Decomposing Quantifier Float: Evidence from Janitzio P´urhepecha

Erik Zyman – UC Santa Cruz

Introduction. Many languages allow the alternation called quantifier float (QF) (All the kids are here ~ *The kids are all here; Sportiche 1988, Fitzpatrick 2006, a.o.). This raises the question of what syntactic atoms and operations are involved in deriving the alternation. In this talk, I investigate QF in Janitzio P´urhepecha (Michoac´an, Mexico), in which it is subject to severe restrictions. QF can only affect subjects; and a floated quantifier and its associate may not both surface to the right of the verb. I show that these restrictions arise from a conspiracy of two independent factors: verb raising and greedy movement of the quantifier’s associate. But although the associate moves to satisfy a featural need of its own (greedy movement), ordinary subjects move to satisfy a featural need of their target (altruistic movement), supporting the view that movement may be driven by a featural need either of the mover or of the target.

The empirical terrain. In Janitzio P´urhepecha, some quantified subjects, like that in (1a), support QF ((1b-c)). However, QF is not permitted from direct objects, indirect objects, or objects of postpositions.

(1) a. Iamindu-eecha uatsapi-cha ch’ana-xa-∅-ti=sì juata-rhu. ‘All the kids are all-PL child-PL play-DUR-PRS-IND+3=3pS hill-LOC playing on the hill.’
b. ?Uatsapi-cha iamindu-eecha ch’ana-xa-∅-ti=sì juata-rhu. ‘The kids are all all-PL child-PL play-DUR-PRS-IND+3=3pS hill-LOC playing on the hill.’
c. Uatsapi-cha ch’ana-xa-∅-ti=ksi iamindu-eecha juata-rhu. ‘The kids are all all-PL child-PL play-DUR-PRS-IND+3=3pS all-PL hill-Loc playing on the hill.’

It cannot be that QF is licensed by nominative case or external argumenthood. If it were, then postverbal nominative/external argument subjects would allow QF. But in fact, *V-ASSOC-Q order is never permitted.

Analysis. The deviance of *V-ASSOC-Q order shows that QF in Janitzio P´urhepecha can never be derived by DP-internal movement ((2)): this could not be prevented just when the verb ended up initial.

(2) \[ \text{DP } \text{D} \text{QUANTIFIER } \text{DP ASSOCIATE}] \not \rightarrow *[\text{DP } \text{DP ASSOCIATE-1 } \text{D QUANTIFIER } t_1]]

But this alone does not explain the deviance of *V-ASSOC-Q order, because of certain facts about subjects. Subject/adverb ordering shows that subjects in Janitzio P´urhepecha may surface in at least three positions:

(3) ⟨Subj⟩ . . . sesimindu uandantani ia ‘honestly’ . . . ⟨Subj⟩ . . . xarhintkueri ‘early’ . . . ⟨Subj⟩ . . .

I argue that subject movement is driven by [EPP:D] on a functional head. If so, the following derivation should be possible. [EPP:D] attracts to the SubjB position not the containing DP (\[DP D QUANTIFIER DP ASSOCIATE\]) but the associate DP inside it (associates can be extracted, (1c)). Subsequently, V raises past SubjB (which is possible in general)—potentially as high as Mood⁰, since it can precede jinamberi ‘then’:

(4) \[ \text{MoodP Mood}^0 \text{+verb } \text{[FP } \text{DP ASSOCIATE]}^1 \text{F}^0 \text{[EPP:D]} \text{DP QUANTIFIER } t_1 ] . . . ]

In fact, this must be impossible, since it would produce *V-ASSOC-Q order. But what rules it out? I propose that the containing DP and the associate in fact belong to different categories (DP and NumP, respectively). A NumP/associate in Janitzio P´urhepecha can optionally bear a [aMood] feature that, when present, forces it to move to [Spec,MoodP] (greedy movement, Boškovi´c 2007). Because the verb can only move as high as Mood⁰, a moved associate will always precede it, and *V-ASSOC-Q is underivable.

Conclusion. The elaborate constraints on QF in Janitzio P´urhepecha fall out from a conspiracy between two simple properties of the language’s grammar: verb raising and greedy movement of quantifiers’ associates. But greedy associate movement seems to coexist in Janitzio P´urhepecha with altruistic (i.e., target-driven) subject movement. The facts, then, support a view of grammar on which movement may have either of two driving forces: an element may move to satisfy its own featural needs or those of its target.