Testimonial perfect constructions:  
the inferential semantics of direct evidence

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Previous researcher claims that languages with evidential systems never include direct perception and inference within the same evidential category. The use of a 'testimonial perfect' construction for inferential semantics in several languages, as well as other interactions between witness and inference, show that there is not a fast line between 'direct' and 'indirect' evidential categories.

Man kann viel sehn, wenn man zwei Augen hat und nicht blind ist und die Sonn scheint. —Marie

1 Introduction

- T. Willet “the primary evidential parameter expressed in natural language is that of direct evidence versus indirect evidence” (1988: 57 emphasis in original).
- A. Aikhenvald: evidential categories divide into six “recurrent semantic parameters” (2004: 63), viz. visual, sensory, inference, assumption, hearsay and quotative (2004: 65); she does not observe crossover between the visual and inferential.
- Scott DeLancey: “direct vs. indirect evidence is the fundamental evidential distinction” (2012: 540).
- Hengeveld & Olbertz: “a case of direct perception” and “a case of inference on the basis of perception” are “two completely different cases when seen from the evidential perspective” (2012: 495).

To the extent that any inference pertains to the world outside, for biological reasons this inference will originate with a sense perception.
- Paraphrase: all languages with grammaticalized evidentials fail to employ the evidential category used for (non-inferential) direct perception in inference contexts.

1.1 Terminological and theoretical preliminaries

- “all linguistic categories are language specific” (Lazard 2012: 249)
- Cross linguistic comparisons on the basis of ‘comparative’ concepts (Haspelmath 2010a).
- Label ‘perfect testimonial’ is built on the model of such terms in traditional grammar as ‘perfect subjunctive’ and ‘aorist imperative’.
1.2 Semantics of the Perfect Testimonial

- Inference is the summation of the semantics of direct evidence and the semantics of the perfect.
- In the Duna perfect testimonial, inferential semantics are “completely predictable given the usual meaning of the individual forms” (San Roque 2008: 379).
- Volkart:

  "Now if you say 'I can see it' with reference to something which is still in progress (which is the meaning of the imperfective aspect), this means that what you see is the process or event itself. If, on the other hand, you say 'I can see it' with reference to something that has been completed in the past (which is the meaning of the perfective aspect), this means that the event must have some effect or result in the present time, since the notion of 'seeing it' can only refer to present results, but not to an action already completed" (2000: 143)

- “I see the dog has found the Easter chocolates.”

2 Previously noted perfect testimonial constructions

- Duna (San Roque 2008: 380).
- Oksapmin (Loughnane 2009: 428-430)
- Bogaia (San Roque & Loughnane 2012: 128, 156).

2.1 'Lhasa' Tibetan

- The V-bzag is testimonial perfect (cf. Table 1), but DeLancey (1985: 65-67, 2003: 279) and Tournadre & Dorje (2009: 140-144, 410, 413) propose that bzag marks a separate 'inferential' category.

2.1.1 DeLancey's analysis of Tibetan V-bzag

DeLancey (1985) contrasts this morpheme with V-pa-red, and V-soñ, citing examples (1), (2), and (3).

\[(1) \quad \text{bsod-nams-kyis} \quad \text{thañ-kha} \quad \text{bkal-pa-red} \]

Sonam-ERG Thangka hang-PST-FAC

'Sonam hung up a Thangka' (based on report or inference) (DeLancey 1985: 65)

\[(2) \quad \text{bsod-nams-kyis} \quad \text{thañ-kha} \quad \text{bkal-soñ} \]

Sonam-ERG Thangka hang-PST-TES
Table 1: 'Lhasa' Tibetan copula system and verbal conjugation

<table>
<thead>
<tr>
<th></th>
<th>Existential copula</th>
<th>Equational copula</th>
</tr>
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<tbody>
<tr>
<td>Personal</td>
<td>yod</td>
<td>yin</td>
</tr>
<tr>
<td>Factual</td>
<td>yod-pa-red</td>
<td>red</td>
</tr>
<tr>
<td>Testimonial</td>
<td>ḡdug</td>
<td>red-bźag</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th></th>
<th>Future</th>
<th>Present</th>
<th>Past</th>
<th>Perfect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal</td>
<td>V-gi-yin</td>
<td>V-gi-yod</td>
<td>V-pa-yin / byuṅ</td>
<td>V-yod</td>
</tr>
<tr>
<td>Factual</td>
<td>V-gi-red</td>
<td>V-gi-yod-pa-red</td>
<td>V-pa-red</td>
<td>V-yod-pa-red</td>
</tr>
<tr>
<td>Testimonial</td>
<td>---</td>
<td>V-gi-ḥdug</td>
<td>V-soṅ</td>
<td>V-bźag</td>
</tr>
</tbody>
</table>

Table 2: 'Lhasa' Tibetan copula system and verbal conjugation according to Tournadre & Dorje (2009: 410)
Discussing the difference between the meaning of V-ʦag and V-soṅ DeLancey refers to
the inadequacy of a simple notion of direct evidence here, for there are clearly two distinct
types of direct perception which can be distinguished: direct perception of the actual event
being reported, and direct perception of the subsequent state which directly resulted from
that event. (DeLancey 1985: 67).

