

On the syntactic and semantic properties of *doo* in Mandinka

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Introduction

1. Comparisons

- English *some*
 - (1) a. Some students smoked. (existence of plurality)
b. Every girl loves some boy. (weak indefiniteness: $\forall > \exists$; $\exists > \forall$)
c. Some of the students smoke. (subset-superset relation)
- Mandinka *doo* encodes similar properties.

Existential *doo* (existence of plurality)

- (2) Beri doo-lu boj-ta
Stone some-Pl fall-PERF
'Some stones fell.' (42:7)

Weak indefinite *doo*

- (3) Kambani **doo** lafita sunkutoo-lu bee la
Boy some like girl-Pl all LA.
a) There is some boy who likes every girl. ($\exists > \forall$)
b) For every girl, there is some boy who likes each of the girl. ($\forall > \exists$)

Partitive *doo* (subset-superset relation)

- (4) Beri **doo** kulijaa fiŋ*(o-lu) boj-ta
Stone some heavy black-Pl fall-PERF
'Some heavy black stones fell.'

- However, this is not entirely true:
 - (i) Syntactically, *doo* can appear in different positions within DP, which involves some N-movements for the derivation of surface word order.
 - (ii) Semantically, the interpretations of *doo* correspond to the syntactic environment in which it occurs.

2. Goal:

- This article aims at investigating the syntactic and semantic properties of *doo* in Mandinka.
- Proposal: the basic meaning of *doo* is indefinite, which expresses existential
- That means, the interpretation of *doo* is conditioned by syntactic environments.

Distribution of *doo*

1. Partitive *doo*

- The following examples which have the same interpretation ‘Some heavy black stones fell’.

Pattern 1

[N+*doo*+Adj1+Adj2-*o-lu*] = (4)

- (5) Beri **doo** kulijaa fiŋ*(**o-lu**) boj-ta
 Stone some heavy black-Pl fall-PERF

Pattern 2

[N+Adj1+Adj2+ *doo-o-lu*]

- (6) Beri kulijaa fiŋ **doo*(-lu)** boj-ta
 Stone heavy black some-Pl fall-PERF (12c)

Pattern 3

[N+Adj1+ *doo*+Adj2-*o-lu*]

- (7) Beri kulijaa **doo** fiŋ*(**o-lu**) boj-ta
 Stone heavy some black-Pl fall-PERF (12b)

2 *Doo* in nonveridical environments

Negation

- (8) Beri **doo** kulijaa fiŋ kiliŋ(***o-lu**) maŋ boj
 Stone some heavy black one NEG fall
 ‘(As for the heavy stones,) none of the black ones have fallen.’ (42: 14)

Interrogatives

- (9) Musa je banani **doo(*-lu)** domo baŋ?
 Musa PST banana some eat Q
 ‘Did Musa eat any bananas?’ (42: 42)

If-conditionals

- (10) Nii wuloo je banani **doo(*-lu)** domo, a te kuloo-lu domo la.
 If dog PERF banana some eat 3SG FUT.NEG bone-Pl eat LA
 ‘If the dog eats any banana, he will not eat the bones.’ (42: 43)

3 Weak indefinite *doo*

- (11) Kambani **doo(*o-lu)** lafiŋa suŋkutoo-lu bee la (= (3))
 Boy some like girl-Pl all LA.

- a) There is some boy who likes every girl. (∃ > ∀)
 b) For every girl, there is some boy who likes each of the girls. (∀ > ∃)

- (12) moo-doo boj-ta baŋ
 Person-some fall-PERF Q
 ‘Did someone fall?’

The weak indefinite *doo* can also occur with numerals.

Context 1: Two *specific* children fell, among many children of my children and I know which ones fell (e.g. Musa & Maggie).

(13) N-na dindín fula boj-ta.
 1SG-Poss child two fall-PERF
 'Two of my children fell.'

Context 2: Among my many children, two of them fell. I don't know which two.

(14) n-na dindín *doo* fula boj-ta.
 1SG-Poss child some two fall-PERF
 'Two of my children fell.'

