MULTIPLE AGREEMENT AND CASE DELETION: AGAINST φ-(IN)COMPLETENESS

Vicki Carstens

Abstract. I argue against Chomsky's (1999, 2000) proposal that Case deletion correlates with the φ-completeness of probes, based on (i) the omission of gender in subject agreement in, for example, Romance languages; and (ii) the inclusion of full φ-features in subject agreement in Bantu, repeated on all verbal heads within a clause. I propose instead a return to the traditional view that certain categories are Case "assigners," such that Agree deletes the goal's Case only if the probe has an intrinsic structural Case value. Finally, I show that Agree so modified accounts for concord in noun phrases, including concord on 'of' in African languages, reflecting φ-features of head nouns. Crucial to this account is a structural analysis in which 'of' is merged with a nominal constituent that includes the head noun but excludes the surface 'of' object, be it possessor, agent, or theme.

1. The *Agree* Relation

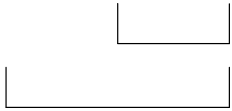
It is fairly common in syntactic theory to suppose that a relationship exists between Case and agreement. A recent instantiation of this idea is Chomsky's (1999, 2000) proposal that uninterpretable φ-features delete Case through the relation called *Agree*. The φ-features of an agreeing element α, which are called a *probe*, seek a *goal* element β with interpretable φ-features and an unchecked structural Case feature, under Chomsky's theory. When the search succeeds, the Agree relation results, deleting α's φ-features and β's Case. This is necessary because both Case and the uninterpretable φ-features of agreement are illicit at LF, owing to their lack of interpretations.

Once its Case is eliminated, β ceases to be a candidate for further Agree relations and accordingly for A-movement, which is tied to instances of Agree.

As Chomsky notes, not all agreement relations can be taken to delete Case. To see why this is so, consider (1a). Here the subject is a deep object and enters into two Agree relations before raising to its surface position. The first is motivated by past participle agreement (PPA) on *morte*, the features of which are, by assumption, deleted in an Agree relation with *elle*. The Case of *elle* appears not to be deleted in this relation, however, as a second Agree relation is then established between *elle* and subject agreement (SA) on T^0, here instantiated as the auxiliary *est*. This deletes both the nominative Case of *elle* and the φ-features of *est*. *Elle* then raises to [Spec,TP] to satisfy the EPP feature of *est*.

* My thanks to three anonymous *Syntax* reviewers for comments and to Chris Collins for helpful discussion of issues addressed herein.

(1) a. Elle est morte.
b. est$_{Probe\ 2}$ morte$_{Probe\ 1}$ elle$_{Goal}$



Agree 1 deletes PPA only

Agree 2 deletes SA and nominative Case

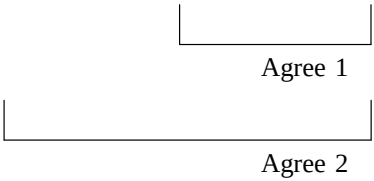
Henceforth I use the term *multiple agreement* to refer to such cases, wherein a many-to-one relation exists between agreeing categories and agreed-with nominal.

In light of multiple agreement phenomena like (1), Chomsky (1999, 2000) proposes that agreement deletes Case only if it is φ-*complete*. Predicate adjectives and past participles are φ-*incomplete*, agreeing only in a subset of the possible φ-features. As a result, they do not affect the Case of the DP they agree with; the DP must therefore enter into a subsequent Agree relation with a φ-complete element like the auxiliary in (1) for a licit result to be obtained. Its Case deleted, the DP, in this case *elle*, enters into no other agreement relations and raises no further.

2. A Problem for φ-(in)completeness

A serious problem for this proposal becomes apparent on consideration of the features involved in (1). Although it is true that agreement on the past participle lacks the full complement of φ-features, consisting as it does of number and gender only, subject agreement is similarly partial in features: it includes person and number features only, omitting gender. Thus both agreeing elements in (1) are φ-incomplete; yet one appears to check Case, whereas the other does not.

(2) SA$_{person,\ number}$ PPA$_{gender,\ number}$ DP



No Case deletion

Agree 1

Case deletion

Agree 2

Gender is systematically excluded from the features of subject agreement in Indo-European languages with gender systems.[1] Hence the facts are not plausibly attributed to an accidental gap in subject-agreement paradigms, any more than is the omission of person in agreement on the past participle.

[1] Subject agreement in Bantu and Afro-Asiatic includes gender features, however. See section 3.

Based on (1) and (2) alone, we might amend Chomsky's characterization of when Case deletes, as in (3):

(3) Person features are crucial to Case deletion.

