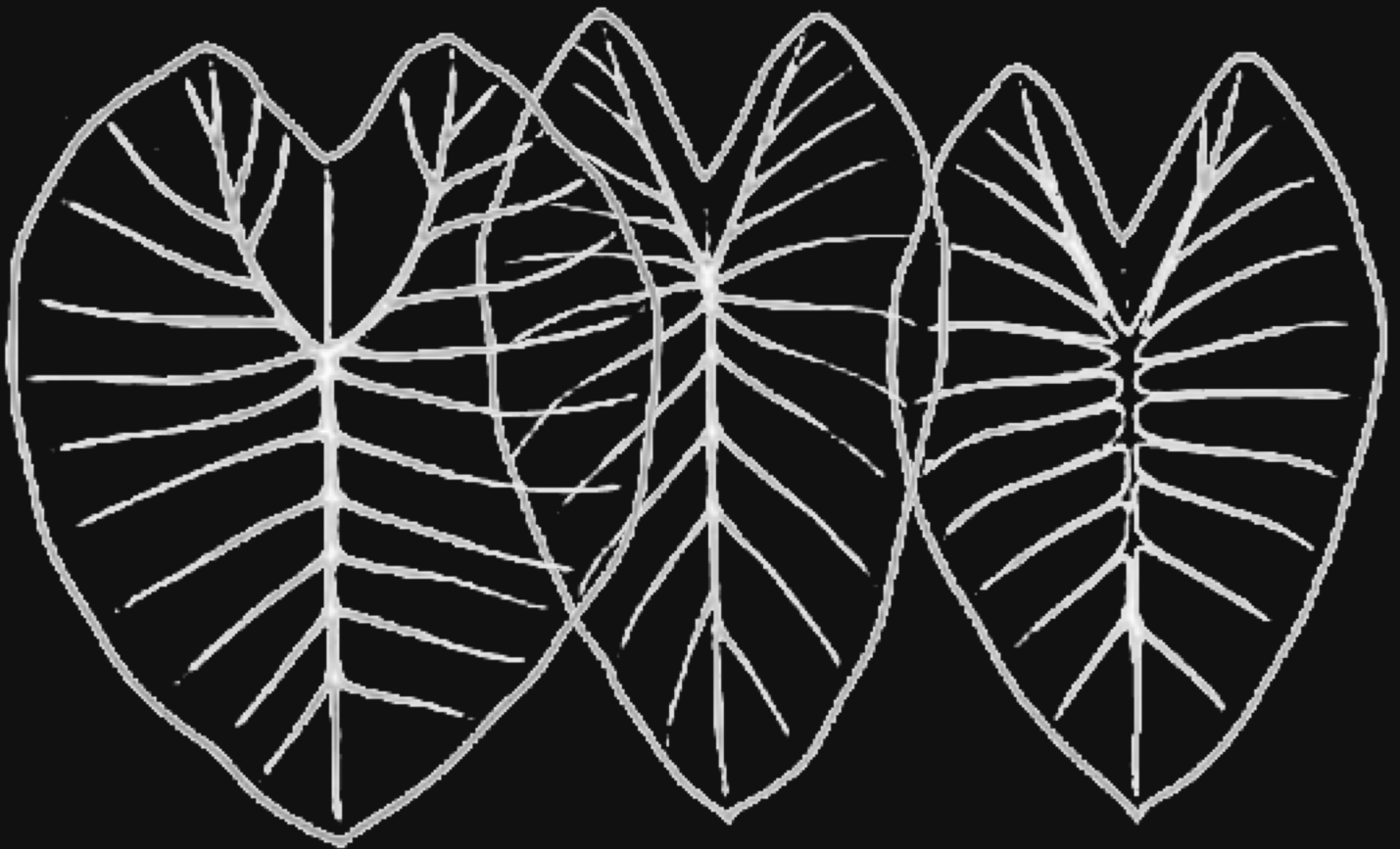


Proceedings of TripleA 3

Fieldwork Perspectives on the
Semantics of African, Asian and Austronesian Languages



Ed. by Vera Hohaus & Wanda Rothe

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Table of Contents



African

- Mira Grubic (Universität Potsdam) &
Agata Renans (Ulster University) –
Definiteness Marking on VPs/ TPs in Ga and Ngamo 1
- Sampson Korsah & Andrew Murphey (Universität Leipzig) –
Reduplicated Indefinites in Gã: Concord or Polarity? 16
- Anne Mucha (Institut für Deutsche Sprache, Mannheim) &
Henry Zamchang Fominyam (Universität Potsdam) –
(Un-)Restricting Tense in Awing 32
- Sumiyo Nishiguchi (Tokyo University of Science) –
Indexical Shifting in Dhaasanac and Somali 47
- Deniz Özyıldız & Rodica Ivan
(University of Massachusetts, Amherst) –
*The Somali Microscope:
Personal Pronouns, Determiners and Possession* 56