- DeLancey contrasts past tense (V-pa-red and V-soṅ) with a perfect (V-ʦag).
- He ignores V-yod-pa-red, the perfect equivalent of V-pa-red.
- He interprets a tense distinction as an evidential distinction.

DeLancey overlooks many publications that treat V-ʦag as a perfect.
- Sandberg V-pa-yin and V-pa-red reflect “what the French would style the Past Indefinite” whereas
V-yod and V-ḥdug are an “expression of the perfect tense active” (1894: 53).

- Goldstein & Nornang classify V-yod, V-yod-pa-red, and V-bźag as 'present perfect', distinct from V-pa-yin, V-pa-red, and V-soṅ, which they label 'past' (1970: 408).

- Yukawa: 完了動詞に duu がつくと、その行為が起こったことが現在現前のことがから確然としていることもあらわす。つまり何らかの感触で感じられるわけである。なお，肯定形 sāa を用いる。

The verb ending ḡdug describes the fact that evidence of the action that occurred is now before the eyes, i.e. that one experiences a sensation in some way. For the unnegated form bźag is used. (1971: 190)


- Tournadre also clearly distinguishes V-pa-yin, V-pa-red and V-soṅ as 'aorist' and V-yod, V-yod-pa-red, and V-bźag as 'perfect' (1996: 245).


- Volkart (2000) points out that an inferential meaning of a perfect testimonial is found not only in 'Lhasa' Tibetan, but in a number of Central Tibetan dialects.

In 2003, DeLancey essentially repeats his discussion form 1985; he continues to ignore V-yod, and V-yod-pa-red and fails to recognize the perfect and past as separate tenses (2003: 227-228).¹

If verb tense is held constant, the three evidential categories contrast in the past with the triplet of examples (4), (5), and (6) or in the perfect with the triplet of examples (7), (8), and (9).

Past

(4) ṇas than-kha bkal-pa-yin
    me-ERG Thangka hang-PST-PRS

'I hung up a Thangka.' (I know; I did it)

¹ As recently as 2012 DeLancey appears to regard 'Lhasa' Tibetan as having a separate 'inferential' category. He writes “Since the speaker is a direct witness to the proposition he states in (5), and is explicitly not in (6), (5) would be in the unmarked or the direct evidential form, and (6) marked as inferential. (As we will see in Section 4, this is the case in Tibetan.)” (DeLancey 2012: 536). However, his section 4 does not mention V-bźag or posit any other inferential marker in 'Lhasa' Tibetan; he does comment that “the immediate category contrasts with the personal and inferential categories” (DeLancey 2012: 554), but it is unclear whether 'inferential' in this list refers to V-bźag or to those forms here labelled 'factual'.

5
2.1.2 Tournadre & Dorje's analysis of Tibetan V-bzag

Tournadre & Dorje posit five evidential categories (2009: 140-144, 410, 413, cf. Table 2).

• This is not good structuralism.

Also morphological reasons for combining the testimonial, revelatory, and inferential (cf. Table 3).

• Revelatory essential copula red-bzag shares 'bzag' with the inferential perfect ending V-bzag.
• The interrogative form of red-bzag is red-hdag, and it is negated as red-mi-hdag.
• An alternative form of the perfect inferential is V-hdag.²
• V-bzag itself is negated as V-mi-hdag.

² Tournadre (1996: 245) and Denwood (1999: 159-160) distinguish V-bzag and V-hdag as having somewhat separate meanings. However, as already seen, Yukawa (1971: 190), Chang & Chang (1984: 620), and Tournadre & Dorje (2009: 140, 411) reject such a distinction. Given the discussion in Volkart (2000) and Denwood (1999: 159) it seems likely that V-bzag is the form used in the city of Lhasa itself whereas V-hdag is current in other parts of Central Tibet.
3 Newly proposed examples of the perfect testimonial

3.1 Kham

Watters describes *oleo* as mirative (2002: 288-296).

Equipped with knowledge of the perfect testimonial in other languages, it is possible to resolve those objections that DeLancey (2012: 535-538) and Hengeveld & Olbertz (2012: 495-496) raise to Hill's (2012: 420-421) analysis of *oleo* as a visual evidential.

