Against CP Selection: Evidence from DP shells in Kwa

Claim: It is still a controversial issue whether clausal arguments involve subcategorization for CP or DP (e.g. Haegeman & Ürögdi 2010, Kastner 2015, Moulton 2015). Based on novel data from the distribution of clausal determiners in the Kwa languages Akan and Gã (both spoken in Ghana), we argue that all CPs are born with a DP shell that is subsequently deleted in syntax via a process of *Structure Removal* (Müller 2016, *et seq.*). However, deletion of the DP layer is blocked in certain contexts, for example if it hosts an extracted item moving successive-cyclically through the edge of DP. We will show that the distribution of the clausal determiner is better captured on the counter-intuitive view that it is always present, and the contexts in which it surfaces are in fact exceptional.
DP shells: A classic idea going back to Ross (1967) and Kiparsky & Kiparsky (1970) is that (complement) clauses are actually nominal in nature, i.e. they are CPs with an additional layer of nominal structure (DP). This has been argued for embedded clauses (Kiparksy & Kiparsky 1970, Chomsky 1973, Müller 1995, Müller & Sternefeld 1995, Han 2005, Takahashi 2010) and for sentential subjects (Less 1960, Rosenbaum 1967, Davies & Dubinsky 1998, 2009, Hartman 2012). If we put these two strands of research together, we arrive at what we might call the *Radical DP-Shell Hypothesis* in (1).

(1) *The (Radical) DP-Shell Hypothesis* (cf. Müller 1995:53):
All finite clauses are DPs (with a phonetically empty head). ($[_{DP}$ D $[_{CP} \ldots]]$)

On this view, subcategorization for C does not exist. Instead, all CP-complementation actually involves selection for DPs. While the many arguments for the hypothesis in (1) are theory-internal in nature, we present new evidence for it from the distribution of clausal determiner in Kwa.
Clausal determiners: A number of languages in the Kwa branch of Niger-Congo exhibit what is known as a 'clausal determiner' (CD) (cf. Lefebvre 1992). This is a determiner element that appears clause-finally in a restricted set of contexts and whose status still remains unclear. For example, embedded clauses in both Gã (2) and Akan (3) cannot occur with the CDs *lɛ* and *nó* repsectively. However, the CD becomes obligatory if an element is extracted from the embedded clause (2/3b).

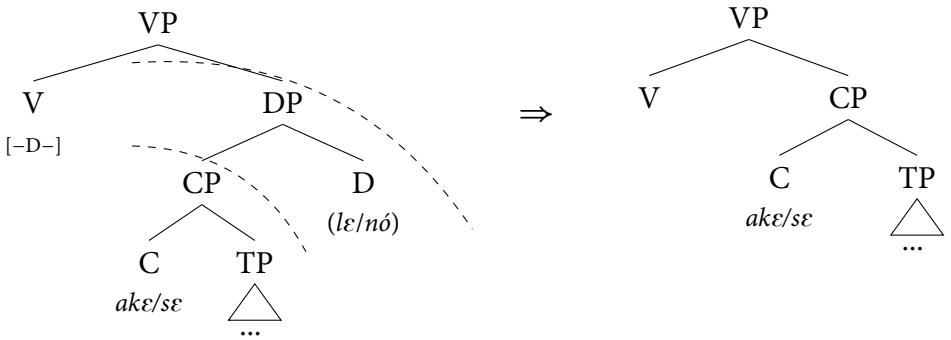
(2) a. Kwei yɔse $[_{CP}$ akɛ Yɛmo he yɛlɛ (**lɛ*)]
Kwei realise that Yɛmo buy yam CD
'Kwei realised that Yemo bought yam.'
b. Mɛni$_1$ ni Kwei yɔse $[_{CP}$ akɛ Yɛmo he t_1 *(*lɛ*)]
what FOC Kwei realise that Yɛmo buy CD
'What did Kwei realise that Yemo bought?' (Gã)

(3) a. Kofí kaé $[_{CP}$ sɛ Ámˈmá kita bayéréɛ (**nó*)]
Kofi remember that Ama hold yam CD
'Kofi remembers that Ama is holding a yam.'
b. Déɛ́n$_1$ na Kofí káé $[_{CP}$ sɛ Ámˈmá kítá t_1 (*nó*)] ?
what FOC Kofi remember that Ama hold CD
'What does Kofi remember that Ama is holding?' (Akan)

