

Definiteness marking on VPs/TPs in Ga and Ngamo

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There is a growing body of cross-linguistic evidence that languages can mark events as definite (e.g. Baker & Travis 1997, Iatridou 2014, Larson 2003, Hole 2011, Onea 2011). We contribute to this discussion by presenting original data from Ga (Kwa) and Ngamo (West-Chadic). Although both languages exhibit overt definiteness marking on VPs/TPs which is, at first glance, very similar, we argue that whereas Ngamo marks the topic situation, the situation that the utterance is about, as definite, Ga marks the event indicated by the verb as definite.

In many analyses of clefts, the cleft background is analysed as a definite description, i.e. (1-a) is interpreted as (1-b) (cf. e.g. Percus 1997, Buring and Kriš (2013), i.a.). Hole (2011) proposed for Chinese *shì ... de* clefts that it encodes uniqueness and familiarity of events: the Mandarin equivalent of (1-a) would be interpreted as (1-c) (cf. also Onea 2011 for a similar proposal).

- (1) a. It was Amy who swam. b. The one who swam was Amy.
 c. The event of somebody swimming was an event of Amy swimming.

For this reason, languages like Ga and Ngamo, in which particles related to the definite determiner follow the background (2)–(5), seems to provide evidence for these accounts.

- (2) Kofi ni sele **le**. (3) Kofi he wo-ji **le**. (Ga)
 Kofi PRT swim DET Kofi buy book-PL DET
 ‘It is Kofi who swam.’ ‘Kofi bought the books.’

- (4) Lapko=**i** Hawwa. (5) Ngo=**i** imu lakdu. (Ngamo)
 answer.PFV=DET Hawwa person=DET do.1 PL greet.NMLZ
 ‘HAWWA answered.’ ‘The man greeted us.’

The situation however is more complex. The definite determiner accounts above assume that the exhaustivity and existence presupposition of clefts (e.g. (6-a-b) for (1-a)) are due to the maximality and existence presupposition of the definite.

- (6) a. EXHAUSTIVITY: Nobody else swam. b. EXISTENCE: Somebody swam.

Clefts in Ga, however, encode this exhaustivity and existence inference even when *le* is not present in the structure. What *le* encodes instead is the familiarity of the event, as shown in (7), and its uniqueness, as suggested by its incompatibility with habitual aspect presented in (8):

- (7) a. We didn’t talk about swimming before. Suddenly, I have decided to tell my friend who was swimming yesterday. ⇒ (2) is unacceptable in this context
 b. We talked about swimming before and we are arguing who swam yesterday. ⇒ (2) is acceptable in this context

- (8) habitual context: Tom’s daughters do not like swimming and they do not do it, but his son, Kofi, loves swimming and he does it regularly.

#Kofi **ni** sele-ɔ **le**.
 Kofi PRT swim-IMPF DET
 intended: ‘It is Kofi who swims.’ (but it is acceptable in progressive contexts)

The Ngamo focus constructions, on the other hand, do not encode exhaustivity/existence at all:

- (9) **Exhaustivity cancellable** (What did Burba buy in the village?)

Kaja=i fari ki gargu, ke kaja ayaba.
 buy.PFV=BM watermelon at village also buy.PFV banana
 ‘She bought a watermelon in the village, and she also bought a banana.’

- (10) **No existence presupposition:** (Who did Njelu call yesterday?)

Esha **nzono=i** ngo bu. (no clash with *nobody*-answers)
 call.PFV yesterday=I person NEG
 ‘He called NOBODY yesterday’

Instead, the =*i*-marked background in Ngamo is analysed as a definite description of the topic situation, the situation that the utterance is about. This relates the proposals that (i) the focus/background distinction indicates the QUD (*question under discussion*, Roberts 1996), and that (ii) the QUD can be used to derive the topic situation (Schwarz 2009, Kratzer 2011).

