The witness and the alibi:
A method for eliciting temporal contrasts in reported speech

Thera Marie Crane
University of Helsinki

Abstract: I propose a simple, two-stage storytelling process used for investigating multiple tense contrasts in reported speech and illustrate a basic example of its use from a pilot study in isiNdebele. IsiNdebele is a Nguni Bantu language of South Africa with two degrees of past tense marking and three future forms that are less clearly differentiated for temporal distance. The method involves translating a conversation with references to several past and future events and then role-playing a courtroom testimony in which the conversation is reported. I also describe a simple complementary picture-card–based method.

Keywords: reported speech, multiple-tense systems, Bantu, isiNdebele (South Africa)

1 Introduction and problem statement

The purpose of this article is to suggest a simple, two-stage storytelling process that I found useful in investigating reported speech in isiNdebele, a Nguni Bantu language of South Africa.[1] I was interested in several questions regarding how isiNdebele deals with tense reference in reported speech: (1) Are tense forms used related deictically to the time of utterance, or anaphorically to the time of the reported speech; and (2) How do the language's distinctions in temporal distance interact with tense forms in reported speech?

I report on a simple pilot study that used the two-stage "courtroom" elicitation method presented here. The basic method, however, is flexible and could be used to investigate various topics related to reported speech (and reported events), such as — for example — evidentiality, beliefs, or quotative marking phenomena. I also describe a simple picture-card–based method (not using full storyboards) that gave complementary results and describe reasons for using the two-stage storytelling method in addition to (if not in place of) the more straightforward paradigmatic picture-card method.

It is well known that languages differ in how tenses behave in reported speech, although the analyses explaining the behavior are myriad (see e.g. Ogihara 1996 for discussion). For example, in English, if I asked John last week about where Mary was at the time, and he said, "Mary is in Seattle", and I wanted to report John's statement today, I would say something like (1)[2]. In Japanese, in contrast, a speaker would say something like (2).

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[1] IsiNdebele is referred to with the "Guthrie" code S407 and with the ISO 639-3 code *nbl*. It is not to be confused with the language of the same name spoken in Zimbabwe (S44; *nde*).

[2] Glosses and abbreviations used in the paper: 1A = noun class 1a (proper names, etc.), 1SG = first person (etc.) singular, 2PL = second person (etc.) plural, 3 (etc.) = noun class 3 (etc.), APPL = applicative verbal extension, CAUS = causative, CJ = conjoint, COM = comitative ('with'), CONJ = conjunction, CONN = connective, CONS = consecutive, COP = copula, DEM = demonstrative, DJ = disjoint, EXT = verbal extension, F_3 = future tense (degree 3, etc.), FUT.I = future I (etc.), FV = final vowel, INF = infinitive, INSTR = instrumental, IPFV = imperfective, LOC = locative, NOM = nominative case, NP = nominal prefix, NPST = near past, OP = object prefix, P_3 = past tense (degree 3, etc.), PFV = perfective, PL = plural, POSS = possessive, POT = potential, PP = pronominal prefix, PRES = present, PRON = pronoun, PRST = presentational, PST = past, Q = question, REFL = reflexive, REL = relative, RPST = remote past, SBJV = subjunctive, SG = singular, SIT = situative, SP_1 = subject prefix (noun class 1, etc.), TOP = topic.

The "extension" labeled as such in this article is described variously in the Nguni literature as indicating that something is done (for example) thoroughly, well, persistently, or to completion (e.g. Poulos & Msimang 1998: 207).

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(1) John said that Mary **was** in Seattle.

(2) Taroo-wa   Hanako-ga   Siatoru-ni   i-**ru**
   Taro-TOP   Hanako-NOM   Seattle-in   be-**PRES**
   'Taro said that Hanako was [lit. is] in Seattle (at that time).'

<div align="right">(Examples 1 and 2 from Ogihara 1996: 5)</div>

That is, in English, both the main verb and the reported speech are in past tense. Additionally, in English, the tense marking in (1) can be given either a *simultaneous* (Mary was in Seattle when John told me about it) or *back-shifted* interpretation (Mary was in Seattle at some point prior to our conversation, e.g., *Last week, John said that Mary **was** in Seattle when Microsoft moved there in 1979*). In English, if I were to say *John said that Mary **is** in Seattle*, a *double-access* interpretation is available: it indicates not only that Mary is asserted to be in Seattle at the time of John's original statement, but also at the current time of utterance. In Japanese, in contrast, (2) can only mean that Hanako was (allegedly) in Seattle at the time of Taro's statement.

Because of their complexities of interpretation compared to tense in simple matrix clauses, embedded clauses like those in (1) and (2) are considered important testing contexts for theories of tense (Enç 1987; see e.g. Cover 2010 for discussion). The questions become even more intricate in languages — such as many Bantu languages — where tenses are not divided into (for example) a simple tripartite past–present–future system, but where multiple *degrees* of past and/or future tense are distinguished. Such a language might, for example, morphologically or tonally distinguish a remote past from a more recent past from a past reserved for today's events (see Nurse 2008 for many more details).

In Bamileke-Dschang, which has five past and five future forms, tenses can be interpreted either absolutely with respect to utterance time, or relatively, with respect to the contextually introduced reference time (3). P_3 and F_3 refer to events of yesterday and tomorrow, respectively.

(3)   *Bamileke-Dschang*

    à kè ˈlé ŋ́gɛ̀ òò ˈlùˈú žúɔ́ ˈmɔ́
    he P_3 say that you F_3 see child
    'he said [P_3] that you will see the child [F_3].'

