Clausal determiners and DP shells in Kwa

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Claim: We claim that the distribution of the clausal determiner (CD) in two Kwa languages (Akan & Gã) is best captured under the view that all clausal arguments as born as DPs (rather than CPs) with a derivational 'restructuring' process removing the DP shell. Consequently, subcategorization is uniformly for DPs, and bare CPs (e.g. English non-factive complement clauses) are always derived.

DP shells: There is a substantial literature assuming that clausal arguments are, in some sense, nominal (i.e. DPs). This holds for sentential subjects (Ross 1967, Davies & Dubinsky 1998, 2001) and clausal complements (Kiparsky & Kiparsky 1970, Takahashi 2010, Hartman 2012, Kastner 2015). For English, the arguments for a DP shell on clauses rely on indirect evidence, since this projection is not lexically contentful. However, there are languages in which a determiner-like element does appear on clauses, the so-called *clausal determiner*. Although the presence of a DP layer is assumed to correlate with factivity (Kiparsky & Kiparsky 1970, Kastner 2015), this does not hold for the CD in Akan and Gã. As (1a) shows, the determiner *lɛ* does not appear on clauses under the factive predicate *yɔse* ('realize'). However, if an item is extracted from this clause, then the CD is obligatory.

(1) a. Kwei yɔse [$_{CP}$ akɛ Yɛmo he yɛlɛ (**lɛ*)]
Kwei realise that Yɛmo buy yam CD
'Kwei realised that Yemo bought yam.'

b. Mɛni$_1$ ni Kwei yɔse [$_{CP}$ akɛ Yɛmo he ___$_1$ *(*lɛ*)] ?
what FOC Kwei realise that Yɛmo buy CD
'What did Kwei realise that Yemo bought?'

There are essentially two approaches to clauses such as (1a) without the CD: (i) the *inherent view* assumes that clauses are either born as CPs or DPs, (ii) the *derived view* states that CP arguments are derived by 'pruning' of the DP shell (2). It will be shown that the latter approach is supported by both the distribution of the CD in Kwa and coordination data, showing sensitivity to syntactic category.

(2) [$_{VP}$ V [$_{DP}$ D [$_{CP}$ C [$_{TP}$ …]]]] ⇒ [$_{VP}$ V [$_{CP}$ C [$_{TP}$ …]]]

Distribution: The CD in Kwa surfaces in a variety of contexts. (1) already showed one, namely on any CP from which extraction takes place. Focussing on Gã data, we see that the CD *lɛ* obligatorily appears on sentential subjects (3) and on relative clauses (4) (the same facts also hold for Akan).

(3) [$_{DP}$ Ataade lɛ$_1$ [$_{CP}$ ní o-he ___$_1$ *(*lɛ*)]] yɛ biɛ
dress DEF REL 3SG-buy CD be here
'The dress that you bought is here.'

(4) [$_{CP}$ Akɛ amlalo lɛ tse too nɔ *(*lɛ*)] fee maŋ-bii lɛ naakpɛɛ
that government DEF tear tax top CD do country-people DEF wonder
'That the government reduced taxes surprised the people.'

Furthermore, there is an interesting asymmetry regarding conditional clauses. When the conditional is initial, the CD is obligatory (5a), however it cannot appear clause-finally (5b).

(5) a. M-á-yá [$_{CP}$ kɛ́(jí) o-ba (**lɛ*)]
1SG-FUT-go COND 2SG-come CD
'I will go if you come.'

b. [$_{CP}$ Kɛ́(jí) o-ba *(*lɛ*)] m-á-yá
COND 2SG-come CD 1SG-FUT-go
'If you come, I will go.'

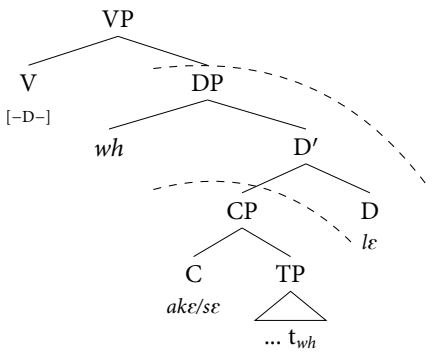
The contexts for the CD are summarized in (6). The distribution of the CD is difficult to capture on the *inherent view* that clauses are born either CPs and DPs, since it unclear how these contexts form a natural class. Under the *derived view*, where all clauses come with a DP shell that is removed derivationally, the CD contexts in (6) can be unified as contexts in which 'restructuring/pruning' fails to apply. In order to capture this, we adopt Müller's (2016, 2017, to appear) operation *Remove*

(6) *Contexts for clausal determiner in Kwa*:

Complement CP	✗
Complement CP with extraction	✓
Sentential subject	✓
Relative clause	✓
Initial conditional CP (Gã)	✓
Final conditional CP (Gã)	✗

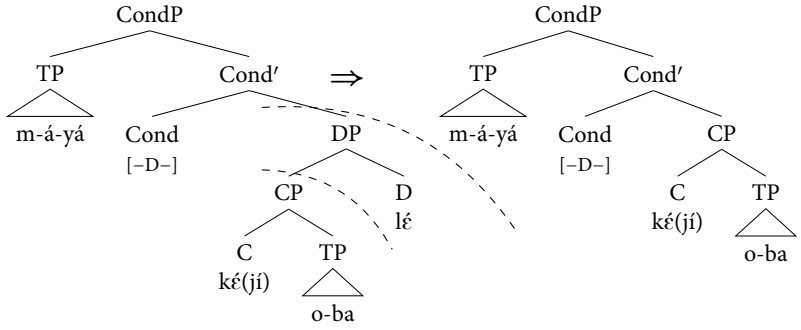
that can eliminate syntactic projections in the course of the derivation, as in (2) (cf. *Tree Pruning*; Ross 1967, *S-bar deletion*; Chomsky 1981). Removal of a DP shell is driven by a feature [−D−] on a clause embedding predicate. We assume that there are two conditions on removing DP shells: (i) it can only apply to clauses in complement position (of a head bearing [−D−]), (ii) material other than the DP shell cannot be removed (cf. *recoverability*). For embedded clauses such as (1a), the DP shell will be deleted and therefore prohibit realization of the CD. However, if an item is extracted

(7)



from the clause, then it will have to move successive-cyclically through Spec-CP and Spec-DP. At the point at which Remove would apply, the operator occupies Spec-DP and therefore blocks deletion of the DP shell (7) given condition (ii) on Remove. Condition (i) means that sentential subjects (3) are also immune from Remove given their status as specifiers. As for relative clauses (4), the Remove is blocked either because relative clauses are in an adjoined (non-complement) position (i), or due to extraction of the head noun from the relative clause (ii). We show that idiom reconstruction facts lend support to a head-raising analysis of RCs. The final context can be captured by assuming a functional projection for conditionals

(8)



(CondP) similar to coordination (cf. Weisser 2015). If the conditional CP can either be a complement or specifier of Cond, then Remove will only be possible when the *if*-CP is a complement (8) (cf. (i)). This complement / non-complement distinction derives the conditional and subject/object asymmetries w.r.t. the distribution of the CD.

Coordination: The *derived view* of CP complements outlined above is supported by evidence from coordination. In both Akan and Gã, coordination of nominal arguments allows for the coordinator (*ne* in Akan) in addition to the general coordinator *na* (9a) (cf. Kobele & Torrence 2004). If TPs are coordinated, then the nominal coordinator *ne* is not possible (9b). If we conjoin TPs below the complementizer, *ne* is still impossible (10a), however if full complement clauses (containing complementizers) are conjoined, the nominal coordinator *ne* becomes possible (10b). This is unexpected if CD-less clauses are born as CPs, since *ne* should not be licensed.

(9) a. Me-hu-u [$_{DP}$ Kofi] **ne/na** [$_{DP}$ Ama]
1SG-see-PST Kofi and Ama
'I saw Kofi and Ama.'

b. [$_{TP}$ Me-hu-u Kofi] ***ne/na** [$_{TP}$ wo-bɔ-ɔ Yaa]
1SG-see-PST Kofi and 2SG-hit-PST Yaa
'I saw Kofi and you hit Yaa.'

(10) a. Kofi nim [$_{CP}$ sɛ [$_{TP}$ Ama kita bayerɛ] ***ne/na** [$_{TP}$ Yaw re-noa ɛmo]]
Kofi know that Ama hold yam and Yaw PROG-cook rice
'Kofi knows that Ama is holding yam and that Yaw is cooking rice.'

b. Kofi nim [$_{CP}$ sɛ Amma kita bayerɛ] **ne/na** [$_{CP}$ sɛ Yaw re-noa ɛmo]
Kofi know that Ama hold yam and that Yaw PROG-cook rice
'Kofi knows that Ama is holding yam and that Yaw is cooking rice.'

Under the derived view, however, we can assume that coordinator *ne* only selects DPs arguments. When the clauses in (10b) are conjoined, they have a DP layer (with a CD) and can therefore be selected by *ne*. When the DP layer is removed, c-selection has already taken place and thus we have apparent 'wrong selection'. This provide strong evidence that these clauses were originally DPs.