Discontinuous Noun Phrases in Iquito: Evidence for Distributed Deletion

Claim: We argue that the variation in split constructions in Iquito can be captured by a Distributed Deletion analysis (Fanselow & Ćavar 2002) where deletion applies cyclically in the derivation. This derives discontinuity both within NPs and PPs and with clause-internal movement. Our core generalization that the amount of material pronounced in the higher copy depends on the base configuration will be shown to follow from an independent 'second position' effect within NPs and PPs. We develop an analysis of discontinuous constituents that is highly restrictive because the choice of which sub-constituent of a moved phrase is deleted is constrained by Cyclic Linearization at the phase-level (Fox & Pesetsky 2005).

Data: Consider the data from Hansen (2011) below. In irrealis clauses in Iquito, a phrase must move to the position between the subject and the verb (Beier et al. 2011), a position we identify as an inner specifier of T. Further, movement of a phrase containing a demonstrative determiner obligatorily results in a split construction. In (1a), where the determiner modifies the possessum (indicated by underlining), just the determiner appears in the moved position. In (1b), the determiner modifies the possessor. Here, a different pattern emerges: both the determiner and the possessum undergo displacement together, even though they do not form a constituent (see the bracketed representations that we take as the underlying structure). These examples motivate the generalization in (2). In (1a–b), the movement-triggering head X is the T head.

(1) a. Aámiikáaka kí= iipɨ miwɨ̈ra–kwa–ø [NP ___ mɨ̈saji mɨra]
one.day.away 1SG= DET.PL.AN visit–ASP–NPST woman child.PL
'Tomorrow, I will go there to visit these children of the woman.'
[TP T[EPP] [VP visit [NP **these** children [NP woman]]

b. Aámiikáaka kí= iipɨ sináaki sikita–rɨ̈–ø [NP ___ mɨra–jaárika]
one.day.away 1SG= DET.PL.AN clothes wash–ASP–NPST child.PL–DIM
'Tomorrow, I will wash the clothes of these children.'
[TP T[EPP] [VP wash [NP **clothes** [NP **these** children]]

(2) *Possessum pied-piping generalization (PPG)* : A possessum P appears together with a determiner D before a movement-triggering head X iff D modifies P's possessor.

In addition, the PPG can derive NP-internal word order (Michael 2004). A determiner Det modifying a possessor or possessum must be split from its associated NP. If the possessum 'children' is modified by Det (3a), only Det precedes the main possessum 'cat'. If Det modifies the possessor 'men' (3b), then both Det and the possessum 'friend' precede the main possessum 'shoe'. Due to the parallelism with the clause-level movement examples in (1a–b), we assume that NP-internal word order is also derived by movement. The PPG (2) therefore provides a unified account of both (1) and (3).

(3) a. [NP iipɨ [N′ miisi [NP ___ mɨ̈saji mɨra–jaarika]]]
DET.PL.AN cat woman child.PL–DIM
'the cat of these children of the woman' [NP cat[EPP] [NP **these** children [NP woman]]]

b. [NP iipɨ akuniita [N′ sapatu [NP ___ ikwani–wuɨya]]]
DET.PL.AN friend shoe man–PL
'the shoe of the friend of these men' [NP shoe[EPP] [NP **friend** [NP **these** men]]]

Analysis: We derive the PPG with the following assumptions: (i) an Iquito specific 'noun second' (N2) requirement, (ii) a distributed deletion approach to split constructions, (iii) Cyclic Spell-Out (both linearization and Copy Deletion). The combination of (i) and (ii) can be seen in (4). The N2 requirement is implemented as an [EPP]-feature on the head of all NPs (determiners are adjuncts to NP). Possessors such as '(this) woman' are base-generated as complements to the possessum ('animal'). The possessor must move to Spec-NP due to the [EPP] on the possessum 'animal' (4a). Since a moved phrase containing a determiner always leads to a split construction, the determiner in (4b) is realized discontinuously from its associated noun.

