

# Studying evidentiality in language

Samira Verhees

Project and research seminar

March 2020

[github/sverhees/site/other](https://github.com/sverhees/site/other)

# Evidentiality

- ▶ Specifies *someone's* **access** to information about an event they are talking about.
- ▶ More commonly: encoding of information source

# Evidentiality

- ▶ Specifies *someone's* **access** to information about an event they are talking about.
- ▶ More commonly: encoding of information source
- ▶ In other words, how people know what they are talking about: personal experience, a wild guess, hearsay, etc.

# Evidentiality

- (1)      kieylali-k    kan-n-tika  
         peccary-OBJ to.die-VS-EVID:INFER.CERT/PST  
         hala-n-dana  
         to.stink-VS-EVID:SENS.CERT/PRS  
         ‘The peccary **died**; (because) it **stinks**.’

Via Eberhard (2018: 347)

Sabanê (Nambikwara)

# Outline

1. What is evidentiality?
2. Cognition and culture
3. Fieldwork on evidentiality

# What is evidentiality?



# Franz Boas (1858-1942)



Suffixes marking “source of information” in Kwakiutl  
(Kwakwaka’wakw) (**Boas 1911**)



*"The man is sick. We express by this sentence, in English, the idea a definite single man at present sick. In Kwakiutl this sentence would have to be rendered by an expression which would mean, in the vaguest possible form that could be given to it, definite man near him invisible sick near him invisible. [...] An idiomatic expression of the sentence in this language would, however, be much more definite, and would require an expression somewhat like the following, That invisible man lies sick on his back on the floor of the absent house."*

(Boas 1911: 43)

“[...] thus the Kwakiutl, whose language I have used several times as an example, would require a form indicating whether this is a new subject introduced in conversation or not; and, in case the speaker had not seen the sick person himself, **he would have to express whether he knows by hearsay or by evidence that the person is sick, or whether he has dreamed it.**”

(Ibid.)

# The term “evidential”

- ▶ Boas first described a category of information source as a general concept  
(Aikhenvald 2004: 12–13)
- ▶ But exponents of this category had been described much earlier: observations by Pāṇini on Sanskrit – from the 4th century BCE – seem to be the oldest  
(Friedman 2018: 125)

# The term “evidential”

- ▶ Boas first described a category of information source as a general concept  
([Aikhenvald 2004](#): 12–13)
- ▶ But exponents of this category had been described much earlier: observations by Pāṇini on Sanskrit – from the 4th century BCE – seem to be the oldest  
([Friedman 2018](#): 125)
- ▶ According to [Friedman \(2018\)](#), A.M. Halpern was the first to use the term **evidential**: as a descriptive term for a verb suffix in the Quechuan language Yuma (indicating direct evidence)  
([Halpern 1946](#): 286)

# The term “evidential”

- ▶ Roman Jakobson coined the term **evidential** for a typological category of the verb in 1957

“**Evidential** is a tentative label for the verbal category which takes into account three events – a narrated event, a speech event, and a narrated speech event, namely the alleged source of information about the narrated event. The speaker reports an event on the basis of someone else’s report (quotative, i.e. hearsay evidence), or a dream (revelative evidence), or a guess (presumptive evidence) or of his own previous experience (memory evidence).”

(Jakobson 1957: 46)

“To our question, what happened to the steamer Evdokija, a Bulgarian first answered: *zaminala* “it is claimed to have sailed”, and then added: *zamina* “I bear witness; it sailed”.  
(*Ibid.*)

# The term “evidential”

- ▶ Importantly, Jakobson brought together information source suffixes from Native American languages and indirect verb tenses from Bulgarian as instances of the same category (Plungian 2010: 26)



# Evidentiality in typology

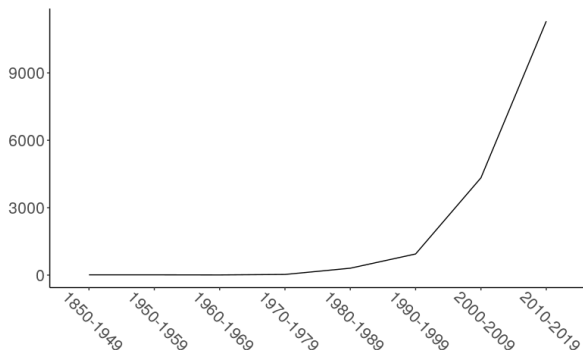
- ▶ Research started growing exponentially only from the mid-80's onwards
- ▶ After the publication of *Evidentiality: the linguistic coding of epistemology* (Chafe & Nichols 1986)

# Evidentiality in typology

- ▶ Chafe & Nichols (1986) defined evidentiality in terms of “attitude towards knowledge”, rather than simple information source marking
- ▶ They departed from a broad universal semantics, and included all kinds of linguistic devices (grammatical suffixes, lexical items)

# Research on evidentiality

**Figure 1:** Search results for keyword “evidentiality” in Google Scholar by decade



Retrieved April 2019.

