Looking for evidentiality (and mirativity) in Bantu[*]

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Although Bantu languages are not known for having grammaticalized and obligatory systems of evidentiality, research is uncovering more and more evidential contrasts and evidential strategies, as well as expressions of related categories like mirativity. In this article, I describe, with examples from the literature and my own research, two domains in which I believe targeted investigations are likely to uncover additional examples of evidential and mirative meanings. The first domain is quotatives, which very frequently have evidential and mirative functions, but which are largely underdescribed across Bantu. The second domain is tense and aspect, which is somewhat better described, but where little is known about associated evidential functions. I especially highlight cases in which two forms have overlapping denotative temporal or aspectual meanings, and evidential and similar contrasts, including mirativity, can arise as a result.

Keywords: evidentiality, mirativity, Bantu languages, quotatives, tense and aspect, actionality, overlapping semantics

1.   Introduction

Neither evidentiality nor mirativity has been widely reported to be a major grammatical category in Bantu languages. While this lack of discussion is partly due to the general (but not universal) absence of evidentiality and mirativity as dedicated, obligatory categories in Bantu (see Botne 2020), it is almost certainly also due to the fact that these conceptual domains have not figured prominently on the research agenda until more recent years. As linguists have started paying attention to evidential and related contrasts, such contrasts have been uncovered in more and more languages, often represented in morphological distinctions with other "primary" functions. For example, in addition to the other articles in this volume and the data reported and introduced in the present article, Asiimwe & Van der Wal (2021) report mirative functions for the contrastive topic marker *o-* in Rukiga (JE41).

The goal of this article is to suggest two domains in which I believe we are likely to uncover evidential contrasts in Bantu languages. In these same domains, mirative functions are also frequently found.

Following Gibson and van der Waal (this volume), I understand *evidentiality* as grammatical marking of the source of information such as (for example) hearsay, direct or indirect evidence, or first-hand eyewitness. See Boye (2018: 261) for a similar definition; see Aikhenvald (2003; 2004) for detailed explorations of the phenomenon of evidentiality in languages around the world. *Mirativity*, which has received even less direct attention than evidentiality in studies of Bantu languages, is described by Aikhenvald (2012: 435) as "subsum[ing] sudden discovery, surprise, and unprepared mind of the speaker (and also the audience or the main character of a story)". Mirativity is a separate category from evidentiality, although evidential markers often also express mirative meanings (Aikhenvald 2012: 436). In the domains investigated in this article, both evidential and mirative meanings come to light, often marked by the same morphology. This article deals primarily with evidential functions, but because mirative functions arise often in the same contexts – and in the spirit of the present volume – attention is given to the expression of mirativity in the domains examined, as well.

The first domain this article deals with – namely, quotative verbs – is cross-linguistically well-known to develop evidential functions (see, e.g., Güldemann 2008), and this is clearly also the case for Bantu languages. However, these forms are typically (though not always) given rather short shrift in grammatical descriptions of Bantu languages. We therefore lack a thorough understanding of their distribution and functional scope in Bantu, despite Güldemann's (2008) extremely thorough study of quotative indexes across continental Africa.

The second domain I will discuss – tense and aspect (TA) marking – is better described in Bantu, but less is known about its typological patterns in relation to evidentiality. The widely mentioned connection between resultative and perfect

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aspects and inferred evidentiality (Hengeveld 2011: 589; Forker 2018: 71; De Wit and Brisard 2020, among many others) is apparent in several Bantu languages, but TA-marked evidential distinctions are not restricted to resultative/perfect(ive) contexts. Furthermore, lexical aspect also plays a major role: some evidential contrasts only arise with certain lexical aspectual classes. In terms of tense, it is well-attested that tense and evidential marking is often "fused", that is, expressed in the same morpheme (Forker 2018: 66–68). This appears to be the case in Sukuma (F21), but in general, little is known about evidential functions of tense marking in Bantu. I suggest that the highly articulated systems for marking temporal distance seen across Bantu – which do not all function along the same lines, despite surface similarities – might be apt to develop evidential-like functions. I will argue that in Bantu TA systems – which are, as a rule, complex and subject to rapid grammaticalization and change – distinct TA grams often exhibit partial overlap in their purely temporal semantics. Such overlaps are likely to be exploited for other functions, including the expression of evidential (and related) contrasts, and can be the sources of incipient evidentiality in a language. However, some of these contrasts will only come to light through systematic study of the grammar–lexicon aspectual interface.

The remainder of this article is organized as follows: In Section 2, I describe hearsay functions of quotatives, as well as related extended functions. Section 3 deals with evidential values expressed through aspect (Section 3.1) and tense (Section 3.2) morphology, with a brief look at other verbal inflection that can lend evidential meaning in Section 3.3. The paper ends in Section 4 with concluding remarks and some recommendations for future research.

2.   Quotatives

I follow Güldemann (2008: 11) in defining a quotative index as a "segmentally discrete linguistic expression which is used by the reporter for the orientation of the audience to signal in his/her discourse the occurrence of an adjacent representation of reported discourse". In Bantu, quotatives are often (though by no means always) derived from a lexical item reconstructed by Guthrie (1967–1971) as *-ti* 'that, namely; say ...' Reflexes of *-ti* are frequently described as "defective" verbs, with varying degrees of possible grammatical inflection such as tense/aspect marking. They are often translated as 'say', 'think' or 'do', but Güldemann (2002) posits a more general origin as a marker of similarity of manner; he proposes that the nearest English equivalent would be 'thus'; the marker subsequently developed more verb-like characteristics. Words with other lexical origins have similar functions in Bantu. For example, Devos & Bostoen (2012) describe a Shangaci (P312) quotative verb *ira*, which, they argue, derives from Proto-Bantu *-kít* 'do'.

When these forms are well described, it becomes clear that – in addition to marking reported speech[1] – they tend to develop a cross-linguistically consistent range of functions. Güldemann (2008: 522) summarizes the extended functions as in (1).

(1) Extended functions of quotative indexes in African languages
- i.   Naming
- ii.   Reported evidence
- iii.   Illocution reinforcement (and possibly other speech act modifiers)
- iv.   Simile (relevant for similatives and manner-clause linkage)
- v.   Proximative
- vi.   Deontic modality
- vii.   Indirect causation
- viii. Purpose-clause linkage
- ix.   Reason-clause linkage
- x.   Condition-clause linkage
- xi.   Multipurpose subordination
        (Güldemann 2008: 522)

I will focus here specifically on evidential functions. I also discuss closely related functions such as counterfactuality and the expression of doubt, and a few mirative-like functions.

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[1] In fact, "reported speech" is likely too narrow a term, since, as Güldemann (2008: 275–276) notes, they typically introduce not only direct and indirect speech, but also ideophones, non-linguistic human sounds, and "representational gesture". the last of which is very rarely mentioned in written grammars.