According to Hengeveld & Olbertz (2012: 495-496) example (10) “is clearly a case of direct perception” and example (11) is “a case of inference” (Hengeveld & Olbertz 2012: 495).³

(10) *manlal-lai* to “e *babāi manlal*
    Manlal-OBJ FOC hey man Manlal
    *nə-kə zə ci syā-də u-li-zya-o oleo sani*
    DIST-at EMP sleep-NF 3S-be-CONT-NML MIR CONFIRM

(I said) to Manlal, “Hey man, Manlala, he’s right there sleeping, see!”

(11) *ga-khurja ga-so-məi-wo oleo*
    my-knife IS-CAUS-lose-NML MIR
    ‘I lost my knife!’ (I just discovered it). (Watters 2002: 292 example 19)

• These two sentences share a *oleo* and share direct perception.
• Example (10) includes the marker of continuous aspect -zya (Watters 2002: 89) and refers to present time. In contrast, since “the default aspect for this paradigm is the perfective, which is unmarked” (Watters 2002: 89) the lack of -zya in example (11) indicates perfective aspect and the sentence refers to past time.
• Like in Tibetan, the inferential reading in Kham emerges as an interaction of direct evidence with certain tense or aspect categories.

For DeLancey example (10) is used “when the information being related is perceived at first hand” and example (12) a statement “based on inference...said when the speaker first discovered traces showing that the leopard had eaten his dog” (DeLancey 2012: 536).

(12) *a-kə zə o-kəi-wo oleo*

³ Hengeveld & Olbertz agree with Watters that these examples should be described with the moniker ‘mirative’ (2012: 495), but they redefine what is meant by this label (2012: 498 *et passim*); i.e. they disagree with DeLancey and Watters about the grammatical meaning that *oleo* in Kham exhibits.
here-at EMP 3sg-eat-NML MIR


• I see no obstacle to analyzing (12) as visual evidence “because, after all, the speaker did see something” (DeLancey 2012: 536 emphasis in original).
• Example (12), where the speaker infers that a leopard has eaten a dog and expresses this inference with olo in the perfective aspect, is parallel to example (13), where the speaker infers that a dog has eaten Easter chocolates and expresses this inference with ‘see’ in the present perfect.

(13) I see the dog has found the Easter chocolates.

• DeLancey objects that “the speaker is a direct witness to the proposition he states in (10), and is explicitly not in (12)” (2012: 536).
• Whether or not witness of absence, of nothingness, is indeed direct perception is perhaps a good philosophical question, but we “must leave to philosophers the task of clarifying the status of semantic, i.e. conceptual categories considered independently of their linguistic embodiment” (Lazard 1999: 105); in language such things happen.
• The Classical Tibetan example (14) the two brothers did not witnessed the eating but only its after effects, nonetheless the passage uses the direct evidential marker ḡdug, which DeLancey himself now analyses in ‘Lhasa’ Tibetan as an ‘immediate evidential’ (2012: 554).4

(14) bltas-pa-na / nu-bo tha-chuṅ stag-gis zos-te /

look-NMZ-CV younger.brother younger tiger-AGN eat-CV
ša-daṅ khrag-gis kun-tu bgos nas/
flesh-ASS blood-AGN everywhere-TRM stain-CV
rtsog-rtsog ltar ḡdug-par mthoṅ-nas
onomatopoeia like-TRM is-TES-NMZ-TRM see-CV

"When they looked (his older brothers) saw, that the younger brother had been eaten by a tiger, that everywhere was stained with flesh and blood, like rtsog rtsog‘ (Hahn 1996: 191).

• Tuyuca is yet another language in which the visual witness of absence is a valid means to express an inferred act of feline violence.

On one occasion a man returned from his field and, using a visual evidential, told me that a

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4 DeLancey claims that in Classical Tibetan ḡdug is not an evidential marker but instead a verb ‘sit’ (1992: 52). It is unclear how he would analyze ḡdug in example (14). For further discussion of testimonial evidentiality in Classical Tibetan see Hill (2013).
jaguar had killed his dog. In astonishment, I asked him if he had seen the event. He said
that he had not ... he saw marks on the ground where the jaguar had dragged him off.
(Barnes 1984: 263 emphasis in original).

• Negated direct evidentials shows that seeing an absence is still seeing.

(15) thab ʰdihi ستان-la ɲa skam-pahi phyir-du grab mi-ʰdug
hearth this-GEN above-OBL fish dry-GEN in-order-to method not-exist-TES
'There are no shelves over the fire for the drying of fish.' (Lewin 1879: 71, exercise 61, example 6)

Also in English.

