-kwisa-ka
   C    dog-TOP-NON.A/S 3sgF-scold-REC.PVIS
   ‘Cecilia scolded the dog (I saw it: VISUAL)

b. Ceci tʃinu-nuku du-kwisa-mahka
   C    dog-TOP-NON.A/S 3sgF-scold-REC.PNONVIS
   ‘Cecilia scolded the dog (I heard it: NONVISUAL)

c. Ceci tʃinu-nuku du-kwisa-sika
   C    dog-TOP-NON.A/S 3sgF-scold-REC.PINF
   ‘Cecilia scolded the dog (I inferred it: INFERRRED)

d. Ceci tʃinu-nuku du-kwisa-pidaka
   C    dog-TOP-NON.A/S 3sgF-scold-REC.PREP
   ‘Cecilia scolded the dog (I have learnt it from someone else: REPORTED)

Although the meanings conveyed by evidential morphemes can be expressed in English by means of parenthetical phrases, epistemic modals, adverbs, and speech or attitude predicates, evidential morphemes in some languages, such as Tariana, are obligatory and closed class. Following Aikhenvald (2004), I will use the term ‘Evidentials’ to refer to these obligatory, closed-class morphemes.

Many authors have argued that Evidentials pattern in ways that can only be captured by considering them to be a coherent closed-class system, independent of other systems of grammar (see Hardman 1986; Cinque 1999; de Haan 1999; DeLancey 2001; Lazard 2001; Aikhenvald 2004; Davis et al. 2007). Others have proposed analyses in which the various Evidentials are a heterogenous group, perhaps sharing semantic features but not comprising a specific grammatical system. Moreover, researchers have disagreed about whether Evidentials contribute meaning at the propositional level or the illocutionary force level. It may be that these different claims reflect cross-linguistic differences, or it may be that different researchers use the term ‘Evidential’ in different ways. This issue will be discussed in Section 2: Do Evidentials form a Coherent Grammatical System?

Evidentials occupy a designated position in some languages, suggesting the presence of an Evidential head, as proposed by Cinque (1999). However, in other languages Evidentials appear fused with tense or verbs, or in aspectual, focus, or auxiliary positions. Again, there could be cross-linguistic variation, with some languages but not others having an Evidential head, and others expressing the relevant concepts with various different syntactic categories. This issue will be discussed in Section 3: Is There an Evidential Head?
One of the central questions in recent theoretical work on evidentials has to do with the relationship between Evidentials and epistemic modals. Evidentials share some properties with epistemic modality, so Evidentials have often been classified as epistemic modals of some kind. However, Evidentials differ systematically from epistemic modals, in ways that will be discussed in Section 4: Are Evidentials Epistemic Modals?

2. Do Evidentials form a Coherent Grammatical System?

As mentioned above, Aikhenvald finds that about one-quarter of the world’s languages have a closed-class system for marking of information source. Generally, these morphemes are mutually exclusive and comprise a small class. It seems obvious that such systems meet Bybee et al.’s (1994) definition of a grammaticized category (or ‘gram’): ‘closed-class elements whose class membership is determined by some unique grammatical behavior, such as position of occurrence, co-occurrence restrictions or other distinctive interactions with other grammatical elements’ (Bybee et al. 1994: 2). However, since the meanings and distribution of Evidentials often overlap with those of other categories, their status as distinct categories remains controversial.

One reason is that few languages have as clear-cut a system as Tariana. Aikhenvald (2004) discusses several reasons why it can be difficult to tell whether a language has a grammaticized Evidential system. In some languages, Evidentials are fused with (or homophonous with) other categories, such as verbs, auxiliaries, aspect, or tense. The questions that arise in trying to tell whether a language has a distinct category of Evidentials can be similar to those that arise in trying to tell whether tense and agreement project distinct heads in a language like English. Also, Aikhenvald discusses cases where there seems to be an Evidential system, but one value of the system is expressed by a null form. In such a case, it is difficult (although not impossible) to tell whether Evidentials are actually obligatory.

Another reason that there is a controversy is that much of the research on morphemes labeled ‘Evidential’ begins by defining the semantic/conceptual category of ‘information source’, and then proceeds to explore how this conceptual category is expressed in a given language. This sort of approach generally results in an analysis in which Evidentiality does not correspond to a specific syntactic category. But few if any conceptual categories map uniquely and exhaustively onto a specific syntactic category. For example, the conceptual category of ‘modality’ can be expressed in English with adverbs (e.g., probably, possibly), verbs (e.g., seems, infer), adjectives (e.g., possible, probable) or modal auxiliaries (e.g., must, might). However, it is still the case that modal auxiliaries form a grammaticized system in English. Aikhenvald (2004) makes this point clearly, using time markers vs. tense as an example:
Saying that English parentheticals are ‘Evidentials’ is akin to saying that time words like ‘yesterday’ or ‘today’ are tense markers. These expressions are not obligatory and do not constitute a grammatical category; consequently they are only tangential to the present discussion. (Aikhenvald 2004: 10)

Aikhenvald’s point is that it is only by examining languages with grammaticized Evidential systems that we can discover their common properties, their differences and the constraints on such systems. It seems quite clear that some languages, such as Tariana, illustrated above, do have such systems.

One thing we find when we focus on languages that have grammaticized Evidential systems is a striking similarity in the types of evidence encoded by the markers. Willett (1988) found that languages rarely grammaticize more than three or four categories of evidence, and the types of evidence marked are quite consistent across languages. Willett follows Givon (1982) and Bybee (1985) in positing a basic distinction between direct and indirect evidence types, and suggests that these categories may be further specified as shown in (2). Aikhenvald’s (2004) more extensive survey confirms the limited number of ‘recurring parameters’ of evidence type. She did find a few examples of languages that have been said to have five or more categories, but these are very rare.