2.1. **Bantu quotatives as hearsay evidentials.** The use of quotatives as hearsay evidentials is common around theworld (Güldemann 2008: 408). In Bantu – as in other African languages – when they are used as hearsay evidentials, quotatives are often marked with class 2 (3rd-person plural) subject marking, regardless of agreement with the producer of the reported speech, as in (2,3). (2) is from Ndali (M301); while (3) is from closely related Nyakyusa (M31).

(2)   Ndali (M301) "Evidential of report"

iimbákó	shíísho	**bá-ti**	shi-k-ii-piingíl-aga
10.cave	10.DEM	SP$_2$-QUOT	SP$_{10}$-REM-REFL-close-IPFV

'those caves, they say, used to close themselves'
(Botne 2008: 107; glosses added)[2]

(3)   Nyakyusa (M31)

… ʊ-n-kasi	gw-a	Saliki	a-lınkʊ-tı	"keet-a
AUG-1-wife	PP$_1$-CON	Saliki	SP$_1$-NARR-say	look-FV

ʊ-t-ile	**baatı**	n-heesya	gw-ıtu?! …
SP$_{2SG}$-say-PFV	HEARSAY	1-guest	PP$_1$-POSS$_{1PL}$

'… Saliki's wife said, "Look, you said he is our guest?! …'
(adapted from Persohn 2020: 315)

However, as Güldemann (2008: 407) cautions, this (non-)agreement pattern is not universal, nor does it necessarily result in hearsay interpretations. In Shangaci (P312), the form of *iwa* relevant for hearsay takes class 1 (3rd-person singular) subject marking and is additionally marked with a passive suffix (4).

(4)   Shancaci (P312)

eriwa	piíp'	aafu
a-ir-iw-a	pipi	a-fw-u
SP$_1$-QUOT-PASS-PFV	1A.grandmother	SP$_1$-die-PFV

'Allegedly, my grandmother died.'
(Devos & Bostoen 2012: 111)

Functionally, hearsay functions can be used to indicate that the information was not directly witnessed – in Nyakyusa, for example *baatı* "can be used to distance oneself from what is reported, ascribing responsibility to the original source … and is also commonly used to echo what has just been said" (Persohn 2020: 315) – or that the knowledge asserted comes from folklore, as in the Shangaci example in (5).

(5)   Shancaci (P312)

eriwa	ngaása	nisala	niímuúca
a-ir-iw-a	ngasa	ni-sal-a	ni-i-mu-c-a
SP$_1$-QUOT-PASS-PFV	1A.tortoise	SP$_{1PL}$-remain-PFV	SP$_{1PL}$-CONS-OP$_1$-eat-FV

'So, the tortoise, we should never eat it.'
(Devos & Bostoen 2012: 111)

Willett (1988: 57, 96) gives a typology of reported evidence in which hearsay evidence contrasts with folklore evidence. Many reported-evidence uses of quotatives in African languages are used for both functions; Güldemann (2008: 410) interprets this pattern as part of the evidence against systemic grammaticalized evidentiality in African languages. Gluckman (2023a,b) also claims that evidential uses of these markers are implicatures, rather than parts of their basic

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[2] In quoting examples from other sources, I have reconstructed some glosses, if they were not given in the original texts. When glosses are given in sources, I have adapted some of the abbreviations to harmonize them with those used in this chapter. I have left tones and orthographic representations as they appear in the originals unless I had additional knowledge to augment them. Similarly, I have not changed semantic categories listed by authors, except in a few cases where I had personal knowledge. For that reason, some of the glossing abbreviations may appear somewhat redundant, e.g., RECPST 'recent past' vs. NPST 'near past', which may or may not reflect significantly different semantics. See end of article for full list of abbreviations.

meaning. Rather, he argues, they reflect the level of "commitment to the embedded proposition" (Gluckman 2023b: 10). Gluckman further notes that "say" complementizers (such as the quotatives discussed here) convey "weak" commitment to the proposition, while "be" complementizers are used for "strong" commitment (2023b: 12).

2.2.   Extended functions of hearsay quotatives. Hearsay functions are also related to other pragmatic, though not directly evidential, functions, such as the expression of doubt (see, e.g., Kittilä 2019) and mirativity (see, e.g., Lau & Rooryck 2017). As Kittilä notes, these extensions make sense, since they also involve speaker distancing from the utterance's context.

In Kwanyama (R21), the verb *ti* (infinitive *okutya*) 'say' appears in a frozen class 2 form *vati* (Halme 2006: 297 lists it as adverbial *váti*; other sources do not deal with tone). It can be literally translated as 'they say'; it is used, according to Zimmermann & Hasheela (1998: 145) to mean 'allegedly, supposedly, probably'. Zimmermann & Hasheela give the examples in (6), among others.[3]

(6)   Kwanyama (R21)
   a. Timo   o-kwa   ti   **vati**   o-te   uya   nena.
       Timo   IV-SP$_1$.PST say   HEARSAY   IV-SP$_1$.PRS   come   today
       'Timo said he will **probably** come today.'

   b. O-mu-kulukadi   winya   a   dile   apa   onghela,
       AUG-1-old_woman   DEM.III$_1$ SP$_1$.REL   go_away.REM[4]   DEM.I$_{16}$ yesterday

       vati   o-kwa   fya.
       HEARSAY   IV-SP$_1$.PST die.FV
       'That old woman who yesterday went away (from) here, **allegedly** died.'

   c. Omu-ministeli   **vati**   o-kwa   tong-a   oi-pupulu.
       1-minister   HEARSAY   IV-SP$_1$.PST speak-FV   8-lie
       'The minister **supposedly** told lies.'
       (Zimmermann & Hasheela 1998: 145; glosses added)[5]

A search of the Kwanyama Bible[6] finds that *vati* appears frequently. It appears to be overwhelmingly used in dubitative contexts,[7] even when used for hearsay. When used with quoted speech, it tends to indicate false witness. Examples are given in (7, 8). In (7), the author of the letter, the apostle Paul, cites a claim, perhaps from a leader of a rival function (most Greek texts use the singular verb form here), that his strong letters contrast with weakness of body and speech. Paul represents this claim as a false malignment and assures readers in the next verse that his actions in person will be as strong as his words in the letters. (8), from another one of Paul's letters, overtly describes the quoted speech as "slanderous".

(7)   Kwanyama (R21)
       Osheshi   een-humwafo   d-a-Paulus,   **vati**,   o-di   neen-ghono
       CONJ   10-letter   PP$_{10}$-CON-Paul   HEARSAY   IV-SP$_{10}$ have.AUG.10-power

       no-da   pam-a,   ndelenee   o-ku-holok-a
       COM.IV-SP$_{10}$.PST   be_firm-FV   but   AUG-15-be_revealed-FV

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[3] Example (6) suggests that placement of *vati* after *okwa ti* 's/he said', with regular subject agreement and tense marking, gives a meaning of 'probably', while lack of a tensed speech verb gives the hearsay evidential reading; however, other data does not appear to bear this distinction out. For example, the phrase *okwa ti vati* appears in allegations and other reported speech in newspaper stories. Further investigation is needed.

