

## Agreement patterns in Maasai and the syntax of possessive DPs

**Introduction** The syntax of possessive DPs is still a matter of debate in the literature. Leaving aside cases in which it can be claimed that the *possessum* is an argument-taking category which selects the *possessor* as a complement, it is not clear how the projection of possessors is licensed and what the basic structural relation holding between possessor and possessum is. A recent proposal by den Dikken (1998) suggests that the basic syntactic configuration underlying possessive DPs is a small-clause structure in which the possessum NP is the subject of a PP predicate containing the possessor DP (1). This structure provides an account for the projection of possessor DPs when the possessum is not an argument-taking category: the possessor does not receive a  $\theta$ -role from the possessum, but it is  $\theta$ -licensed by the (empty) preposition heading the PP predicate of the small clause. The structure in (1) is semantically sound as well: it predicts that the possessor essentially behaves as a restrictive modifier of the possessum, which seems correct.

**The problem** The structure in (1) still does not account for the surface word order of English possessive DPs like ‘John’s dog.’ Den Dikken proposes that the surface word order of English possessives results from further syntactic derivation: the predicate PP in (2a) raises to the Spec of a higher functional projection (FP) triggering domain-extending incorporation of the head of the small clause into the higher functional head with additional incorporation of the empty P (2b). A “copular” element spells out the derived complex functional head, as it happens in the sentential case (den Dikken (1997)). This movement is an instance of *predicate inversion* (Moro (1997)) which takes place within DP. However, it is not clear what the trigger is for predicate inversion to apply to the structure in (1). In the case of copular sentences it is assumed (Moro (1997)) that inversion of the predicate is triggered by the need of licensing Case on the subject DP of the small clause. But under the assumption that the subject of predication in (1) is a NP, movement of the PP predicate cannot be triggered by Case-checking requirements: NPs are not subject to the Case Filter.

**Maasai possessive DPs** Data from Maasai—a Nilotic language spoken in Kenya and Tanzania—seem to indicate that the basic structure (1) proposed by Den Dikken is correct and at the same time suggest an alternative account for the occurrence of further syntactic derivation in possessive DPs. Possessors in Maasai DPs follow the possessum and are preceded by a complex morpheme which agrees in number with the possessor and in gender with the possessum (3). Interestingly, number agreement within the possessive morpheme is signaled by the same morpheme which marks number agreement between an overt preposition and its complement DP (4). This can be taken as evidence in favor of a structure like (1): number agreement in possessives is due to the phenomenon of number agreement which characterizes PPs in general. Gender agreement, instead, can be assumed to be determined within the small clause: the Spec-Head configuration triggers agreement in  $\phi$ -features between the possessum and the head of XP (Koopman (1996)). A second relevant piece of data is provided by Maasai tonal Case morphology: whereas complements of overt prepositions display Nominative morphology (4c,d), Maasai possessors display Accusative morphology (4a,b). This asymmetry is unexpected if Case on possessors is assigned by the preposition which  $\theta$ -licenses them.

**An alternative** I propose that the syntactic derivation of possessives is triggered by the need for the possessor DP to receive Case. This DP does not receive Case within the PP in which it is  $\theta$ -licensed and must raise to Spec,AgrP, the position in which Genitive is licensed (5a). This derives the surface form of possessive DPs in languages with prenominal possessors, like English (5b). In languages with post-nominal possessor additional movement takes place: the remnant of the small clause (XP) raises to the Spec of a functional projection above AgrP (FP) triggering domain-extending incorporation of Agr into the higher functional head (5c). Following Longobardi (1996) I assume that raising of Agr creates the structural configuration (government by the Case-assigning head) necessary to satisfy an *identification* requirement holding for assignment of Case to the possessor DP (in languages like English identification of Genitive is instead obtained through overt morphological inflection of this DP). This further step derives the surface form of Maasai possessive DPs, as shown schematically in the derivation in (6).