The book offers insight into “the ways in which ordinary people, unhampered by philosophical traditions, naturally regard the **source and reliability of their knowledge**. Simultaneously we can learn a great deal about an important ingredient of language itself, the ways in which languages agree and differ in their emphases, and in the **kinds of devices** they make available to their speakers.”  
(Chafe & Nichols 1986: vii)

“One of the current misconceptions concerning evidentiality is to do with a gratuitous extension of this term to cover **every way of expressing uncertainty, probability and one’s attitude to the information**, no matter whether it is expressed with **grammatical** or with **lexical** means; or whether it is the primary meaning of a category or not [...]”  
(Aikhenvald 2003: 19)

# Epistemic modality

- ▶ Evidentiality is often associated with **epistemic modality**, i.e. the speaker's degree of certainty and commitment regarding the truth value of a piece of information (Boye 2012: 1–6)
- ▶ There have been some attempts to equate or identify the two in the past

# Epistemic modality

The notion that information source marking is inherently connected to reliability and certainty seems intuitively plausible.

# Epistemic modality

The notion that information source marking is inherently connected to reliability and certainty seems intuitively plausible.

- (2) Smith also owns one of Elton John's old pianos.
- (3) Smith also **reportedly** owns one of Elton John's old pianos.

via: [The Washington Post](#)



# Epistemic modality

- ▶ Plungian (2001: 354) aptly called this a “cultural stereotype”
- ▶ There is no cross-linguistically valid one-to-one mapping between certain source types and reliability judgments
- ▶ By now: general consensus that the two categories are distinct, though the nature of their relationship remains a matter of debate (see discussion in Wiemer (2018))

“Well, I won’t believe it till I see it, ”  
said the man. “An’ then I dunno  
whether I’ll believe it or not.”

*The Circus of Dr. Lao* by Charles G. Finney (1935)

# Grammar vs. semantics

- ▶ Another central debate is whether the term evidentiality should be reserved for grammatical encoding
- ▶ A.Y. Aikhenvald is the main proponent of a grammar-central approach, explicitly defining evidentiality as “grammatical marking of information source” (Aikhenvald 2018: 1)
- ▶ Most others treat evidentiality as a universal semantics which can be expressed with various linguistic means

# Grammar vs. semantics

- ▶ Though everybody seems to agree that different means should be distinguished, and that studying each and all of them is useful
- ▶ A more substantial problem is how to distinguish different types

# Grammar vs. semantics

- ▶ Though everybody seems to agree that different means should be distinguished, and that studying each and all of them is useful
- ▶ A more substantial problem is how to distinguish different types
- ▶ Aikhenvald (2004) distinguishes three main types of expressions: grammatical marking, lexical items, and “evidential strategies”

# Grammar vs. semantics

- ▶ Though everybody seems to agree that different means should be distinguished, and that studying each and all of them is useful
- ▶ A more substantial problem is how to distinguish different types
- ▶ Aikhenvald (2004) distinguishes three main types of expressions: grammatical marking, lexical items, and “evidential strategies” → forms that can express an evidential value on occasion in context, but have a different main function

# Grammar vs. lexicon

- ▶ **Grammatical** marking (as opposed to lexical) consists of “closed systems, which can be realized by bound morphemes, clitics and words which belong to full grammatical classes, such as prepositions, preverbs or particles” (Aikhenvald 2004: 11)

# Grammar vs. lexicon

- ▶ **Grammatical** marking (as opposed to lexical) consists of “closed systems, which can be realized by bound morphemes, clitics and words which belong to full grammatical classes, such as prepositions, preverbs or particles” (Aikhenvald 2004: 11) → Leaves some room for ambiguity (sentential adverbs, certain clitics)



# Evidential strategies

e.g. modal verbs in Germanic languages

- (4) Er **soll** sich das Bein gebrochen haben  
he must:3.PRS self DEF leg broken have  
'Apparently he has broken his leg.' / 'He  
*reportedly* broke his leg.'  
via (Aikhenvald 2004: 150)

German

# Evidential strategies

e.g. modal verbs in Germanic languages

- (4) Er **soll** sich das Bein gebrochen haben  
he must:3.PRS self DEF leg broken have  
'Apparently he has broken his leg.' / 'He  
*reportedly* broke his leg.'  
via (Aikhenvald 2004: 150) German

cf. *He must have broken his leg.*

# Evidential strategies vs. grammar

- ▶ Evidential strategies are forms that can express an evidential value on occasion in context, but this is not their “main meaning”
- ▶ Grammatical evidentials commonly originate from strategies
- ▶ Many forms are in the process of evolution from strategy to grammar; it is unclear where to draw boundaries between them