Asian

- Rahul Balusu (EFL University, Hyderabad) –
Free Choice Relatives in Telugu 70
- Veneeta Dayal (Rutgers University)
Determining (In)definiteness in the Absence of Articles 85

Sarah Duong Phu (Goethe-Universität, Frankfurt am Main) –
*Syntactic and Semantic Aspects of
Discontinuous Noun Phrases in Vietnamese* 100

Amanda Swenson (Massachusetts Institute of Technology) –
*The Incompatibility of Malayalam
Conjunctive Participle Constructions with
Multiple Temporal Adverbs and Individual Level Predicates* 111



Austronesian

Kilu von Prince (Humboldt-Universität zu Berlin) –
Indefinites in Daakaka (Vanuatu) 126

(Un-)Restricting Tense in Awing¹

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Abstract. In recent years, formal semantic research on the meaning of tense and aspect has benefited from a number of studies investigating languages with graded tense systems. This paper contributes a first sketch of the temporal marking system of Awing (Grassfields Bantu), focusing on two varieties of remote past and remote future. We argue that the data support a “symmetric” analysis of past and future tense in Awing. In our specific proposal, Awing temporal remoteness markers are uniformly analyzed as quantificational tense operators, and both the past and the future paradigm include a form that prevents contextual restriction of this temporal quantifier.

1 Introduction

In the theoretical literature on tense, a commonly-held assumption is that the past and the present are in some sense more “definite” than the future. This is reflected in formal approaches by analyzing past and present tenses as pronouns or pronominal features, and future as a quantificational evaluation time shifter (possibly with a modal meaning component). A classic analysis along these lines for the English past tense (1-a) and the future morpheme *woll* (1-b) was developed by Partee (1973) and Abusch (1985, 1997), and formalized as in (1) by Heim (1994).

- (1) The semantics of the past and the future according to Heim (1994)
- a. $[[\text{PAST}_i]]^{g,c}$ is defined only if $g(i) < t_c$, in which case $[[\text{PAST}_i]]^{g,c} = g(i)$.
 - b. $[[\text{WOLL}]](\text{P})(t)(w) = 1$ iff $\exists t' > t: \text{P}(t')(w) = 1$

Some recent implementations of the same approach formalize past tense as a pronominal feature that denotes a restricted identity function on times (2-a). This PAST feature applies to a syntactically represented temporal pronoun (2-b), whose reference it restricts to past time intervals (Cable, 2013; Bochnak, 2016).

- (2) Past tense as a pronominal feature
- a. $[[\text{PAST}]]^{g,c} = [\lambda t' : t' < t. t']$
 - b. $[[\text{T}_i]]^{g,c} = g(i)$

In (3) we exemplify an implementation of future semantics that includes both quantification over possible worlds (the modal meaning component) and quantification over times (the temporal mean-

¹Awing is a Grassfields Bantu language spoken by approximately 20.000 people in the Mezam division of North West Cameroon. The Awing data presented in this paper are based on the second author’s native speaker intuitions. Both Awing and Medumba (which is discussed in Sect. 4) have complex tone systems. Following convention, we only mark high tones (´), rising tones (ˆ) and falling tones (˘) in the examples, and leave low tones unmarked. We would like to thank the local organizers of TripleA 3 for the opportunity to present and publish this work, and the audience for discussion. All mistakes and omissions are our own.

ing component). For analyses of future markers along these lines see for example Copley (2009), Rullmann et al. (2008), and Tonhauser (2011b).

$$(3) \quad \llbracket \text{FUT} \rrbracket^{g,c} = \lambda P. \lambda t. \lambda w. \forall w' [w' \in \text{BEST}_{O(t)(w)}(\text{MB}(t)(w)) \rightarrow \exists t' [t' > t \ \& \ P(t')(w')]]$$

The assumed asymmetry between pronominal past (and present) tense, on the one hand, and quantificational future, on the other, goes back to the seminal work of Partee (1973, 1984), and her observation that past tenses, like personal pronouns, can be interpreted deictically, anaphorically, or as bound variables. The interested reader is referred to the original work, in particular Partee (1973, pp. 602–607), for illustration.

Another argument for an asymmetry between the semantics of the past and the future comes from so-called *sequence of tense* (SOT) phenomena (see e.g. Abusch 1997; Enç 1987, 1996; Kratzer 1998; Ogihara 1995, 1996, among many others). The crucial observation can be illustrated by means of examples such as (4) and (5) (taken from Enç 1996). In (4), past tense on a stative predicate is embedded under the attitude verb *say*, which is also marked for past tense. As has often been discussed, in English these sentences are ambiguous between a shifted reading under which the time of Mary being tired precedes the saying time (as paraphrased in (4-a)), and a simultaneous reading under which the two times coincide (as paraphrased in (4-b)).