(3) maintains Chomsky's assumption that the absence of person features on participles and predicate adjectives keeps them from deleting Case. It is consistent with the facts of subject agreement in (1) and (2) as well.

However, (3) does not suffice to explain all the facts. For one thing, Chomsky analyzes certain instances of nondeleting Case in terms of φ-incompleteness due to specification for person features only. Chomsky argues that the infinitival T^0 of raising and ECM clauses has an uninterpretable person feature. This feature must be deleted and therefore acts as a probe, giving rise to an Agree relation and hence raising of a DP to the embedded subject position in cases like (4). A subsequent Agree relation between the matrix *v* and the embedded subject deletes the latter's accusative Case (see Chomsky 1999:5).

(4) a. We expect [several prizes to be awarded]
b. We expect [to$_{Probe\ 1}$ be awarded several prizes$_{Goal}$]]
Agree 1
c. We [$v^0_{Probe\ 2}$ expect [several prizes$_{Goal}$ to be awarded *t*]
Agree 2

The abstract person features that Chomsky hypothesizes here are connected to his proposal that the Agree relation is prerequisite to movement. We might abandon this view, assume that infinitival T^0 has no φ-features, and adopt (3), or alternatively (3′). Both moves are consistent with (2) and (4):[2]

(3′) Person and number together delete Case.

But multiple agreement in Bantu compound tense constructions (CTs) shows that differentiating among φ-features is not the answer.[3] In CTs, overt person agreement apparently fails to delete Case. More than this, CTs show that full agreement in all φ-features is compatible with A-movement. As a result, the proposed relationship between Case and φ-specification cannot be maintained in any form.

[2] My thanks to an anonymous *Syntax* reviewer for pointing out these possibilities.
[3] See also multiple subject agreement in Arabic, described by Bahloul and Harbert (1992).

3. Compound Tenses

In Swahili CTs, tense morphology appears as an affix on the verb 'be', which also inflects for agreement with the surface subject. Aspectual auxiliaries and verbs bearing aspectual morphemes follow, each agreeing with the subject as well, as shown in (5). Note that agreement includes person features in these examples.

(5) a. Juma a-li-kuwa a-me-pika chakula.
3SG-PST-be 3SG-PERF-cook 7food
'Juma had cooked food.'
b. (Mimi) Ni-li-kuwa ni-ngali ni-ki-fanya kazi.
(1SG-PRON) 1SG-PST-be 1SG-still 1SG-PERF-do 9work
'I was still working.'

Carstens and Kinyalolo (1989) analyze CTs in terms of a failure of aspect-bearing verbs to undergo raising. ''Dummy'' 'be' is required to support the tense morpheme, each aspectual category remains in situ, and the subject, raising Spec-to-Spec en route to a Case position in [Spec,TP], licenses multiple instances of subject agreement.

(6) $[_{T''}$ Juma$_i$ $[_{T'}$ *a*-**li**-kuwa $[_{ASP''}$ t_i $[_{ASP'}$ *a* -**me**-pika$_v$ $[_{vP}$ t_i $[_{VP}$ t_v chakula]]]]]]

Carstens and Kinyalolo support this analysis by demonstrating that CTs are raising constructions, placing no thematic restrictions on their subjects. Whereas the examples in (5) contain agent subjects, the CT subjects in (7)–(9) are a theme, an expletive, and an idiom chunk, respectively.[4]

(7) chakula ki-ta-kuwa ki-ki-pik-wa jiko-ni
7food 7AGR-FUT-be 7AGR-PROG-cook-PASSIVE 5kitchen-LOC
'The food will be cooked in the kitchen.' Theme subject

(8) ku-li-kuwa ku-me-nyesha mvua
17AGR-PST-be 17AGR-PERF-rain 9rain
'It had rained.' Expletive subject

(9) mtindi u-li-kuwa u-me-m-vaa Abunuasi
3brew 3AGR-PST-be 3AGR-PERF-3OA-wear
'Abunuasi was drunk.' Idiom chunk subject

Analyzed in the framework of Chomsky (1999, 2000), each instance of agreement in a CT indicates a probe-goal relation that deletes the uninterpretable φ-features of the probe. (5a) appears to involve two such relations, only the second of which deletes the subject's Case:

[4] The analysis is consistent with the status of 'be' as a raising verb; cf. Stowell (1978).