# Inference and semantic change

A key mechanism in semantic change and grammaticalization is **inference**

# Inference and semantic change

A key mechanism in semantic change and grammaticalization is **inference**

Do not confuse various applications of the term:

- ▶ Inference in naive epistemology
- ▶ Inference as a value in systems of evidential marking
- ▶ Inference in cognitive psychology
- ▶ Inference as a mechanism for semantic change

# Inference and semantic change

“Another commonly cited mechanism that propels semantic change toward greater grammaticization is **inference** or the **conventionalization of implicature** [...] In this type of change, a [grammatical form] that often occurs in an environment in which a certain inference may be made can come to be associated with that inference to such an extent that the inference becomes part of the explicit meaning of the gram.”  
(Bybee, Perkins & Pagliuca 1994: 25)

# Inference and semantic change

*since* as a temporal → causal conjunction

- (5) Since Susan left him, John has been very miserable.

# Inference and semantic change

*since* as a temporal → causal conjunction

- (5) Since Susan left him, John has been very miserable.
- (6) Since I have a final exam tomorrow, I won't be able to go out tonight.



# Inference and semantic change

*since* as a temporal → causal conjunction

- (5) Since Susan left him, John has been very miserable.
- (6) Since I have a final exam tomorrow, I won't be able to go out tonight.

New meaning derives from a common inference that correlation implies causation.

(Hopper & Traugott 2003: 78–84)

# Evidentiality and implicatures

- ▶ Evidential meanings rarely emerge alone
- ▶ In many languages a single form conveys different meanings, including hearsay, logical inference, mirative (new, unexpected information) and epistemic modality (the speaker does not vouch for the truth of the information)

# Evidentiality and implicatures

- ▶ Evidential meanings rarely emerge alone
- ▶ In many languages a single form conveys different meanings, including hearsay, logical inference, mirative (new, unexpected information) and epistemic modality (the speaker does not vouch for the truth of the information)
- ▶ The status of these various meanings is unclear
- ▶ One may be a pragmatic extension of the other, or they may be two sides of the same coin

# Evidentiality and implicatures

- ▶ Evidential meanings rarely emerge alone
- ▶ In many languages a single form conveys different meanings, including hearsay, logical inference, mirative (new, unexpected information) and epistemic modality (the speaker does not vouch for the truth of the information)
- ▶ The status of these various meanings is unclear
- ▶ One may be a pragmatic extension of the other, or they may be two sides of the same coin → Interpretations of another, more abstract category such as “mediative”

- (7)      řali-r    mića    qini-b-o      ek'wa  
ali-ERG dagger break-N-CVB AUX.PRS
1. 'Ali (as I found out) broke [his] dagger.'
  2. '(I see that) Ali broke [his] dagger.'
  3. '(Apparently) Ali broke [his] dagger.'

From (Tatevosov 2007: 361)      Bagvalal (East Caucasian)

# Mediative

“When [speakers] use the ordinary, unmarked forms, they are stating the facts purely and simply as they know them, with no commentary. But, when they choose to use the special, marked forms, they are expressing them **MEDIATELY**, through their acknowledgment of the event, without specifying how it happened, and in so doing they are placing themselves, so to speak, at a distance from what they are saying. In the case of hearsay the utterance implies ‘as I hear’; in the case of inference it implies ‘as I infer’; in the case of unexpected perception it implies ‘as I see.’” (Lazard 1999: 95)

# Mediative

[...] Speakers are somehow split into two persons, the one who speaks and the one who has heard or infers or perceives. This operation distances them from their own discourse, whereas in neutral expression they adhere to their own discourse by virtue of the very laws of linguistic intercourse. The **real value** of the forms in question is this **abstract distance**, not any consideration of the nature of the source of the speaker's knowledge of the facts."

(Ibid.)

# Grammar vs. non-grammar

- ▶ Lack of empirical criteria leads to contradictory classifications
- ▶ How to identify the (main) meaning of a grammatical form?
- ▶ Repercussions for methodology



# Semantic domain

Personal experience	Active participation		Direct
	Sensory access	Visual	
		Auditory	
Inference	From results		Indirect
	From reasoning		
Hearsay	Secondhand Thirdhand		

\*Shaded grey = rare distinctions.