Theoretical background

1. Feature-driven movement: Bhattacharya (1999)

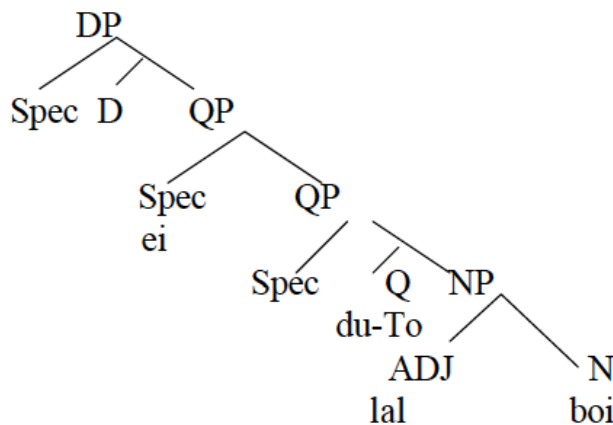
- Bhattacharya (1999) proposes that the Bangla DP is a three-layered structure and the intermediate layer which is between DP and NP is a QP.
- The Q head is a fused head which encodes Q, Num and Cl.
- Specificity effect is obtained within the DP by moving specific NPs to the specifier of QP.
- The leftward movement of NPs is driven by feature checking of the feature [specificity] in Q head.

- The basic word order of Bangla DP: Dem-Num-Cl-N

(15) ei du-To **boi** (deictic)
 This two-cla **book**
 'these two books (here)' (Bhattacharya 1999: (20a))

The basic structure of Bangla DP:

(16)



(Bhattacharya 1999: (25))

- The word order within the DP is Dem-N-Num-Cl if the DP denotes specificity.
(vs. (15))

(17) ei **boi** du-To *t_i* (specific)
 This **book** two-cla t
 ‘these two books’ (Bhattacharya 1999: (20b))

2. Proposal for the NP-movements (Bhattacharya 1999: (39)):

(18) A presuppositional/ specific feature of the Q head drives leftward movement.

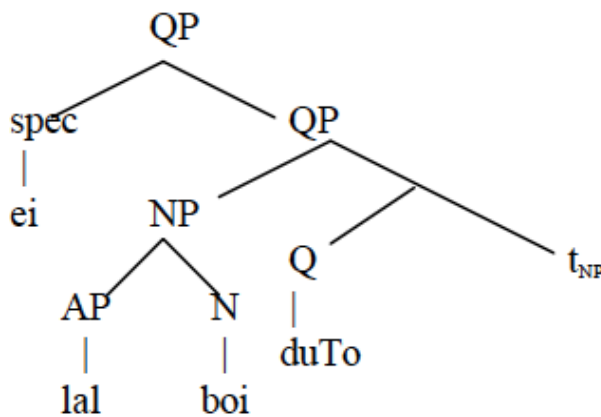
- The specificity is assumed as a presupposition: a specific NP moves out of its immediate nP-shell to a higher position (Diesing 1992)
- The idea is illustrated with the following examples.

(19) a. Oi du-To **lal** **boi** (non-specific)
 Those two-cla **red** **book**
 ‘those two red books’ (Bhattacharya 1999: (43b))

b. oi **lal** **boi** du-To (specific)
 those **red** **book** two-cla
 ‘those two red books’ (Bhattacharya 1999: (43b))

- Specificity of (19b) is yielded by moving the NP to the SpecQP that feature-checking of [specificity] is the motivation for the leftward movement.

(20)



(Bhattacharya 1999: (44))

Extended analysis in Mandinka

1. Revised part:

- The case in Mandinka is not the same as Bangla in many ways.
 - (1) NumP is a separate functional projection from QP.
 - Q is not a fused head which contains Q, Num and Cl. Num and Cl should belong to separated projections.