Note also that Namibian Kwanyama is traditionally written with a so-called "disjunctive" orthography, with, for example, subject prefixes separated from lexical verbs, and I have adopted the orthography used in the sources.

[4] I follow Halme (2006) and Zimmermann & Hasheela (1998) in glossing *-ile* as a remote past, although its functions seem to be rather more complex.

[5] I constructed the Kwanyama glosses making use of Halme (2006); Zimmermann & Hasheela (1998); Tobias & Turvey 1965 [1954]; and personal knowledge. They should not be read as final analyses.

[6] *Ombibeli Iyapuki*, Bible Society of Namibia; available online at https://www.bible.com/versions/469-okyb-ombibeli-iyapuki.

[7] In a description of Kwanyama's sister Wambo language Ndonga (R22), Fivaz (1986: 177) lists additional forms with *ti* in dubitative contexts, but more information would be needed to make generalizations.

kwa-ye	kwo-pa-lutu	o-kwa	nyika[8]	o-u-ngone
PP15.CONN-POSS1	PP15.AUG-16-body	IV-SP15.PST	LV	AUG-14-infirmity

no-ku-popy-a	kwa-ye	ka-ku	no-shi-longa.
COM.AUG-15-speak-FV	PP15.CONN-POSS1	NEG-SP15	have.AUG-7-work

'For his letters, **say they**, are weighty and powerful; but his bodily presence is weak, and his speech contemptible.' (2 Corinthians 10:10, KJV)

(8) Kwanyama (R21)

Omolwashike	ina-tu	ning-e-ni	ngaashi	va-mwe	mo-ku
why	NEG.HORT-SP1PL	do-HORT-PLA	like	PP2-some	17.AUG-15

tu	lundi-la	ta-va	ti,	o-ha-tu	ti	**vati**:	"Tu
OP1PL	slander-FV	PRS-SP2	say	IV-PRS-SP1PL	say	HEARSAY	SP1PL

ning-e-ni	owii	omo	mu	dj-e	o-u-wa"	…
do-HORT-PLA	14.evil	DEM.II18	SP18	go_away-SBJV	AUG-14-good	

'And [why] not rather [say], (as we be slanderously reported, and as **some affirm** that we say,) Let us do evil, that good may come?' (Romans 3:8, KJV)

Vati is also used in the Kwanyama Bible in counterfactual contexts that appear to go beyond mere reported speech. (9) is a rhetorical question that is known to be untrue. In (10), *vati* seems to express something like 'as if' (cf. Güldemann 2008: Sec. 6.4) – again, marking an untrue belief.

(9) Kwanyama (R21)

… O-mwene	ta	ti	ngaha:	Israel	ke	no-va-na
AUG-1.lord	PRES	say	this_way	Israel	NEG.SP1	have.AUG-2-son

vati? … [9]
HEARSAY

'… Thus saith the Lord: "Hath Israel no sons?"' (Jeremiah 49:1, KJV)

(10) Kwanyama (R21)

… va-mwe	ve	lineekel-a	ovo	o-va-yuki	**vati** …
PP2-some	SP2	trust_in-FV	DEM.II2	AUG/PRED-2-just_person	HEARSAY

'… certain which trusted in themselves that they were righteous …' (Luke 18:9, KJV)

In (11), *vati* is even used in the context of a dream.[10]

(11) Kwanyama (R21)

Ndele	ye	o-kwa	tw-a	o-n-djodi:	**vati**	kombada
then	PRON1	IV-SP1.PST	LV-FV	AUG-9-dream	HEARSAY	17.above

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[8] *Nyika* appears to function as a light verb used especially in negative collocations; it is also used with the meaning 'smell/stink (of)'

[9] Vickie Hasheela-Mufeti (p.c.) would translate this sentence with *vati* as '**are you saying that** Israel has no sons?', suggesting parallels to the echo questions discussed below, although this is not an echo question in the canonical sense.

[10] I did not find any occurrences of *vati* in other biblical contexts involving dreams, so its significance here requires further investigation. It appears to correspond here to Hebrew *Hinnēh* (הַנֵּה) 'lo', a deictic form which has been argued to possess mirative functions (Miller-Naudé & van der Merwe 2011; cf. Sellami 2020, who argues against mirativity as a core meaning), and which often appears in dream contexts. In any case, a non-exhaustive check of other occurrences of *Hinnēh* did not turn up instances of *vati*, so there is unlikely to be a direct correlation between the two forms.

yedu   ku   na   o-m-hani …
PP9.AUG.5.earth SP17   have   AUG-9-ladder …
'And he dreamed, and behold a ladder set up on the earth …' (Genesis 28:12, KJV)

Another extension, noted sporadically in the descriptive literature and likely to be more common than reported, is the use of Bantu quotatives in mirative contexts. A potential example is given in Persohn (2020: 315). Persohn notes that Nyakyusa *baatı* is "commonly used to echo what has just been said". The context of the example in (12) involves an element of surprise, suggesting a possible extension of hearsay/dubitative *baatı* to mirative contexts.

(12)   Nyakyusa (M31)
        Context: The researcher has asked for a soda at a small shop. The friend of the shop owner is surprised by his language skills and repeats his words:

        baatı   "n-gʊ-sʊʊm-a   ıı-kook"
        HEARSAY   SP1SG-PRS-beg-FV   AUG-Coke(9)
        '[Quoting:] "I'd like a Coke."' [overheard]
        (Persohn 2020: 315)

Connections between indirect evidentiality and mirativity are well-documented in typological literature (see, e.g., de Haan 2012; Lau & Rooryck 2017), so we should not be surprised to hear reports of them across Bantu.

Swahili *ati~eti* (possibly an influence on Nyakyusa *baatı*; see Persohn 2020: 316), a marker of direct and indirect speech, also functions as what Driesen (2019) describes as an additudinal interjective (2019; see also Maw 1992: 19, who notes that other Swahili quotatives lack its additional connotations). *Ati~eti* marks not only doubt but also "emotions" such as contempt, "mockery or sarcasm, sadness and confusion" (Driesen 2019: 74). Mirativity seems to be an important function of *ati* and *eti*, as well, often, but not always, with negative overtones. According to Driesen (2019: 67, 72), example (13) expresses "anger and disappointment", while (14) is pragmatically neutral. I follow Driesen (2019) in glossing *ati* and *eti* as PART (for particle).