# Floating notions

- ▶ Information from **dreams** can be framed as direct / visual access, or as unreal and thus inherently unwitnessed; Kwakiutl supposedly has a dedicated revelative marker
- ▶ **General knowledge** that cannot be ascribed to a specific source (type) is marked as direct / personal (minimal mediation), inference from reasoning (assumption), reportative (in Mi'kmaw) or has a dedicated marker

# Hearsay

Aikhenvald (2004) makes a distinction of **reportative** vs. **quotative**: reportative = reported information without reference to a specific source ('it is said that Y'); quotative = reported information with reference to a source ('X said Y').

# Hearsay

Aikhenvald (2004) makes a distinction of **reportative** vs. **quotative**: reportative = reported information without reference to a specific source ('it is said that Y'); quotative = reported information with reference to a source ('X said Y').

Quotatives often simply designate a proposition as being a quote, rather than specifying access per se, so it is debatable whether they are strictly speaking evidentials.

# Hearsay

- (8) he-w hek'a c'innoɬ-o bis:i-di ɬot:tɯ  
DEM-M man know.CAUS-IMP 2Pl-ERG QUOT  
ɬodi! hit'on χan.š-tɪ.  
REP say.AOR king-ERG  
“You find out what kind of man [did this]!”<sub>QUOT</sub>  
said<sub>REP</sub> the king.’

(Dirr 1906)

Andi (East Caucasian)

# Hearsay

- (9)      ilo-de            du-ḡa    yocha b-eq'-are=ḡ'ehe  
         mother-ERG 2SG.DAT book N-get-PFV=QUOT  
         ãḡehe            b-ik'<sup>w</sup>-ari is:i-ḡa  
         hear-CVB.N N-be-PFV 1PL.EXCL-DAT  
         'Mother bought you a book, we heard.'

(Magomedbekova 1967: 107)      Akhvakh (East Caucasian)

# Hearsay

(10) ʔá lí      ná      kònò sù-wókkó      músá      kò  
<name> QUOT REP 3SG:M-see:PFV <name> do  
máytà  
vomit:VN

‘There is a rumour that Ali said he saw Musa  
vomiting.’

(Storch 2018: 625)

Maaka (Chadic)

# Hearsay

(10) ʔálí      nà      kònò sù-wókkó      músá      kò  
<name> QUOT REP 3SG:M-see:PFV <name> do  
máytà  
vomit:VN

‘There is a rumour that Ali said he saw Musa  
vomiting.’

(Storch 2018: 625)

Maaka (Chadic)

→ Seems to convey information attributed to a specific  
source, rather than simply delimit a quotation



# Active participation

- ▶ Some languages distinguish active participation from direct observation (see Sarvasy (2018: 646–650) on Foe)

# Active participation

- ▶ Some languages distinguish active participation from direct observation (see Sarvasy (2018: 646–650) on Foe)
- ▶ Tibetic languages famously distinguish egophoric access, which is considered a distinct category (Floyd, Norcliffe & San Roque 2018)
- ▶ Egophoric covers personal knowledge: active participation, thoughts, inner sensations (Tournadre & LaPolla 2014); in some cases requires control (Widmer & Zúñiga 2017)

# Egophoricity

“The Tibetic Egophoric category is not part of the evidential system; it is an independent, and more fundamental, category which affects evidential meanings that come under its shadow. Rather than an evidential category, Egophoric is a category to which evidentiality is not applicable.”  
(DeLancey 2018: 584)

# Evidentiality as an indexical category

- ▶ Remember Jakobson's **narrated speech event** – an intermediary event designating a relationship between an event and an origo (usually the speaker)

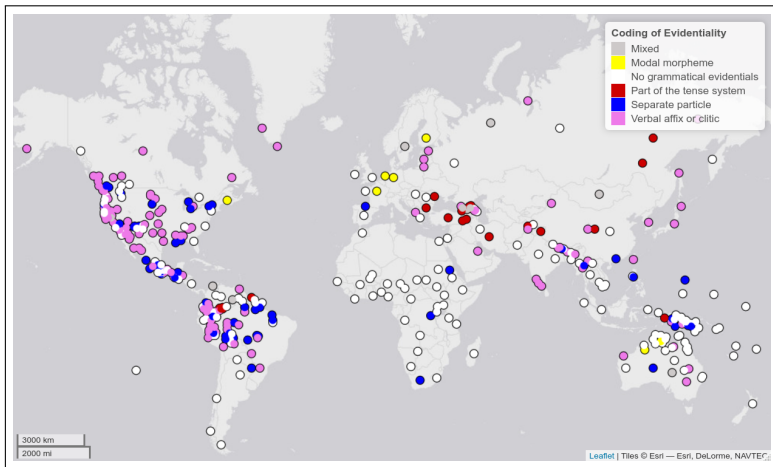
# Evidentiality as an indexical category