<div align="right">(Tadadjeu ms., cited in Hyman 1980: 229)</div>

The utterance in (3) can be interpreted either to mean 'he said [yesterday] that you will see the child [tomorrow]' (absolute reading) or 'he said [yesterday] that you will see the child [today]' (relative reading) (Hyman 1980: 229).[3]

I wanted to systematically test how temporal distinctions are expressed in isiNdebele in reported speech. I used two complementary methods to do so, which I describe in Sections 3–5.

Simplified glossing is used on elements other than the contrasted verbs to make the contrasts across sentences easier to see. Noun class numbers and person-marking information are represented as subscripts when glossing agreeing elements such as subject prefixes.

[3] Note that in (3), an absolute reading with F_3 would require that the seeing event occur the day *following* the utterance time of (3), not in the future of the same day. Hyman additionally notes that the tense markers can combine with one another, as in (i).

(i) à lè láʔ nfú ńtáŋ
   he P_5 F_5 bargain
   'he long ago bargained a long time afterwards' [i.e. after something else]

<div align="right">(Hyman 1980: 229)</div>

2 Temporal distinctions in isiNdebele tense and aspect

IsiNdebele has two degrees of past tense, as well as three different morphological futures that do not necessarily correspond with degree of temporal distance. In the perfective paradigm, the remote past tense is marked with a long prefix *a:-* (and corresponding tonal changes, not marked in this paper), and near past with the final suffix *-ile* (long "disjoint"[4] form) or *-e* (short "conjoint" form) (see Botne 2014 on this contrast in related languages). These forms overlap in their temporal reference, but the remote past is usually reserved for events at least two days prior to the reference point,[5] while the near past has no such restrictions but usually ceases to be used once the distance between reference point and event reaches five years or so. Vagueness, flexibility, or cyclicity of temporal reference markers is commonly noted in descriptions of Bantu languages, as described in (e.g.) Nurse (2008: 90–94); further, Botne (2012) gives a broader typological overview of remoteness distinctions and their relationship to linear and cyclical time scales, along with analytical tools to deal with them using the Domains and Regions framework; and Bochnak & Klecha (2018) offer a formal semantic analysis of the phenomenon in Luganda.

In this article, I deal primarily with distinctions in the past perfective paradigm, so I will exemplify them here. Elicited examples showing typical speaker judgments of the contrast are given in (4). The contact language for elicitation was English.

(4) a. Izolo   u-fund-**e**   /   #w**a**-fund-a   incwadi.
         yesterday   SP₁-read-**NPST**.PFV.CJ   /   SP₁.**RPST**-read-FV   9.book
         'Yesterday he read (Recent Past / #Remote Past) a book.'

   b. Iveke   ephelileko   u-fund-**e**   /   w**a**-fund-a   incwadi.
       9.week   last   SP₁-read-**NPST**.PFV.CJ /   SP₁.**RPST**-read-FV   9.book
       'Last week he read (Recent Past / Remote Past) a book.'

   c. Eminyakeni emihlanu   edlulileko   ?u-fund-**e**   /
       4.year   five   ago   SP₁-read-**NPST**.PFV.CJ   /
          w**a**-fund-a   incwadi.
          SP₁.**RPST**-read-FV   9.book
       'Five years ago, he read (?Recent Past / Remote Past) a book.'

                                                                          (adapted from Crane 2023)

A more natural example of the contrast in use is found in (5) and (6). In a brief narrative history of his life, a university student in his first years of study uttered (5), using the remote past, when describing his starting pre-primary school approximately fourteen years earlier, and (6) when describing finishing secondary school less than two years prior to the time of speech.

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[4] Roughly speaking, the conjoint form is used when the verb shares constituency with the following element, and the disjoint when there is no shared constituency. The function of the conjoint/disjoint alternation and its interactions with temporal/aspectual morphology are complex. Crane & Fanego (2020) have some discussion of the phenomenon in isiNdebele.

[5] Some speakers appear to adjust their uses depending on what time scale is being talked about: when contrasting recent events, the remote past may be used for events more than two days ago; with larger scale time contrasts, a typical cut-off point may be two *years*. See Crane (2023) for further discussion of the phenomena within a Domains and Regions framework. These restrictions can furthermore be overridden for pragmatic reasons, as discussed in Crane (2023). The elicitation activities described in this article aimed at straightforward temporal contexts, and no temporally "unexpected" uses arose; such uses could be clarified by speakers if they were to arise.

(5) Ng**a**-thom-a   uku-ngen-a   isikolo   ngo2001.
    SP$_{1SG}$.**RPST**-start-FV   INF-enter-FV   7.school   INSTR.2001
    'I started [remote past] school in 2001.'

(6) Lapho   ngi-ced-elel-**e**   khona   ibanga   lesumi   na-mbili.
    there   SP$_{1SG}$-finish-EXT-**NPST**.PFV.CJ   there   5.grade   NP$_5$.ten   COM-two
    'There I finished grade 12.'

Future prefixes are *zo(ku)*-, *yo(ku)*-, and *za(ku)*-. Unlike the past paradigms, future markers do not pattern clearly according to temporal distance, although there is some tendency to use *zo(ku)*- forms for temporally nearer events. Rather than straightforwardly marking temporal distance, the future markers seem to relate to a contextually configured constellation of factors involving, among other things, speaker/participant control, speaker certainty, and temporal and spatial distance. See Crane & Mabena (2019) for more detailed description and analysis.

Tables 1 and 2 show the formal characteristics of isiNdebele past and future forms, respectively, along with some basic notes about their forms and usages. Some more complex morphological and semantic issues are elided, as they are not directly pertinent to the methodology discussed in this article.[6] As noted, I deal primarily with distinctions in the past perfective paradigm in this article, although some future contrasts are also discussed briefly.