(13)   Swahili (G42)
        "**Ati**   wa-na-tak-a   ku-m-rudi-sh-a   kwa
        PART   SP2-PRS.PROG-want-FV   15-OP1-return-CAUS-FV   with

        m-umewe,"   Mwajuma   a-li-ingi-li-a   kati.
        1-her.husband   Mwajuma   SP1-PST-enter-APPL-FV   between

        '"Ah, they want to send her back to her husband," Mwajuma intervened.'
        (Shafi 1999: 109; cited in Driesen 2019: 67)

(14)   **Ati**   la-uliz-a   kama   ku-na   ki-raranga   cha
        PART   SP5.GEN.PRS-ask-FV   like   SP17-have   7-young.bird PP7.CON

        kuku!   Ni-li-staajabu   ø-na-kwambi-a
        9.chicken   SP1SG-PST-be_surprised   SP1SG-PRS.PROG-OP2SG.tell-FV

        'Ha, he asked whether there are chicks here! I was surprised, I'm telling you.'
        (Zani & Kitsao 1975: 41; cited in Driesen 2019: 72)

Similarly, Kihara (2017) describes the many functions of the Gĩkũyũ (E51) quotative *atĩ* (and its variant, *atĩrĩ(rĩ)*), which can be used to indicate indirect (hearsay) evidence, enabling speakers "to be non-committal on the truthfulness of the relayed information" (Kihara 2017: 111) or to express stronger doubt (Kihara 2017: 114). It can also be used, similarly to the Nyakyusa example in (12) above, in echo questions (even with the reported speech content itself omitted; see Kihara 2017: 115). These contexts also appear to have mirative overtones. Kihara notes that with question intonation, *Atĩ?* indicates disbelief and at an utterance and the speaker's request for its confirmation (2017: 115), while exlaimed *Atĩ!* "indicates shock and disbelief at the previous utterance, with '[a] just-imagine' kind of attitude" (2017: 116).

2.3.   Quotatives: Summary and concluding thoughts. The above discussion shows that, as is cross-linguistically expected, quotatives often develop reportative (both hearsay and folklore) evidential functions in Bantu. They can also develop related functions connected to doubt and counterfactuality, negative attitudinal evaluation, and, most relevant for this volume, mirativity.

Evidential uses of quotatives, and related semantic and pragmatic extensions, remain underexplored in Bantu languages. As Güldemann (2008: 24) notes, grammatical descriptions are prone to include information about quotatives that is incomplete at best, and studies of "authentic spoken data" on quotatives akin to English *and I'm like* or German *und ich so* 'and I'm like' are even rarer.

It is quite clear that many Bantu languages use quotatives as evidential strategies, but we need more targeted description and documentation to understand the full extent of their functional extensions. Some basic questions to ask include the obligatoriness of quotatives in hearsay contexts, and the scope of related uses. It seems likely to me that as documenters of Bantu languages, we have many untapped corpus resources in which we can begin fruitful investigations of quotatives and hearsay evidential strategies.

3.   Tense and aspect

I now turn from a facet of Bantu verbal systems that might be considered peripheral, to one that is undeniably central: the expression of tense and aspect (TA). Bantu languages are famous for their complex agglutinative verbal morphology, which, as Nurse (2008: 25) notes, is also prone to change with remarkable rapidity when it comes to TA morphology. (Nurse 2008: 92 describes Bantu systems of tense as "a slow kaleidoscope, constantly shifting".) As argued in Crane et al. (in press), the complexity and rapid change together mean that the denotative temporal meanings of two morphologically distinct TA forms (deictic or relative relationships for tense; selection or viewpoint properties for aspect) frequently overlap, at least partially, and it is in these overlaps that discourse functions, including the expression of evidential distinctions, are likely to emerge.

3.1.   Overlapping aspectual reference. Non-temporal functions of Bantu aspectual forms are proving to be a rich area of study, and one in which evidential strategies are becoming increasingly evident. Nzadi (B865), for example, contrasts two present-tense forms, one that is found more frequently with habitual meaning (the A-PRESENT for short), and one (the E-PRESENT) that typically appears in progressive contexts (Crane et al. 2011).[11] In any case, both forms can be used in both contexts (15).

(15)   Nzadi (B865)
    a.   A-PRESENT
       Mi   a   lyáà.
       1SG   APRS   cry.APRS
       'I cry. / I am crying.'

    b.   E-PRESENT
       Mi   é   lìí.
       1SG   EPRS   cry.EPRS
       'I am crying. / I cry.'
       (adapted from Crane et al. 2011: 125)

When the two forms are directly contrasted, an evidential distinction emerges. The A-PRESENT – the more habitual-like form – is described by Crane et al. (in press) as being used with indirect evidence. The E-PRESENT – usually used in progressive contexts – is associated with direct evidence or with what Botne (forthc.) terms "authoritive" evidence, that is, evidence from a trusted source. Speaker epistemic certainty about the situation also plays a role. Although the direct or authoritive evidence may come from different sources, and is not limited to eyewitness, there is frequently a strong visual component, as shown by Nsielanga Tukumu's judgments and comments regarding (16).

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[11] Botne (forthc.) suggests that there is actually a tripartite underlying contrast between present, non-past, and habitual.

(16) Nzadi B865

    a. bɔ   ê   báán
       3PL   EPRS climb.EPRS
      'They are climbing.'

    b. #bɔ   a   báàn
       3PL APRS climb.APRS
      Intended: 'They are climbing'; infelicitous with progressive interpretation
      Notes: Nsielanga Tukumu cannot think of a context when this would be uttered; if they are far up in the tree so
      you can't see them, the perfect/anterior would be used (meaning 'they have climbed').

Bantu aspectual systems may be especially prone to overlaps involving perfect-(like) and perfective-(like) grams. It is overwhelmingly common across Bantu for the same form to refer to past situations (17) and present states (18).

(17) Ndonga (R22)

    a. **O-kwá**   **land-a**   áshiké   i-i-wánawa.
      IV-SP$_1$.PST   buy-FV   only   AUG-9-beautiful
      'He **bought** only the beautiful ones.'
      (Fivaz & Shikomba 1986: 72; glosses added)[12]

    b. O-kwa   pángel-á   o-shi-hautó.
      IV-SP$_1$.PST repair-FV   AUG-7-car
      'He **repaired** the car.'
      (Fivaz & Shikomba 1986: 102; glosses added)

(18) Ndonga (R22)

    a. **O-kwa**   **kút-a**   únené   oshóka o-kwá   li
      IV-SP$_1$.PST   become_satisfied-FV   much   because IV-SP$_1$.PST eat.RECPST

      o-n-yamá   yo-n-djamba.
      AUG-9-meat PP$_9$.AUG-9-elephant

      'He **is** very **full** because he ate the meat of an elephant.'
      (Fivaz & Shikomba 1986: 91; glosses added)

    b. **O-kwa**   **hál-a**   ó-ku-z-a   pó.
      IV-SP$_1$.PST   want-FV   AUG-15-leave-FV   16
      'He **wants** to go away.'
      (Fivaz & Shikomba 1986: 104; glosses added)

This tendency was noted even in very early documentation of Bantu languages (e.g., Descourvières 1776: 32). More recent years have seen extensive argumentation (see Crane & Persohn 2019: online appendix for a detailed overview) that the past situation / present state duality is due in large part to a fundamental feature of Bantu actional (also known as lexical aspect) systems, namely, the important class of what I will refer to as *inchoative* verbs. Inchoative verbs encode (at least) a change into a state and the resultant state.[13] Grammar–lexicon interactions with inchoative verbs can be complex, but the same basic pattern of present-state readings with some verbs with perfective-like morphology is seen across Bantu, making "the aspect systems of Bantu languages … different in significant respects from the default PFV-IPFV system" (Polančec 2020: 282; see also Botne forthc.).