(2) Types of Evidence (Willett 1988: 57)

\[
\begin{array}{c}
\text{Direct} & \text{Attested} & \text{Visual, Auditory, Other Sensory} \\
& \text{Reported} & \text{Secondhand, Thirdhand, Folklore (Hearsay)} \\
\text{Indirect} & \text{Inferring} & \text{Results, Reasoning}
\end{array}
\]

(3) Basic categories of Evidentiality (Aikhenvald 2004: 65):
I. Visual  II. Sensory  III. Inference  IV. Assumption  V. Hearsay  VI. Quotative

Languages seem to vary somewhat in how they divide up the evidence types, although as Aikhenvald points out, sometimes terminological problems make it difficult to compare published descriptions of Evidential systems. For example, the visual/direct category in most descriptions involves witnessing of the actual event, not visual evidence, such as footprints, that leads to an inference. Similarly, the non-visual/sensory category often has to do with situations that the speaker knows about without evidence per se, such as internal experience, sensations, and desires, rather than with non-visual evidence like odor or dampness that might lead to an inference. This can be seen in the Eastern Pomo data shown in (4): the visual/direct Evidential is used when the speaker saw the person getting burned, the non-visual is used when the speaker got burned himself and the inferential
Evidential is used when the speaker saw evidence, such as bandages and burn cream, that led to the inference that the person got burned.

(4) Eastern Pomo

a. bi Yá pʰabē-kʰ-ink’e
   hand burn-PUNCTUAL-SENSORY
   ‘I burned my hand’ (I feel the sensation of burning in my hand)

b. mí-p-al pʰabē-k-a
   3.sg.-male-patient burn-PUNCTUAL-DIRECT
   ‘He got burned’ (I have direct evidence, e.g., I saw it happen)

c. bēk-al pʰabē-k-ine
   3pl-patient burn-PUNCTUAL-INFERENTIAL

d. bēk-al pʰabē-kʰ-le
   ‘They must have gotten burned’ (I see circumstantial evidence-signs of a fire, bandages, burn cream)
   3 pl-PATIENT burn-PUNCTUAL-REPORTED
   ‘They got burned, they say’ (I am reporting what I was told)

Furthermore, Aikhenvald does not report any languages that specifically distinguish inferences based on visually obtained data (e.g., bandages, footprints, and empty bottles) from inferences based on data obtained in other ways. What seems to be important is not whether vision is involved, but whether the speaker was a witness to the event.3 I suggest that the category labels in (5) might more clearly distinguish the ways in which one might come to know something:

(5) Evidential categories:

Witnessing, Internal Sensation/Experience, Inference/Assumption, Hearsay/Quote

As Speas (2004a) points out, these categories are a very small subset of the conceivable range of culturally salient information sources. No language has an Evidential for divine revelation, experience reported by loved one, legal edict, parental advice, heartfelt intuition (gut feeling), learned through trial, and error or teachings of prominent elder/authority, for example. Rather, the categories seem to represent some set of abstract features.

There have been two different research paths into the question of whether Evidentials constitute a homogeneous semantic category. The first path is to develop a detailed semantic account for a particular language. Garrett (2001), Faller (2002), and Matthewson et al. (2006) propose accounts...
of the semantics of evidentials in Tibetan, Quechua, and St’at’imcets, respectively. All three conclude that Evidentials are semantically heterogeneous. In Garrett’s analysis of Tibetan, one Evidential is unmarked or default, one is a demonstrative assertion marker and one is a performative epistemic modal. In Faller’s analysis of Quechua, all of the Evidentials are illocutionary operators that alter felicity conditions in some way, but there is no account of the limits on what kinds of alterations they make, and some Evidentials also include epistemic modality. Matthewson et al. (2006) treat Evidentials in St’at’imcets as having similar denotations, but analyze them as a type of epistemic modals, not as a discrete category. They further find that certain differences between Quechua and St’at’imcets suggest that Evidentials across languages do not form a homogeneous semantic class.

The second path is to seek an explanation for the constraints on the possible Evidential categories. The studies of Nilolaeva (1999), Speas (2004b), and Chung (2005, 2006) attempt to derive Evidential meanings from interactions among features that are used in other grammatical systems rather than proposing novel pragmatic or conceptual features, such as ‘evidence’ or ‘hearsay’ [see also De Haan (2001) and Faller (2001)]. Such analyses highlight the parallels between Evidential systems and other closed-class systems, such as tense, aspect, and agreement.

Nilolaeva (1999) proposes that Evidentials encode equivalence or non-equivalence relations among situations. She proposes that Evidentials are operators that introduce two situations: a situation resulting from the event and the situation in which the speaker experiences evidence for this result. These operators also encode equivalence relations between these situations and the situation about which the assertion is being made. The various Evidential categories arise from the different possible relations among situations. For example, ‘hearsay evidence’ is evidence obtained in a situation that does not overlap with either the event or its result. ‘Resultative/inferential evidence’ is evidence obtained in a situation that overlaps with the event’s result, but not with the event itself. Under such a view, the limitations on possible evidence types come from logical limits on possible relations plus either cognitive or grammatical limits on how many different situations can be introduced by a given operator.

The language that Nikolaeva examined, Ostyak, has two Evidential morphemes, which she classifies as present and past. These are in complementary distribution with indicative present and past morphemes, so Nikolaeva’s analysis is intended to capture parallels between tense and Evidentials. In addition to being morphologically fused with tense, Ostyak Evidentials differ from Evidentials in other languages in that they can easily be embedded. Also, in Ostyak there is no morphological distinction among types of evidence: the Evidential operator introduces the two situations, the past vs. present distinction gives us the relationship between the result situation and the situation about which the assertion is being made, and then the result situation and the speaker’s evidence situation.
can be equivalent or not, depending upon the context. For these reasons, it is not obvious on how to apply this analysis to languages that have a set of Evidential morphemes that co-occur with both present and past tenses. However, this sort of approach has the potential to capture both the meanings of and constraints on Evidential categories without introducing new pragmatic features.

Chung (2005, 2006) also draws attention to the close relationship between tense/aspect and Evidentials and develops an analysis of Evidentials in Korean, which are morphologically distinct from tense morphemes, but homophonous with aspect and mood morphemes. Building on Izvorski’s (1998) analysis of languages in which morphemes marking perfect aspect are also used to mark inferential Evidentiality, Chung argues that Korean has ‘spatial deictic tenses’, and when these combine with certain aspect or mood morphemes, the result is an Evidential meaning. Spatial deictic tense indicates that the speaker’s location (more specifically, the ‘speaker’s perceptual trace’ in the sense of Faller (2004)) is restricted to a certain place at the reference time. Direct Evidential meanings result when the speaker’s location at the event time is the same as the event location at that time. In other words, if we are at an event when it takes place, we have ‘direct’ evidence. Indirect Evidential meanings result when the event occurs outside of the speaker’s location at the time of the event. This idea is strikingly similar to Nikolaeva’s situation-theoretic characterization. It would be interesting to explore whether Korean ‘spatial deictic tense’ is identical to Ostyak ‘Evidential tense’. However, in Chung’s view there is no distinct Evidential operator introducing situations. Spatial deictic tense introduces the speaker’s perceptual trace, and Evidential meanings arise from the way in which spatial deictic tense interacts with aspect or mood.