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[6] For example, an issue that affects temporal-aspectual paradigms is the prevalence of inchoative verbs and their subcategory of "two-phase" verbs in isiNdebele and many other Bantu languages. Inchoative verbs describe entry into a state; an example in isiNdebele is *hlakanipha* 'be(come) clever'. Many inchoative verbs in isiNdebele seem to semantically encode *two* event phases, namely, the resultant state (e.g., *being clever*) and the phase in which the change is being effected (e.g., *becoming clever*). In isiNdebele, like in many Bantu languages (see Botne & Kershner 2000; Crane & Persohn 2019; Crane & Fanego 2020 for extensive discussion), near-past perfective forms of inchoative verbs by default refer to the resultant state (ii, interpretation a); in many cases, they can also refer to the change (ii, interpretation b). For two-phase inchoative verbs, imperfective forms typically target a phase within the change itself (iiia); they can often also encode habitual changes (iiib; this may be the only reading in the case of single-phase inchoative verbs). For simplicity, (iii) illustrates these readings with a present-tense form, which has an imperfective interpretation by default. I also tested systematically for this interaction, and temporal relations were relative in such cases, as well, but I do not further discuss them in this article.

(ii)   Ikomo i-non-ile.
        9.cow SP$_9$-become_fat-PFV.DJ
        a. 'The cow is fat.'
        b. 'The cow got fat.' (e.g., last year)   (Crane & Persohn 2019: 313)

(iii)   Ikomo i-ya-non-a.
        9.cow SP$_9$-DJ-become_fat-FV
        a. 'The cow is getting fat.'
        b. 'The cow gets fat.' (e.g., every year)   (Crane & Persohn 2019: 315)

Table 1: isiNdebele past tense forms (SP=subject prefix)

	Recent past	**Remote past**	**Notes**
Perfective	SP-root-*e* (conjoint) SP-root-*ile* (disjoint)	SP-*ă:*-root-*a*	Recent past forms can also involve changes to root consonants and vowels
Imperfective	*be*-SP-root-*a*	SP-*ă:*-SP-root-*a* *khabe* SP-root-*a* *gade* SP-root-*a*	Temporal distinctions between recent and remote past appear to be (even) more flexible than in the perfective paradigm. Remote past forms overlap at least partially with pluperfects. Choice of remote past marker may vary by speaker and generationally.

Table 2: isiNdebele future forms

		Notes
zo(ku)-	SP-*zo-(ku-)*root-*a*	Probably from *za* 'come'. Usually, but not always, interpreted as temporally nearer than *yo(ku)-*
yo(ku)-	SP-*yo-(ku-)*root-*a*	Probably from *ya* 'go to'
za(ku)-	SP-*za-(ku-)*root-*a*	Probably from *za* 'come', but used differently from *zo(ku)-*

3 A picture-based methodology

As a first step in investigating temporal distances in reported speech, I created sets of combinable picture cards featuring a generic stick figure character "Sipho" (the Nguni-example equivalent of "John") performing various actions and telling me about them. Labels indicated the times of the actions and of their telling. Figure 1 gives a reconstructed example. These were not storyboards, but rather simple sets of cards that could be combined, some showing an action, some showing a speaker describing the action, and some labeling the time of each.
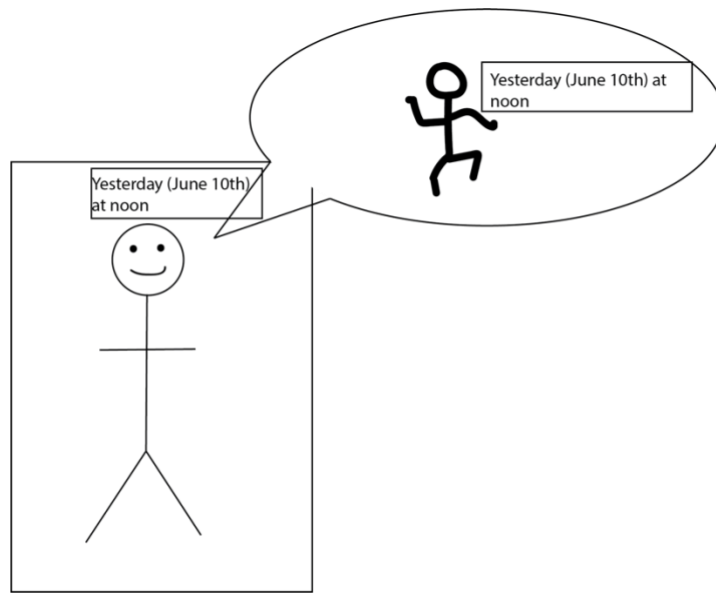
Figure 1: Reconstructed example of original combinable elicitation cards and labels. This example matches the utterance in (7a).

These proved a quick-and-dirty way of eliciting the necessary contexts and contrasts. Speakers agreed in always providing relatively anchored tense forms for both direct and indirect speech, as in (7). In (7a), the dancing event overlapping with the time of the near-past conversation is marked with a present-tense verb, as is the dancing event overlapping with the remote-past conversation in (7b). Similarly, events in (7c, d) are marked with respect to their relationship with the anchoring remote-past tense of the reported conversation, not with the utterance time itself.

(7)   *isiNdebele (elicited; Crane 2023)*

    a. *Context: I called Sipho yesterday. He told me he was dancing (at the time).*
        U-th-**e**   u-**ya**-gid-a.
        SP_1-say-**NPST**.PFV.CJ SP_1-**PRES**.DJ-dance-FV
        'He said [near past] he was dancing [present].'

    b. *Context: I called Sipho a long time ago. He told me he was dancing (at the time).*
        W**a**-ngi-tjel-a[7]   bona u-**ya**-gid-a.
        SP_1.**RPST**-OP_{1SG}-tell-FV   that SP_1-**PRES**.DJ-dance-FV
        'He told me [remote past] that he was dancing [present].'

    c. *Context: I saw Sipho a long time ago. He told me he had danced the previous day.*
        W**a**-ngi-tjel-a   bona u-gid-**e**   ngayizolo.
        SP_1.**RPST**-OP_{1SG}-tell-FV   that SP_1-dance-**NPST**.PFV.CJ previous_day
        'He told me [remote past] that he had danced [near past] the day before.'