    A major source of perfective forms in much of Bantu is Proto-Bantu *-ide*, which is sometimes argued to have resultative semantic origins (Botne 2010; Crane 2012). Stronger traces of resultative semantics may be seen in some

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[12] Tones marked in Ndonga examples can be presumed to represent approximate surface tones. See Halme (2004: 8) for notes on tone marking in Fivaz & Shikomba (1986).

[13] An important subclass of inchoative verbs is *two-phase verbs* (see, e.g., Polančec 2021), which encode – that is, have as part of a verb's lexical make-up, targetable by grammatical constructions – both the phase in which the change is underway AND the resultant state.

languages today, with reflexes of *-ide*[14] giving stative readings that may be somewhat or fully restricted to certain actional classes, while a different perfective form is used for the Bantu-typical past event / present state readings, and is less restricted by actional semantics. This situation is found in, for example, Totela (K41; Crane 2011, 2012), Fwe (K402; Gunnink 2022), and Nyamwezi (F22; Kanijo 2019; 2021). In these languages, present states of inchoative verbs can be expressed using *two different* aspectual forms, as in the Zambian Totela examples in (19, 20). (19) shows a present-state interpretation with stative aspectual morphology, while (20) gives examples of a (default) present-state interpretation with what Crane (2011) terms "completive" perfective morphology.

(19) Zambian Totela (K41)
      ndi-li-tab-ite
      SP1SG-STAT.DJ-become_happy-STAT
      'I am happy.'
      (adapted from Crane 2011: 259)

(20) Zambian Totela (K41)
      ndá-k<u>a</u>tal-a
      SP1SG.CMPL-tire-FV
      'I'm tired.'
      (adapted from Crane 2011: 123; underlining indicates underlying lexical tone)

(21) shows that – unlike stative constructions – completive forms can additionally refer to the change causing the resultant state (21b).

(21) Zambian Totela (K41)
      a. ndá-k<u>o</u>mok-w-a
          SP1SG.CMPL-surprise-PASS-FV
          'I'm surprised.' (default interpretation)

      b. ndá-k<u>o</u>mok-w-á   s<u>u</u>nu!
          SP1SG.CMPL-surprise-PASS-FV   today
          'I got surprised today!'
          (adapted from Crane 2011: 116, 127)

In Fwe (K402), a similar overlap between the stative and the near past perfective can be exploited by speakers to express evidential distinctions, with the stative marking indirect evidence, while the near past perfective is used with direct evidence. (22a) is used if a speaker sees a dead dog but does not know how it died; (22b) is used when a speaker has direct knowledge of the dog's death (for further examples, see Gunnink 2022; Crane et al. in press). Mbalangwe (K42/K401) appears to make a similar evidential distinction.

(22) Fwe (K402)
      a. Òʒú   mbwà   àfwìtè.
          oʒú   mbwa   a-fw-ite
          DEM1   1A.dog SP1-die-STAT
          'This dog is dead.' (the speaker coming across an apparently dead dog in the middle of the road)

      b. Èʒókà   rìnáfwì.
          e-ʒóka   ri-na-fw-í
          AUG-5.snake SP5-PST-die-NPST.PFV
          'The snake is dead.' (the speaker just having killed the snake himself)
          (Crane et al. in press; see also Gunnink 2022: 371)

Kanijo (2020) reports that Nyamwezi (F22) also has a stative form involving *-ile* that participates in evidential contrasts. Nyamwezi stative constructions seem to be more restricted than those in Fwe: the Nyamwezi stative can only be used with inchoative verbs and a subset of motion verbs Kanijo terms "directionals" (Kanijo 2019, 2020; Crane et al. in press). When

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[14] Or similar forms such as *-ite*, with somewhat opaque historical relationships to *-ide*; see Crane 2012: appendix for discussion.

used with the stative, both inchoative verbs and directionals indicate ongoing situations, as shown in (23). However, inchoative verbs (23a) refer to the resultant state phase, while directionals refer to the active phase of the motion event (23b).

(23)   Nyamwezi (F22)
         a. miinzí gáseβílé
             miinzí   gá-ø-seβ-**íle**
             6.water   SP6-PST-be(come)_hot-STAT
             'The water is hot.'
             (Kanijo 2020: 89)

         b. aziilé   kwíígʊlílʊ
             a-ø-j-**íle**   kʊ-igólílʊ
             SP1-PST-go-STAT   17-market
             'S/he is going to the market.'
             (Kanijo 2020: 87)

Both kinds of verbs participate in evidential contrasts, but the TA forms with which they contrast differ. In addition, unlike the Fwe evidential uses shown above, which contrast speaker knowledge about the situation leading to the current state, the Nyamwezi evidential contrasts refer to knowledge about the situation itself. They thus also incorporate an element of epistemic certainty, similar to the Nzadi examples discussed above.

     With inchoative verbs, the Nyamwezi stative forms contrast in evidential terms with hodiernal past (perfective) constructions, both giving present state readings. An example of the contrast is given in (24), together with contextual information about the possible uses. The stative forms (24a) are used if the speaker has indirect evidence of the ongoing state, and thus can't speak with complete certainty. According to Kanijo (2020), stative forms are used for both inferred and reported evidence, and they can signify "doubt or disbelief on the speaker's part towards the truth of the proposition expressed" (Kanijo 2020: 91). In contrast, hodiernal past constructions (24b) are used when speakers are certain about the situation, either through direct (often visual) evidence or through trusted second-hand reports – possibly suggesting, as in Nzadi, a role for "authoritive" evidentiality, which Botne (2020) proposes as an important evidential category in African languages, often on par with direct evidentiality in terms of assertive strength.[15] As noted by Kanijo (2020: 90), the stative form (24a) is used if the speaker is "just speculating", while the hodiernal past form (24b) indicates speaker certainty.