The question posed by these data is why extraction from an embedded clause leads to the emergence of the clause-final determiner *lɛ*/*nó*. These elements are the forms used for definite determiners in DPs and we know that the CD is genuinely a syntactic determiner based on the haplology diagnostic described in Saah (1994), that is, haplology arises only if the CD is adjacent to a genuine determiner, but not the homophonous 3rd person pronoun). While it may be tempting to analyze the appearance of the CD in extraction contexts as the exceptional case (i.e. as some particular reflex of movement), it is unclear why the addition of a determiner should facilitate extraction (indeed it should create an island). Instead, we argue that complement clauses always come with a DP shell (for reasons of c-selection) and that this is normally removed in the course of the derivation. We follow recent work by Müller (2016, *et seq.*) who has argued for the revival of deletion

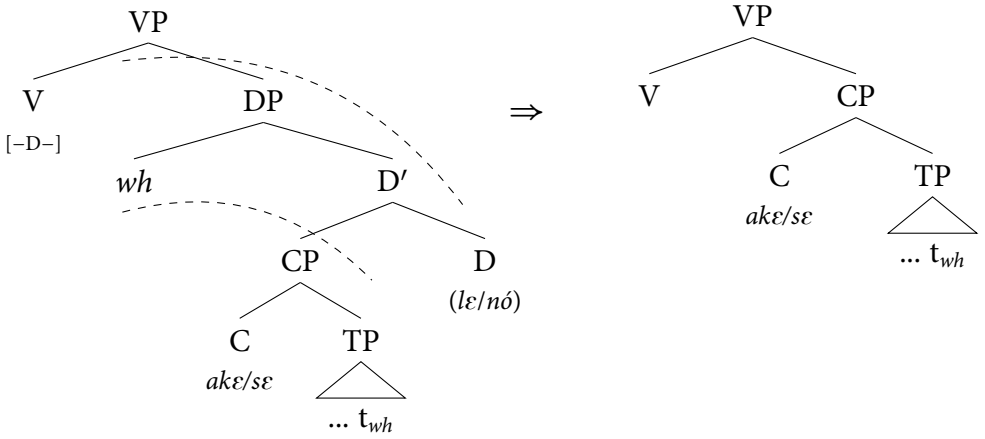
operations in syntax (cf. Tree Pruning; Ross 1967; also see Pesetsky 2016 for a similar proposal). In Müller's system, clause embedding predicates remove the DP layer of a complement clause (more if they are restructuring predicates) as an inherent property by means of a 'Remove' feature [−D−]:

(4)



However, if a wh-phrase is moving successive-cyclically out of the embedded clause, it has to stop at the phase edges CP and DP (note that these languages do not have Complex NP Islands; cf. Saah & Goodluck 1995). Thus, at the point at which removal of the DP shell would apply, the moving wh-phrase is in Spec-DP and removal of the DP shell would also remove the operator, precluding further movement to its criterial position. Thus, Remove is blocked and the DP layer remains (5).

(5) *



Since Remove of the determiner is blocked, it surfaces in its usual form. Crucially then, only successive-cyclic movement blocks removal of the DP layer of complement clause.

Distribution: This analysis also fits with the wider distribution of the CD in Akan/Gã. For example, the clausal determiner is obligatory with sentential subjects (6). This follows from the fact that V can only trigger Removal of a DP layer on its complement, whereas sentential CPs originate higher.

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

Furthermore, we also find obligatory CDs in relative clause complements (7). We argue that this follows under the head-raising analysis of relative clauses (8) (Åfarli 1994, Kayne 1994, Bhatt 2002). The head raises from the relative CP and stops at the edge of the DP shell (blocking Remove by D).

(7) [$_{DP}$ Ɔbáá$_1$ (nó) [$_{DP}$ [$_{CP}$ áa ɔ$_1$-wáré-e Kofí *(*nó*)]]] fi Aburí.
woman DEF REL 3SG-marry-PST Kofi CD be.from Aburi
'The woman who married Kofi is from Aburi.' (Akan)

(8) [$_{DP}$ Ɔbáá$_1$ (nó) [$_{DP}$ t$_1$ [$_{CP}$ áa … t$_1$-V …] nó]]

Thus, we see that the CD in Kwa provides overt evidence for the classic assumption that subordinate clauses contain an additional layer of nominal structure. Furthermore, Akan and Gã support the *Radical DP-Shell Hypothesis* (1), since the CD surfaces in both subject and complement clauses.