- (4) Mary said that she was tired. (Enç, 1996, p.350)
- a. Mary said: ‘I was tired.’ (shifted reading)
 - b. Mary said: ‘I am tired.’ (simultaneous reading)

Crucially, this kind of ambiguity is not attested for analogous future cases. The sentence in (5), with a future-marked state embedded under a future-marked attitude, can only obtain the shifted interpretation.

- (5) Mary will say that she will be tired. (Enç, 1996, p.350)
- a. Mary will say: ‘I will be tired.’ (shifted reading)
 - b. NOT: Mary will say: ‘I am tired.’ (no simultaneous reading)

Kratzer (1998, p.92) relates SOT data as observed in embedded clauses such as (4) and (6-b) to the “loss of interpretable features” that personal pronouns undergo in sentences such as (6-a) (which is attributed to Irene Heim).

- (6) “Zero” pronoun readings (Kratzer, 1998, p.92)
- a. Only I got a question that I understood.
 - b. Mary predicted that she would know that she was pregnant the minute she got pregnant.

Kratzer (1998) proposes that, if past (and present) tenses are pronouns, both the “sloppy” reading of personal pronouns illustrated in (6-a) and SOT phenomena can be accounted for by assuming “zero pronouns” such as (7), which come without interpretable features but can be pronounced if they have a suitable antecedent in the same clause.

$$(7) \quad \llbracket \emptyset_n \rrbracket^{g,c} = g(n) \quad (\text{Kratzer, 1998, p.101})$$

Crucially, asymmetric approaches to tense assuming a pronominal semantics for the past and a quantificational semantics for the future are in competition with a symmetric approach under which semantic past and future tense are mirror images of each other in that both denote temporal quantifiers (see e.g. Ogihara 1996; von Stechow 2009; von Stechow & Grønn 2013). Under a quantificational analysis, definite readings of (past) tenses can be captured by introducing a contextual restriction into the semantics of the temporal quantifier. A formalization of this approach by von Stechow (2009) (with the contextual restriction of the PAST operator underlined) is given in (8).

- (8) Quantificational future and past (von Stechow, 2009)
- a. $[[\text{WILL}]] = \lambda t. \lambda P_{\langle i, t \rangle}. (\exists t') [t' > t \ \& \ P(t')]$
 - b. $[[\text{PAST}]] = \lambda \underline{C}. \lambda t. \lambda P_{\langle i, t \rangle}. (\exists t') [\underline{C}(t') \ \& \ t' < t \ \& \ P(t')]$

The next section provides data from Awing, illustrating that the tense system of this language looks strikingly symmetrical, thus lending support to an approach to tense along the lines of (8).

2 Tense in Awing: Data

2.1 The Paradigm

In this subsection, we briefly introduce the basics of the Awing tense paradigm, ignoring aspectual and modal marking for the purposes of this paper. To the best of our knowledge, the temporal system of Awing has never been investigated from a theoretical perspective, although a brief description is included in Fominyam (2012, Chap.2).

Awing has a graded tense system, meaning that past and future marking in the language involve remoteness distinctions. Temporal systems of this kind, which are frequent among Bantu languages, have recently gained increasing attention in formal semantics (see in particular Cable (2013) on Gĩkũyũ, Bochnak & Klecha (2015) on Luganda, Mucha (2016) on Medumba).

In Awing, tense is marked by optional, free morphemes that are syntactically located between the verb and the subject marker (glossed as SM in the examples). In the past as well as in the future, Awing makes a distinction between near (\approx hodiernal) and remote (\approx pre-/post-hodiernal) times. Following convention, we use the glosses P1 and F1 for near past and future, and P2 and F2 for remote past and future, respectively. Hence, (9) illustrates the contrast between near past (P1) and remote past (P2).

- (9) Context question: Where did Aghetse go?
- a. Aghetse a **pe'** ŋghɛnə Douala.
Aghetse SM P1 go Douala
'Aghetse went to Douala (today).'
 - b. Aghetse a **nə** ŋghɛnə Douala.
Aghetse SM P2 go Douala
'Aghetse went to Douala (yesterday or earlier).'

Accordingly, the near future (F1) and the remote future (F2) are illustrated in (10-a) and (10-b).

- (10) Context question: Where will Aghetse go?
- a. Aghetse a **yî** ghɛnə məteenó.
Aghetse SM F1 go market
'Aghetse will go to the market (today).'
- b. Aghetse a **yó** ghɛnə məteenó.
Aghetse SM F2 go market
'Aghetse will go to the market (tomorrow or later).'