(10) $SA_{Probe\ 2}$-PST-be $SA_{Probe\ 1}$-PERF-cook Juma food

Consider the identity of the φ-features that appear as agreement within CTs. Note that they are the same on all verbal elements in a given CT—that is, the downstairs agreement, which functions as Probe 1, includes the same features as the higher Probe 2. Under Chomsky's approach, it is necessary to conclude that of two or more identical instances of agreement, one deletes Case and the other does not. Note also that the φ-features of agreement in a CT perfectly match those of the surface subject, in person and number (5) or in noun class (7)–(9). I follow Carstens 1991, 1997 in analyzing Bantu noun class as number and gender. Thus, each agreeing head in a CT inflects for all available person, number, and gender features of the surface subject; each agreeing head is φ-complete.

4. Proposal

4.1 The Case-Assigning Property

Case and agreement correlate with sufficient regularity that a relationship between them seems well motivated; something other than φ-incompleteness must account for the exceptions, however. A simple solution to this problem lies in the traditional assumption that only certain heads assign Case. I propose that Agree does not delete the goal's Case feature unless the probe has an intrinsic value for structural Case, that is, belongs to the traditional class of structural Case assigners. The Agree relation operates as in (11).

(11) In the Agree relation:
- a. A probe α has uninterpretable φ-features.
- b. A goal β has matching φ-features.
- c. Uninterpretable φ-features are valued, and delete.
- d. If α has an intrinsic structural Case value, it values any unvalued Case feature of β; the two Case features then delete.

In point of fact this is not an independent modification to Chomsky's theory, wherein the Case-assigning property of relevant heads continues to play a small role. Consider the facts of Case agreement on passive participles in Scandinavian. The construction is illustrated in schematic form in (12), taken from Chomsky (1999:13–14).

(12) a. There seem to have been caught-#AGR,GENDER,CASE several fish-NOM

b. $[_{TP1}\ T^0$ seem $[_{TP2}$ EXPL to have been $[_{\alpha}$ PRT [catch $[_{DO}$ several fish]]]]]

Chomsky argues that four Agree relations contribute to the derivation of (12a). First, Agree between the past participle (PRT) and the direct object 'several fish' deletes the participle's uninterpretable number and gender features. Second, Agree between the matrix T^0 and the expletive 'there' deletes the latter's uninterpretable person feature and induces it to raise. Third, Agree between T^0 and the participle values and deletes the latter's nominative Case feature. Given that each of these relations involves a φ-incomplete category, the Case feature of 'several fish' and the φ-features of T^0 are undeleted at this point. A fourth and final application of Agree values and deletes the nominative Case of 'several fish' and deletes T^0's φ-features.[5,6]

A question arises as to why the initial Agree relation between the participle and the direct object does not delete the former's Case feature, because the latter is φ-complete. Although it is typically the goal whose Case deletes, there is some symmetricality among the feature-deletion cases Chomsky discusses; uninterpretable person features of expletive goals delete in Agree relations, for example, as do the uninterpretable number and gender features of the participial goal under Chomsky's analysis of (12). The question therefore bears consideration. Chomsky explains that ''Case is unvalued for both PRT and DO, so neither can assign a Case value to the other'' (Chomsky 1999:14); in a footnote he adds that ''both PRT and DO lack the structural Case-assigning property of T and *v*'' (Chomsky 1999:37, note 36).

Thus, Case deletion relies not only on φ-completeness; it is also contingent on the potential agent of deletion's ability to assign a Case value. But if this is true, the role of φ-completeness in the theory is redundant—agreeing passive participles, predicate adjectives, and infinitival T^0 can be assumed not to delete Case through the Agree relation because they lack the Case-assigning feature, which may be interpreted as an intrinsic value for a particular structural Case.[7]

[5] This is possible despite the fact that the participle's φ-features are deleted in the earliest Agree relation—that between the participle and the direct object. What makes the participle available as a probe nonetheless is the continued presence of those features in the syntactic representation, until they are sent to Spell-Out at the next strong phase. See note 7.

[6] Yet the participle does not act as a ''defective intervener'' in cases of passive raising; presumably because it is not the head of an A-chain (Chomsky 1999).

[7] Chomsky's treatment of these Scandinavian facts is suggestive of an alternative to my account—namely, that all instances of Agree delete Case, but deleted Case is accessible until the next strong phase (Chomsky 1999:14). This approach accounts for the multiple agreement facts but wrongly predicts the sentences in (i) to be well formed. In (i), an Agree relation with the infinitival T^0 by assumption precedes raising of the DP 'John' to the embedded subject position, so would delete this DP's Case; then merger of expletive *it* in the matrix clause could check the uninterpretable φ-features of the matrix T^0 because *it* has full φ-features. In (ii), Agree between the participle and *elle* would check the φ-features of the former and the Case of the latter. Merger of expletive *il* would value and delete the agreement features of T^0, ensuring a grammatical result.