ANALYSIS OF *Lε*: *Lε* takes two arguments, the VP and the familiar discourse referent formally analyzed a variable of type *e* (see Elbourne 2005, Schwarz 2009, i.a.):

$$(11) \quad \llbracket l\epsilon \rrbracket = \lambda y. \lambda P : \exists! x [P(x) \wedge x = y]. ix [P(x) \wedge x = y]$$

Lε takes a property (a set of events) and says that the unique familiar event has that property.

$$(12) \quad \textit{sele } l\epsilon \quad (14) \quad \begin{array}{l} \text{a. } \llbracket l\epsilon \rrbracket^g = \lambda y. \lambda P. i\epsilon P(e) \wedge e = y \\ \text{b. } \llbracket D \rrbracket^g = [\lambda y. \lambda P. i\epsilon [P(e) \wedge e = y]](g(3)) \\ \quad = \lambda P. i\epsilon [P(e) \wedge e = g(3)] \\ \text{c. } \llbracket vP \rrbracket = \lambda e. \textit{swim}(e) \wedge Ag(e) = x_1 \\ \text{d. } \llbracket VP \rrbracket^g = \llbracket D \rrbracket^g (\llbracket vP \rrbracket) \\ \quad = [\lambda P. i\epsilon P(e) \wedge e = g(3)] (\lambda e. \textit{swim}(e) \wedge Ag(e) = x_1) \\ \quad = i\epsilon [\textit{swim}(e) \wedge Ag(e) = x_1 \wedge e = g(3)] \end{array}$$

\approx the unique event *e* such that *e* is a swimming event, whose agent is x_1 and *e* is $g(3)$

There are two consequences of this analysis. (i) Imperfective aspect, marked by -*ɔ* in Ga, entails that the topic time is included in the running time of the event. If *lε* conveys the meaning that there is a unique event in the VP denotation, an imperfective sentence with VP *lε* should necessarily obtain a progressive interpretation. (ii) If the particle *lε* marks the familiarity, it should be only used in contexts in which an event is familiar to the interlocutors. It predicts that in progressive contexts, in which an event is ongoing at the utterance time, the speaker should have direct evidence about the event in order to use VP *lε*. Both predictions are borne out.

ANALYSIS OF =*I*: Schwarz (2009) and Kratzer (2011) assume that sentences contain a covert topic situation pronoun, identified via the QUD, cf. (15) (from Schwarz 2009:143)

$$(15) \quad s_{\textit{topic}} = i s [\text{EX}(\text{QUD extension})(s) \ \& \ s \leq w_0] \approx \text{the actual situation exemplifying the QUD extension,}$$

(where a situation *s* exemplifies a proposition *p* if *p* is true in *s* and either *p* is true in all subsituations of *s*, or there is no smaller subsituation of *s* for which *p* is true)

In Ngamo, the particle =*i* is an overt determiner for such a definite description, and the focus background is used to identify the QUD, cf. (16). It presupposes that there is exactly one salient actual situation that exemplifies the question ?*P* derived from background *P*.

$$(16) \quad \llbracket =i \rrbracket^{g,s} = \lambda P_{\langle s,t \rangle}. \lambda s'''. \lambda s'. P(s'), \text{ defined iff } \exists! s'' [\text{EX}(?P)(s'') \ \& \ s'' \leq w_0 \ \& \ s'' = s''']$$

For example, cf. (17), for the background *Lapko=i* in (4):

$$(17) \quad \llbracket [t_1 \textit{lapko} =i s_3] \rrbracket^g = \lambda s'. g(1) \text{ answered in } s', \text{ defined iff there exists exactly one } s'' \text{ s.t.}$$

- (i) s'' exemplifies the QUD extension $\lambda s. [\lambda u. u \text{ answered in } s = \lambda u. u \text{ answered in } w_0]$
- (ii) s'' is a subsituation of w_0 , an actual situation, and (iii) s'' is $g(3)$, i.e. is salient.

DISCUSSION: Even though we propose similar lexical entries for the definite determiners on VPs/TPs in Ga and Ngamo, based on the strong definite determiner in Schwarz (2009) (cf. also Elbourne 2005), we argue that there is a difference: The VP-determiner *lε* in Ga is a definite determiner of an event indicated by the verb, while the background marker =*i* in Ngamo is a definite determiner of the topic situation, the situation that the utterance is about.

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