- ▶ Remember Jakobson's **narrated speech event** – an intermediary event designating a relationship between an event and an origo (usually the speaker)
- ▶ Some recent functional studies revisit the idea of evidentiality as an indexical category (similar to tense, spatial deixis, etc.) (**Hanks 2014**, **Bergqvist 2018**)
- ▶ And similar views are common in formal semantic approaches (see an overview in **Speas (2018)**)

# Evidentiality as an indexical category

- ▶ Evidentials by default refer to the information source (or access) of the speaker
- ▶ Indexical approaches can account for shifts, including:
  - ▶ Speaker to character in a story
  - ▶ Speaker to addressee in a question
  - ▶ Extension from speaker to include addressee in “shared knowledge” markers

# Areal types



\*Reproduction of (de Haan 2013) made with Lingtypology (Moroz 2017) for R (R Core Team 2018)

# Interim summary — evidentiality is:

- ▶ A relatively new but very fashionable category in linguistics
- ▶ Relatively rare if you define it as *grammatical* encoding of information source
- ▶ Universal if you define it as *linguistic* encoding of information source
- ▶ Alternatively, you can define it as an indexical category specifying the relationship between an origo (usually the speaker) and an event in terms of access to information about the event



# Interim summary

- ▶ Major subdomains are direct experience, inference, and reported speech
- ▶ Some values are highly divergent cross-linguistically
- ▶ And some remain controversial in typology

# Interim summary

- ▶ Major subdomains are direct experience, inference, and reported speech
- ▶ Some values are highly divergent cross-linguistically
- ▶ And some remain controversial in typology
- ▶ There is a general lack of empirical criteria to identify evidentials: either as markers of evidentiality, or as *grammatical* markers of evidentiality

# Cognition and culture

# Memory and evidence

Jakobson distinguished an evidential value

MEMORY EVIDENCE

# Memory and evidence

Jakobson distinguished an evidential value

## MEMORY EVIDENCE

→ Most typologies call this direct or firsthand evidentiality

# Memory and evidence

Jakobson distinguished an evidential value

## MEMORY EVIDENCE

→ Most typologies call this direct or firsthand evidentiality

Cross-linguistically the expression of evidentiality seems to favor the past tense ([Forker 2018](#))

# Memory and evidence

Though not exclusively

- (11) náciya páe-æy=hõ  
boat go.upriver-DYNM=NONVIS  
'The boat is going upriver (I can hear it).'

(Epps 2008: 153)

Hup (Naduhup)

# Memory and evidence

- ▶ Nonetheless, memory is an important and often overlooked parameter



# Memory and evidence

- ▶ Nonetheless, memory is an important and often overlooked parameter
- ▶ Memories are of varying quality, and speakers are to some extent aware of this
- ▶ Interestingly, the evidential system of Taku Tibetan seems to encode the quality of a past observation, distinguishing immediate from prolonged observation (Sun 2018: 51–54)

# Memory and evidence

- ▶ So far I have assumed a one-to-one mapping:  
event - *piece of information* - source of information

# Memory and evidence

- ▶ So far I have assumed a one-to-one mapping:  
event - *piece of information* - source of information
- ▶ But knowledge is often composed of fragments  
from different sources
- ▶ In which case speakers opt for a “preferred  
evidential” (Aikhenvald 2004: 305–309)

# Memory and evidence

- (12)      Valteir ite                                  tfinu  
            Valteir POSS+NCL:AN dog  
            nihwã-ka                                  di-na  
            3SG.NF+bite-REC.PST.VIS 3SG.NF-OBJ  
            ‘Valteir’s dog bit him.’ (VISUAL)

(Aikhenvald 2004: 306)

Tariana (Arawak)

# Memory and evidence

- (12)      Valteir ite                                  tfinu  
            Valteir POSS+NCL:AN dog  
            nihwã-ka                                  di-na  
            3SG.NF+bite-REC.PST.VIS 3SG.NF-OBJ  
            ‘Valteir’s dog bit him.’ (VISUAL)

(Aikhenvald 2004: 306)

Tariana (Arawak)

The speaker heard and saw the event, yet uses *-ka* (VISUAL) rather than *-mahka* (NON-VISUAL).

# Memory and evidence

“People’s mental experiences do not have labels  
indicating where they came from.”  
(Johnson 2006: 761)

# Source monitoring

- ▶ People can misremember how they know something
- ▶ Lines between real and imagined events can be blurred; details misremembered → see recent research on the reliability of eyewitness testimonies
- ▶ People can also think they saw something when actually they read a vivid description (Intraub & Hoffman 1992)

# Source monitoring

- ▶ Do speakers of evidential languages have a cognitive advantage in this regard?