(4) a. [NP [NP mi~~i~~saji] [N′ kajinani [NP ~~miisaji~~]]] b. [NP [NP iina ~~miisaji~~] [N′ kajinani [NP ~~iina~~ miisaji]]]
woman animal DET animal woman
'animal of a woman' 'animal of this woman'

(i)–(iii) derive the PPG as follows: The determination of what is deleted in a split construction is due to the assignment of a diacritic P (henceforth: P-mark) to a sub-constituent of a moved phrase. This is obligatory if a moved phrase contains a determiner. In a movement chain $\langle \alpha, \beta \rangle$ where α is the higher copy, any phrases which are not P-marked in α are deleted, and the correspondents to P-marked phrases in α are deleted in β (the lower copy). When Det is associated with the possessum (5), Det merges with the NP headed by the possessum (which has internal movement as in 4a) (5a). In (5b), the NP moves to the specifier of X, i.e. T in (1a) or N in (3a). A P-mark is assigned to the leftmost sub-constituent in that phrase (we derive this from Cyclic Linearization; Fox & Pesetsky 2005). All non-P-marked items in the higher copy are deleted (gray indicates deletion from a previous step). The correspondent to P-marked Det is deleted in the lower copy.

(5) Det_i Verb/Noun Possessor Possessum_i (1a, 3a)
a. [NP Det [NP [NP Possessor] [N′ Possessum [NP ~~Possessor~~]]]]
b. [XP [NP Det^{P} [NP [NP ~~Possessor~~] [N′ ~~Possessum~~ [NP ~~Possessor~~]]]]
[X′ X (…) [NP ~~Det~~ [NP [NP Possessor] [N′ Possessum [NP ~~Possessor~~]]]]]]

When Det modifies the possessor (6), there is a split construction within the possessum comparable to (4b). This results in P-mark assignment to Det (6a). When the NP moves to the specifier of X (6b), i.e. T (1b) or N (3b), a P-mark must be assigned to the leftmost available sub-constituent. Det is already P-marked and the possessor was deleted at the previous step. Therefore, P is assigned to the possessum. Consequently, all non-P-marked copies in the higher copy are deleted and the correspondents of P-marked phrases are deleted in the lower copy. The PPG is the result of the additional split construction (and P-marking) in (6a).

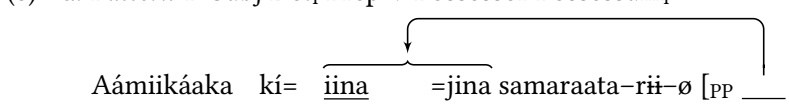
(6) Det_i Possessum Verb/Noun Possessor_i (1b, 3b)
a. [NP [NP Det^{P} ~~Possessor~~] [N′ Possessum [NP ~~Det~~ Possessor]]]
b. [XP [NP [NP Det^{P} ~~Possessor~~] [N′ Possessum^{P} [NP ~~Det~~ ~~Possessor~~]]]
[X′ X (…) [NP [NP ~~Det~~^{P} ~~Possessor~~] [N′ ~~Possessum~~ [NP ~~Det~~ Possessor]]]]]]

Adpositional phrases: Our analysis also accounts for word order in adpositional phrases. The PP-internal word order in (7) is entirely parallel to (4). This motivates a second position requirement in PPs, too.

(7) a. [PP [NP iita] [P′ jinakuma[EPP] [NP ~~iita~~]] b. [PP [NP iina ~~iita~~] [P′ jinakuma[EPP] [NP ~~iina~~ iita]]]
house inside DET inside house
'inside the house' 'inside this house'

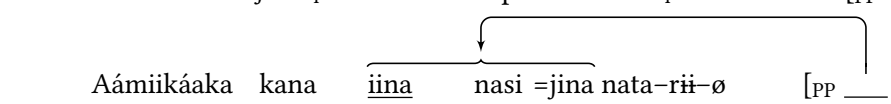
Further support for our analysis comes from the examples in (8) that also fall under the PPG. (8) is parallel to (1), but differs in that a third element is pronounced in the higher copy (the adposition) in (8b). We show that this is due to an additional movement step to the of PP, as predicted by our analysis.

(8) a. *Pattern 1*: Subj Det_i Prep V Possessor Possessum_i [PP **in** [NP **this** big house [NP man]]]



Aámiikáaka kí= iina =jina samaraata–r~~ii~~–ø [PP ___ ikwani iita umaana]
one.day.away 1SG= DET.GEN =LOC relax–ASP–NPST man house big
'Tomorrow, I will relax in this big house of the man.'

b. *Pattern 2*: Subj Det_i Possessum Prep V Possessor_i [PP **in** [NP **field** [NP **this** woman]]]



Aámiikáaka kana iina nasi =jina nata–r~~ii~~–ø [PP ___ mi~~i~~saji]
one.day.away 1PL.EXCL DET.GEN field =LOC plant–ASP–NPST woman
'Tomorrow, we will plant in the field of this woman.'