(i) *It seems [John to have been arrested t_{John}]
(ii) *Il est morte elle.
it is dead-AGR she

4.2 When φ-incompleteness Matters

There is a class of cases in which I assume with Chomsky that φ-incompleteness does result in a failure of feature deletion: this is when a goal does not have all the features needed to match the probe. As analyzed in Chomsky 1999, 2000, [expletive … DP] constructions are one such case. Chomsky proposes that the expletive *there* is specified only for an uninterpretable feature of person. This person feature makes it possible for the expletive to enter into an Agree relation with finite T^0 in (13) (adapted from Chomsky 1999:12). Agree deletes the expletive's person, and the expletive raises to satisfy the EPP feature of T^0. The relation does not however delete T^0's φ-features, because *there* is φ-incomplete. T^0 therefore enters into a second Agree relation, with the associate *a man*. This relation deletes T^0's φ-features and the Case of *a man*.

(13) a. There is likely to arrive a man.

b. [T_{Probe} be likely [EXPL$_{Goal\ 1}$ to arrive a man]]

Agree 1

c. [EXPL T_{Probe} be likely [t_{EXPL} to arrive a man$_{Goal\ 2}$]]

Agree 2

I adopt this account and the general conclusion that if a probe α has a fuller set of φ-features than a goal β, β cannot delete α's φ-features. I assume also that if α is a Case assigner, its Case feature is not deleted; thus the Case and φ-features of a Case-assigning probe are deleted together, by a single goal. This conclusion has an application in the analysis of concord, discussed in section 5.

5. Concord

Agree, modified as in section 4, provides an elegant analysis of concord in noun phrases. Given that concord involves multiple agreement with a single item as a matter of course, this is an important extension of the theory.

Consider the Italian examples in (14), in which determiner, adjective, and pronoun inflect for the number and gender of the head noun.

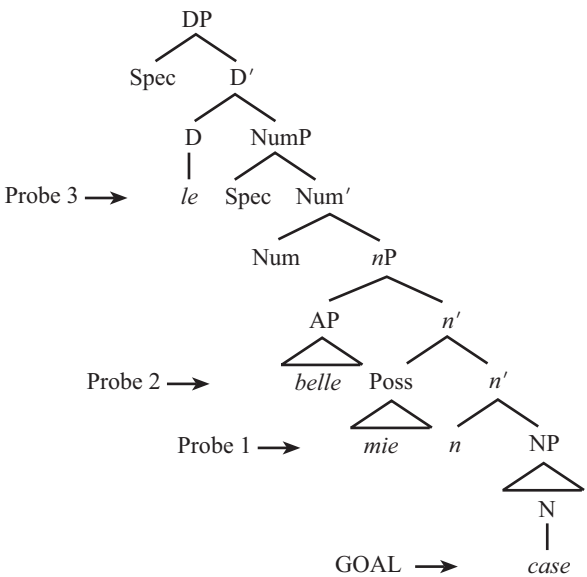
Thus, the assumption that all Agree relations delete Case is untenable, and there is no reason to suppose that deleted Case is ever syntactically accessible. The sole empirical motivation for assuming deleted features are active seems to lie in Case agreement between the Scandinavian passive participle and its nominative object in (12) (Chomsky 1999:14; see my note 5). But these facts are explained under the alternative assumption that any unvalued feature suffices to identify a potential goal, including the Case of the participle in (12).

(14) a. la mia casa bella
the-F my-F house-F nice-F
'my nice house'

b. le mie case belle
the-F.PL my-F.PL house-F.PL nice-F.PL
'my nice houses'

I represent noun phrases as in (15), where n^0 is a kind of light noun, analogous to v^0 in that it selects and θ-marks a possessor or agent argument (see Carstens 2000 and section 6). Num^0 is a midlevel functional category, analogous to T^0 (Ritter 1991). As a point of departure, I adopt the view that surface word order in Romance noun phrases results from N-to-*n*-to-Num^0 raising, and raising of genitive pronouns like *mie* to [Spec,Num] (Valois 1991, Cinque 1994). These assumptions are independently motivated in the works sited and in much related work on noun phrase structure; with them in place I can account for concord by means of three instances of Agree, as illustrated in (15). (Examples (14) and (15) are from Carstens 2000, which rejects this account.)

(15)



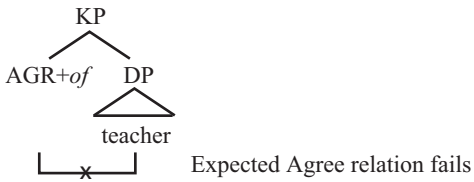
None of the probes in the Agree relations depicted in (15) has a Case-assigning feature. Under the modified definition of Agree in (11), this makes it possible for N(P) in (15) to serve as goal to the multiple, non-Case-deleting, Agree relations that constitute concord.