Speas (2004b) suggests that the Evidential categories reflect a system analogous to person features. She treats Evidential morphemes as a kind of agreement with the modal base. Modal bases are classified as [+speaker] and [+deictic sphere (discourse context)]. The idea is that the classification of evidence types in a grammaticized system has to do with the same binary feature system as person, but Evidential features pertain to propositions (or worlds) rather than individuals. For example, a first person pronoun is an individual with the features [+speaker, +deictic sphere] and a personal experience modal base a set of propositions with the features [+speaker, +deictic sphere]. An individual with the features [+speaker, +deictic sphere] is the addressee, and a modal base with these features is a direct modal base, and so on. Thus, the possible categories of evidence are limited for the same reasons that the range of possible values for person features is limited: Evidential categories are defined in terms of the same binary features as person, and differ only in that person features pertain to individuals whereas Evidential features pertain to the modal base.

It is interesting that the limits on possible evidence types were discovered by those studying languages with designated Evidential morphemes, yet
insight into the nature of these limits has come from analyses of languages where Evidential morphemes are either fused with tense (Ostyak) or homophonous with aspect or mood (Korean). Both Nikolaeva and Chung derived Evidential meanings from independently needed features of tense, aspect, and mood, supplemented by some reference to the speaker’s perceptual situation. This state of affairs suggests that progress in the debate over whether Evidentials constitute a cross-linguistically homogeneous category will be made by looking for a more fine-grained analysis of the various components of Evidentiality. Just as the debates in the 1970s about the cross-linguistic status of the category ‘passive’ led to the discovery of component processes such as NP movement, case absorption, and θ-role suppression, we might find that the properties of Evidential systems involve the interaction of a set of independently motivated features and processes. These studies show that as long as research is focused on a specific morphosyntactic system rather than on a variety of instantiations of Evidential-type meanings, much can be learned from languages in which the components of Evidentiality show up within tense, aspect, and mood systems, as well as from languages with designated Evidential systems. Aikhenvald (2004) provides an appendix outlining methods for collecting new information on Evidentials.

3. Is There an Evidential Head?

In her survey of the syntactic position of Evidentials, Aikhenvald (2004) finds ‘hardly any morphological limitations on how Evidentials can be expressed’ (p. 69). Cross-linguistically, Evidential markers may occur as verbal affixes, clitics, particles, copulas, or auxiliaries, or may be fused with tense. However, this morphosyntactic diversity does not tell us much about the syntactic status of Evidentials, because as noted above, it is true of virtually all conceptual categories, and is often true of fairly well-established functional heads. For example, the inflectional category ‘tense’ can appear as a copula, auxiliary, clitic, or affix, but is treated as a head in many theories, because it shows some of the properties characteristic of syntactic heads:

\[(6) \quad \begin{align*}
\text{a. Heads can select and be selected by other heads.} \\
\text{b. Heads tend to be either phrase-initial or phrase final in a given language.} \\
\text{c. Heads can undergo local head-movement and head-adjunction.} \\
\text{d. Heads can license specifiers.}
\end{align*}\]

Because of these properties, heads and the specifiers that they license tend to occur in a fixed order. Movement can alter the order, but only in a restricted way. Hence, specifier order tends to reflect head order, and if heads surface as affixes, their linear order tends to mirror the scope order of heads.
Based on these premises, Cinque (1999) claimed that the left periphery of the sentence includes, among many other heads, an Evidential head, which locally c-commands an epistemic head and is locally c-commanded by an evaluative head. In the languages that he looked at with Evidential morphemes (Korean, Turkish, Tewa, Quechua, Ute, and Hixkarana), Evidential morphemes are rigidly positioned, falling between evaluative and epistemic morphemes. Furthermore, this ordering mirrors the relative order of adverbs in languages that lack morphemes for these categories (insofar as multiple adverbs are possible). Korean is head-final; morpheme order is EPISTEMIC – EVIDENTIAL – EVALUATIVE (Cinque 1999: 71). English is head-initial; adverb order is EVALUATIVE – EVIDENTIAL – EPISTEMIC.

(7) a. Minca-nun ttena-ss-te-kwun-yo
   Korean
   M-TOP leave-PAST-EVID-EVALUAT-POLITE
   ‘I noticed that M had left’

   b. Ku pwun-i cap-hi-ess-ess-keyss-sup-ti-kka?
   the person-NOM catch-PASS-AGR-ANT-PAST-EPSTEM-AGR-EVID-Q
   ‘Did you feel that he had been caught?’

(8) a. ?She is unfortunately evidently probably the worst speller in the class.

   b. *She is probably unfortunately evidently the worst speller in the class.

What is striking about Cinque’s cross-linguistic work is that these ordering restrictions seem to hold not just for several functional heads, but for virtually every closed-class category. He proposed that sentences include over 30 such heads, in a fixed order. In his view, morpheme order reflects the order of syntactic heads, and these heads license adverb specifiers, so adverbs occur in a parallel order. Surface departures from this order might result from movement, or they might reflect cross-linguistic variation.

Various authors have argued that these ordering restrictions are semantic, not syntactic (see Alexiadou 1997; Ernst 2002, 2007; among others). Cinque’s position was that semantics could explain some but not all of the observed ordering restrictions. Since these questions continue to be vexing for better-studied categories, such as tense, aspect, and agreement, it is not surprising that little has been resolved about whether Evidentials are syntactic heads, and in fact the question has not been directly addressed by many authors. Speas (2004a) draws on parallels between Evidentials and logophoricity to suggest that Evidential heads license a covert pronominal specifier with the pragmatic role of ‘Witness’, and that attitude predicates differ in whether they select a speech act phrase, evaluative phrase, Evidential phrase, or epistemic phrase. Tenny (2006) explains restrictions on the person features of null pronouns in Japanese by positing...
an Evidential head and null pronominal specifier. Blain and Déchaine (2007) suggest that Evidentials in various languages and dialects are best treated by positing operators that can enter the sentence at the vP, AspP, IP, or CP levels, with different interpretive consequences. They suggest that at the CP-level, Evidentials affect the speech act, at the IP level they interact with tense and/or modality, at the AsP level they trigger aspect-like presuppositions and at the vP level they introduce speaker perspective in the predicate.