## Data

(1)  $[_{XP} NP_{possessum} [_{X'} X [_{PP} P DP_{possessor}]]]$

(2) (48a,b) in den Dikken (1998)

a.  $[_{DP} Spec [_{D'} D [_{FP} Spec [_{F'} F [_{XP} possessum [_{X'} X [_{PP} P possessor]]]]]]]$

b.  $[_{DP} Spec [_{D'} D [_{FP} [_{PP} t_k possessor] ]_i [_{F'} [F+X_j+P_k (=s)] [_{XP} possessum [_{X'} t_j t_i]]]]]$

(3) shape of the possessive morpheme in Maasai

	masculine possessum	feminine possessum
singular possessor	<i>lɛ-</i>	<i>ɛ-</i>
plural possessor	<i>lɔ́ɔ́-</i>	<i>ɔ́ɔ́-</i>

(4) a. **òldiá lɛngítók**

*òl-*      *díà*   *lɛ-*      *ɛn-*      *kítók*  
 DET<sub>sg,m-</sub> dog POSS<sub>sg,m-</sub> DET<sub>sg,f-</sub> woman<sub>ACC</sub>  
 ‘the woman’s dog’

b. **òldiá lɔ́ngítúák**

*òl-*      *díà*   *lɔ́ɔ́-*      *in-*      *kítúák*  
 DET<sub>sg,m-</sub> dog POSS<sub>pl,m-</sub> DET<sub>pl,f-</sub> women<sub>ACC</sub>  
 ‘the women’s dog’

c. **tɛngítók**

*tɛ-*      *ɛn-*      *kítók*  
 with<sub>sg-</sub> DET<sub>sg,f-</sub> woman<sub>NOM</sub>  
 ‘with the woman’

d. **tɔ́ngítúák**

*tɔ́ɔ́-*      *in-*      *kítúák*  
 with<sub>pl-</sub> DET<sub>pl,f-</sub> women<sub>NOM</sub>  
 ‘with the women’

(5) a.  $[_{DP} \dots [_{AgrP} DP_{possessor.1} [_{Agr'} Agr [_{XP} NP_{possessum} [_{X'} X [_{PP} P t_1]]]]]]]$

b.  $[_{DP} \dots [_{AgrP} [_{DP} John's]_1 [_{Agr'} Agr [_{XP} [_{NP} book] [_{X'} X [_{PP} P t_1]]]]]]]$

c.  $[_{DP} \dots [_{FP} [_{XP} NP_{possessum} [_{X'} X [_{PP} P t_1]]]_2 [_{F'} [Agr_3+F] [_{AgrP} DP_{possessor.1} [_{Agr'} t_3 t_2]]]]]$

(6) **òldiá lɔ́ngítúák**

- $[_{XP} [_{NP} díà] [_{X'} [_{X'} I-] [_{PP} [_{P} ɔ́ɔ́-] [_{DP} ngítúák]]]]]$
- $[_{AgrP} [_{DP} ngítúák]_1 [_{Agr'} Agr [_{XP} [_{NP} díà] [_{X'} [_{X'} I-] [_{PP} [_{P} ɔ́ɔ́-] t_1]]]]]]]$
- $[_{FP} [_{XP} [_{NP} díà] [_{X'} [_{X'} I-] [_{PP} [_{P} ɔ́ɔ́-] t_1]]]_2 [_{F'} [Agr_3+F] [_{AgrP} [_{DP} ngítúák]_1 [_{Agr'} t_3 t_2]]]]]$
- $[_{DP} [_{D} òl-] [_{FP} [_{XP} [_{NP} díà] [_{X'} [_{X'} I-] [_{PP} [_{P} ɔ́ɔ́-] t_1]]]_2 [_{F'} [Agr_3+F] [_{AgrP} [_{DP} ngítúák]_1 [_{Agr'} t_3 t_2]]]]]]]$

## References

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