Interestingly, Awing has additional forms, both in the past (P3) and in the future (F3), which combine the remote forms (P2/F2) with an additional morpheme *lá'a* (realized as *ndá'a* in past contexts). To complete the paradigm, an illustration of the P3 past form is provided in (11), and the F3 future is illustrated in (12).

- (11) Context: Where did Aghetse go?
Aghetse a **nəndá'a** ŋghɛnə Douala.
Aghetse SM P3 go Douala
'Aghetse went to Douala (some time ago).'
- (12) Context: Where will Aghetse go?
Aghetse a **yólá'a** ghɛnə Douala.
Aghetse SM F3 go Douala
'Aghetse will go to Douala (some time in the future).'

The remainder of the paper will focus on the empirical differences between the remote past forms P2 and P3, and the remote future forms F2 and F3. In particular, we want to explore the potential implications of these differences with regard to the theoretical issue of (a)symmetric past and future semantics, which was introduced in Sect.1.

2.2 The Ignorance Component of P3 and F3

The crucial difference in the interpretation of the “simple” remote forms P2 and F2, on the one hand, and the compound forms P3 and F3, on the other, is that the latter seem to come with an ignorance component. Since P3 and F3 convey speaker ignorance with respect to the time that is being talked about, the follow-up question of Speaker B (“When?”) is inappropriate in (13) with the P3 past form. This contrasts with (14), where Speaker A’s statement is expressed with a P2 past and Speaker B can felicitously ask *when* the white lady came to the village.

- (13) Speaker A: məŋgíó məkáré **nəndá'a** ŋgíó alá'ə.
woman white P3 come village
'A white lady came come to the village.'
- Speaker B: # ə-ghákə? (# 'When?')

- (14) Speaker A: məŋgíó məkáró **nə** ŋgíó alá'ə.
 woman white P2 come village
 'A white lady came to the village.'
 Speaker B: ə-ghákə? ('When?')

The same contrast can be observed between the future forms F2 and F3. The ignorance component of F3 is illustrated in (15) and contrasted with the use of F2 in (16), which licenses speaker B's *when*-question.

- (15) Speaker A: məŋgíó məkáró **yólá'a** yíó alá'ə.
 woman white F3 come village
 'A white lady will come to the village.'
 Speaker B: # ə-ghákə? (# 'When?')
- (16) Speaker A: məŋgíó məkáró **yó** yíó alá'ə.
 woman white F2 come village
 'A white lady will come to the village.'
 Speaker B: ə-ghákə? ('When?')

Another ramification of the ignorance component is that P3 and F3 cannot refer to a contextually provided reference time. For illustration, consider the examples in (17). The context question establishes a salient time interval in the remote past ("last year on women's day"). In this context, the use of the P3 form is infelicitous, as shown in (17-a). To answer the question appropriately, the speaker has to use P2, as in (17-b).

- (17) Context: What did Aghetse do last year on women's day?
- a. # a **nəndá'a** ŋghənə Douala.
 she P3 go Douala
 Intended: 'She went to Douala.'
- b. a **nə** ŋghənə Douala.
 she P2 go Douala
 'She went to Douala.'

Again, we observe the same phenomenon in future contexts. In (18), where a remote future reference time ("next year on women's day") is established in the context question, the F3 form (18-a) is infelicitous, in contrast to the F2 future in (18-b).²

²Note that, while P3 and F3 do not allow referential readings, all past and future forms are readily used without contextual reference times, i.e. they all allow for indefinite readings. This is illustrated for the past morphemes in (i).

- (i) Context question: Where is Aghetse?
- a. a **pe'** ŋghənə Douala.
 she P1 go Douala
 'She went to Douala.'
- b. a **nə** ŋghənə Douala.
 she P2 go Douala
 'She went to Douala.'

(18) Context: What will Aghetse do next year on women's day?

- a. # a **yólá'a** ghɛnə Douala.
 she F3 go Douala
 Intended: 'She will go to Douala.'
- b. a **yó** ghɛnə Douala.
 she F2 go Douala
 'She will go to Douala.'

We propose that the illustrated differences between P2 and F2, on the one hand, and P3 and F3, on the other, can be generalized as follows. The P3 and F3 temporal forms differ from the rest of the paradigm in that they do not allow for definite (i.e., referential) readings. In this sense, a purported contrast between definite past and indefinite future semantics in Awing is called into question by the presence of strictly indefinite forms in both the past and the future paradigm. In the next section, we sketch an analysis that captures this insight.