For the most part, however, the status of Evidentials as heads is either assumed or not discussed in the literature to date. Based on data in existing descriptions of Evidential systems, it is far from obvious that Evidentials display the properties of heads given in (6). First, there are languages where the order of Evidentials with respect to other morphemes does not conform to Cinque’s plan. For example, Aikhenvald and Dixon (2003) report that Evidential affixes in Tariana occur farther from the verb root than habitual/customary/habitual-repetitive/anterior aspect and speech act mood (among others) and closer to the root than degree and perfective/prolonged/repetitive/completive aspect (among others). One might try to argue that some kind of head movement has occurred, as Julien (2002) suggests for affix order in Tohono O’odham, but this would be extremely challenging for the 20 verbal affixes detailed by Aikhenvald for Tariana. Moreover, in some languages Evidentials are merged with tense or aspect, neither of which are heads adjacent to the Evidential head in Cinque’s framework. Second, there are languages in which different categories of Evidential occur in different syntactic positions. For example, in Qiang the inferential and visual Evidentials occur before person marking while the hearsay evidential occurs after person marking (LaPolla 2003). Jarawara distinguishes eyewitness vs. non-eyewitness via markers fused with tense, while it marks hearsay with a ‘reported’ suffix (Dixon 2003). Third, some languages allow multiple evidentials in a single clause, as in the Qiang example in (9), in which the inferential and visual Evidentials combine to indicate that the speaker has visual evidence for something that he or she had inferred.

(9) oh, the: žbβ Žete-k-u
oh, 3sg drum beat-inf-r-vis
‘Oh, he WAS beating a drum’ (Lapolla 2003: 70)

As far as I know, there is no evidence for the Evidential head that involves the position of other phrases, in the way that inversion provides evidence for a complementizer head or subject placement provides evidence for tense and agreement heads. Also, I know of no research that explores how Cinque’s system of heads is related to the topic and focus heads proposed by Rizzi (1997). It seems clear that Evidentials have to do with information structure, and in some languages (e.g., Quechua), Evidential morphemes
occupy the same positions as focus markers, so research on Evidentials could lend insight into the mapping between the heads proposed by Cinque and those proposed by Rizzi.

If there is an Evidential head, it is restricted in many languages to matrix assertions, although embedded Evidentials are not universally impossible. Aikhenvald (2004) gives several examples of embedded Evidentials, although all of her examples involve adjunct clauses rather than complement clauses.

However, there are languages that allow Evidentials in the complements of certain verbs. In some cases, as shown in the Shipibo-Konibo example in (10), the embedded Evidential continues to be speaker oriented. The speaker knows that it is raining through hearsay from Beso (and knows of Beso’s saying it from seeing her say it).

(10) Beso-n-ra e-a yoi-ke [Kontamanain-ronki oi be-ai]
    B-ERG-DIR.EV 1-ABS say-CMPL
    [Contamana:Loc-REP rain:ABS come-PP1]
    ‘Beso told me that it rained in Contamana’
    (Valenzuela 2003: 40)

In other cases, such as Tibetan, embedded Evidentials trigger a shift in perspective from the speaker to the subject of the embedding predicate. Garrett (2001) gives the Tibetan examples in (11), in which it is the Subject, Tashi, whose source of information is encoded in the embedded Evidential. This switch from speaker orientation to subject orientation results in a difference in the reference of pronouns. The embedded clause subject is coreferent with the matrix subject when the Evidential is EGO (= personal experience), because the subject cannot have personal experience knowledge of someone else’s thoughts or experience. The embedded pronoun is disjoint from the matrix subject when the Evidential is INDIRECT, since one does not need to infer actions or states involving oneself. In other words, Tashi would know through internal experience that he himself is a teacher, but would know that someone else is a teacher only via more indirect means.

(11) a. bkra.shis [kho dge.rgan yìn ] bsam-gi-‘dug
    Tashi he teacher EGO think-imperf-DIRECT
    ‘Tashi, thinks he is a teacher.’

b. bkra.shis [kho dge.rgan re-d ] bsam-gi-‘dug
    Tashi he teacher INDIRECT think-imperf-DIRECT
    ‘Tashi, thinks he is a teacher.’
    (Garrett 2001: 211)

Garrett (2001) reports that Evidentials in Tibetan can occur in the complements of the verbs meaning ‘say’, ‘ask’, ‘think’, and ‘believe’, but not
‘know/understand’, ‘see’, or ‘hope’. Garrett characterizes the verbs whose complements admit Evidentials as ‘assertive’. Embedded epistemic modals can be subject oriented, so that the modal base is ‘what is known’ by the subject rather than by the speaker, but this has no effect on the possible coreference of pronouns.

4. Are Evidentials Epistemic Modals?

The relationship between Evidentials and epistemic modals has been a central question guiding research on Evidential systems. Researchers since (at least) Boas (1911) have suggested that Evidentials fall within the general system of epistemic modality. As Rooryck (2001a,b) pointed out, modal judgments are generally made based on some type of evidence, and one can often infer the speaker’s modal judgment from the type of information source indicated. For example, if someone claims that something ‘must’ be the case, we can infer that he or she has reasonably reliable evidence for it. Conversely, if someone makes it clear that a claim is made based on, for example, hearsay evidence, we can infer that he or she is not claiming that it is necessarily true. However, de Haan (1999), Hardman (1986), DeLancey (1986), Lazard (2001), Plungian (2001), and Aikhenvald (2004), among others, have argued strenuously that Evidentials differ systematically from epistemic modals (as well as from other categories, such as Miratives).

As McCready (2005) shows, these questions are complicated by the fact that there may be important cross-linguistic differences in the behavior of modals, and hence also of Evidentials.

In this section, I will review the differences between Evidentials and English-type epistemic modals. The discovery of these differences is one of the most important results of recent research on Evidentials. At this point, there is not a consensus about how to account for the differences, but suggestions for how to do so can be grouped into three approaches. The first approach is to treat Evidentials as a category completely distinct from epistemic modals. The second approach is to treat Evidentials as a special sub-type of epistemic modal. Finally, some authors propose that some of the Evidential types include epistemic modality as part of their meaning while others do not, so that there is an overlap between Evidentials and English-type epistemic modals.