(24) Nyamwezi (F22)
     Context: The speaker looks at the mangoes in a basket in front of her/him.

     a. manyéémbe   gaβólilé
         ma-nyéembe gá-ø-βol-**íle**
         6-mango   SP6-PST-be(come)_rotten-STAT
         'The mangoes are rotten (I suspect).'
         Context: The speaker suspects that the mangoes are rotten from touching them, because they are softer than usual (inference evidence), or because s/he was told so by someone else (reported evidence).

     b. manyéémbe   ga**a**βól**aga**
         ma-nyéembe gá-**á**-βol-**ag-a**
         6-mango   SP6-PST-be(come)_rotten-HODPST-FV
         'The mangoes are rotten (that is, have become rotten) (I'm sure).'
         (adapted from Kanijo 2020: 90)

A similar contrast is seen with directional verbs. Here, however, the contrast is with not the perfective, but with the imperfective: both give an ongoing situation reading with directionals. Again, the stative form is used with indirect evidence, with additional overtones of uncertainty (25a), and is incompatible with direct visual evidence (25b). The imperfective form (25c), like the hodiernal past above, can be used with direct or indirect evidence, provided the speaker is certain.

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[15] However, it may also be that the sense of non-inferred evidentiality and speaker certainty comes through the contrast with the stative forms, rather than being a positive evidential value.

(25) Nyamwezi (F22)

    a. az**iilé**   kókázimá   tála
        a-**ø**-j-**íle**   kʊ-ka-zím-á   tála
        SP$_1$-PST-go-STAT 15-IT-extinguish-FV lamp
        'S/he is going to switch of the light.'
        Context: The speaker is outside the house and cannot see (or hear the footsteps of) the person who went inside to switch off the light. (Kanijo 2020: 93)

    b. #lolagáa!   az**iilé**   kókázimá   tála
        lol-ag-a   a-**ø**-j-**íle**   kʊ-ka-zím-á   tála
        look-IMP-FV SP$_1$-PST-go-STAT 15-IT-extinguish-FV lamp
        Intended: 'Look! S/he is going to switch off the light.'
        (Kanijo 2020: 93)

    c. lolagáa!   a**lɪɪja**   kʊkazimá   tála
        lol-ag-a   a-**lɪɪ**-j-a   kʊ-ka-zím-a   tála
        look-IMP-FV SP$_1$-IPFV-go-FV 15-IT-extinguish-FV lamp
        'Look! S/he is going to switch off the light.'
        (Kanijo 2020: 94)

The Fwe and Nyamwezi examples illustrate an important point: aspectual overlap, and the emergence of evidential distinctions, may be limited to certain actional classes. Therefore, distinctions in evidentiality and related concepts may only be uncovered with a (relatively) clear understanding of the actional system of the language being studied, and through investigations involving a wide variety of predicates. Crane et al. (in press; see also Gunnink 2022; Roth 2018; Kanijo 2019, 2020) discuss in detail this phenomenon in Fwe, Nyamwezi and Ikoma (JE45), the last of which appears to have lost an earlier aspectual function and developed a system of true evidential marking in its place, with an expanded set of aspectual interpretive possibilities.

    In Bunia Swahili, an aspectual overlap between two habitual markers is the result of borrowing from Kivu Swahili (Nassenstein 2017). A basic example is given in (26). (26a) shows the native Bunia Swahili habitual prefix *zi-*, which optionally occurs with the present prefix *na-*. (26b) shows the borrowed habitual from Kivu Swahili, a "circumfix" involving present *na-* and the *-ak(a)* suffix (Nassenstein 2017: 205).

(26)   Bunia Swahili

    a. kila   siku   a-na-**zi**-enda   ku   ma-somo
        QUANT   9.day   SP$_1$-PRS-HAB-go LOC   6-school
        'Everyday s/he goes to school.'

    b. kila   siku   a-**na**-zi-end-**aka**   ku   ma-somo
        QUANT   9.day   SP$_1$-PRS-go-HAB   LOC   6-school
        'Everyday s/he goes to school.'
        (Nassenstein 2017: 205)

Although this basic overlap in meaning is seen in neutral contexts, where either form can be used, the two forms have also developed specialized functions: Bunia Swahili *zi-* can be used to emphasize "iterative, durative or more imperfective notion[s]", while the borrowed habitual "tends to express a frequentative (repeatedly inchoative) action" (Nassenstein 2017: 206). Interestingly, when the forms are used together, they indicate hearsay evidentiality, as in (27).

(27) kila   siku   mu-toto   yɛ-**na**-**zi**-kul-**aka**   biscuit
      QUANT   9.day   1-child   SP$_1$-PRS-HAB2-eat-HAB1   9.biscuit
      'The child is said to eat biscuits every day.'
      'Apparently the child eats (a lot of) biscuits every day.'
      'The child eats biscuits.' (action not witnessed, reported to third person)
      (Nassenstein 2017: 207)

3.2.   Overlapping temporal spaces. This section, relating to temporal overlap, is more speculative in nature than the previous section's discussion of aspect. We know already that Bantu (and other) languages exploit their tense systems to convey meanings that go beyond temporal specification (Botne & Kershner 2008, among others), but examples of encoding evidentiality through tense are not yet widely attested. I suspect that more targeted investigations might uncover evidential functions of tense markers. Here, I will give examples that – while not strictly evidential – point in the general direction of evidentiality.

A striking feature of many Bantu languages is their highly developed and elaborate temporal remoteness systems, rarely distinguishing fewer than two – and sometimes up to four or even five distinct past tenses (see, e.g., Nurse 2008: 89). A simple, typical example would be a two-way system distinguishing hodiernal ("today") pasts from prehodiernal pasts; or a three-way distinction between (e.g.) hodiernal, recent, and distant past. Different languages "slice up" the timeline differently – and indeed, a given language may operate on two ontologically different *kinds* of timeline; see Botne & Kershner (2008); Botne (2012). In spite of these important differences, to which I return below, I use "tense" generically in this article to refer to all kinds of temporal relations between utterance time (or other contextually defined reference time) and the time referred to in the utterance.

Importantly, multi-tense systems often involve at least some degree of overlap between the periods of time that can be referred to with particular tense grams, for several reasons. First, boundaries between tenses (especially future tenses, but also past tenses) may be vague: for example, the choice of a "recent" or "remote" past may involve a great deal of subjectivity. Second, some tenses function not only on a linear but also on a cyclical timeline. That is, for example, a "hodiernal" past might also be used to refer to the current month, planting season, or year (Nurse 2008: 22; Botne forthc.).

Gunnink (2022) has described a mirative function for the Fwe near past perfective forms already discussed above, when the denotative overlap is not aspectual (near past perfective vs. stative, as above), but temporal (near past perfective vs. remote past perfective).

The Fwe near past perfective is usually used for same-day temporal references, but it is also used on other cyclic scales, as in (28).

(28) Fwe (K402)

cinó	cirimo	ndinashínji	wâwa
cinó	ci-rimo	ndi-na-shínj-i	wáwa
DEM.II$_7$	7-YEAR	SP$_{1SG}$-PST-harvest-NPST.PFV	very

'This year, I had a good harvest.'
(Gunnink 2022: 308)

As Gunnink (2022: 308) reports, the near past perfective also has mirative functions that can suspend the usual temporal restrictions. Gunnink gives two examples. In (29), the near past perfective can be used if the change is "unexpected and sudden, for instance someone won a jackpot, or was given 50 heads of cattle" (Gunnink 2022: 308). In (30), which refers to getting married, the near past perfective can indicate either that the marriage happened on the day of utterance, or that its more temporally remote occurrence comes as news to the speaker.