3 Towards a Symmetric Analysis of Tense in Awing

Given that, both in the past and in the future, Awing has designated temporal markers which seem to be restricted to indefinite tense readings, we propose that the data presented in Sect.2 are most adequately analyzed under a symmetric approach to tense. We essentially adopt the semantics proposed in von Stechow (2009) (which is based on Kusumoto 1999), modulo additional remoteness restrictions, for Awing. For instance, the remote past (P2) morpheme *nə* and the remote future (F2) morpheme *yó* get the semantics in (19-a) and (19-b), respectively. Crucially, both the past and the future denote existential quantifiers over times with a contextual restriction that enables referential readings.

(19) The semantics of remote past and future (P2 and F2) in Awing

- a. $[[nə]]^{g,c} = \lambda C.\lambda t.\lambda P_{\langle i,t \rangle}.\exists t' [C(t') \ \& \ t' < \text{the day surrounding } t \ \& \ P(t')]$
- b. $[[yó]]^{g,c} = \lambda C.\lambda t.\lambda P_{\langle i,t \rangle}.\exists t' [C(t') \ \& \ t' > \text{the day surrounding } t \ \& \ P(t')]$

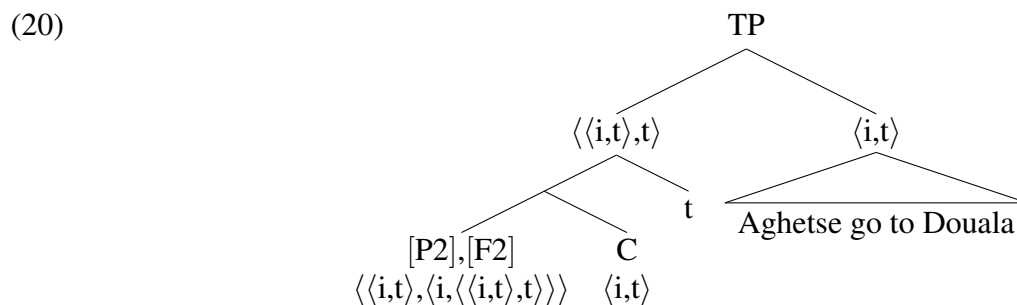
To account for the empirical difference between the forms in (19) and the P3/F3 forms, we propose that the morpheme *lá'a* is a domain widener, similar to German *irgend-* or English *any* (see Kadmon & Landman 1993; Kratzer & Shimoyama 2002; Chierchia 2004). In other words, the effect of *lá'a* is that the set of times that is quantified over by the tense operator cannot be contextually restricted. Hence, when *lá'a* is added to the past markers in (19), the value of the context variable must include the set of all time intervals. Consequently, P3 and F3 cannot refer to a contextually established reference time ((17-a), (18-a)), and when a speaker uses these forms,

-
- c. a **nəndá'a** ŋghɛnə Douala.
 she P3 go Douala
 'She went to Douala.'

This observation (among others) has led us to discard our initial hypothesis that the morpheme *lá'a* denotes existential quantification over times while all other forms are inherently definite.

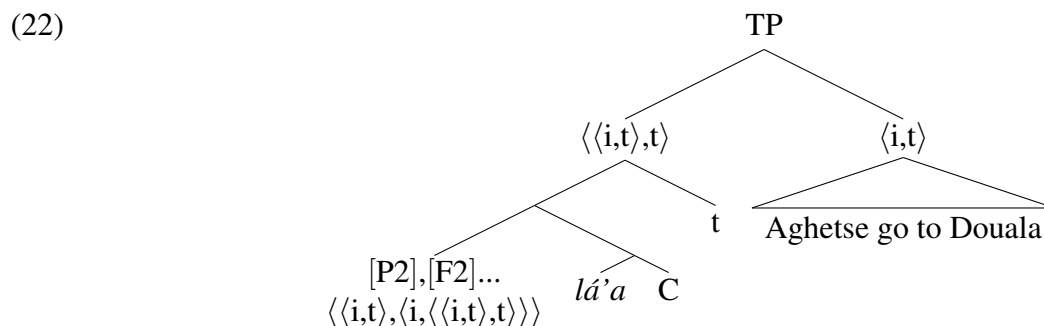
she explicitly conveys that she does not have a specific time in mind, hence the infelicity of the discourses in (13) and (15).

A concrete implementation of the semantics could look as follows. Adopting the simplified version of the LF architecture proposed in von Stechow & Beck (2015) given in (20), the tense operators denoted by P2 and F2 take as their arguments i) a set of times provided by the context (this is the denotation of C, see Musan 2002), ii) a temporal evaluation time pronoun t , and iii) the set of times denoted by the Aspect Phrase. The resulting truth conditions can be paraphrased as in (21).³



(21) ‘There is a contextually relevant time t' before/after the day surrounding the evaluation time t such that t' includes an event of Aghetse going to Douala.’