As de Haan (1999) points out, Evidentials and epistemic modals can co-occur, suggesting that they are not members of the same paradigmatic category. However, some languages allow multiple modals as long as the modals are of different types, so co-occurrence is not conclusive evidence for a distinct class of Evidentials. Evidentials have been argued to differ from epistemic modals in the ways stated in (12a–d). As for (12e), results are mixed and it is not clear whether the data represent cross-linguistic differences or just the preliminary nature of our understanding of the semantics of epistemic modals.
In the remainder of this section, I will discuss each of the above differences between Evidentials and English-type epistemic modals. At the end of this section, I will briefly discuss work of Potts (2005) on conventional implicatures. This work is too recent to have figured in the research on the semantic status of Evidentials, but I will suggest that it opens up potentially fruitful avenues for investigating the relationship between Evidentials and epistemic modals.

4.1 EVIDENTIALS DO NOT DIRECTLY EXPRESS NECESSITY, POSSIBILITY, OR SPEAKER CERTAINTY

Although speaker certainty is sometimes included in descriptions of the meanings of Evidentials, this is not generally an inherent part of their meaning. As Aikhenvald (2004) makes clear, most descriptions of Evidentials concur with Oswalt’s (1986) observation that sentences with all types of Evidentials are used to make unqualified assertions, which are presented as true, not as possibly or probably true. Some authors (Garrett 2001; Faller 2002) have proposed that modality is part of the meaning of inferential/indirect Evidentials, but not of the other types, but various authors (most Davis et al. 2007 and Fasola 2007) have argued that the Evidential just encodes the type of information source, and speaker certainty is either made explicit with a modal expression or determined pragmatically from what is known about that source. For example, a hearsay Evidential need not connote uncertainty or lack of speaker commitment, if it is used in a context where it is understood that the hearsay is from an extremely reliable source, such as the wisdom handed down by elders. Similarly, even if a speaker is completely certain of the information being conveyed, he or she must use an indirect evidential if he or she knows the information through inference. Tibetan speakers report that Sherlock Holmes would use an indirect evidential in pronouncing his conclusion about the guilty party, even though he is absolutely certain about his conclusion.

(13) Scenario: Sherlock Holmes has gathered all the clues, and now is absolutely certain who the murderer is.

He announces:

(12) a. Evidentials do not directly express necessity, possibility or Speaker certainty.
    b. Evidentials have different historical sources from epistemic modals.
    c. Evidentials generally do not occur in embedded clauses.
    d. Evidentials do not weaken the proposition that they attach to.
    e. Evidentials may or may not be part of the ‘core meaning’ of the sentence.
Generally, visual evidence is more reliable than indirect evidence or hearsay, but this is a fact we know about the world, not a part of the meaning of a direct Evidential. Evidentials express the type of evidence, and modal value is inferred based on contextual factors.

A number of researchers have pointed out that the theory of epistemic modality outlined in Kratzer (1977, 1981, 1991) as well as more recent treatments (see Papafragou 2000 for an overview) give us a way to capture the fact that Evidentials seem to have a modal flavor even though they do not express necessity, possibility, etc. Kratzer shows that modal judgments always involve a modal base (or conversational background) and an ordering source. The modal base is the set of propositions that form the basis of the modal judgment, and the ordering source restricts the modal base to worlds compatible with contextual information. Taken together, the modal base and ordering source comprise the assumptions upon which the modal judgment is based. In sentences like those in (14), the modal base is made explicit with the ‘in view of’ phrase.

(14) a. In view of our mother’s rules, we must be home by 10 pm.
   b. In view of all these dirty dishes, party hats and confetti, there must have been a party here.
   c. In view of all the evidence that we have, Bill must be the culprit.

The modal base for an epistemic modal is ‘what is known’. In other words, it is the evidence that one has for making the modal judgment. Izvorski (1998), Speas (2004a), and Matthewson et al. (2006) all suggest that Evidentials serve to provide some kind of information about the modal base: the modal base is one in which the speaker has a certain kind of evidence. This view can provide an explanation for some of the ‘mixed’ properties of Evidentials: Evidentials do not express epistemic necessity or possibility, but they do express information about the modal base, from which possibility or necessity can be inferred in conjunction with contextual information. Speas considers the Evidential to be syntactically distinct from modals, while Matthewson et al. propose a type of epistemic modal that lacks inherent quantificational force but includes definedness conditions related to evidence. Under either of these approaches, the Evidential is claimed to give us explicit information about the modal base. Whether Evidentials ‘are epistemic modals’ depends on how the modal base is related to classification as a modal. If dependence on a modal base entails that an item is a modal, then Evidentials seem to be modals. However, if modals are more narrowly defined as items whose interpretation involves quantification...
over worlds (or situations), Evidentials do not seem to qualify. Under the narrow definition of modals, the modal base is independent of modal quantification and Evidentials are grammaticized expressions of the kind of information provided in English by phrases that make the modal base explicit, such as ‘judging by these footprints’ or ‘according to Mary’, which can be present without any modal, as in (15).

(15) Judging by these footprints, Mary was here less than an hour ago.

Researchers agree that Evidentials differ from English-type epistemic modals, and the question is whether the category of modal should be expanded to include the kinds of information that Evidentials encode.

Kratzer’s work emphasized the pragmatic nature of the conversational background. The denotations she proposed for modals include only a general specification that modals are context dependent in the relevant way. The intent was to exclude specific pragmatic information in the denotation of a modal, and to encode the simple fact that modalized propositions are interpreted relative to whatever conversational background is present. If Evidentials add specific information about the modal base, such as ‘Speaker has hearsay evidence’, a denotation for modals that includes this information would go beyond the general context dependence that Kratzer proposed. Perhaps languages vary in the specificity of the information that modals express about the modal base, or perhaps this information is not part of modal semantics per se. Papafragou (2000) suggests that developing a more detailed pragmatic theory of context selection could allow us to simplify the denotation of modals and clarify the ways in which pragmatic and semantic factors interact. Davis et al. (2007) further argue that some of the systematic differences between Evidentials and epistemic modals are best treated in terms of a distinction between quantifying over worlds (modals) and adjusting the pragmatic context (Evidentials). Similarly, Fasola (2007) analyzes Evidentials in the context of a formal theory of implicatures.