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[7] Note that in isiNdebele orthography, which I adopt in this article, the length of the remote past prefix — which is often shortened in casual speech — is not marked. Remote past morphology is therefore indicated primarily in the glosses.

d. *Context: I saw Sipho a long time ago. He told me he had danced a long time previous to that.*

Wa-ngi-tjel-a   bona   **wa**-gid-a.
SP$_1$.**RPST**-OM$_{1\,SG}$-tell-FV   that   SP$_1$.**RPST**-dance-FV

'He told me [remote past] that he had danced [remote past].' (long before the day we talked)   (Crane 2023)

I also tested these contexts for sequence of tense effects like the possibility of double-access readings.[8]

Although it allowed for quick systematic testing of all the relevant contrasts, the process was somewhat tedious for everyone involved (aside from the occasional mirth occasioned by my poorly executed drawings). In addition to the boredom factor, I feared that it suffered from the additional problems laid out in Louie (2015), namely it could be confusing because of the repetitiveness with minor contextual changes, and that it was too transparent for consultants. As Louie (2015) notes, overly transparent elicitation strategies can tempt some consultants to develop and respond according to their own hypotheses about language patterns, rather than answering based on intuitions.[9]

I therefore wanted to create a context that would be closer to extended natural discourse, with easy to remember contrasts, while still allowing for the variables to be manipulated systematically.

Another important linguistic factor that had to be controlled for in elicitation is clause-chaining effects. IsiNdebele, like many Bantu languages, tends to inflect the first verb in a series of events, and to mark verbs in subsequent clauses with so-called "narrative" morphology (also described as "consecutive" marking and sometimes argued to be subjunctive in Nguni languages; see e.g. Savić 2020: 150–154 for discussion). Elicitation therefore needed to avoid extended narrative of consecutive events, because these would be unlikely to produce the target tense/aspect forms. An example of a simple narrative extensively applying consecutive marking is shown in (8), based on elicitation contexts in Dahl (1985).

(8)   Be-ngi-khamb-a   e-hlathi-ni.   **Nga-hlangan-a**   ne-nyoka.
      IPFV-SP$_{1SG}$-walk-FV   LOC-5.forest-LOC   SP$_{1SG}$.CONS-meet-FV   COM.9-snake

   Ya-ngi-lum-a   inyawo. **Nga-thath-a**   ilitje
   SP$_9$.CONS-OP$_{1SG}$-bite-FV   9.leg   SP$_{1SG}$.CONS-take-FV   5.stone

   nga-phos-a.   Inyoka   **ya-f-a**.
   SP$_{1SG}$.CONS-throw-FV   9.snake   SP$_9$.CONS-die-FV

   'I was walking in the forest. I came upon a snake. It bit me on the leg. I took a stone and threw [it at the snake]. The snake died.'

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[8] Double-access readings — where an event described with present-tense morphology and embedded under a past-marked speech event holds both at the time of the quoted speech and at the current utterance time, as in English *He said she is happy/dancing* — are not required with present-tense reported speech in isiNdebele.

[9] An anonymous reviewer suggests that transparency in elicitation settings can also be desirable, if the researcher follows best practices and does not design tasks that are complex and confusing, which might also lead to unnatural speech. I agree with this point, but it has also been my experience that especially when trying to investigate temporal contrasts in languages, like isiNdebele, where they vary contextually, it is common for speakers to hypothesize and stick to fixed cut-off points within an elicitation session. Without resorting to deception, I think that one of the most attractive and interesting ways of overcoming these challenges is to use more natural narrative contexts, like storyboards and the method I describe in Section 4, and to include filler contexts, as suggested in Bochnak & Matthewson (2020: 275). The anonymous reviewer also points out that non-anecdotal evidence for the interference of speaker "folk theories" is needed.

4 Hypothesis and methodology

With these aims in mind, I developed a two-step scenario for eliciting temporal contrasts in reported speech. The hypothesis to test was that isiNdebele orients tense marking relatively to the contextually invoked reference time in reported speech, including the choice of remoteness markers. In this case, I was particularly interested in the contrasts between the two degrees of perfective past-tense marking, and between those and present-tense and future marking.. I additionally wanted to understand the roles of the three future tenses, but, since I already suspected from other work with consultants that they were not as strongly temporally oriented as the two pasts, I only involved two explicitly future contexts. As shown below, follow-up questioning later helped me learn more about the differential effects of the three future forms.

The initial premise is given in (9).

(9)   Our friend Sipho [S] met my consultant [M] in the hospital when each had just become the proud father of a new daughter. The two had a conversation.

Together, we imagined a dialogue that we pretended took place at the actual birth of my consultant's daughter, several years prior to our interview, further anchoring the scene in our minds. We wrote a dialogue in isiNdebele in which the two men discussed recent events (like the births) and remote events, as well as future plans. We based the dialogue on an outline I'd prepared in English, our contact language, to ensure that the necessary contrasts were involved. We then reviewed the dialogue we'd written. The dialogue is presented in (10). Target temporal relations are described in bold following each line. The dialogue in (10) represents a pilot study of a method which, I propose, can be refined and expanded to systematically cover additional temporal configurations or to investigate other parameters such as attitude verbs and tense in other kinds of embedded clauses.