Carstens (2000) argues that concord on 'of' in Bantu and Afro-Asiatic languages poses problems for Agree. This is because 'of' agrees with the head noun, rather than with its apparent complement:

(16) a. kitabu *cha* mwalimu
7book 7of 1teacher
'the teacher's book'

b. *kitabu *wa* mwalimu
7book 1of 1teacher
'the teacher's book'

c.

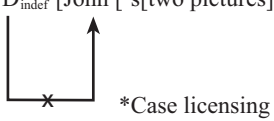


Inextricably linked to this agreement problem is the question of the construction's true properties: given the facts, either Agree must be the wrong theory of how agreement works, or (25c) is the wrong representation of an 'of' construction. I argue here for the latter position and propose a new account of 'of' constructions consistent with Agree.

My point of departure is Kayne 1994, which proposes that 'of' and its surface object do not form a constituent. Kayne argues that 'of' is inserted to indefinite D^0 to assign Case to a genitive phrase, as shown in (26a). The possessed NP then raises to [Spec,DP] (see (17b)). The approach constitutes an important first step toward explaining the agreement phenomena.

Koopman (1996) suggests that the Spec-head relation between the possessed NP and *of* in (17) can explain agreement on 'of' in Bantu. But why the possessed NP should raise instead of the genitive phrase is not clear, as Carstens (2000) notes; the genitive phrase is closer to D^0, making the proposed movement incompatible with minimalist assumptions.

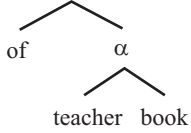
(17) a. D^0_{indef} [John ['s[two pictures]]]



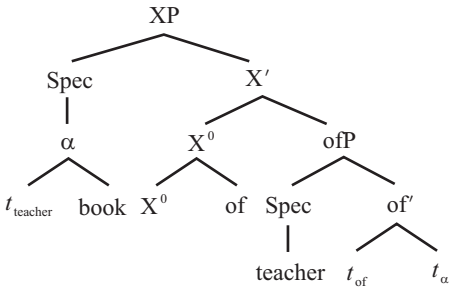
b. $[_{DP}\ [_{\alpha}$_two pictures$]_i$ $[[_{D\text{-}indef}$ of] [John ['s $[e]_i$]]]

Kayne (1997, 1998) proposes a revision under which 'of' takes as complement a constituent α including the head noun and the genitive phrase. I illustrate for the Swahili example (16), in (18). The genitive phrase, in this case *mwalimu* 'teacher', raises to [Spec,ofP]; a functional category X^0 is merged with ofP; α raises to [Spec,XP] and 'of' adjoins to X, yielding the surface order.

(18) a.



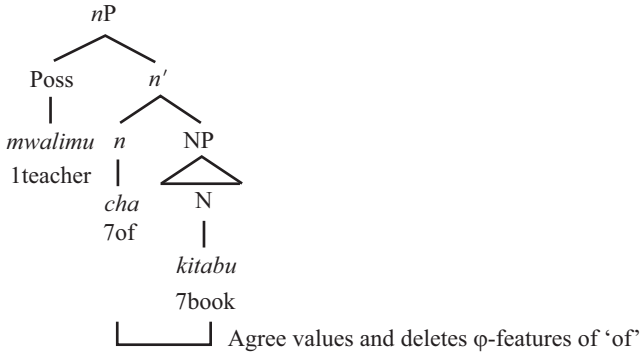
b.



Like its predecessor, this approach to 'of' is not completely satisfactory. It does not explain why 'of' agrees only with 'teacher' as Carstens (2000) points out, and the locality issue for raising α across 'teacher' remains.

I adopt Kayne's proposal that 'of' does not form a constituent with its surface object, and that the head noun comes to precede 'of' through leftward movement of its containing category. I depart from his assumptions in taking 'of' to be an instantiation of n^0 in (15).[8] This means that the possessor is base generated in the specifier of 'of', and the complement to 'of' is the NP containing the head noun, as shown in (19). It follows that 'of' inflects for the φ-features of the head noun:[9]

(19)



Although this accounts for the agreement facts, it yields the wrong word order. In Chomsky's theory, Agree underlies all movements that might derive

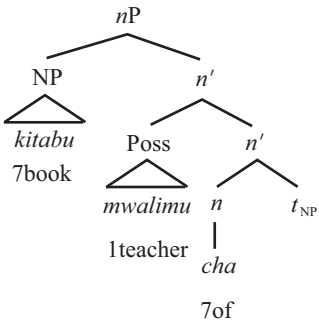
[8] An anonymous reviewer asks why 'of' is not instead analyzed as Number. 'of' correlates with the presence of arguments, rather than with any singular/plural value.