(16) But the second my eyes cleared floor level I saw that the relics had gone! (BNC)

(17) I see that you weren't there at that meeting on ... (Looking at the minutes of a previous meeting) (BNC)

• DeLancey offers no evidence for his claim that “in a true evidential language” examples (10) and (12) “in the context in which they were made, could not be in the same grammatical form” (2012: 536). If his view is accurate than the possibility remains open that like English, neither Tibetan, Tuyucan, nor Kham are 'true' evidential languages. In the absence of a discussion of how a 'true evidential language' is different from other types of evidential languages, an effort to ponder DeLancey's intention would drift into speculation.

• DeLancey's contention that the 'Lhasa' Tibetan equivalents of (10) and (12) would be effected in two distinct evidential categories, respectively the 'direct evidential' and 'inferential' (2012: 536), is only true if one follows his analysis of the Tibetan verbal system, rejected above (§2.1.1). Examples (18) and (19) provide translation into 'Lhasa' Tibetan of the Kham examples (10) and (12); contra DeLancey these two sentences use the same 'testimonial' evidential category, the difference between V-ʰdug and V-ʰag being one of tense and not evidence (cf. §2.1).

(18) gzigs pha-gir ɲal-ɡyi-ʰdug
leopard there-OBL sleep-PRS-TEST
'The leopard is sleeping over there'.

(19) ḥdir kho bzas-ʰag
here-OBL he eat-PRF-TEST
'(The leopard must have) eaten him right here' (cf. example 14 for an analogous example
in Classical Tibetan also in the testimonial)

- In sum, Watters does not provide evidence sufficient to preclude the analysis of oleo as a direct evidential; until such evidence is in hand the conclusion that oleo marks the 'mirative' is premature and oleo should not serve as the prime example of "mirativity as a separate category" (Aikhenvald 2004: 211). The published examples of oleo admit themselves to analysis as direct evidentials.

3.2 Kashaya

Oswalt (1961, 1986) distinguishes two types of inferential evidentials: 'inferential I' the suffix -qa and 'inferential II' the suffix -bi. I think -qa might be a perfect testimonial.

4 Other interactions of inference and direct evidence

- Maricopa (Gordon 1986: 76)
- Hualapai (Watahomigie et al. 1982: 395)

4.1 Evidence and tense in Matses

In Matses direct evidence and inference are two facets of the self same evidential category.

- In initial presentation Fleck (2007: 593) distinguishes three evidential categories: experiential (-o, -onda, -denne), inferential (-ak, -nèdak, -ampik, -nèdampik) and conjecture (-așh and -nèdașh).\(^5\)

<table>
<thead>
<tr>
<th>TIME TRANSPRESSED</th>
<th>INFLECTIONAL POSITION CLASS 1</th>
<th>INFLECTIONAL POSITION CLASS 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>simultaneous</td>
<td>-Ø</td>
<td>-Ø</td>
</tr>
<tr>
<td>short time period</td>
<td>-ak</td>
<td>-o</td>
</tr>
<tr>
<td>long time period</td>
<td>-nèdak</td>
<td>-onda</td>
</tr>
<tr>
<td>very long time period</td>
<td>-ampik/-nèdampik</td>
<td>-denne</td>
</tr>
</tbody>
</table>

Table 4: Non-conjecture suffixes according Fleck (2009: 601)

\(^5\) It is unclear why Fleck names two categories with an adjective (experiential, inferential), but the third with a noun (conjecture).
• But this is mistaken: whereas the “conjecture suffixes, -aşh and -nėdaşh, cannot combine with any of the other evidential inflections” (2007: 602), one of the experiential suffixes (-o, -onda, or -denne) must be used directly after the inferential suffix” (2007: 599).

• Fleck worries that it “might seem contradictory to have an experiential and an inferential marker … referring to the same event” (2007: 600), but he need not.

5 Conclusion

• De Haan “languages can choose how they wish to treat the inferential evidential” (2001: 194).

• Willet, Aikhenvald, DeLancey, and Hengeveld & Olbertz are mistaken in their belief that “direct vs. indirect evidence is the fundamental evidential distinction” (DeLancey 2012: 540), as the perfect testimonial in Duna, Oksapmin, Bogaia, and 'Lhasa' Tibetan shows.

• Possible not only to dismiss the objections of DeLancey (2012) and Hengeveld & Olbertz (2012) to the analysis of oleo in Kham as a direct evidential, but to potentially describe -qa in Kashaya as yet another testimonial perfect.

• Apart from these six testimonial perfects, Maricopa, Hualapai, and Matses reveal other types of interaction between direct evidence and inference.

References