A simple approach to the compositional meaning of the P3 and F3 forms is illustrated by the LF provided in (22).



The idea is that the morpheme *lá'a* directly applies to the context set that supplies the domain of the temporal quantifier, and ‘unrestricts’ this set to include the entire temporal domain D_i . Intuitively, this results in truth conditions for (22) which do not make reference to contextually relevant times. These truth conditions are paraphrased in (24), and they are based on the lexical entry for *lá'a* given in (23).

(23) $[[\text{lá}'a]]^g = \lambda C: g(C) \supseteq D_i. C$

³Without further argument and perhaps wrongly, we make the simplifying assumption that Awing sentences without overt aspect marking receive perfective interpretations. See Mucha (2016) for a perfective analysis of aspectually unmarked sentences in the closely related Grassfields Bantu language Medumba.

- (24) ‘There is some (indefinite) time t ’ before/after the day surrounding the evaluation time t such that t ’ includes an event of Aghetse going to Douala.’

To sum up, we take the view that tense in Awing should receive an analysis that is applicable to both past and future interpretation in essentially the same way.⁴ We sketched a proposal couched in a quantificational approach to tense along the lines of von Stechow (2009). The next section points to some potential challenges for this account.

4 Quantificational Past: A Comparison with Medumba

The leading idea behind the analysis sketched in Sect.3 is that we do not want to assume a fundamental difference between the temporal semantics of past and future markers in Awing since “definite” vs. “indefinite” temporal interpretation seems to be a crucial difference *within* rather than between the past and future paradigms. We proposed to capture this parallel by assigning both past and future markers a contextually restricted quantificational semantics rather than the semantics of a pronoun or a pronominal feature. Mucha (2015, 2016) makes a similar proposal for the Grassfields Bantu language Medumba based on data, which, in their entirety, can be regarded as independent evidence for a quantificational analysis of past tense in Medumba. Although for reasons of space we cannot elaborate much on the theoretical reasoning behind these diagnostics, we want to point out in the interest of transparency that they yield mixed results for Awing.

Let us first consider a case where the data from Awing and Medumba converge. The relevant argument for quantificational past tense relates to the sequence of tense (SOT) phenomenon introduced in Sect.1. Recall that in languages like English, a past-marked stative predicate embedded under a past-marked attitude verb gives rise to an ambiguity between a simultaneous and a double-shifted reading. Crucially, this ambiguity is unattested in Medumba and in Awing. The Medumba past-under-past sentence in (25) does not license a simultaneous reading. Rather, the sentence is only felicitous in a context such as (26), which forces the shifted interpretation.⁵

- (25) Context (simultaneous): You went to visit Louise and Marie a week ago, right? Did they tell you why they were in such a bad mood that day?

Bú ná’ cúb mbə bú ná’ búut. (Medumba)

they REM say that they REM tired
Intended: ‘They said that they were tired.’

- (26) Context (shifted): You went to visit Louise and Marie a week ago, right? Did they tell you why they were in such a bad mood two weeks ago?

Bú ná’ cúb mbə bú ná’ búut. (Medumba)

they REM say that they REM tired
‘They said that they were tired.’

Based on arguments made in Kratzer (1998), von Stechow (2009) and others, Mucha (2015, 2016) proposes that, while SOT phenomena can be viewed as an argument for a pronominal ana-

⁴Note, however, that we are ignoring any modal meaning components that might be involved in future semantics.

⁵In the Medumba examples, the glosses REM and NEAR are used for remote past and near past, respectively.

lysis of tense, the absence of SOT is more straightforwardly accounted for under a quantificational account. The examples in (27) and (28) show that the empirical observation that past-under-past embedding only yields shifted readings also holds in Awing.

- (27) Context (simultaneous): You went to visit Marie and Nana last week. How were they doing that day?

Po nə ɲgɔ po nə ɲkɛnə. (Awing)
 they P2 say they P2 tired
 Intended: ‘They said that they were tired.’

- (28) Context (shifted): You went to visit Marie and Nana last week. Did they tell you why they were in such a bad mood the week before?

Po nə ɲgɔ po nə ɲkɛnə. (Awing)
 they P2 say they P2 tired
 ‘They said that they were tired.’