[9] The order posited as underlying in (19) is the surface order in Wolof, and 'of' also agrees with the head noun in that language (Collins, p.c.).

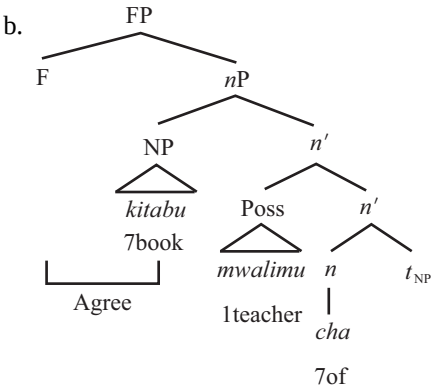
the correct order, as noted in section 2. I will show that Agree, as modified in section 4, suffices to account for this aspect of the construction as well as for its agreement properties.

Surface word order calls for raising of 'of' to precede the possessor and raising of the NP 'book' to precede them both. I propose that the derivation proceeds as follows. First, an optional EPP-feature of n^0 causes the NP 'book' to raise from complement of n^0 to *n*P's outer specifier (see (20a)). Next, a silent functional head F is merged with *n*P, as shown in (20b).[10] I assume that F has abstract uninterpretable φ-features but assigns no Case. An Agree relation is established between F and 'book'. An EPP-feature of F then drives 'book' to raise to [Spec,FP] as shown in (20c). Finally, 'of' raises to F (20d).

(20) a.

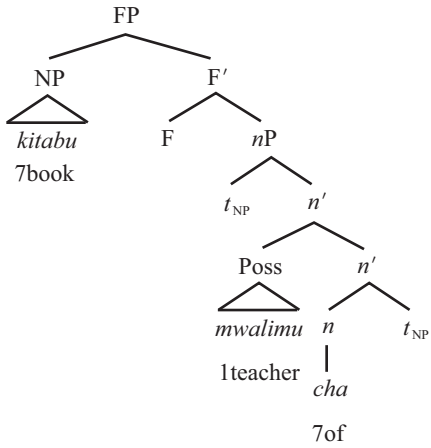


b.

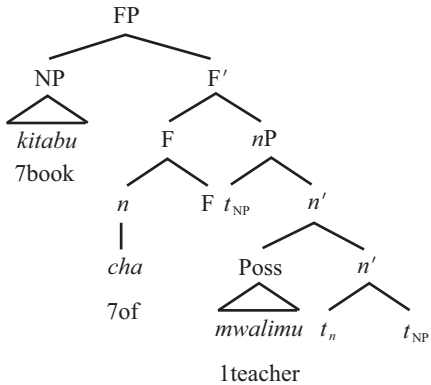


[10] Under minimalist assumptions, F must have semantic content; I leave this question for future study.

c.



d.

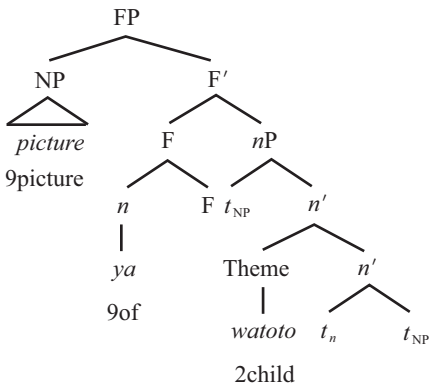


Note that the possessor is never in an Agree relation with F, under this account, eliminating any expectation that the φ-features of F will be valued by the possessor and show up on ‘of’ in Bantu, either instead of or in addition to those valued by the head noun.

Theme arguments of nouns are also introduced by ‘of’ in Bantu, bearing agreement with the head noun. It follows that themes are also generated in [Spec,*n*P] rather than in sister to N^0 position. Thus N^0 takes no direct arguments.