(10)   *isiNdebele (elicited based on English outline)*

a. S: Ngi-thab-e   khulu   indodakazi   i-belethw-**e**
         SP_{1SG}-be_happy-PFV.CJ[10]   a_lot   9.daughter SP_9-be_born-**NPST**.PFV.CJ
            izolo   begodu   yi-hle   nasi   isithombe   sakhe
            yesterday   again COP_9-beautiful   PRST.COP_7 7.picture PP_7.CONN.$POSS_1$
         'I'm so happy. My daughter was born yesterday and she is beautiful! Look, here is her picture.'
         [Event: birth; Time: 1 day prior to meeting]

b. M: Ngi-ya-ku-thokoz-is-a!   Awa, mu-hle!
         SP_{1SG}-PRES.DJ-OP_2-praise-CAUS-FV   no PP_1-beautiful
            U-busisek-**ile**!
            SP_1-be_blessed-**NPST**.PFV.DJ
         'Congratulations! She is beautiful! You have been blessed!'

c. S: Iye,   si-**zo**-m-thiy-a   bona   ngu-Busisiwe.
         yes SP_{1PL}-**FUT.I**-OP_1-name-FV   that COP_{1A}-B.
         'Yes, we will name her Blessing.'
         [Event: naming; Time: near future of meeting]

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[10] As already mentioned in footnote 6, the near-past perfective is also used to convey current states (and the remote past does not exclude current states). In this paper, we focus exclusively on past-tense interpretations.

d. Ibizo   lakhe   elinye   ngu-Josie.
    5.name PP_5.CONN.$POSS_1$ 5.other COP_{1A}-J.
    'Her second name will be Josie.'

e. Ngi-m-thiyelel-**e**   ngo-Josie   Mahlangu   o-ngo-dorhodere.
    SP_{1SG}-OP_1-name_for-**NPST**.PFV.CJ $INSTR_{1A}$-J.   M. REL_{1A}-COP_1-doctor
    'I named her after Josie Mahlangu, a doctor.'
    [Event: naming; Time: past, within 1 day of meeting][11]

f. Ngemva   ko-msanyana   wami   wokuthoma   ng**a**-gul-a
    after PP_{17}-1.son PP_1.CONN.$POSS_{1SG}$ PP_1.15.start SP_{1SG}.**RPST**-be_sick-FV
        khulu.
        a_lot
    'After my first son [was born], I got very sick.'
    [Event: getting sick; Time: several years prior to meeting]

g. Ng**a**-dlumban-a[12]   bona   angekhe   be-ngi-sa-b-a   na-bantwana.
    SP_{1SG}.**RPST**-think-FV   that   never   PST-SP_{1SG}-PERS-be-FV   COM-2.child
    'I thought that I would never have more children.'
    [Event: having belief; Time: starting several years prior to meeting]

h. Kodwana   udorhodere Josie   w**a**-ngelaph-a   yeke
    but   1A.doctor   J. SP_1.**RPST**-OP_{1SG}.heal-FV   therefore
        ng**a**-zi-tjel-a   bona   nange   ngi-nga-b-a
        SP_{1SG}.**RPST**-REFL-tell-FV   that   if SP_{1SG}-POT-be-FV
            nomtwana   womtazana, ngi-**zo**-m-thiyelel-a   nga-ye
            COM.1.child $PP_1$1.girl SP_{1SG}-**FUT.I**-OP_1-name_for $INSTR_{1A}$-$PRON_1$
                njeke   kunga   lokho ngi-th-**e**   ngu-Josie.
                therefore CONJ DEM_{16} SP_{1SG}-say-**NPST**.PFV.CJ COP_{1A}-J.
    'But doctor Josie healed me and therefore I told myself that if I could have a daughter, I would name her after her; for that reason I said it's Josie.'
    [Event: successful treatment by doctor; Time: several years prior to meeting]
    [Event: decision to name after doctor; Time: several years prior to meeting]
    [Event: naming; Time: undefined time after decision]
    [Event: giving the name; Time: within 1 day prior to meeting]

i. M: Udorhodere loyo   u-khona   lapha   njenga   nje?
        1.doctor DEM_1 SP_1-there DEM_{16} just   now
        'Is that doctor here now?'
        [Situation: doctor's being present (question); Time: time of meeting]

j. S: Awa, u-se-Botswana.   Ngi-**zo**-m-thom-el-a   isithombe.
        no SP_1-LOC_1-B. SP_{1SG}-**FUT.I**-OP_1-send-APPL-FV   7.photo
        'No, she is now in Botswana. I will send her a photo.'
        [Event: sending doctor photo; Time: undefined, likely near, time after meeting]

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[11] In the consultant's translation, the time of naming is described as both in the near future and in the near past. This strikes me as a not unrealistic real-world usage pattern when discussing a newborn.
[12] *Dumblana* is translated as "labour under an impression" in the isiNdebele — English dictionary (IZiko lesiHlathululi-Mezwi sesiNdebele 2006).

k.   Ngi-**zo**-bek-a   imali   kuthi umntazana lo   na-ka-neminyaka
         SP_{1SG}-**FUT.I**-save-FV   9.money   that   1.girl DEM_1 SIT-SP_1-COM.4.year
            embili,   ngi-khamb-e   na-ye   a-yo-bon-a   udorhodere lo.
            NP_4.two SP_1-go-SBJV   COM-$PRON_1$ SP_1-go-see-FV   1.doctor DEM_1
            'I will save money so that when my daughter is two years old, I will go with her so she can see the doctor.'
            [Event: saving money; Time: undefined, likely near, time after meeting]
            [Event: going to visit the doctor; Time: two years after meeting]

l. M: Ba-wu-khona   indodakazi yakho   na-yi-belethw-a   kona?
         PST-SP_{2SG}-there 9.daughter PP_1.CONN.$POSS_{2SG}$ SIT-SP_9-be_born-FV $PRON_{15}$
         'Were you with your daughter when she was born?'
         [Event: being with daughter at her birth; Time: 1 day before meeting]

m. S: Iye,   be-ngi-khona   imini yoke   izolo
         yes PST-SP_{1SG}-there 9.day NP_9.all   yesterday
         'Yes, I was there the whole day yesterday.'
         [Event: being with daughter; Time: 1 day before meeting; Note: this establishes the alibi]

I then introduced a complicating scenario (11).