(29) Fwe (K402)
nàfúmì
na-fum-í
SP$_1$.PST-become_rich-NPST.PFV
'S/he has become rich (suddenly/unexpectedly).'
(Gunnink 2022: 308)

(30) Fwe (K402)
nàshêshì
na-shésh-i
SP$_1$.PST-marry-NPST.PFV
'He got married (earlier today).'
'He got married (before today, but I discovered it recently).'
 (Gunnink 2022: 308)

Nurse (2019; 2008: 166; see also Botne 2020; Roth 2018: 126–127), working with B. Masele, reports an evidential contrast in Sukuma (F21) that appears only in certain past perfective forms, and is encoded together with tense marking. According

to Nurse (2019: 155), Sukuma has four pasts: immediate past (P1), hodiernal past (P2), past "of yesterday and some time previously" (P3), and remote past (P4). These pasts have "flexible cut-off points" (Nurse 2008: 93). P3 and P4 contrast for direct and indirect evidence, with distinct forms for P4 (31a) and P3 (31b) and, apparently, a single form for P3 and P4 when the evidence is indirect (31c).[16]

(31)   Sukuma (F21)
    a.   d-**áá**-gʊl-**ǎ**
         SP1PL-P4.DIRECT-buy-FV.P4.DIRECT
         'we bought' (P4; direct evidence)

    b.   d-**aa**-gɔl-**ilě**
         SP1PL-P3.DIRECT-buy-FV.P3.DIRECT
         'we bought' (P3; direct evidence)

    c.   dʊ-**ga**-gʊl-**a**
         SP1PL-P3/4.INDIRECT-buy-FV.P3/4.INDIRECT
         'we bought' (P3 or P4; indirect evidence)
         (adapted from Nurse 2019: 153; morpheme glosses are approximate, based on extrapolations from Nurse's tabular data)

Another cross-linguistically underexplored context is described in some detail in Cable (2013). Focusing on Gikũyũ (E51), Cable investigates, among other things, speaker choices among temporally graded tenses when the time of the event is unknown. In Gikũyũ, which has three past tenses,[17] the remote past is used by default in such contexts (32a). However, Cable adds if speakers "strongly" suspect or have "some evidence" (2013: 240) that the event took place in one of the two more recent time frames, they are pragmatically required to use the more temporally informative tense form (32b,c).

(32)   Gikũyũ (E51)
     Context where the event may or may not have happened 'recently'.
     Situation: Today, you visited a group of your friends who live together. You've not seen them for quite some time. When you go to their house, you notice that they've got a new TV. You have absolutely no idea when they bought it: it could have been today, yesterday, or weeks ago. Later in the day, you get home. Your roommate asks how everyone is. You want to tell her about the new TV.

    a.   Nĩm**ā**gũrire   TV   njeru!
         nĩ-ma-**a**-gũr-ire   TV   njeru
         ASRT-SP2-REMPST-buy-PST.PFV TV   new
         'They bought a new TV!'

    b.   Nĩma**ra**gũrire   TV   njeru!
         nĩ-ma-**ra**-gũr-ire   TV   njeru
         ASRT-SP2-NPST-buy-PST.PFV   TV   new
         'They bought a new TV!'
         Judgment: **Not** correct in this context. Would only be used if you believed (or strongly suspected) that the purchasing happened 'recently'.

    c.   Nĩmagũrire   TV   njeru!
         nĩ-ma-**ø**-gũr-ire   TV   njeru
         ASRT-SP2-CUR-buy-PST.PFV   TV   new

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[16] The Sukuma examples given here, with 1st-person-singular morphology, are perhaps not the most conducive to expressing an evidential distinction, but they are the only forms provided in Nurse (2019), where 1PL forms tend to be given when possible for the sake of consistency and morphological transparency.

[17] Note that Cable argues against the use of the word "tense" to describe what he terms Gikũyũ's "Temporal Remoteness Morphemes", giving evidence that they "occupy an intriguing middle ground between tenses … and temporal frame adverbials", relating the utterance time not to the Topic Time (as in Klein 2004), but directly to the time of the event itself (Cable 2013: 221, 222).

'They bought a new TV!'
Judgment: **Not** correct in this context. Would only be used if you believed
(or strongly suspected) that the purchasing happened 'today'.
(Cable 2013: 241)

Crane (2023) reports a partially reversed pattern in Southern Ndebele (S407): when the time of an event is unknown, speakers make a guess as to which past form (near or remote) is more likely to be appropriate – both forms are generally licit in such cases, and if anything, the remote past is considered more specific. Note that in Southern Ndebele, the borderline between near and remote pasts is much more flexible than it appears to be in Gĩkũyũ, and the overall contrast appears to function quite differently.

Mucha (2017) notes that in Medumba (Grassfields Bantu), no past markers can be used at all if speakers do not know when the event took place; a temporally unmarked form of the verb is used instead (Mucha 2017: 15–17).

Although the case of Gĩkũyũ appears to represent a difference in epistemic certainty rather than an evidential distinction, it is interesting to speculate on whether evidential contrasts could also potentially relate specifically to the temporal content of a predicate. For example, could there be a language in which speakers can only use more informative tense information if they were eyewitnesses to the event in question?[18] Recall that in Sukuma, as described by Nurse (2019, 2008), only direct evidentials appear to make the P3 vs. P4 distinction in the perfective paradigm. One could speculate that indirect evidence might make speakers less ready to make an assertion about the time of the event. Further investigation is needed.

In summary, the contrasts between (potentially) temporally overlapping tense forms can be used to express non-temporal notions like mirativity, and in systems with multiple "graded" tenses, tense choice can also depend on speaker's knowledge or inference about the time that is referenced. I suspect that further targeted investigations will turn up more evidential and mirative contrasts in these contexts, especially because of the personal immediacy and distancing functions often associated with subjective uses of near and remote past tenses, respectively (see, e.g., Botne & Kershner 2008).

3.3.   Concluding thoughts on tense, aspect, and evidentiality in Bantu. The combination of the rich TA systems evident in many Bantu languages, and their propensity for rapid change – "Romance changes pale in comparison with the changes within Bantu", notes Nurse (2008: 25) – mean that the denotative temporal and aspectual meanings may often overlap across two morphological TA forms. These overlaps are likely to give rise to secondary pragmatic functions, including incipient evidentiality (or evidential strategies), which may then develop into more systematic evidential differences. Mirative functions can also arise. Uncovering evidential functions may require paying attention to actional classes that can lead to aspectual overlaps. In terms of tense, speakers' epistemological and evidential stances towards the time referred to may also be relevant in understanding functional differences. Studies of how speakers differentiate temporal and aspectual overlaps may lead to the discovery of many additional evidential and related contrasts.