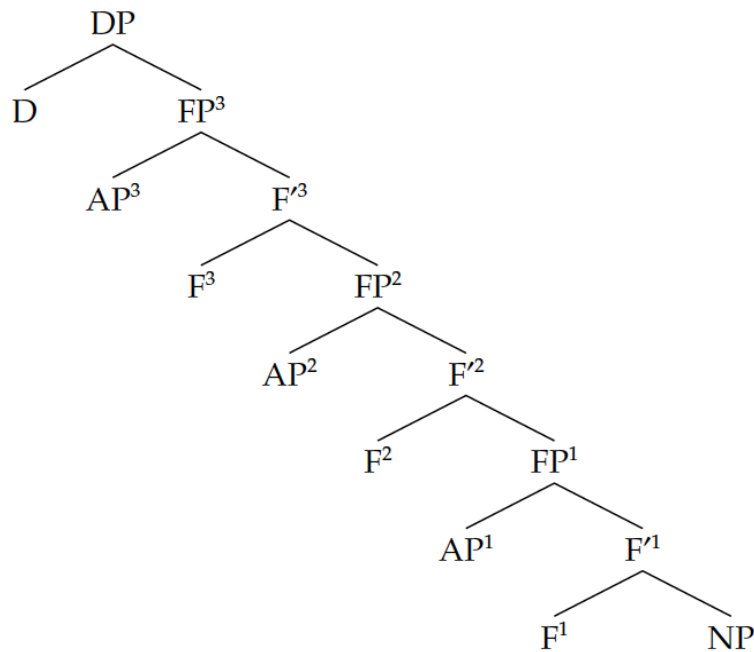
(2) APs in Mandinka, I suggest, are located in the specifier of some functional projection (FP), following Cinque's analysis (1992, 1994) of multiple functional projections with the DP.

(3) I will extend Bhattacharya's analysis of feature-driven movement and propose, which is not new, that a [definiteness] feature is filled in D head and it needs to be checked. By assuming this, something has to move to SpecDP and check the [definiteness] feature.

- In the case of Mandinka, if the definite article *o(-lu)* occurs, QP will move to SpecDP for obtaining definiteness.
- If there lacks definite articles, QP has to stay in its base-generated position, but NP/ XP has to move SpecDP for EPP effect. In this case, the whole DP remains indefinite.

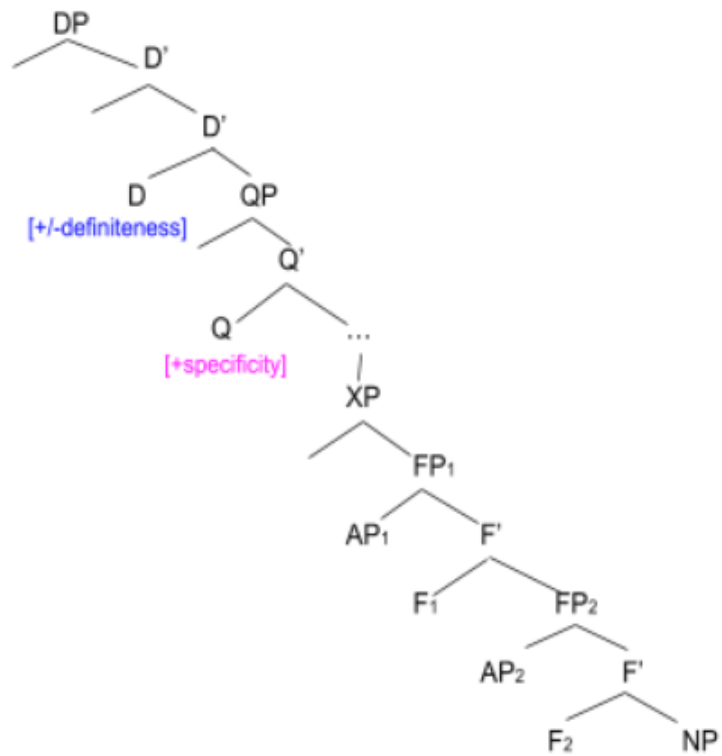
2. Cinque's (1992, 1994) analysis: the APs should appear in specifiers of some DP-internal functional projection:

(21)