# Source monitoring

- ▶ Do speakers of evidential languages have a cognitive advantage in this regard?
- ▶ So far the answer seems to be NO
- ▶ Not a lot of research has been done so far, limited to languages with small evidential systems, see an overview in Ünal & Papafragou (2018)

# Manipulation

Speakers can deliberately use an evidential that does not accurately reflect how they know something.

# Manipulation

A common mechanism is pragmatic distancing

# Manipulation

A common mechanism is pragmatic distancing

- (13)    seler   ki'ci   voğanda getu                      daxənbər  
         you.PL small when    head.covering wear.IMP  
         o    - **daxan ixua**  
         INT - wear   not.INDIR  
         'When you were young, did you cover your  
         heads?' - 'No, we didn't.'

(Dwyer 2000: 51)

Salar (Turkic)

# Manipulation

Distance can take on an ironic or sarcastic flavor

# Manipulation

Distance can take on an ironic or sarcastic flavor

- (14) Her gün koş-uyor-muş.  
every day run-PRS-mİş  
'(It is said that) he jogs every day.'

(Slobin & Aksu-Koç 1986: 161)

Turkish (Turkic)

# Manipulation

Distance can take on an ironic or sarcastic flavor

# Manipulation

Distance can take on an ironic or sarcastic flavor

- (15) Paṙk-ac                      ē  
lie\_down-INDIR be-3SG

‘She’s lying down.’

1. This is normal, e.g., she usually rests at this time of day, she’s pregnant, she’s ill, etc.
2. It’s shocking how lazy she is.

(Donabédian 2001: 426)      Western Armenian (Armenic)



# Manipulation

The reverse is arguably also possible, cf.

- (16)    ŋə           gepi:               ʃa    zɐ-wuʔ-\*lə  
          1SG:GEN husband:ERG meat eat-PROG-EGO  
          ‘My husband is eating meat.’

- (17)    ŋə           gepi:               ʃa    zɐ-lə  
          1SG:GEN husband:ERG meat eat-EGO  
          ‘My husband eats meat.’

(Sun 2018: 56)

Taku Tibetan (Tibetic)

# Manipulation

Taking into account the addressee: face-saving and face-threatening

# Manipulation

Taking into account the addressee: face-saving and face-threatening

- (18)      wa   dila        r-ik:an      x:unul, cel,  
             hey 1SG.GEN F-beloved wife,    somehow  
             kuxnjali-b        dig    k:wɹəʔbiɰ-ub-ca-b.  
             kitchen-N[ESS] meat spoil-PRET-COP-N  
             ‘Hey, my dear wife, somehow the meat has  
             spoiled in the kitchen.’

(Fieldwork 2016)

Itsari Dargwa (East Caucasian)

# Manipulation

Addressee perspective can also be important:  
face-saving and face-threatening

- (19) Kan-mi pusha-ra-ngi, ri-ki!  
you-EVID bring.along-PST-2 look-IMP  
'You (are the one) who brought us (to this  
point), look!'

(Nuckolls 2018: 211)

Pastaza Quichua (Quechuan)

# In narratives

- ▶ Conventionalized usage
- ▶ Genre-specific preferences:
- ▶ Indirect is associated with fictional and unrealistic events in Turkish, and direct with historical accounts and realistic fiction (Slobin & Aksu-Koç 1986: 160)
- ▶ Correlation with geographical context in Quechua: familiar environment, direct marking (Howard 2018)

# Manipulation

- ▶ Switch to direct evidential in an unwitnessed context for “vividness” (Comrie & Polinsky (2007) on Tsez)
- ▶ Can in some cases be interpreted as overstepping boundaries (Friedman (2003: 207) on Macedonian history books)

# Manipulation

- Switch can also have a different cause: foregrounding vs. backgrounding information within the structure of the text (Makartsev (2013) on Balkan languages)

# Summary

- ▶ Evidential marking relies on people's ability to identify how they know something, which is flawed
- ▶ It forces the selection of a single value in case knowledge originates from various sources



# Summary

- ▶ The use and interpretation of evidential markers in context may not be predictable from their perceived core meanings (e.g. reportative, visual evidence)
- ▶ Depends on narrative conventions and politeness strategies, among other things

# Abbreviations I

1	first person 54, 89–91
2	second person 53, 54, 92
3	third person 33, 34, 55, 56, 76, 77, 87, 88
AN	animate 76, 77
AOR	aorist 53
AUX	auxiliary 45
CAUS	causative 53
CERT	certainty 4
COP	copula 90, 91
CVB	converb 45, 54
DAT	dative 54
DEF	definite 33, 34
DEM	demonstrative 53
DYNM	dynamic 71
EGO	egophoric 89
ERG	ergative 45, 53, 54, 89
ESS	essive 90, 91
EVID	evidential 4, 92
EXCL	exclusive 54
F	feminine 90, 91