The second criterion also relates to embedded past marking. It is based on an observation made by Cable (2015), who shows that in Gĩkũyũ and other graded tense languages, it is impossible to embed a recent or near past morpheme under an attitude that is marked for a more remote past form, while in the future this is possible. Cable (2015) argues that this contrast originates in the semantic difference between pronominal past and quantificational future meaning. Mucha (2015) shows that Medumba differs from Gĩkũyũ in allowing for embedding of near past under remote past, and also demonstrates how this observation follows from a quantificational analysis of the Medumba past markers. The relevant example from Medumba is given in (29-a), where the near past marker *fə* is embedded under the remote past marker *ná*’ to express a relative near past interpretation. The remote past in the embedded clause is inappropriate in this particular case since it is interpreted to mean that the children had gone to school a long time before the matrix evaluation time. This is taken as evidence showing that the embedded past markers are interpreted relative to the matrix past in (29).

- (29) Context: You visited Louise last week, right? Where were her kids?

- a. Louise **ná**’ cub mbə bú **fə** nɛn ɲwa’ni. (Medumba)
 Louise REM say that they NEAR go school
 ‘Louise said that they had gone to school (recently).’
- b. ??Louise **ná**’ cub mbə bú **ná**’ nɛn ɲwa’ni. (Medumba)
 Louise REM say that they REM go school
 Intended: ‘Louise said that they had gone to school.’
 Speaker comment: ‘Implausible for going to school.’

Awing differs from Medumba in this respect. Near past (P1) cannot be embedded under remote past (P2), as shown in (30-a). In the same setting as in the Medumba example above, a remote past marker has to be used in the embedded clause (30-b).

- (30) Context: You went to visit Marie last week, right? Where were her kids?
- a. * Marie a **nə** nsúŋ ŋgó pɔ **pe'** ŋghɛnə aŋwárə. (Awing)
 Marie SM P2 say that they P1 go school
 Intended: 'Marie said that they had gone to school (recently).'
- b. Marie a **nə** nsúŋ ŋgó pɔ **nə** ŋghɛnə aŋwárə. (Awing)
 Marie SM P2 say that they P2 go school
 'Marie said that they had gone to school.'

A third observation supporting a quantificational analysis of past tense in Medumba is that past morphemes are banned from *before*-clauses. This argument is based on the assumption that the semantics of *before* is incompatible with quantificational tense, a proposal made by Sharvit (2014).⁶ Therefore, past tense in *before*-clauses is allowed in languages that have a pronominal/presuppositional past (e.g. English, Polish), but not in languages where past tense denotes a temporal quantifier (e.g. Japanese). In accordance with this generalization, past tense is infelicitous in *before*-clauses in Medumba. This is illustrated for the near past in (31) and the remote past in (32).

- (31) Context question: Did Nana and Maurice meet each other at the party yesterday?
- ŋga, Nana **fə** cá ká Maurice (***fə**) sə'ə. (Medumba)
 no Nana NEAR leave before Maurice NEAR come
 'No, Nana left before Maurice came.'
- (32) Context question: Did Nana and Maurice meet each other at the party last week?
- ŋga, Nana **ná'** cá ká Maurice (***ná'**) sə'ə. (Medumba)
 no Nana REM leave before Maurice REM come
 'No, Nana left before Maurice came.'

Parallel examples in Awing yield the same results, as shown in (33) for P1 and in (34) for P2.

- (33) Context question: Did Alombah and Neh meet each other at the party today?
- Alombah a **pe'** nférə zá' Neh a (***pe'**) yíó. (Awing)
 Alombah SM P1 leave before Neh SM P1 arrive
 'Alombah left before Neh arrived.'
- (34) Context question: Did Alombah and Neh meet each other at the party last week?
- Alombah a **nə** nférə zá' Neh a (***nə**) yíó. (Awing)
 Alombah SM P2 leave before Neh SM P2 arrive
 'Alombah left before Neh arrived.'

⁶Sharvit (2014) adopts an analysis of *before* along the lines of Beaver & Condoravdi (2003), on which the argument crucially hinges.

However, past tense in *before*-clauses seems to be possible with P3, as shown in (35).

- (35) Context: My mother is narrating the life of some far relatives who once lived in the city with them. She says:
 Po **nədə'a** ŋkwə alá'a zá' pə **nədə'a** mbíə gho. (Awing)
 they P3 return village before there P3 deliver you
 'They had long returned to the village before you were born.'

It is presently unclear to us how this difference comes about. As a consequence of the example in (35), however, infelicity of past tense in *before*-clauses does not qualify as an argument for quantificational past in Awing.

As a final argument for an indefinite past in Medumba, Mucha (2016) provides data such as (36), showing that the temporal markers in the language can be used to provide new information on the time that is being talked about. This use of the tense morphemes in Medumba is assumed to be incompatible with analysis under which (near or remote) past tense is presuppositional.

- (36) Context question: When did Marie go to the market?
 a. Marie **fə** nén ntən. (Medumba)
 Marie NEAR go market
 'Marie went to the market recently.'
 b. Marie **ná'** nén ntən.
 Marie REM go market
 'Marie went to the market a long time ago.'