(21) a. picha *y*a /**w*a watoto [Swahili]
9picture 9of/*2of 2child
‘a picture of the children’

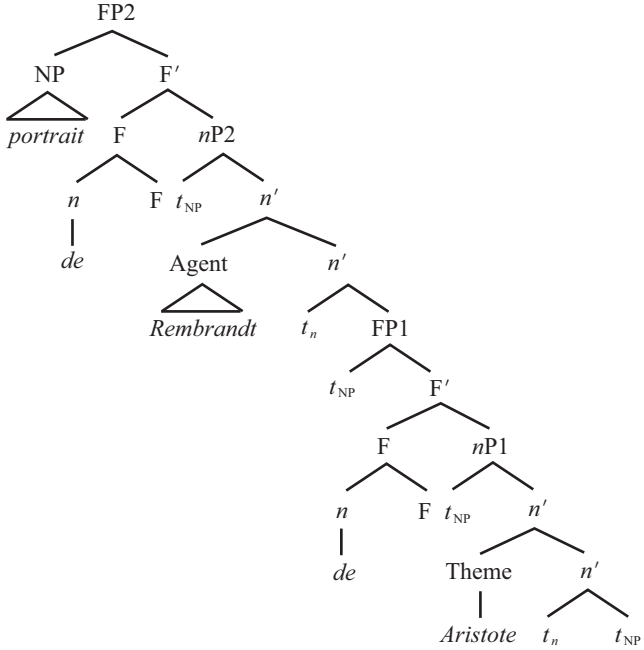
b.



Noun phrases containing multiple ofPs are unacceptable to most speakers of Swahili, but this is not true of all languages. An optimal approach will extend to languages that allow multiple arguments of nouns introduced by ‘of’. Consider French, which permits multiple lexical arguments in noun phrases, each introduced by ‘of’ (Valois 1991). The account requires only that each argument be merged in the specifier of an additional n^0, whose projection is complement to an additional F. The derivation in (21b) simply continues through a second set of movements.

(22) a. le portrait de Rembrandt d’ Aristote (Valois 1991)
the portrait of Rembrandt of Aristotle
‘Rembrandt’s portrait of Aristotle’

b.

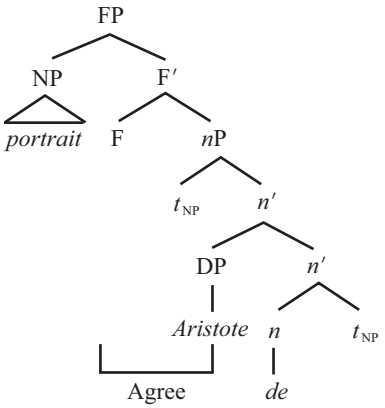


Why, though, should some languages permit more than one ofP and others not? I suggest that F in languages like French is a Case assigner, able to delete the Case feature of the DP in [Spec,*n*P]. In a language like Swahili that allows only one argument introduced by 'of', this DP must have its Case deleted by the higher, Case-assigning head Num^0. When this happens, Num's Case feature is deleted and cannot value and delete the Case features of any additional DPs.

F thus enters into Agree relations with the head noun and the noun's argument both, in languages like French. This perhaps explains the absence of inflection on French 'of' if, as a morphological property, it cannot agree overtly with both items.

With this proposal in mind, consider (23). For F to check the Case of the DP *Aristote* it must fail to check Case with the NP *portrait*, although it enters an Agree relation with it first, leading to raising of *portrait* to [Spec,FP]. How can this be possible?

(23)



Recall that φ-incompleteness of a goal prevents it from deleting the probe's features (see section 4.2). It has been proposed that person is a feature of D^0 rather than N^0 (Ritter 1991, among others) and that interpretable number features head their own midlevel projection in the DP, as illustrated in (15). If Case-assigning F has full φ-features, they cannot be valued in the Agree relation with the NP *portrait*. Accordingly, *portrait* deletes none of the features of F, and F must enter into an Agree relation with the DP *Aristote* for deletion of its agreement and Case.

6. Conclusion

Based on cases of multiple agreement, I have shown that there is no correlation between Case checking and the φ-completeness of probes in either French or Swahili.[11] In French participial constructions, all instances of agreement omit some φ-feature of the subject, and thus are φ-incomplete; in Swahili CTs, all instances of agreement reflect the full φ-feature set of the surface subject, and thus are φ-complete.

The facts can be taken as evidence that agreement and, in particular, the Agree relation, play no role in Case deletion. But this seems too strong a conclusion, given frequent correlations between agreement and Case across languages. Alternatively, a relationship between agreement and Case can be maintained if Case is deleted in the Agree relation with a Case assigner. I have argued for the latter position.

I have proposed an account of concord in noun phrases in terms of this modified version of Agree. Given that concord consistently involves multiple

[11] These languages serve to represent systematic problems, as noted in section 1: Romance, Slavic, and Scandinavian are among those groups that pattern with French, and other Bantu languages are like Swahili; see also Kural 1993 on subject raising out of Turkish infinitives containing full subject agreement; Bahloul and Harbert's (1992) description of compound tenses in Arabic; and Watanabe 1993 on subject raising out of Balkan subjunctive clauses containing subject agreement in person and number.

agreement, it is of critical importance to the question of how Agree and Case deletion relate.