(11) Sipho has been accused of a crime that had taken place on the very day he had met my consultant in the hospital. Some years later (specifically, in the present of the elicitation session, three years after the conversation with Sipho), you [my language consultant] are asked to appear in court as a witness to corroborate Sipho's alibi.

In the scenario, the attorney [L] examined my consultant [M] in detail, asking him to reproduce the events and their conversation in as much detail as possible, to test the veracity of the story and match it to Sipho's own testimony.

The elicitation procedure was as follows in (12), repeated across questions.

(12)   (i)   I presented a lawyer's question in English, and we translated it into isiNdebele together.

      (ii)   My consultant then answered freely in isiNdebele as he imagined he would answer the lawyer's isiNdebele question as a witness in court, based on his memory of the conversational facts we outlined in the preparatory activity (10).

In practice, this procedure meant that there was some interference from English, but, I believe, this interference was significantly less than it would be in direct translations, since only the questions and not their answers were based on my English prompts.

The resulting conversation is given in (13). Relative temporal relationships are noted in bold after the relevant example lines.

(13)   *isiNdebele (elicited based on procedure in 12)*

a. L: Wa-m-bon-a   nini   uSipho?
        SP2SG.**RPST**-OP1-see-FV   when 1A.Sipho
        'When did you see Sipho?'[13]

b. M: Nga-m-bon-a   ngomhla   ka-[date].
        SP1SG.**RPST**-OP1-see-FV   LOC.3.day   PP3/1A-1A[date]
        'I saw him [remote past] on [date].'

c. L: Wa-wu-ku=phi   na-wu-m-bon-a-ko?
        SP2SG.**RPST**-SP2SG-17=where   SIT-SP2SG-OP1-see-FV-REL.DJ
        Where were you when you saw him?'

d. M: Nga-ngi-se-siphedlela.
        SP1SG.**RPST**-SP1SG-LOC-7.hospital
        'I was [remote past, non-verbal predication] at the hospital.'

e. L: U-qinisek-ile   ngelangelo   na?
        SP1-make_certain-PFV.DJ   INSTR.5.day   Q
        'Are you certain about that date?'

f. M: Iye,   ngi-winisek-ile   ngombana   ku-lilanga   lamhlana
        yes   SP1- make_certain-PFV.DJ   because   COP17-5.day   PP5.3.day
            ku-belethw-a   indodakazi   yami.
            COP15-be_born-FV   9.daughter   PP9.CONN.POSS1SG
        'Yes, I'm certain because it is the date of the birth of my daughter.'

g. L: Wa-thi=ni   ku-we   mhloko   uSipho?
        SP1.**RPST**-say=what   17-PRON2SG that_day   1A.Sipho
        'What did Sipho say to you that day?'

h. M: Wa-ngi-tjel-a   bona indodakaza=khe   i-belethw-**e**
        SP1.**RPST**-OP1SG-tell-FV   that 9.daughter=POSS1 SP9-be_born-**NPST**.PFV.CJ
            ngayizolo   begodo gade a-se-sibhedlela   imini yoke.
            previous_day   and   PST   SP1-LOC-7.hospital 9.day NP9.all
        'He told me [remote past] that his daughter was [had been, near past] born the
        previous day and he had been in the hospital the whole day.'
        [Event: Sipho's telling; Time: three years prior to present courtroom testimony]
        [Indirect speech event: daughter's birth; Time: 1 day prior to telling]

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[13] An anonymous reviewer raises the important question of how the initial temporal marker was chosen in (13a), given the lawyer's uncertainty about the date of the meeting. Such questions are explored in depth for Gikũyũ in Cable (2013). As discussed in Crane (2023), unlike in Gikũyũ, there do not appear to be any specificity requirements on tense choices in isiNdebele if the time of an event is not known (although the remote past may be a slightly more marked choice, in that speakers tend to choose it if they suspect that an event took place in the more distant past, whereas the recent past seems to be slightly more neutral), nor are there constraints on tense choice due to question-answer congruence. Note that in the context of (13a), one would expect that the lawyer has reason to believe that the meeting took place several years in the past, so it is not the best context for testing tense use for a truly unknown time span.

i. L: Yi=ni   okunye   o-ku-khumbul-a-ko
        9=what   other_{17}   SP_{2SG}.REL-OP_{17}-remember-FV-REL.DJ
        enacoca   ngakho?
        LOC.COM.9.conversation   LOC.PRON_{17}
        'What else do you remember from your conversation?'

m. M: W**a**-ngi-tjel-a   bona u-thiyelel-**e**   indodakazi
        SP_{1}.**RPST**-OP_{1SG}-tell-FV   that SP_{1}-name_for-**RPST**.PFV.CJ 9.daughter
        yakhe   ngodorhodere   Josie o-sebenz-a   khona
        PP_{9}.CONN.POSS_{1}   INSTR.1A.doctor   J.   SP_{1}.REL-work-FV   there
        esibhedlela   lapho.
        LOC.7.hospital   DEM_{16}
        'He told me [remote past] that he named [near past] his daughter after Dr. Josie who worked at that hospital.'
        [Event: Sipho's telling; Time: three years prior to present courtroom testimony]
        [Indirect speech event: naming daughter; Time: within 1 day prior to speech event]

n. L: Kobayini   a-thiyelel-**e**   indodakaza=khe
        why   SP_{1}-name_for-**NPST**.PFV.CJ   9.daughter=POSS_{1}
        ngodorhodere   loyo?
        INSTR.1.doctor   DEM_{1}
        'Why did he name his daughter after that doctor?'