# Abbreviations II

GEN	genitive 89–91
IMP	imperative 53, 83, 84, 92
INDIR	indirect evidential past 83, 84, 87, 88
INFER	inferential 4
INT	interrogative 83, 84
M	masculine 53, 55, 56
N	neuter 45, 54, 90, 91
NCL	noun class 76, 77
NF	non-feminine 76, 77
NONVIS	nonvisual evidential 71
OBJ	object 4, 76, 77
PFV	perfective 54–56
PL	plural 54, 83, 84
POSS	possessive 76, 77
PRET	preterite 90, 91
PROG	progressive 89
PRS	present 4, 33, 34, 45, 85, 86
PST	past 4, 76, 77, 92
QUOT	quotative 53–56
REC	recent 76, 77
REP	reportative 53, 55, 56
SENS	sensory evidential 4
SG	singular 54–56, 76, 77, 87–91
VIS	visual evidential 76, 77
VN	verbal noun 55, 56
VS	verbal suffix 4

# References I



Aikhenvald, Alexandra Y. 2003. Evidentiality in typological perspective. In Alexandra Y. Aikhenvald & Robert M.W. Dixon (eds.), *Studies in evidentiality*, 1–32. Amsterdam/Philadelphia: John Benjamins.



Aikhenvald, Alexandra Y. 2004. *Evidentiality*. Oxford: Oxford University Press.



Aikhenvald, Alexandra Y. 2018. Evidentiality: The framework. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 1–36. Oxford: Oxford University Press.

# References II



Bergqvist, Henrik. 2018. Evidentiality as stance: event types and speaker roles. In Ad Foolen, Helen de Hoop & Gijs Mulder (eds.), *Evidence for evidentiality*, 19–44. Amsterdam/Philadelphia: John Benjamins.



Boas, Franz. 1911a. Introduction. In Franz Boas (ed.), *Handbook of american indian languages* 1, 5–83. New York: Columbia University Press.



Boas, Franz. 1911b. Kwakiutl. In Franz Boas (ed.), *Handbook of american indian languages* 1, 423–558. New York: Columbia University Press.

# References III



Boye, Kasper. 2012. *Epistemic meaning: a crosslinguistic and functional-cognitive study*. Berlin/Boston: Walter de Gruyter.



Bybee, Joan L., Revere Perkins & William Pagliuca. 1994. *The evolution of grammar: tense, aspect and modality in the languages of the world*. Chicago/London: The University of Chicago Press.



Chafe, Wallace L & Johanna Nichols. 1986. *Evidentiality: the linguistic coding of epistemology*. Norwood, NJ: Ablex.

# References IV



Comrie, Bernard & Maria Polinsky. 2007. Evidentials in tsez. In Zlatka Guentchéva & John Landabaru (eds.), *L'énonciation médiatisée ii*, 335–50. Louvain/Paris/Dudley MA: Peeters.



DeLancey, Scott. 2018. Evidentiality in tibetic. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 580–594. Oxford: Oxford University Press.

# References V



Dirr, Adolf A. 1906. Kratkij grammatičeskij očerk andijskago jazyka [Short grammar sketch of Andi]. In *Sbornik materialov dlja opisanija mestnostej i plemën Kavkaza*. Tbilisi: Upravlenie Kavkazskago Učebnago Okrug.



Donabédian, Anaïd. 2001. Towards a semasiological account of evidentials: an enunciative approach of-er in modern western armenian. *Journal of pragmatics* 33(3). 421–442.



# References VI



Dwyer, Arienne. 2000. Direct and indirect experience in  
salar. In Lars Johanson & Bo Utas (eds.), *Evidentials.  
turkic, iranian and neighbouring languages*, 45–60.  
Berlin/New York: Mouton de Gruyter.



Eberhard, David M. 2018. Evidentiality in nambikwara  
languages. In Alexandra Y. Aikhenvald (ed.), *The  
oxford handbook of evidentiality*, 333–356. Oxford:  
Oxford University Press.



Epps, Patience. 2008. *A grammar of hup*. Walter de  
Gruyter.

## References VII



Floyd, Simeon, Elisabeth Norcliffe & Lila San Roque. 2018. *Egophoricity*. Amsterdam/Philadelphia: John Benjamins.



Forker, Diana. 2018. Evidentiality and its relation with other verbal categories. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 65–84. Oxford: Oxford University Press.



Friedman, Victor A. 2003. Evidentiality in the balkans with special attention to Macedonian and Albanian. In Alexandra Y. Aikhenvald & Robert M.W. Dixon (eds.), *Studies in evidentiality*, 189–218. Amsterdam/Philadelphia: John Benjamins.