2. The basic structure of Mandinka DPs is proposed as below:

(22)



Implementations

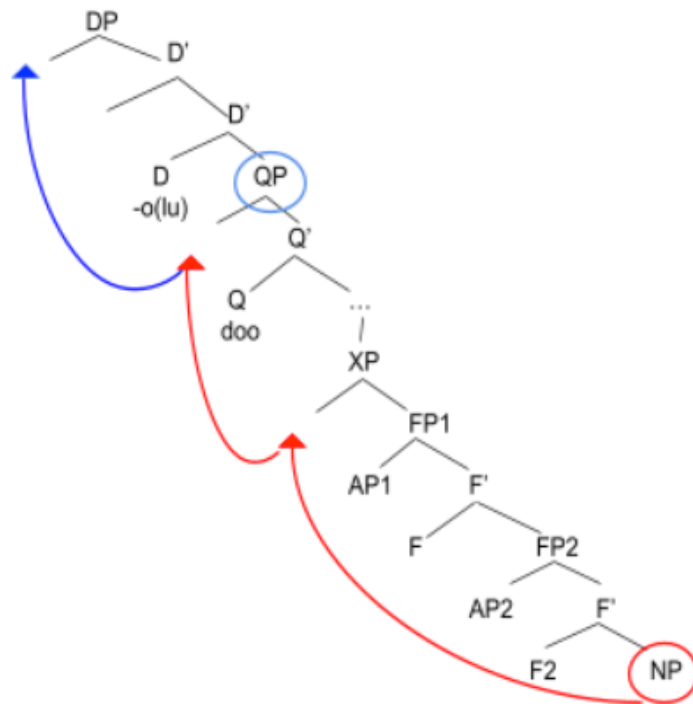
1. Existential *doo*

Pattern 1

[N+*doo*+Adj1+Adj2-*o-lu*] = (4)

(23)	Beri	doo	kulijaa	fiŋ*(o-lu)	boj-ta
	Stone	some	heavy	black-Pl	fall-PERF

(24)



The derivation of pattern 1 [N+*doo*+Adj1+Adj2-*o-lu*] is as follows:

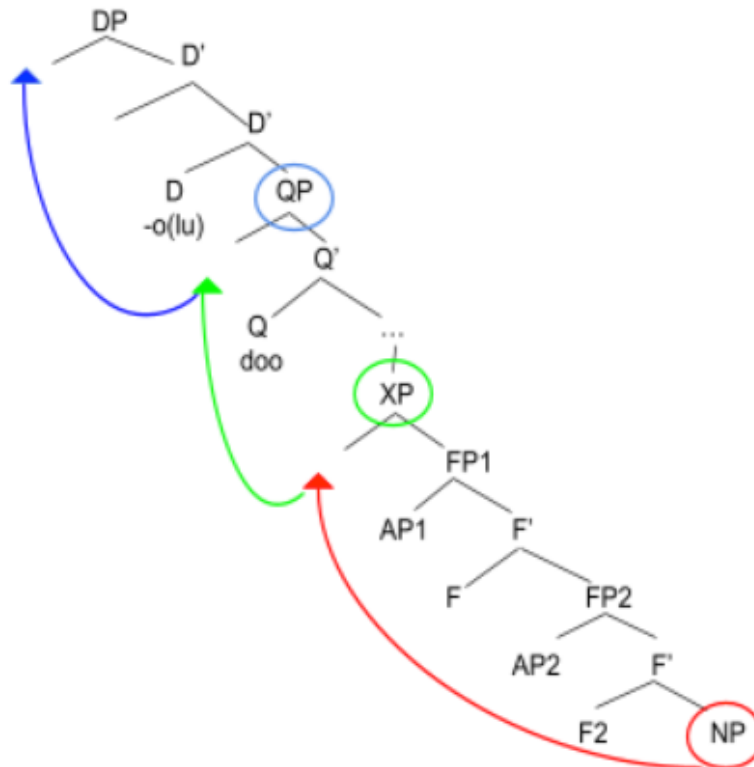
- (i) NP moves to SpecXP and lands at SpecQP, which is driven by feature checking of [specificity] in Q.
- (ii) The word order of [N+*doo*+Adj1+Adj2] is resulted from the NP-movements in (i).
- (iii) The whole QP moves to SpecDP, driven by feature checking of [definiteness] in D, for the existence of definite article *o(-lu)*.
- (iv) The resulting word order is [N+*doo*+Adj1+Adj2-*o-lu*].