o. M: W**a**-ngi-tjel-a   bona w**a**-gul-a   ngemva kokubelethwa
        SP_{1}.**RPST**-OP_{1SG}-tell-FV   that SP_{1}.**RPST**-be_sick   after   PP_{17}.15.birth
        komsanyana   wakhe.
        PP_{17}.1.son   PP_{1}.CONN.POSS_{1}
        'He told me [remote past] that he got sick [remote past] after the birth of his son.'
        [Event: Sipho's telling; Time: three years prior to present courtroom testimony]
        [Indirect speech event: getting sick; Time: several years prior to speech event]

p.   W**a**-zi-tjel-a   bona angekhe a-sa-b-a   nabantwana.
        SP_{1}.**RPST**-REFL-tell-FV   that never   SP_{1}-PERS-be-FV   COM.2.child
        'He thought [told himself, remote past] he would never have children again.'

q.   Kodwana   udorhodere Josie w**a**-m-elaph-a   wa-beleth-a[14]
        but   1.doctor   J.   SP_{1}.**RPST**-OP_{1}-heal-FV   SP_{1}.CONS-give_birth-FV
        umntazanyana   yeke   w**a**-zi-tjel-a   bona
        1.daughter   therefore   SP_{1}.**RPST**-REFL-tell-FV   that
        u-**zo**-m-thiyelel-a   ngaye.
        SP_{1}-**FUT.I**-OP_{1}-name_for-FV   INSTR.PRON_{1}
        'But doctor Josie healed him [remote past] and he gave birth to a daughter; therefore he told himself [remote past] that he would name her [future] after her.'
        [Event: Sipho's decision; Time: birth of daughter, day prior to meeting / three years prior to present courtroom testimony]
        [Indirect speech event: naming child; Time: near future of daughter's birth]

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[14] The consultant later noted that a more culturally appropriate translation would be *uphiwe umntwana* 'he was given a child'.

r. L: W**a**-m-bon-a udorhodere Josie loyo na?
SP$_{2SG}$.**RPST**-OP$_1$-see-FV 1.doctor J. DEM$_1$ Q
'Did you see [remote past] that Dr. Josie?'

s. M: Awa. W**a**-ngi-tjel-a bona udorhodere Josie
no SP$_1$.**RPST**-OP$_{1SG}$-tell-FV that 1.doctor J.
sele a-sebenz-a eBotswana.
already SP$_1$-work-FV LOC.B.
'No. He told me [remote past] that Dr. Josie was already working [present] in Botswana.'
[Event: Sipho's telling; Time: three years prior to present courtroom testimony]
[Indirect speech situation: Dr Josie's working in Botswana; Time: overlapping with speech event]

t. Godu w**a**-ngi-tjel-a bona u-fun-a uku-bek-a imali bese
and SP$_1$.**RPST**-OP$_{1SG}$-tell-FV that SP-want-FV INF-save-FV 9.money and
kuthi indodakaza=khe na-sele i-neminyaka emibili
that 9.daughter=POSS$_1$ SIT-already SP$_9$-COM.4.year NP$_4$.two
a-khamb-e na-yo ba-yoku-bon-a udorhodere
SP$_1$-go-SBJV COM-PRON$_9$ SP$_2$-go_to-see-FV 1.doctor
Josie eBotswana.
J. LOC.B.
'And he said to me [remote past] that he wanted [present] to save money and when his daughter is two years old he will go with her to go see Dr. Josie in Botswana.'
[Event: Sipho's telling; Time: three years prior to present courtroom testimony]
[Indirect speech situation: wanting; Time: overlapping with speech event]
[Indirect speech situation: going to visit Dr Josie; Time: two years after speech event (but 1 year prior to courtroom event)]

5 Results and discussion

As can be seen, the results corroborated those of the simpler picture-card test. However, while the picture-card test was somewhat boring, the hospital and courtroom story scenarios were engaging and fun for both of us. In addition, the courtroom scenario may be more robust as an investigative tool, for the reasons described in Section 3: the utterances are more spontaneous and less subject to interference from potential speaker hypotheses. In addition, some interesting cultural information emerged (footnote 14). Although the courtroom play-acting, which was relatively freeform, did not elicit all of the possible contrasts included in the picture-card scenario, there was more than enough to confirm the hypothesis. Additional questioning to target the rest of the contrasts was easy, and more complex temporal configurations also emerged, as in (13q, t).

After developing these two scenarios and the corresponding conversations with the consultant, I was able to go back to specific points and ask about the semantic and pragmatic differences if other verb forms had been used (the pragmatic effect was especially important for the different future forms). With both the picture cards and the courtroom task, I was later able to contrast direct quotations vs. reported speech, and to collect negative evidence that confirmed that the alternate forms would not be available, and, for example, that double-access readings are not required with present-tense forms in past contexts.