It is worth mentioning here that there is evidence for evidential functions developing via other kinds of semantic overlap related to Bantu languages' typically rich morphology outside of TA systems, as well. It is well known that Bantu noun-class markers – typically numbering at least fifteen (Marten 2021) – can be exploited to convey evaluative information (see, e.g., Rugemalira forthc.: Section 11.4). Gluckman & Bowler (2016; see also Gluckman 2021) report that in Logooli (JE41), both class 6 and class 9 markers can be used in expletive constructions. When these constructions involve perception verbs, the class 6 prefix *ga-* is used for direct evidence, whereas class 9 *e-* marks indirect evidence (Gluckman & Bowler 2016: 1068). This contrast is shown in (33, 34), adapted from Gluckman & Bowler (2016: 1065). In (33), where the speaker has direct evidence of Imali's sickness, the class 6 expletive prefix is at least preferred; in contrast, in (34), with indirect evidence, the class 9 prefix is required.

(33)   Logooli (JE41):
        Class 6 *ga-* marks direct evidence with perception verbs in expletive constructions
        Context: The speaker sees Imali coughing and sneezing.

    a. ?E-fan-a   kuresa   Imali   a-saal-a.
        SP9-seem-FV   like   Imali   SP1-be_sick-FV
        'It seems like Imali is sick.'

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[18] In the Panoan language Matses, something along related lines occurs: when a statement is made based on an inference "from resulting evidence" of a prior situation, *two* tense/evidentiality portmanteau markers must be appear with the verb: one indicating "the length of time from the moment when the event itself took place to the moment when the evidence was detected"; and the other length of time "from the detection of the evidence to the moment of the verbal report" (Fleck 2007: 589).

b. Ga-fan-a   kuresa   Imali   a-saal-a.
   SP_6-seem-FV like   Imali   SP_1-be-sick-FV
   'It seems like Imali is sick.'   (Gluckman & Bowler 2016: 1065)

(34) Logooli (JE41)
      Class 9 *e-* marks indirect evidence with perception verbs in expletive constructions
      Context: It's flu season, and Imali didn't come to school.

a.   E-fan-a   kuresa   Imali   a-saal-a.
      SP_9-seem-FV like   Imali   SP_1-be_sick-FV
      'It seems like Imali is sick.'

b.   #Ga-fan-a   kuresa   Imali   a-saal-a.
      SP_6-seem-FV like   Imali   SP_1-be_sick-FV
      'It seems like Imali is sick.'

The two noun classes are certainly not dedicated evidential markers – the evidential readings only emerge in this syntactic context, with perception verbs (Gluckman 2021: 338) – but once again, the data illustrate the possibility of evidential distinctions arising when there is some semantic overlap between distinct forms.

Gluckman and Bowler (2020) and Gluckman (2021) report for Nyala East (JE32F) an even more dramatic set of four noun-class derived "epistemic marking" prefixes (also the noun-class prefixes involved in expletive agreement) that precede the regular noun-class prefix and convey an "epistemic scale" (Gluckman 2021: 7) that Gluckman and Bowler (2020: 3) describe as conveying "broadly, a *source* of information"; specific interpretations vary widely and can only be determined in context.

4.   Conclusion

Although Bantu languages may, indeed, rarely have independent, fully grammaticalized, obligatory, pervasive systems of evidentiality, interesting evidential strategies are surely to be found throughout the family, when linguistic investigations take them into account. In this article, I have suggested two places where I believe it might be fruitful to start looking: extended functions of quotatives, and contexts of (apparent) denotative overlap in inflectional (and also derivational) morphology. These same contexts also frequently see the development of mirative functions.

In the case of quotatives, as argued in Section 2, more attention needs to be paid to their discourse uses and additudinal overtones, and, with hearsay uses, to variables such as whether they are obligatory in those contexts, which could be a sign of more grammaticalized evidential functions.

With tense and aspect forms, it seems likely that many more evidential functions will emerge, if contexts of temporal overlap are directly contrasted. Understanding this overlap may require careful consideration of actional (lexical aspect) classes, since overlaps may be confined to certain classes, as in Fwe and Nyamwezi in Section 3.1 above. Verbal classification into actional classes should not be taken for granted, but needs to be based on grammar–lexicon interactions specific to the language of study. In addition, it may well turn out to be the case that other features of predicates besides their actionality are also relevant.

As far as I can tell from published descriptions, evidential functions related directly to tense morphology have rarely been documented for Bantu languages. However, as argued in Section 3.3, the overlaps inherent in the flexible, cyclical, and sometimes vaguely demarcated systems of indicating temporal distance have the potential to produce emergent evidential contrasts; related contrasts such as speaker certainty and mirativity are already attested. I have focused on past tenses, because these are typologically the most likely to express evidential values (Forker 2018: 66–67), but investigations of present, non-past, and future tenses may also uncover evidential functions. In any case, finding more evidential and related functions will require an understanding of how a language's "tense" systems relates different times, and where and under what conditions overlap is possible.

Increased attention to evidential and mirative strategies in Bantu languages, including those in the present volume, will lead to discoveries that will continue to expand typological understanding of evidentiality. In this article, I have argued that quotatives and TA morphology are two places we should start looking more closely, the former because of the connection between reported discourse and evidential values such as hearsay; and the latter because of the frequent temporal overlaps that are liable to produce semantic and pragmatic extensions.

Abbreviations

Numbers are used to indicate noun class (e.g., 10, 16, 1a, etc.)

1/2	first person, second person
Sg/pl	singular/plural
Appl	applicative
Aprs	A-present in Nzadi
Asrt	assertive
Aug	augment/pre-prefix
Caus	causative
Cmpl	completive
Com	comitative
Con	connective
Conj	conjunction
Cons	consecutive
Cur	current past
Dem	demonstrative
Direct	direct evidential
Eprs	'E-present' in Nzadi
Fv	Final vowel
Gen	general
Hab	habitual
Hearsay	hearsay
Hodpst	hodiernal past
Hort	hortative
Imp	imperative
Indirect	indirect evidential
Ipfv	imperfective
It	itive
Iv	initial vowel (Kwanyama marker related to predication, among other things)
Loc	locative
Narr	narrative tense
Neg	negative
Npst	near past
Op	object prefix
P3	degree three past
Part	particle
Pass	passive
Pfv	perfective
Pla	plural agreement
Poss	possessive
Pp	pronominal prefix
Pred	predicational marker
Prog	progressive
Pron	pronoun
Pres	present
Quant	quantifier
Quot	quotative
Recpst	recent past
Refl	reflexive
Rel	relative
REM	remote (past or future)
SBJV	subjunctive
SP	subject prefix
STAT	stative

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