Pattern 2

[N+Adj1+Adj2+ *doo-o-lu*]

(25) Beri kulijaa fiŋ **doo*(-lu)** boj-ta
 Stone heavy black some-Pl fall-PERF (12c)

(26)



The derivation of pattern 2 [N+Adj1+Adj2+ *doo-o-lu*] is as follows:

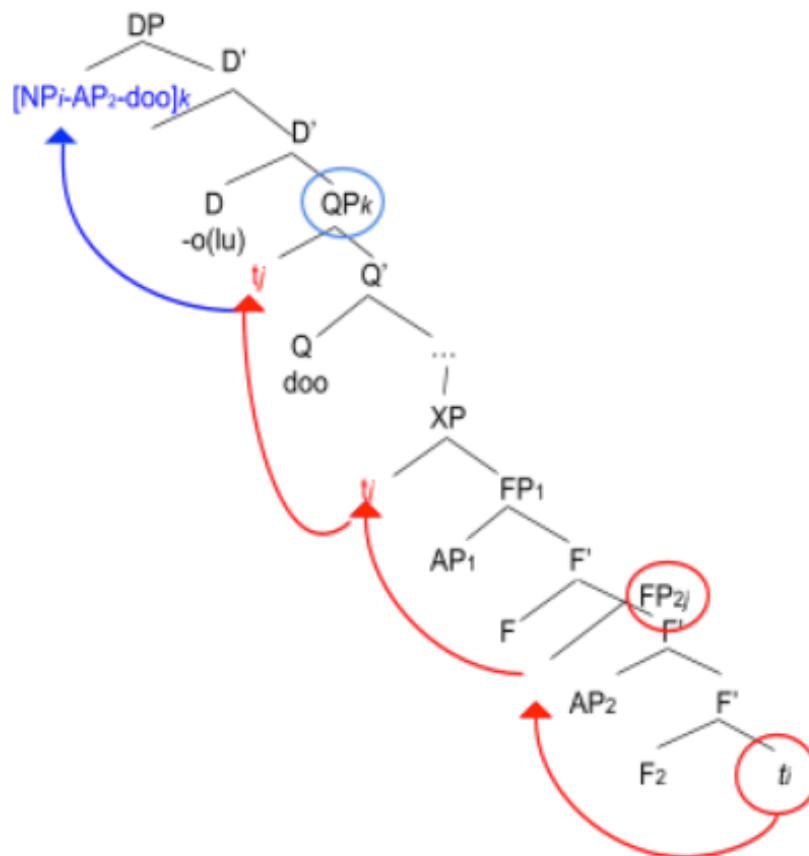
- (i) NP moves to SpecXP, resulting in the word order [N+Adj1+Adj2].
- (ii) XP ([N+Adj1+Adj2]) moves to SpecQP and checks the feature [specificity] in Q. The word order becomes: [N+Adj1+Adj2+ *doo*]
- (iii) The whole QP moves to SpecDP and checks the feature [definiteness] in D, for the existence of definite article *o(-lu)*.
- (iv) The resulting word order is [N+Adj1+Adj2+ *doo-o-lu*].

