On Generalizing Kayne's Theory of Scope-assignment to AdvPs Aquiles TESCARI NETO – Università Ca' Foscari di Venezia

It has been shown that higher adverbs (1), as opposed to lower adverbs (2), cannot appear sentence-finally, unless they are deaccented (3) (Belletti 1990: 57; Cinque 1999: 15).

Though higher adverbs are forbidden sentence-finally (1), they can paradoxically appear to the right of V (4). If one turns to V-movement to explain the appearance of the V to the left of the higher AdvP in (4), the ungrammaticality of (1) would remain unaccounted for. Curiously, if the impossibility of V-movement past higher AdvPs is the reason for the ungrammaticality of (1), the appearance of the adverb to the right of V in (4) should not be due to V-raising. Hence, at first glance, (1-4) would be problematic for any theory of V raising which takes AdvPs as diagnostics. I will argue that the solution to this paradox lies in the focusing nature of these adverbs and in a Kaynean type of representation of scope in the syntax

In the Generative tradition, the assignment of scope to quantified expressions had been treated for years in terms of covert LF-movements (e.g. Chomsky 1976, May 1977, Longobardi 1992) in a way that would resemble (overt) syntactic movements (e.g. whmovement). Thinking particularly on quantified expressions like NegPs and focusing only, Longobardi (1992) proposes that there would be a movement in LF which paralleled whmovements in 'S-structure' (his 'Correspondence Hypothesis'). Kayne (1998) goes further by proposing that this strong parallelism between syntactic movements and scope interpretation is actually a consequence of the fact that there are no such covert movements. Rather, the process of scope assignment also takes place in the overt component thanks to a series of displacements.

The Portuguese data presented in (5-6) on the placement of focusing $s\dot{o}$ 'only' and the higher AdvP provavelmente 'probably' would suggest that one could take Kayne's analysis of focusing particles and generalize it to (higher) AdvPs as well, given their similar behavior. If scope is defined over c-command, and if Cinque (1999) is right in proposing a hierarchy of adverbs, whenever an adverb sits in its position of Merge, it can take under its scope everything following it, i.e., its entire c-command domain or even subparts of it, starting from the bottom (Chomsky 1971). This is true of both só and provavelmente in (5a,6a), where só/provavelmente can take the entire propositional content under its domain or only subparts of it, depending on focus stress. The 'narrow-scope' of the adverb/focusing particle in (5b. 6b), i.e., its scope over the object, can also be explained along these lines. Thus, in terms of (a modified version of) Kayne (1998), the scope of só 'only', in (5), and probably, in (6), would be assigned by moving the constituent under their scope to the Specifier of a probing head associated with them ("K", in fig. 1 and 2), followed by their Merge (in the correspondent Spec in the Cinque hierarchy) and remnant movement to their left (see fig. 1). The configuration required for both the adverb and the focusing particle is that only the constituent under their scope remain in their c-command domain. This is the motivation for the remnant movement past só/provavelmente.

(5b) and (6b) are (surprisingly) ambiguous. The scope of só/provavelmente can be either the constituent to their right, namely, the object (Memórias Póstumas de Brás Cubas), or the whole propositional content (here referred to as the 'wide scope reading'). Assuming Kayne's premise that the constituent under the scope of the focusing particle should be in a Spec/head relation with it sometime in the derivation (1998: 156), it can be argued that 'wide scope' of só—and, by extension, wide scope of provavelmente—in (5-6) would be achieved by movement of the VP, after V-raising to I. The trace/unpronounced copy of the V within the VP would reconstruct in the Spec of the probing head (see fig. 2). Thus, the scope under reconstruction of the V within the chunk moved to the Spec of the probing head guarantees that the c-command requirement on scope be met.

Now, back to the puzzling data in (1-4), I propose that it is no longer puzzling if one assumes that higher AdvPs, being scope-inducing elements, be treated on a par with focusing *only*. Seen from this perspective, the ban on higher AdvPs sentence-finally (1) can be linked to their scope-inducing nature. In their 'focusing' use, (higher) AdvPs must have the constituent under their scope in their c-command domain. The same line of reasoning also explains (4). Before the Merge of the higher AdvP (here, *probably*), a probing head associated with it attracts the constituent under the scope of the adverb to its Spec. The AdvP merges in the sequence, and further movement places the remnant to its left. The remnant contains the material which is not under the scope of the AdvP. The derivation of (4) is similar to the one proposed in fig. 1.

That the generalization of Kayne's (1998) approach to AdvPs seems to be on the right track can be noticed by the fact that the assignment of scope to AdvPs is also subject to the same constraints that Longobardi (1992) observed on the assignment of scope to focusing only, e.g. islands constraints. Longobardi noticed that the rule assigning scope to solo 'only' is apparently unbounded and ECP-governed, in the same way wh-movement is (Longobardi 1992; Kayne 1998). Thus, in (7), matrix scope of solo 'only' is only possible in (a). It is ruled out in (b), given the Complex NP Constraint. The same is true of Brazilian Portuguese (see 7a',b'). If the assignment of scope to higher adverbs can be approached à la Kayne, they should also behave as solo/só as far as the island constraints are concerned. Sentences (8a) and (8b), from Brazilian Portuguese, suggest that this is indeed the case. Matrix scope of provavelmente 'probably' is only possible in (8a).

- (1) *O Zé mente provavelmente/normalmente. (Brazilian Portuguese BP, henceforth) The Zé tells-lies probably ('Zé probably tells lies.')
- (2) O Zé mente ainda/bem/sempre/etc. (BP)
 The Zé tells-lies still/well/always/etc. ('Zé still/always tells lies (well)')
- (3) O Zé mente, provavelmente/normalmente. (BP)
- (4) O Zé comia provavelmente arroz.
 - The Zé used-to-eat probably rice (Intended meaning: 'It was probably rice that José used to eat'.)
- (5) a. Os meninos só leram *Memórias Póstumas de Brás Cubas*. (BP)
 The guys only read PRES *The Posthumous Memoirs of Bras Cubas*.
 'The guys only read *The Posthumous Memoirs of Bras Cubas*.'
 - b. Os meninos leram só Memórias Póstumas de Brás Cubas. (BP)
- (6) a. Os meninos provavelmente leram Memórias Póstumas de Brás Cubas. (BP)
 The guys probably read.PRES The Posthumous Memoirs of Bras Cubas.

 'The guys probably read The Posthumous Memoirs of Bras Cubas.'
 - b. Os meninos leram provavelmente Memórias Póstumas de Brás Cubas. (BP)
- (7) a. A questo punto, approverei che tu gli consentissi di parlare solo con Gianni. (*Italian*) 'at this point, I would approve that you allow him to speak only with Gianni' (Longobardi 1992) a'. Nessa altura do campeonato, eu aprovaria que você concordasse em falar só com o João (BP) (= 7a)
 - b. A questo punto, approverei la tua proposta di parlare solo con Gianni. (*Italian*)
 - 'at this point, I would approve your proposal of speaking only with Gianni' (Longobardi 1992)
 - b'. Nessa altura do campeonato, eu aprovaria a tua proposta de falar só com o João (BP) (= b)
- (8) a. A professora pediu que os alunos lessem provavelmente Memórias Póstumas de Brás Cubas (BP)

 The teacher request that the students read probably *The Posthumous Memoirs of Bras Cubas*.
 - b. A diretora criticou o pedido de que os alunos lessem provavelmente Memórias Póstumas de B.C. The principal criticizes the requirement that the students read probably *The Posthumous Memoirs of BC*.