4.2 EVIDENTIALS HAVE DIFFERENT HISTORICAL SOURCES FROM EPISTEMIC MODALS

De Haan (1999) argues that Evidentials must be distinct from epistemic modals, because the two have distinct diachronic sources, as summarized in (16).

(16) Diachronic sources of

<table>
<thead>
<tr>
<th>Evidentials</th>
<th>Epistemic modals</th>
</tr>
</thead>
<tbody>
<tr>
<td>epistemic modals</td>
<td>deontic modals</td>
</tr>
<tr>
<td>verbs of speech, vision or inference</td>
<td>verbs of doubt or certainty</td>
</tr>
<tr>
<td>tense/aspect</td>
<td>Evidentials</td>
</tr>
<tr>
<td>spatial deictics</td>
<td></td>
</tr>
</tbody>
</table>
A problem with De Haan’s classification of sources is that it presupposes that there are two distinct categories\(^\text{12}\) and that Evidentials form a uniform category. Note that both can arise from semantically related verbs, and different verbs give rise to different Evidentials. Hearsay Evidentials arise from verbs of speech, direct/visual Evidentials from verbs of vision, and so on. One might suggest that the fact that Evidentials can arise from epistemic modals\(^\text{13}\) and epistemic modals can arise from Evidentials indicates that they could be sub-types of a single category. However, the connection between Evidentials and deictics, both spatial and temporal, is intriguing. Evidentials seem to be indexed to the discourse in a way that modals are not.

### 4.3 Evidentials Generally Do Not Occur in Embedded Clauses

While epistemic modals freely occur in embedded clauses, Evidentials rarely do. This is not predicted by theories that relate Evidentials to epistemic modality; it is more easily captured in theories like that of Faller (2002), in which Evidentials are illocutionary operators. When Evidentials do occur in embedded clauses, they seem to remain speaker-oriented in some languages (Shipibo-Konibo) and become subject-oriented in others (Tibetan), as described in Section 3. Although embedded epistemic modals do not trigger the restriction on coreference described by Garrett (2001) for Tibetan, there does seem to be a switch from speaker to subject orientation in the interpretation of the modal base.

(17) a. She must be a genius.
    (modal base = what is known in discourse context)
   
   b. Sue, thinks she,\(i\) must be a genius.
    (modal base = what is known by Sue)

Although the embedded epistemic modal in (17b) can be subject-oriented, so that the modal base is ‘what is known’ by the subject rather than by the speaker, this has no effect on the possible coreference of pronouns. It is interesting to note, however, that epistemic modals embedded under the predicates that do not allow embedded Evidentials also do not allow subject orientation in the interpretation of the modal base. In examples (18a–c), the modal base for must is ‘what is known’, not ‘what is known by Mary’, and in (18d) the modal base for must is irrelevant.

(18) a. Mary knows that she must be a genius.
    b. Mary hopes that she must be a genius.
   
    c. Mary saw that she must be a genius.\(^\text{14}\)
   
    d. Mary said that she must be a genius.

### 4.4 Evidentials Do Not Weaken the Proposition That They Attach To

It has long been observed that even necessity modals weaken a statement: ‘Mary must be a genius’ is not as strong a statement as ‘Mary is a genius.’
Faller (2002) observes that Evidentials sometimes serve to strengthen rather than weaken a statement. In particular, her consultants find sentence (19b), which has the ‘best possible grounds’ Evidential, to be stronger than (19a), which has no Evidential.

(19) a. Para-sha-n.
    rain–PROG–3
    ‘It is raining,’ (no Evidential)
b. Para-sha-n-mi
    rain–PROG–3–EVID
    ‘It is raining’; statement is based on the ‘best possible grounds’

As Faller points out, by Gricean principles the unmarked assumption is that any speaker who makes a simple assertion has the best possible grounds for making the assertion. According to Faller’s consultants, the difference between sentences like (19a) and (19b) is ‘one of emphasis such that [a sentence with the bpg evidential] is stronger than [one with no evidential]’ (Faller 2002: 23). Faller argues that -mi cannot be an epistemic modal, since its presence does not result in a weakened assertion. She treats -mi as an emphatic illocutionary force marker.

It is more difficult to determine how indirect and hearsay Evidentials compare with English-type modals with respect to assertion strength. Various authors emphasize that an assertion of p+Evidential is an unqualified assertion of p. For example, Oswalt (1986: 38) says that the inferential Evidential in Kashaya ‘implies no lack of certainty, merely lack of higher ranking evidence,’ and notes that the inferential suffix is used in contexts where ‘must’ would be inappropriate in English. Garrett (2001) says of Tibetan, ‘Although indirect is associated with indirect forms of evidence, the knowledge it represents is still presented as certain knowledge.’ The problem, though, is that it is not clear how speaker certainty is related to epistemic necessity. English ‘must’ implies no lack of certainty about the conclusion that follows from the relevant modal base, and in some contexts ‘must’ is used to indicate that the speaker has made a deduction, without weakening the assertion. For example, suppose I know that Mary has two sisters, Agnes and Heather. I have met Heather before. If I run into Mary and an unfamiliar woman, (20a) is natural and (20b) is not.

(20) Mary: Peggy, this is my sister.
Peggy: a. Oh, hello, you must be Agnes.
b. #Oh, hello, you are Agnes.

English necessity modals weaken an assertion in that they imply that the unmodalized assertion would not be felicitous, but they do not necessarily entail that the speaker feels any uncertainty. Furthermore, Matthewson et al. (2006) suggest that a modal that specifies evidence type could
strengthen an assertion in a context where the addressee needs to be reassured that the speaker has stronger than assumed grounds.

Fasola (2007) and Davis et al. (2007) propose analyses in which the apparently differing effects on assertion strength reflect the fact that Evidentials modify the discourse context within which a proposition is asserted, while modals modify the proposition itself. The idea is that if we do not have enough information to felicitously assert ‘p’ in a given context, we have two possible strategies:

(21) a. MODAL STRATEGY: 
Assert ‘must p’ ‘might p’, etc., for which we do have sufficient information
b. EVIDENTIAL STRATEGY: 
Alter the context to one in which the information we have for p is sufficient for felicitous assertion of p.

