Ordering at the Syntax-Phonology Interface: Evidence from Chinese Relativization

1. Introduction: The traditional view about relative clauses is that they are CPs adjoined to NP (Chomsky, 1977). Going back to an earlier proposal, Kayne (1994) proposes instead that a relative clause is the complement of D. Backed by several empirical and theoretical arguments, Aoun & Li (2003) have recently put forward the hypothesis that in Chinese the CP is not a complement of D, but is adjoined to NP, except that it is adjoined to the left of the NP (whereas the analysis for English was that the CP is adjoined to the right of the NP). The aim of this paper is to show that the complementation hypothesis is in fact correct for Chinese. My argument is built on the basic observation that, apart from RCs, Chinese is a head-initial language. Under the complementation analysis, relative clauses are head-initial in line with other phrase categories in Chinese. One of the major challenges faced by the complementation analysis, however, is the treatment of the element de. Previous studies have argued that de is a complementizer (Cheng, 1986). However, this assumption is not possible according to Kayne’s approach. Like Simpson (2002), I argue that de is a determiner, albeit of a special kind. More specifically, I put forward the hypothesis that: (i) de is a non-referential determiner; (ii) de is a phrasal affix-like element that lowers to the first relevant XP it finds via a process of Local Dislocation (Embick & Noyer 2001); a movement operation at the Syntax-Phonology interface. The head-last ordering for Chinese RCs is thus just an illusion: it is triggered by the special nature of de which encodes as part of its lexical make-up a [+affix] feature. 2. Aoun & Li (2003): Chinese is an SVO language like English, but has pre-nominal relative clauses (RCs, henceforth) as illustrated in (1). Following Kayne’s (1994) Antisymmetry approach, Aoun & Li (2003) argue that relative clauses in Chinese involve NP movement, rather than DP movement. However, they claim that Chinese RCs involve an adjunction structure as shown in (2). Their hypothesis is compatible with Kayne’s theory because the relative clause is left-adjoined to the NP (only right-adjunction is banned). However, in order for the CP to appear on the left side, the NP should not c-command the CP. Yet, in (2), CP c-commands NP but NP also c-commands CP. In order to solve this problem, Aoun & Li propose a series of operations following a definition of c-command that incorporates the notion of segments while applying the notion of extension so that the movement is licit under the Antisymmetry approach to linearization. The added assumptions are unfortunate, however, since they create unnecessary complications. But more importantly, the structure for Chinese RCs that Aoun & Li propose creates a head-final phrase category for that language. This is not only inconsistent with other head-initial phrase categories in Chinese (they are all head-first), but also in contradiction with Kayne’s head-initial principle underlying every language. Even if one rejects Kayne’s hypothesis/generalization either on theoretical or empirical grounds, the fact remains that apart from RCs Chinese categories are all head-first. 3. A Complementation Analysis: Aoun & Li (2003) argue that what is relativized in Chinese is an NP. This claim is motivated by the fact that in English both binding reconstruction and scope reconstruction are found (it is a DP that is reconstructed) while Chinese exhibits only binding reconstruction effects. Contra Aoun & Li, I will nevertheless argue that what undergoes reconstruction in Chinese RCs is a DP; albeit a DP of a special kind, i.e. a DP whose head is a non-referential determiner. The scope of the DP is fixed because the DP is not referential. The structure of a complementation analysis is given in (3). 4. The Proposal: Local Dislocation at PF: Simpson (2002) proposes a derivation in Chinese RCs given in (7). The proposal is based on Kayne’s complementation analysis according to which D selects a CP complement while the head noun is raised from the IP to its surface position (the nominal shows reconstruction effects). Simpson argues that the motivation for IP raising is that de behaves like an enclitic element of the sort found in languages like Romanian. The element de thus attracts an element (e.g. IP in Chinese) to its specifier position for phonological support. (1), (4), (5) and (6) are all examples where de is in need of an element before it: de never appears in first position. However, Simpson’s analysis raises a series of problems. First, raising of the IP is not motivated. Under minimalist assumptions movement in the syntax must be triggered (an EPP feature on D could be postulated, but it would be ad hoc). Another problem is the fact that after
the IP has raised to Spec-DP, the trace of the nominal is no longer c-commanded by its antecedent. Finally, I want to argue that it is more natural to think of the element de as the element that attaches to its host rather than the other way around. Being weak, de is the guest and it is the entity that goes to its host. At this point, the only solution is to lower de to attach to the IP. However, this creates another serious problem for binding principles according to which, a trace must be c-commanded by its antecedent. This problem can be solved if the lowering of de takes place after syntax, that is, at PF. Accordingly, I propose a derivation in Chinese RCs based on the theory of Distributed Morphology (Halle & Marantz 1993) shown in (8). Local Dislocation (whose definition can be found in (9), cf. Embick & Noyer 2001) of de is performed based on Morphological Merger according to which, the relation between D and IP can be expressed by the affixation of the lexical head of D to IP. The head noun ‘book’ is pied-pied along with de when de is lowered to attach to the IP. The movement at PF correctly predicts the surface word order of Chinese RCs.

(1) Lisi xihuan de shu (IP) (2) NP
   Lisi like DE book
   ‘the book that Lisi likes’

(3) DP
   IP
   Lisi xihuan ti
   ‘Lixi likes’

(4) ta de beizi (Possesive) (5) hei de beizi (Adj) (6) [dui ta] de hao (PP)
   he DE cup
   ‘his cup’
   black DE cup
   ‘black cup’
   to him DE good
   ‘the kindness to him’

(7) DP
   IP
   Lisi xihuan ti
   ‘Lixi likes’

(8) DP
   IP
   Lisi xihuan ti
   ‘Lixi likes’

(9) Local Dislocation: [ X [ Y…Z ] ] ⇒ [ [ Y + X…Z ] ]