Linearizing rightward movement

Under Kayne’s (1994) antisymmetry approach (cf. Fukui and Takano 1998), rightward adjunction is prohibited and rightward movement such as heavy NP shift in (1) should be derived through leftward movement first and the subsequent remnant movement, as shown in (2) (Larson 1988, Kayne 1994, 1998). The goal of this paper is to propose a new analysis of rightward movement without appealing to rightward adjunction or remnant movement. It is generally assumed that when movement takes place, the target of movement projects, not a moved phrase, as illustrated in (3a) (Chomsky 1995). My proposal is that rightward movement involves projection of the moved phrase in (3b) (see also Larson 1998, Donati 2006, and Citko 2006, among others for a similar idea in free relatives).

I assume that RM-phrases are headed by some functional category Foc, which has no phonetic content, as illustrated in (4) and the head of FocP has some feature which activates the RM-phrase for movement. The existence of Foc is plausible because rightward movement exhibits focus effects (Rochemont and Culicover 1990). In (5a), the moved phrase which undergoes HNPS is given an obligatorily focus interpretation. (5a) is a well-formed response to (5b), but not to (5c). I suggest that the relevant focus effect is due to the existence of Foc. Following Chomsky (2000) and Fox (2000), among others, I assume that vP is a phase and the edge of vP is a target of movement. RM-phrases undergo movement and are merged to vP, as shown in (6). Crucially, FocP projects and the whole phrase becomes FocP. Then, FocP is merged with T and the derivation proceeds. As shown in (6b), vP is a specifier of FocP. It naturally follows that vP precedes the RM-phrase because specifiers precede complements. This is an explanation for why the direction of “rightward” movement is rightward. The proposed analysis solves a longstanding problem on locality of rightward movement. It is well known that rightward movement is clause-bounded, as exemplified in (7), which is called the Right Roof Constraint (RRC) (Ross 1967 and recently Sabbagh 2006). Under the proposed analysis, we can derive the RRC effect by saying that the lower FocP in (6b) cannot move furthermore after it is merged with vP. Hornstein (2005) suggests that movement of the intermediate projection is blocked by the A-over-A principle (Chomsky 1964). The immovability of the lower FocP in (6b) is reduced to the A-over-A principle. The higher FocP blocks movement of the lower FocP. It is expected that the higher FocP can undergo movement. The prediction is borne out by (8), where the fronted phrase involves the phrase which undergoes heavy NP-shift. It is also expected that nothing prevents vP from moving, leaving the RM behind. This expectation is confirmed by the grammaticality of (9). XP in (6b) cannot move by itself because the feature which activates XP for movement is located in Foc. Turkish provides an apparent counterexample to the RRC, as shown in (10). Note that Turkish has long distance scrambling in (11). I suggest that the RM-phrase undergoes scrambling, crossing the clause-boundary first and then it undergoes rightward movement. The last step comes into play for linearizing the RM-phrase in the sentence-final position.

Rightward movement is not available in every language. It has been observed that Japanese lacks it, as shown in (12). Fukui (1993) and Saito and Fukui (1998) argue that the directionality of movement is restricted by the head-parameter, which is not an available account in the proposed analysis. My alternative is that rightward movement also involves an application of Agree between v and FocP. If Kuroda (1988) and Fukui (1986) are correct in that Japanese lacks Agree, then the absence of rightward movement is naturally expected. The fact that Turkish exhibits f-features suggests that Agree is available in the language and rightward movement is also available. The head-final character of Turkish would be problematic for Fukui (1993) and Saito and Fukui (1998).

To sum up, I have argued that rightward movement involves projection of the moved phrase, which naturally derives the direction of rightward movement and the RRC effect.
Examples
(1) John gave \( t_1 \) to Bill [all his old linguistics books]. (Kayne 1994:72)
   a. John gave [all his old linguistics books] to Bill.
   b. John [all his old linguistics books] gave \( t_1 \) to Bill.
   c. John [gave \( t_1 \) to Bill]: [all his old linguistics books] \( t_2 \).
(3) a. 
   $\begin{array}{c}
   \text{A}_1 \text{B} \\
   \text{...} \text{t}_1 \ldots
   \end{array}$
   b. 
   $\begin{array}{c}
   \text{A}_1 \text{B} \\
   \text{...} \text{t}_1 \ldots
   \end{array}$
(4) 
   $\begin{array}{c}
   \text{FocP} \\
   \text{Foc} \text{XP}
   \end{array}$
(5) a. John purchased for his wife a brand new fur coat.
   b. What did John purchase for his coat?
   c. For whom did John purchase a brand new fur coat? (Rochemont and Culicover 1990:24)
(6) a. 
   $\begin{array}{c}
   \text{vP} \\
   \text{...FocP...} \quad -- > \quad \text{Spec of FocP}
   \end{array}$
   b. 
   $\begin{array}{c}
   \text{T} \quad -- > \quad \text{FocP} \\
   \text{FocP}_1 \text{XP} \\
   \text{Foc} \text{XP} \quad \text{...} \text{t}_1 \ldots
   \end{array}$
   (Linear order irrelevant)
(7)*Sue claimed [\( CP \) that she will give \( t_1 \) to Mary] yesterday [a big book]. (Pesetsky 1995: 249)
(8) Everyone said that John would give to Mary all of the money that he won at the track, and [give \( t_1 \) to Mary [all of the money that he won at the track]] \( t_2 \); he did \( t_2 \). (Rochemont and Culicover 1990:119)
(9) ?Everyone said that John would give to Mary something very valuable to him, and [\( vP \) give \( t_1 \) to Mary] \( t_2 \) he did \( t_2 \) [all of the money that he won at the TRACK]. (ibid.:120)
(10) Ayşe [Ahmet’ın \( t_1 \) konuşduğu]nu biliyor öğrencilerle.
   ‘Ayşe knows that Ahmet spoke with the students.’ (Kural 1997:501)
(11) Kimşenin \( t_1 \) uyumadiğini biliyor.
   ‘No-one-Gen Ahmet speak-Neg-Past-3sg-Acc know-Pres-3sg
   ‘Ahmet knows no body slept.’ (Kural 1997:503)
(12) *Mary-ga kisoo \( t_1 \) kisu-sita [kooen-de atta ootoko-ni]
   Mary-Nom yesterday kissed park-in met man-to
   ‘Mary kissed yesterday the man she met in the park. (data taken from Abe and Hoshi 1997)

Selected references
Larson, R. Free relative clauses and missing Ps: Reply to Gross. Ms., Stony Brook University.