Roll Up Movement, Feature Inheritance and Transfer
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1. This talk argues for the predicted existence, under Chomsky's Strong Minimalist Thesis (SMT), of Roll Up Movement (RUM), alongside successive-cyclic Movement. RUM is best analyzed as a PF-driven (pure-EPP) operation that holds by necessity. On conceptual grounds, it reduces computational complexity (memory load/lookback) yielding instant Single-Cycle Transfer. On empirical grounds, it is shown to nicely account for linearization patterns in Fongbe, a head initial language. (1) illustrates partial DP structure, with Number and DET heads occuring after the NP complement and its adjuncts, AP in (1c), AP and relative clause in (1d).

(1) a. *xwé* *lɛ* b. *xwé* *O.* c. *xwé* *dagbɛ* *O* *lɛ*
house   PL   house   DET   house   nice   DET PL
'houses'   'the house in question'   'the nice houses in question'

d. *xwé* *dagbɛ* *Dèé* *Koku* *gbá* *lɛ.*
house   nice   REL   Koku   built   PL
'the nice houses that Koku built'

Ndayiragije (2000) derives (1a-d) from an underlying Spec-Head-Complement structure -- [Numb [Det [NP]]] – undergoing NP raising to [Spec,DP] followed by pied-piping of DP to [Spec,Numb]. This analysis is extended to functional heads of the CP domain (topic, focus, sentential negation, interrogative yes-no questions,etc.) all of which occur to the right edge of TP and may cooccur as in (2b). The head initial hypothesis in (2a) conforms with the fact that other functional heads precede their complement, among them COMP as shown in (2c).

(2) a. [WH   FOC   NEG   [TP]]

b. *Asibá* *wà* *á* *wɛ* *à*
Asiba   come   NEG FOC WH
'Is it true that Koku didn't come?'

c. *Un* *kànbyO* *DO* *Asibá* *wà* *á* *wɛ* *à*
I   wonder   COMP   Asiba   come   NEG FOC   WH
'I wonder whether it is true that Koku didn't come'

Under RUM, (2b-c) derive as follows: TP in (2a) first moves to [Spec,Neg]. Then, NegP whose Spec contains the raised TP moves to [Spec,Foc]. Finally, FocP whose Spec contains the raised NegP moves to [Spec,Wh]. The word order in (2b-c) follows. Further, scope interpretations favor RUM over cyclic spec-to-spec leftward movement of TP (with an odd base-structure NEG>FOC>WH, where > is c-command) or rightward head-to-head raising of NEG to FOC, then FOC+NEG to WH. Indeed, scope interpretation of (2b) shows that the question bears on the focused assertion. What is questioned is the truth value of the assertion (constructed as 'is it true that X'), not the assertion itself. Therefore, the wh-feature is valued by the focused phrase (FocP). Likewise, what is focused is the negated event (constructed as "It is that …not X…), not the event itself. Therefore, what moves to [Spec,Foc] is NegP, the bearer of the focus feature.
2. RUM and Anti-locality: Obviously, RUM is incompatible with Anti-locality (Abels, 2003, Abels and Neeleman 2007, among many others), a condition according to which the complement of head H cannot move to the Spec of H. The rationale being that the head and its complement are in a local relation (they c-command each other) and no new relation is created by merger of

the complement with a projection of H (Abels 2003). Yet, it is not clear how that condition conforms to the SMT, either as an interface condition or a design device to reduce computational complexity. Incidentally, under Chomsky's (2008) OP model, there is a distinction between Head-Complement and Head-Spec relations. For instance, a uF on probe v* cannot probe and value the external argument in [Spec,vP], from the v* position. Spec,v* is not within the probe range (c-command domain) of v*. Only, the complement domain is in the Probe range of head v*. Accordingly, nothing in principle rules out movement of a complement of H to its Spec if a trigger (EPP-feature) is available on Probe H, in conformance with the Activation Condition.

3. Motivating RUM: Since both RUM and successive-cyclic movement (SCM) must be triggered and only one type of trigger is assumed, *qua* EPP-feature (or Chomsky's Edge-Feature), what then is the defining property of RUM that tells it apart from SCM? I will follow Ndayiragije 2000 in assuming that the distinction between RUM and SCM stems from the duality of SEM/PHON interfaces to C_{HL}. Specifically, RUM is entirely PF-driven (Pure-EPP), hence Agree-free. Under this view, SEM/phi-features are not the only features that trigger the "dislocation" property of C_{HL}; pure phonological features are also probes; otherwise, LIs could not carry along that "huge beast" if the latter plays no role in C_{HL}. An independent argument based on Fongbe V-reduplication will be given in support of PF-driven Move in narrow syntax.

4. RUM, Transfer, PIC and Feature Inheritance. One important premise of Chomsky's OP theory is that the edge (phase) and nonedge (complement) must be transferred separately (Richards 2007). RUM fatally violates this premise at every step: the complement is probed and raised to the next phase (assuming every head whose Spec is filled counts as a phase). If *Transfer* equates *Forgetting*, then what seems to be transferred and permanently forgotten under RUM is the edge of the phase: this goes against a second premise of OP, namely PIC which favors the edge (head and its Spec) over the complement. A third premise of OP and flaw in RUM is Feature Inheritance which forces valued uF of Edge to migrate to nonedge (C to T, v* to V, etc). Yet, the tenability of Feature Inheritance is open to empirical scrutiny, and indeed was recently challenged (see notably Haegeman & van Koppem 2009, Ndayiragije 2009). Incidentally, from the conceptual perspective, such a premise would require interlacing layers of nonphase heads, one between every two phases for Transfer to take place. Yet, not only such additional heads must be independently motivated but they would lead to cyclic vacuous Transfer if, as assumed, no uF is involved in RUM, and EPP-features are unerasable (Chomsky 2008).

To sum up, RUM seems empirically unavoidable and conceptually free of any hurdle. Its abandonment would only be legitimate if Feature Inheritance holds, and movement of Agree-features were involved, alongside pure-EPP features. I conclude then that RUM as an Agree-free, pure EPP-movement is conform to perfect design (SMT); C_{HL} could not work without it.

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