## References VIII



Friedman, Victor A. 2018. Where do evidentials come from?. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 124–147. Oxford: Oxford University Press.



de Haan, Ferdinand. 2013. Coding of evidentiality. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.  
<https://wals.info/chapter/78>.



Halpern, Abraham Meyer. 1946. Yuma. In Cornelius Osgood (ed.), *Linguistic structures of Native America*, 249–288. New York: Viking Fund.

# References IX



Hanks, William F. 2014. Evidentiality in social interaction. *Pragmatics and Society* 3(2). 169–180.



Hopper, Paul J & Elizabeth Closs Traugott. 2003. *Grammaticalization*. First published in 1993. Cambridge: Cambridge University Press.



Howard, Rosaleen. 2018. Evidence and evidentiality in quechua narrative discourse. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 222–243. Oxford: Oxford University Press.

# References X



Intraub, Helene & James E Hoffman. 1992. Reading and visual memory: Remembering scenes that were never seen. *The American journal of psychology*. 101–114.







Jakobson, Roman. 1957. *Shifters, verbal categories and the russian verb*. Reprinted in L. R. Waugh and M. Monville-Burston (Eds.) 1984. *Russian and Slavic grammar studies 1931-1981*. Berlin: Walter de Gruyter, 386-392. Cambridge, MA: Harvard University, Department of Slavic Languages & Literature.



Johnson, Marcia K. 2006. Memory and reality.. *American Psychologist* 61(8). 760.

# References XI

-  Lazard, Gilbert. 1999. Mirativity, evidentiality, mediativity, or other?. *Linguistic Typology* 3. 91–109.
-  Magomedbekova, Zagidat M. 1967. *Axvaxskij jazyk* [*The Akhvakh language*]. Tbilisi: Mecniereba.
-  Makartsev, Maxim Maximovich. 2013. *Èvidencial'nost' v prostranstve balkanskogo teksta* [*Evidentiality in the space of the balkan text*]. St. Petersburg: Nestor-Istorija.
-  Moroz, George. 2017. *lingtypology: easy mapping for Linguistic Typology*. <https://CRAN.R-project.org/package=lingtypology>.

# References XII



Nuckolls, Janis B. 2018. The interactional and cultural pragmatics of evidentiality. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 202–221. Oxford: Oxford University Press.



Plungian, Vladimir A. 2001. The place of evidentiality within the universal grammatical space. *Journal of pragmatics* 33(3). 349–357.

# References XIII



Plungian, Vladimir A. 2010. Types of verbal evidentiality marking: an overview. In Gabriele Diewald & Elena Smirnova (eds.), *Linguistic realization of evidentiality in european languages*, 15–58. Berlin/New York: De Gruyter Mouton.



R Core Team. 2018. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing. Vienna, Austria.  
<https://www.R-project.org/>.



# References XIV



Sarvasy, Hannah. 2018. Evidentiality in the languages of new guinea. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 629–656. Oxford: Oxford University Press.



Slobin, Dan I. & Ayhan A. Aksu-Koç. 1986. A psychological account of the development and use of evidentials in turkish. In Wallace Chafe & Johanna Nichols (eds.), *Evidentiality: the linguistic encoding of epistemology*, 159–167. New Jersey: Ablex.

# References XV



Speas, Margaret. 2018. Evidentiality and formal semantic theories. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 286–314. Oxford: Oxford University Press.



Storch, Anne. 2018. Evidentiality and the expression of knowledge: an African perspective. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 610–628. Oxford: Oxford University Press.



Sun, Jackson T.-S. 2018. Evidentials and person. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 47–64. Oxford: Oxford University Press.

# References XVI



Tatevosov, Sergej G. 2007. Évidencial'nost' i admirativ v bagvalinskom jazyke [Evidentiality and admirative in Bagvalal]. In V.S. Xrakovskij (ed.), *Évidencial'nost' v jazykax evropy i azii: sbornik statej pamjati natal'i andreevny kozincevoj*, 351–397. St. Petersburg: Nauka.



Tournadre, Nicolas & Randy J LaPolla. 2014. Towards a new approach to evidentiality: Issues and directions for research. *Linguistics of the Tibeto-Burman area* 37(2). 240–263.

# References XVII



Ünal, Ercenur & Anna Papafragou. 2018. Evidentials, information sources, and cognition. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 175–184. Oxford: Oxford University Press.



Widmer, Manuel & Fernando Zúñiga. 2017. Egophoricity, involvement, and semantic roles in tibeto-burman languages. *Open linguistics* 3(1). 419–441.

# References XVIII



Wiemer, Björn. 2018. Evidentials and epistemic modality. In Alexandra Y. Aikhenvald (ed.), *The oxford handbook of evidentiality*, 85–108. Oxford: Oxford University Press.