Both Fasola and Davis et al. formalize the Evidential strategy in probabilistic terms, building on the framework for ‘conventional implicatures’ developed by Potts (2005). In these theories, Evidentials do provide information about the modal base, but this information can be present whether the proposition includes a modal or not, and it is not part of the ‘at issue meaning’ of the proposition.

4.5 EVIDENTIALS MAY OR MAY NOT BE PART OF THE ‘CORE MEANING’ OF THE SENTENCE

Are Evidentials part of the ‘core meaning’ of the sentence? Do Evidentials trigger presuppositions or implicatures, or are they illocutionary operators of some kind? These questions have still not been settled for modals, so comparison of Evidentials and epistemic modals is necessarily preliminary. Only a few researchers have addressed this question directly for Evidentials (see Izvorski 1998; Papafragou 2000; Faller 2002, 2003; Chung 2005; and Matthewson et al. 2006). There does seem to be general agreement on two points: Evidentials do not involve conversational implicatures, and they are not presuppositional in the sense of being part of the common ground prior to the utterance. I will discuss these two points of agreement first, and then will address the question of whether Evidentials differ from modals in how they are related to the core proposition.

Conversational implicatures are assumptions that may be made in certain conversational contexts, but are not made in others. For example, a ‘before’ clause often triggers the implicatures that the main clause was actualized. If I say (22) in a context where you know that Kim’s parents do not let her have two video devices going at once, you may infer that Kim played videogames.
However, in a context where we know that Kim plays her videogames via the TV and we know that she is trying to quit videogames, the sentence would be asserting that she turned off the TV so that she would not play videogames: the implicature that Kim played videogames is not made. Conversational implicatures also can be explicitly cancelled, so we could say:

(23) Kim had to turn off the TV before she played videogames, so she decided not to bother getting the video games out, and just watched TV all day.

Conversational contexts play no part in determining the evidence type expressed by an Evidential. It is impossible to cancel the evidence conveyed by Evidentials. The evidence type conveyed by an Evidential is part of its fixed meaning, and does not involve conversational implicatures.

Certain types of presuppositions are part of the common ground prior to the utterance. For example, a sentence like (24) will be infelicitous in a context where the presupposition that John smokes is not part of the common ground.

(24) When will John stop smoking?

It is possible for an addressee to accommodate the presupposition, adding it to the common ground, but this is not the default case. Although several authors have treated Evidentials as involving presuppositions, no one has argued that the felicity conditions of Evidentials depend on what is already in the common ground prior to the utterance. As Faller (2002) and others have shown, Evidentials convey information that is generally new to the addressee, so if Evidentials encode presuppositions, the presuppositions must be accommodated as the default case. Matthewson et al. (2006) note that there are some kinds of meaning that have been treated as presuppositional, but are not generally part of the common ground, such as the presuppositions of person features. McCready (2005) treats evidentiality along with other sentence particles in Japanese within a dynamic semantics framework, so that accommodation can be built into the semantic updates triggered by context-dependent expressions. At any rate, if Evidentials are primarily presupposition triggers, they are of this special type that must always be accommodated.

Faller (2002: 118) also points out that the ‘projection properties’ of Evidentials differ from those of presuppositions. Presuppositions do not ‘project’ in certain kinds of sentences, such as conditionals. For example, sentence (25) does not presuppose that John smokes.

(25) Kim had to turn off the TV before she played videogames.
Some researchers treat Evidentials as presuppositional just because they do not fall into other categories. They do not involve conversational implicatures, but they also do not pass certain tests for being part of the core meaning of the proposition. However, the status of Evidentials with respect to the ‘core meaning’ is unclear, in ways that may be familiar to anyone who has asked similar questions about modals.

Faller (2002) argues that Evidentials in Quechua are not part of the core meaning of the sentence, because they do not pass ‘challengability’ tests. That is, they cannot be challenged, agreed with or denied with a general (elliptical) form.

Faller (2002) shows that challenges or denials of Quechua sentences with Evidentials do not challenge the Evidential itself. Sentence (27b) denies the core proposition, not the Evidential:

(25) If John smokes, he will stop smoking when he reads this.
Faller shows that the meaning conveyed by hearsay evidentials does project in conditionals.

(26) Mary is the culprit.
   a. She is not!
   b. #There is not! (denying presupposition that there is a culprit)
   c. #You aren’t! (denying that Speaker is making an assertion)

Faller (2002) shows that challenges or denials of Quechua sentences with Evidentials do not challenge the Evidential itself. Sentence (27b) denies the core proposition, not the Evidential:

   ‘Ines visited her sister yesterday (EVIDENTIAL = Speaker saw it)
   b. Mana–n chiqaq–chu
      not–EVID true–neg
      ‘That’s not true.’ = not true that Ines visited sister
      ≠ not true that Speaker saw it
      ≠ not true that the Speaker is asserting it.

A number of semanticists have argued that modals fail the challengability test, and hence are not part of the core proposition (see Papafragou 2000 for a review). However, more recent research on modals suggests that they may in fact be challenged, denied, or agreed with. von Fintel (2005) gives an example where one is playing a game (Mastermind) where each player has colored pegs that the other cannot see. Player A is trying to guess which pegs Player B has, and says ‘There might be some reds.’ Player B responds ‘That’s right, there might be,’ agreeing with A’s possibility statement even though he knows that there are in fact no reds. Here, it seems that B is in fact denying the modalized proposition, so the modality is part of the core proposition.
Matthewson et al. (2006) adapt von Fintel’s context to show that Evidentials in St'at’imcets can be challenged, agreed with, or denied. They give the following example.

(28)  Context: I am playing a game of Mastermind with my son.
      After some rounds where I give him some hints about the solution, he says:
      wá7 k’a i tseqwtsíqw-a
      be INFER DET.PL red-DET
      ‘There might be some reds.’
      Possible responses include:
      a. wenácw; wá7 k’a
      true be INFER
      ‘That’s right. There might be.’
      b. wenácw; wá7
       true be
      ‘That’s right. There are.’

It is not clear whether these data represent a cross-linguistic difference between St’at’imcets and Quechua. Matthewson et al. explain that the consultant was reluctant to accept (28a) until the context was carefully explained. Future research should explore whether more detailed contexts would yield similar judgments for other languages.