Pattern 3

[N+Adj1+ *doo*+Adj2-*o-lu*]

(27) Beri kulijaa **doo** fiŋ*(*o-lu*) boj-ta
 Stone heavy some black-Pl fall-PERF (12b)

(28)



The derivation of pattern 3 [N+Adj1+ *doo*+Adj2-*o-lu*] is as follows:

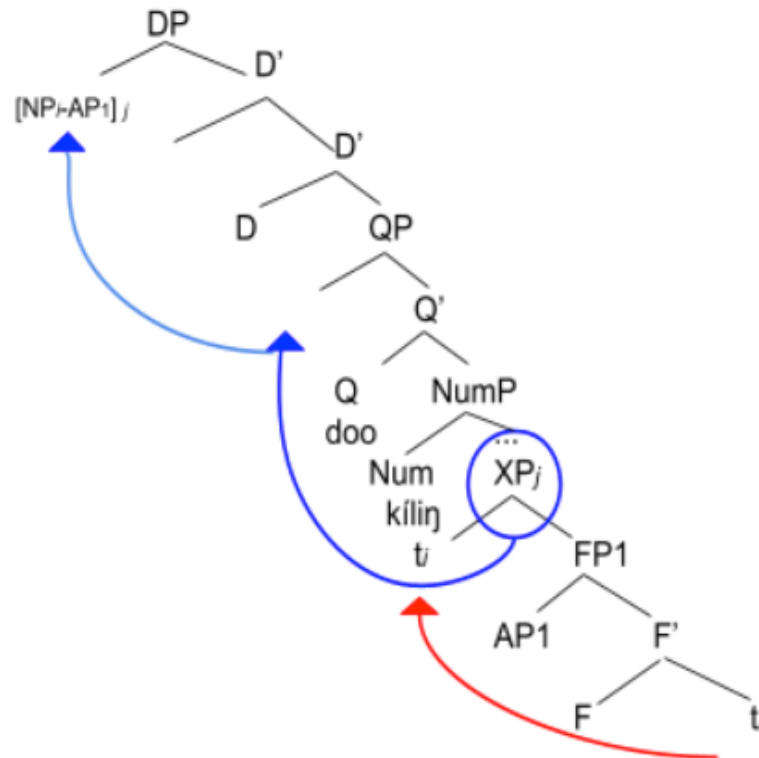
- (i) NP first moves to SpecFP₂ and yields the word order [N-Adj].
- (ii) the whole FP₂ moves to SpecXP and lands at SpecQP, checking the feature [specificity] in Q. The word order then becomes: [N+Adj+*doo*+Adj.]
- (iii) The whole QP moves to SpecDP and checks the feature [definiteness] in D, for the existence of definite article *o(-lu)*.
- (iv) The resulting word order is [N+Adj+ *doo*+Adj-*o-lu*].

4.2 Weak indefinite *doo*

Recalling that examples involving WI *doo* prohibits the occurrence of the determiner *-o* and plural marker *-lu*. The lack of definiteness shows that there is no feature checking of [definiteness] in Q.

- (29) kambani d̄z̄aŋaaja *doo* kiliŋ bój-ta
 Boy tall some one fall-PERF
 ‘Some tall boy fell (but I don’t know which one).’

(30)



The derivation of the word order in [N-(Adj)-*doo*-Num] is as follows:

- (i) NP moves to SpecXP and yields the word order [N-Adj].
- (ii) the XP moves to SpecQP checks the feature [specificity] in Q. The word order then becomes: [N+Adj+*doo*+Num.]
- (iii) The XP continues to move to SpecDP. However, in this case, as there the definite article *-o(-lu)* does not occur. The moved XP, therefore, cannot check the feature [definiteness] in D.
- (iv) However, XP continues to move and lands at SpecDP, for the EPP effect.
- (v) This yields the word order [N+Adj+ *doo*+Num].

Remaining issues

- A unified semantic account of *doo* is required.
- Semantic/ pragmatic reasons for *doo* occurring in different positions?
- Prosodic strategy in Bulgarian:

(31)

- a. [DEMP tezi [DP vsičkite₁ [DP Ø [QP t₁ [QP Ø [NP novi [NP knigi]]]]]]]
those all_{DEF} new books
- b. [DEMP vsičkite₁ [DEMP tezi [DP t₁ [DP Ø [QP t₁ [QP Ø [NP novi [NP knigi]]]]]]]]]
all_{DEF} those new books

(Tasseva-Kurktchieva 2006: (31))

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