An example of a simple follow-up question to the courtroom task is given in (14), where I asked about what the use of the three different future forms in a revision of the final utterance would change in the interpretation. The speaker's interpretations of shades of meaning are given

in brackets after free translations. These interpretations later served as small pieces of evidence in the puzzle of the differences between isiNdebele's future markers.[15]

(14) *isiNdebele (elicitation)*

a. W**a**-ngi-tjel-a   bona u-**zoku**-vakatjhel-a   udorhodere Josie
    SP$_1$.**RPST**-OP$_{1SG}$-tell-FV   that   SP$_1$-**FUT.I**-visit-FV   1.doctor   J.
        eBotswana ngemuva   kweminyaka   embili.
        LOC.B.   after   PP$_{17}$.4.year   NP$_4$.two
    'He told me that he would visit Dr. Josie in Botswana after two years.'
    [definitely visit]

b. W**a**-ngi-tjel-a   bona u-**yoku**-vakatjhel-a   udorhodere Josie
    SP$_1$.**RPST**-OP$_{1SG}$-tell-FV   that   SP$_1$-**FUT.II**-visit-FV   1.doctor   J.
        eBotswana ngemuva   kweminyaka   embili.
        LOC.B.   after   PP$_{17}$.4.year   NP$_4$.two
    'He told me that he would visit Dr. Josie in Botswana after two years.'
    [future tense — same meaning in a way, but one might be tempted to say that it's a tentative plan but he's not sure]

c. W**a**-ngi-tjel-a   bona u-**zaku**-vakatjhel-a   udorhodere Josie
    SP$_1$.**RPST**-OP$_{1SG}$-tell-FV   that   SP$_1$-**FUT.III**-visit-FV   1.doctor   J.
        eBotswana ngemuva   kweminyaka   embili.
        LOC.B.   after   PP$_{17}$.4.year   NP$_4$.two
    'He told me that he would visit Dr. Josie in Botswana after two years.'
    [one day, when the time comes — it causes a little doubt to say definitely, but when the time is ready he might go]

Although the scenarios described here were developed with what I already knew about isiNdebele in mind, I believe they can be fruitfully extended to many other languages, especially to languages with multiple tense contrasts, where I believe such research is needed. The specific contents of the story can be changed to fit the contrasts that need to be investigated. In my mind, the following features are crucial:

(i)   The anchoring time of the initial story should be both precise and salient to the speaker in some way. In our case, we used the actual birthdate of the consultant's child. Some cultures may place much less emphasis on calendar dates, but salient and unique days can nonetheless be established based on important events.

(ii) If multiple anchoring points are needed, they can be introduced, but the principle in (i) should still hold.

(iii) The events in the story itself should be clearly and unambiguously delegated to times with respect to the anchoring time.

(iv) The events in the story should be designed to measure all essential contrasts, ideally more than once.

(v)   If the number of contrasts is too complex to deal with in a single story, the procedure can be repeated a different time or with several conversations that took

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[15] As noted by an anonymous reviewer, speaker comments — even those of linguistically sophisticated speakers — should not be taken at face value as linguistic analyses, but they can serve as important clues, as described in Matthewson (2004: 408–409).

place at different times. For example, in the isiNdebele test case, I could have included a second conversation that took place several days before the courtroom testimony. However, care must be taken to distinguish the second story or conversation from the first enough that speakers won't be confused by similar details from the first story. It is probably better to envision different scenarios and test them on different days.

(vi)　"Courtroom" questions should be as open-ended as possible, with at least the answers offered spontaneously in the target language by the consultant, based on the consultant's memory of the imagined conversation. The aim of questioning in this manner is to ensure that the results are as natural as possible. Additional follow-up questions can be asked as needed if the consultant doesn't use relevant tense forms in the answer.

(vii)　One needs to establish that the forms given represent reported speech rather than direct quotations.[16] In isiNdebele, this is evidenced by, amongst other things, the use of third-person (class 1) rather than first-person subject markers in the reported speech.

(viii)　Researchers also need to take care to investigate the possibility of, for example, double-access readings, in which an eventuality still holds at the time of courtroom questioning, which might affect the tenses' uses.

This method requires a bit of creativity[17] and preparation, but the actual elicitation is relatively speedy and enjoyable for participants. As noted, in the second scenario, although we translated the lawyer's questions more-or-less exactly based on my prepared notes, the speaker's imagined courtroom answers were mostly spontaneous. This relative spontaneity was possible without losing precision because of the continued salience of the original dialogue in our minds. I also posit that imagining oneself in a courtroom might encourage more precision in recounting events and their times than would simple requests for reported speech.

I attempted to design the story so that the times we referenced were personally salient and therefore easily memorable, without having to emphasize them too much in the task itself. I also added some filler material to make the story somewhat more realistic and keep it from becoming too repetitive, in addition to making the topic of investigation relatively less transparent, as discussed in Section 3.

In some elicitation contexts, a courtroom scenario might not be culturally relevant. In such cases, the story could be adapted to take place in, for example, a traditional court, or a nosy neighbor (or linguist!) could be invented as the questioner.

Storyboards could also be tools for eliciting these contrasts, and they would be good complements to the method outlined here. Pictures or a storyboard might also be used to outline the events discussed in the initial conversation, if they don't involve times that are already salient to the speaker. Some possible advantages of the procedure outlined in this paper, over using a storyboard for a similar task, is that it allows speakers to relatively easily consider three contrasting times (the events referenced, the conversation, and the courtroom interview) without the need for complex pictorial representations,[18] and it is easier to adjust the scenario on the fly in elicitation sessions as needed, since pictures do not need to be drawn in advance.

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[16] Thanks to an anonymous reviewer for pointing this out.

[17] Like most stories developed for elicitation purposes, this one cannot quite be considered great literature and doesn't require a tremendous amount of literary creativity to construct. I am certain that readers can construct something at least as entertaining.

[18] Thanks to a reviewer for clarifying this point.

The method is also flexible, and the basic framework can be adjusted according to the language and properties under investigation.

I hope that this basic, simple, adaptable story format will be useful to other researchers, and I hope especially that it will spur further systematic research on the use of markers of temporal remoteness distinctions in reported speech.

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