The analysis of concord on 'of' involves raising of the NP constituent to [Spec,ofP] and to the specifiers of higher functional categories F. Thus N^0-raising is not what underlies NSO order, contra Ritter (1991), Carstens (1991), Valois (1991), Cinque (1994), among many others.[12]

The concord facts motivate an analysis of 'of' constructions that is antisymmetric in the sense of Kayne 1994 and that adopts Kayne's insight that 'of' and its surface object are not a constituent. 'Of' is known to be irrelevant to binding relations among the arguments within DP (see Giorgi & Longobardi 1991 for detailed discussion); the analysis presented here accounts for this.

The status of *n*(P) perhaps requires some comment. n^0 differs from *v** in assigning no Case; this is a matter of lexical properties. It is reasonable nonetheless to expect that the highest *n*P in any DP is a phrase, given that it constitutes the domain of full argument structure for noun phrases in cases like (22). Under the analysis I have proposed, it is indeed n^0 that permits an extra specifier, thus provides a landing site for movement, like *v** does at the clausal level. Further research is called for comparing these categories and accounting for the differences between them; the parallels are promising and intriguing.

References

BAHLOUL, M. & W. HARBERT. 1992. Some agreement asymmetries in Arabic. *Proceedings of WCCFL 11*, ed. J. Mead, 15–31. Stanford, Calif.: CSLI Publications.

CARSTENS, V. 2000. Concord in minimalist theory. *Linguistic Inquiry* 31:319–355.

CARSTENS, V. 1997. Empty nouns in Bantu locatives. *The Linguistic Review* 14:361–410.

CARSTENS, V. & K. KINYALOLO. 1989. On IP structure: Tense, aspect, and agreement. Ms., Cornell University and UCLA.

CHOMSKY, N. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.

CHOMSKY, N. 1999. Derivation by phase. Ms., MIT, Cambridge, Mass.

CHOMSKY, N. 2000. Minimalist inquiries. In *Step by step: Studies in honor of Howard Lasnik*, ed. R. Martin, D. Michaels & J. Uriagereka, 89–155. Cambridge, Mass.: MIT Press.

CINQUE, G. 1994. On the evidence for partial N-movement in the Romance DP. In *Paths towards Universal Grammar: Studies in honor of Richard S. Kayne*, ed. G. Cinque, J. Koster, J.-Y. Pollock, L. Rizzi & R. Zanuttini, 85–110. Washington, DC: Georgetown University Press.

GIORGI, A. & G. LONGOBARDI. 1991. *The syntax of noun phrases*. New York: Cambridge University Press.

KAYNE, R. 1994. *The antisymmetry of syntax*. Cambridge, Mass.: MIT Press.

KAYNE, R. 1997. Class lectures. LSA Linguistic Institute, Cornell University, Ithaca.

KAYNE, R. 1998. A note on prepositions and complementizers. Ms., New York University.

[12] Shlonsky (2000) arrives at the same general conclusion based on word-order variation among nouns, adjectives, and quantifiers in Semitic languages.

KOOPMAN, H. 1997. The Spec-head relation. In *UCLA Working Papers in Syntax and Semantics 1*, 37–64. Los Angeles: UCLA Department of Linguistics.
KURAL, M. 1993. V-to-(I-to)-C in Turkish. In *UCLA Occasional Papers in Linguistics 11*, ed. F. Beghelli & M. Kural, 1–37. Los Angeles: UCLA Department of Linguistics.
RITTER, E. 1988. A head-movement approach to construct-state noun phrases. *Linguistics* 26:909–929.
RITTER, E. 1991. Two functional categories in noun phrases: Evidence from modern Hebrew. *Syntax and semantics 25: Perspectives on phrase structure*, ed. S. Rothstein, 37–62. San Diego, Calif.: Academic Press.
SHLONSKY, U. The form of Semitic noun phrases. Ms., University of Geneva.
VALOIS, D. 1991. The syntax of DP. Ph.D. dissertation, University of California, Los Angeles.
WATANABE, A. 1993. The notion of finite clauses. In *Papers on Case & Agreement I. MIT Working Papers in Linguistics* 18, ed. J. Bobaljik. & C. Phillips, 281–296. Cambridge, Mass: MIT Working Papers in Linguistics.

Vicki Carstens
University of Missouri–Columbia
Department of English
107 Tate Hall
Columbia, MO 65211-1500
USA

carstensv@missouri.edu