It is interesting to note that neither answer in (28) means ‘That’s right, you infer that.’ This would be the kind of meaning that Faller found to be ruled out in Quechua. Also, it seems that the Evidential in (28a) does not have to do with the speaker’s source of evidence. Rather, it reflects agreement with the addressee’s previous statement, and contains the same Evidential used in that statement. In other words, the answer does not mean ‘Based on my indirect evidence, this is true;’ rather, it means ‘That’s right, based on your evidence you could infer that.’ Thus, the answer is agreeing with the core proposition and the implied degree of certainty or implicit premises but not necessarily with the evidence type. It is possible to agree or disagree with someone’s degree of certainty or implicit premises even if no explicit modal is involved. My intuition is that a dialogue like that in (29) is felicitous. B is not denying that John is home; what is being denied is the implicit premise that if John’s lights are on we can be certain that he is home.

(29)  A: Look, John’s lights are on. He’s home.
      B: No, you’re wrong – he sometimes leaves his lights on when he goes out. He might be home, but we can’t be sure.

Clearly, we need a better understanding of how challenges, denials, and agreement are related to the semantic status of various phrases. At this
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point, we cannot tell whether Evidentials are distinct from epistemic modals in the way they behave with respect to these tests. It is possible that further research on Quechua will show that given the right context, Evidentials in Quechua and St’at’imcets behave in the same way. It is also possible that further research on modals will reveal that the challengability test is not a reliable test of the semantic status of either modals or Evidentials. At any rate, the existing research opens up new areas by showing how we might draw out subtle distinctions between semantic anomaly and infelicity by careful construction of precise contexts.

4.6 EVIDENTIALS AND CONVENTIONAL IMPLICATURES

Most of the research on the semantic status of Evidentials was carried out prior to the work by Potts (2005) on conventional implicatures (CIs). Faller (2002) explicitly set aside the possibility that Evidentials involve CIs, because CIs were not well-understood at the time. However, based on the discussion in the previous section, the meanings conveyed by Evidentials would seem to fit squarely into the class of CIs.

Potts (2005: 11) summarizes the properties of CIs as follows:

(30) a. CIs are part of the conventional meaning of words.
    b. CIs are commitments, and thus give rise to entailments.
    c. These commitments are made by the Speaker of the utterance ‘by virtue of the meaning of’ the words he chooses.
    d. CIs are logically and compositionally independent of what is ‘said (in the favored sense)’, i.e. independent of the at-issue entailments.

Evidentials seem to have all of these properties. As discussed above, evidence type is the essence of the conventional meaning of Evidential morphemes. Second, Evidentials do give rise to entailments. For example, a sentence with a hearsay Evidential entails that the speaker did not witness the event. Third, the importance of commitments made by the speaker in virtue of the meaning of the Evidential is amply illustrated by the fact that both Faller (2002) and Garrett (2001) consider (at least some) Evidentials to be illocutionary operators or performatives. Finally, regardless of the outcome of future research on modals and Evidentials, Evidentials are logically independent of ‘what is said’ in that an assertion of p+Evidential is an assertion of p.

5. Conclusion and Prospects

Research on whether Evidentials constitute a distinct grammatical category finds that on one hand, there are languages with a small, closed, obligatory set of morphemes that encode information source, and in such languages
the range of possible evidential categories is small and abstract. As Aikhenvald (2004) urges, researchers should be careful to distinguish between grammaticized Evidential systems and the wide range of other ways of expressing how the speaker acquired her knowledge. On the other hand, insight into the components of Evidential meaning has come from research on languages in which Evidentiality is expressed by tense, aspect, or modal morphemes. Such languages suggest that we might want to look for a finer-grained analysis involving several interacting components, even in languages that grammaticize Evidentiality with a designated morpheme.

The evidence in favor of an Evidential head comes from morpheme ordering in some languages and parallel adverb ordering in other languages. It is difficult at this point to tell whether these facts should have a syntactic explanation, since we lack independent evidence involving word order or other syntactic diagnostics. It may just be that no one has looked for such data. Research investigating the relationship between Evidentials and topic/focus structures could turn up evidence bearing on this issue.

Evidentials differ systematically from epistemic modals, but it is not clear whether this means they are entirely distinct, or just a special type of epistemic modal. In trying to determine the semantic status of Evidentials, we find that our understanding of some of the standard tests of semantic status is preliminary. Since Evidentials bear the hallmarks of conventional implicatures, further research on Evidentials could make important progress in our understanding of the distinction and interface between semantics and pragmatics.

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Short Biography

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Notes

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1 The terms ‘information source’ and ‘evidence’ or ‘evidence type’ are used interchangeably in the literature. There are interesting questions about what kinds of data count as ‘evidence’, and also about whether information sources are somehow linguistically similar to bearers of the ‘source’ thematic role in argument structure, but I will not address these questions here. I will use the terms ‘information source’, ‘source of information’, and ‘evidence type’ interchangeably.


3 Hardman (1986: 115) notes that ‘Records with blind persons have not shown any difference in the use of data-source markings.’ Edward Garrett (personal communication) also reports that blind speakers of Tibetan do not seem to differ from sighted people in the way they use evidentials.

4 I am grateful to Andrew McKenzie for bringing this paper to my attention.

5 The examples Nikolaeva gives for present tense hearsay involve embedded evidentials that express information that the speaker knows through hearsay.

6 Specifically, she argues that Korean -te and -ney are spatial deictic tenses, while -num and -essess are simple deictic tenses.

7 ‘Evaluative’ heads and adverbs, such as luckily, unfortunately, and surprisingly, express the speaker’s opinion about the proposition.

8 The direct evidential on the main verb ‘think’ indicates that the speaker has direct evidence of Tashi’s thinking this. It is the embedded evidential that undergoes switch in perspective.

9 Matthewson et al. (2006) argue that St’at’imcets evidentials encode evidence type and not certainty, but they argue that modals need not always encode certainty, and they treat evidentials as a type of modal.

10 Thanks to Leah Bateman and her consultants (personal communication) for providing this information.

11 The consultants who provided these judgments were familiar with the Sherlock Holmes stories.

12 Thanks to a reviewer for making this clear.

13 de Haan notes that the claim that epistemic modals may arise from evidentials is more speculative than the other claims.

14 With saw, it could be that Mary comes to share the knowledge that leads to the modal judgment, but this knowledge must also be known in general within the utterance context.

15 Fasola characterizes the evidentials’ contribution as ‘backgrounded’.

Works Cited