The Medumba data in (36) have to be taken with a grain of salt since not all of the consulted speakers find these sentences acceptable. Also according to the intuitions of the Awing-speaking co-author of the present paper, past morphemes cannot be used to answer *when*-questions in Awing.

- (37) Context question: When did Agethse go to Douala?
 a. #Agethse a **pe'** ŋghénə Douala. (Awing)
 Agethse SM P1 go Douala
 Intended: 'Agethse went to Douala recently.'
 b. #Agethse a **nə** ŋghénə Douala. (Awing)
 Agethse SM P2 go Douala
 Intended: 'Agethse went to Douala a long time ago.'

The purpose of the comparison between Medumba and Awing is the following. We argued in Sect.2 and Sect.3 that the paradigm of tense in Awing suggests the absence of an (in)definiteness contrast between the past and the future in this language. We proposed a unified analysis under which both past and future semantics in Awing are essentially indefinite, and an additional mechanism of contextual restriction is assumed to capture definite interpretations of the forms that allow for them. In general, it is quite a challenge to come up with empirical arguments showing whether the semantics of tense is quantification over times or presuppositional restriction of a temporal pronoun. Based on insights from previous works, Mucha (2015, Chap.5, Sect.9) attempts to compile a set of diagnostics for quantificational past that works well for Medumba. In Awing, the data at

our disposal are not quite as clear, and we have to leave a lot open for future research. The results of the comparison of near and remote past morphemes in Medumba and Awing presented in this section are summarized in Table 1.

Diagnostics for quantificational tense	Medumba	Awing
No SOT in complement clauses	✓	✓
Near past embeddable under remote past	✓	×
Infelicity of past tense in <i>before</i> -clauses	✓	?
Past morphemes as answers to <i>when</i> -questions	✓/!	×

Table 1: Comparison of Medumba and Awing

5 Summary

The findings presented in this paper can be summed up as follows. Considering that the semantics of past and future markers in natural language are often assumed to be fundamentally different, the tense marking system of Awing is striking in its apparent symmetry. In particular, existential and referential meanings seem to be semantically distinguished within the past and future paradigms, rather than constituting a defining difference between (existential) future and (referential) past. We propose to capture this observation by means of a unified tense semantics along the lines of von Stechow (2009), which is basically existential but captures referential readings by means of quantifier domain restriction. This restriction, we argue, can be explicitly excluded in the temporal paradigm of Medumba by use of the morpheme *lá'a*, leading to exclusively indefinite readings where this morpheme occurs. However, we also concede that we do not currently have convincing independent evidence for a quantificational semantics of (past) tense in Awing, and that more research might be needed here. In Sect.6, we summarize what we think has to be investigated in the future in order to get a firmer grasp on the temporal system of Awing.

6 Directions for Future Work

The previous sections document an exploration into the Awing tense system, with a focus on the (un)availability of definite readings of past and future markers. The provided results should be understood as a starting point for more thorough investigation of temporality in Awing and other Grassfields Bantu languages. Therefore, we want to add a few words about future work that is needed in order to evaluate the proposal sketched out in this paper. First, more data should be elicited that specifically target differences between past and future marking in Awing that we might have overlooked. Areas to be studied in particular include the diagnostics presented in Sect.4, possible modal meaning components of the future markers, and restrictions on the omission of the past and future morphemes.⁷ Moreover, aspect marking should be taken into account to get a

⁷In many languages with optional tense marking (including Medumba), temporally unmarked sentences receive past interpretations more readily than future readings. Hence, past markers are, in a sense, “more optional” than future

more comprehensive picture of the temporal system. Ideally, these data will be based on judgments from a larger number of Awing speakers, obtained in a controlled fieldwork setting (following the methodological tools provided in Matthewson (2004); Bochnak & Matthewson (2015); Tonhauser & Matthewson (2015)). From a theoretical point of view, it is desirable to test the predictions of the domain widening approach we sketched in Sect.3 against possible alternative analyses.⁸ While these issues have to be left for future research, we hope to have made a modest contribution to the emerging cross-linguistic picture of the semantics of graded tense systems that will inspire further investigation.

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markers. For discussion see Matthewson (2006); Tonhauser (2011a); Mucha (2015); Bochnak (2016), among others.

⁸In particular, it is worth exploring whether the Awing morpheme *lá'a*, rather than widening the domain of a temporal quantifier as proposed here, introduces modal quantification. Proposals along these lines have been made for English free choice *any* (Dayal, 1998) and *ever* in free choice relatives (Dayal, 1997). We thank Veneeta Dayal for valuable discussion of this point.

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