

Head Movement in Overt Syntax: Its Interaction with Object Shift and PF Requirements

Keywords: adjacency, head movement, null complementizer, object shift

The aim of this paper is to reconsider Boeckx and Stjepanović's (2001)/Chomsky's (2001) claim that head movement is a PF phenomenon. More precisely, I demonstrate that head movement may apply in overt syntax, by examining its interaction with overt object shift and PF requirements.

Boeckx and Stjepanović's (2001), on the basis of Lasnik's (1999a,b) analysis, point out that in pseudogapping it is necessary that object shift applies but V-raising does not, as shown in (1), whereas in standard cases without ellipsis both object shift and V-raising (which I assume takes place to T) must apply, as shown in (2). Given this, Boeckx and Stjepanović conclude: i) object shift applies in overt syntax, ii) ellipsis and head movement are PF operations, which compete with each other giving rise to either (1)a or (2)a, respectively, and iii) (2)b is ruled out by post-Spell-Out (i.e. morphological and/or prosodic) requirements for triggering head movement.

The question is whether head movement is entirely disallowed in overt syntax. The contrast in (3) appears to suggest that it is. Let us make three assumptions to see this: i) an Exceptional Case-marking (ECM) subject undergoes overt object shift to the matrix Spec v P in English (e.g. Lasnik 1999a,b), ii) English ECM infinitives are CPs, and object shift of an ECM subject is A-movement out of CP (e.g. Ormazabal 1995, McCloskey 2000, Bošković 2007), and iii) what is dislocated in (3) is XP projected above the matrix v P (cf. the word order in (3)a). (3)a is fine, since the matrix V remains in VP at the point where the XP is dislocated in overt syntax, and raises to X via v in PF (cf. (4)a and (4)c). In (3)b, on the other hand, V-raising to T applies before XP is dislocated in overt syntax, resulting in ill-formedness (cf. (4)b and (4)d).

Crucially, however, the data of Japanese ECM show that the same kind of head movement is allowed to apply in overt syntax. More specifically, the Japanese equivalents of (3) are both well-formed. Let us assume that (5) is derived in parallel with (3), based on Tanaka's (2002) claim that an ECM subject in Japanese also undergoes overt object shift to the matrix Spec v P, and the relevant movement is A-movement out of CP. In (5)a, the matrix V remains in VP at the point where the XP is dislocated in overt syntax, and the sentence is fine (cf. (6)a and (6)c), just like (3)a. In (5)b, V-raising applies before XP is dislocated in overt syntax, but the sentence is still fine (cf. (6)b and (6)d), unlike (3)b.

Given the well-formedness of (5)b, I propose that head movement is in principle applicable in overt syntax, and account for the ill-formedness of (1)b, (2)b, and (3)b as follows: i) (1)b is ruled out because the EPP-feature on the matrix v is not checked due to the failure of object shift as a result of pseudogapping (following Jayaseelan 1990 and Lasnik 1999a,b, I take pseudogapping as a variant of VP-ellipsis; cf. (7)), ii) (2)b is ill-formed because head movement, which must apply in either overt syntax or PF to satisfy post-Spell-Out requirements, does not apply in either component, and iii) the ill-formedness of (3)b comes from a violation of Bošković and Lasnik's (2003) condition that null complementizer is a PF affix that must be licensed by the adjacent matrix verb in PF (cf. (8)), given the CP analysis of ECM infinitives. In (3)a, the PF adjacency condition is met in PF before V-raising applies, as shown in (4)c, while in (3)b, it is not, because V has already raised to T in overt syntax and is no longer adjacent to C in PF, as shown in (4)d.

The proposed analysis is supported by the data of ECM in Western Japanese dialects, which are known to allow a null complementizer to head a complement clause. The contrast between (5) and (9) shows that head movement is applicable in overt syntax only if the complementizer is overt, or the null complementizer satisfies the PF adjacency condition. In (9)a, the matrix V remains in VP in overt syntax, and is adjacent to C in PF before V-raising applies, as shown in (10)a. In (9)b, on the other hand, the matrix V has already raised to T in overt syntax and is no longer adjacent to C in PF, as shown in (10)b. I take the contrast between (5)b and (9)b to provide evidence that what is relevant in (3)b is the licensing conditions on null C. The current analysis thus provides additional evidence for the CP analysis of ECM infinitives.

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- (1) a. Debbie ate the chocolate, and Kazuko did the cookies [_{VP} eat *t*_{OBJ}].
 b. *Debbie got chocolate, and Kazuko got [_{VP} *t*_V chocolate] too.
- (2) a. Debbie ate the chocolate, and Kazuko drank milk [_{VP} *t*_V *t*_{OBJ}].
 b. *Debbie ate the chocolate, and Kazuko milk [_{VP} drank *t*_{OBJ}].
- (3) a. Believe him to be honest, I did.
 b. *Him to be honest, I believed.
 cf. I believed him to be honest.
- (4) a. [_{TP} I T [_{XP} X [_{VP} him *v* [_{VP} believed [_{CP} C [_{TP} *t*_{OBJ} to be honest]]]]]].
 b. * [_{TP} I believed+*v*+X+T [_{XP} *t*_V+*t*_V+*t*_X [_{VP} him *t*_V+*t*_V [_{VP} *t*_V [_{CP} C [_{TP} *t*_{OBJ} to be honest]]]]]].
 c. [_{XP} X [_{VP} him *v* [_{VP} believed [_{CP} C [_{TP} *t*_{OBJ} to be honest]]]]] [_{TP} I T *t*_{XP}].
 d. * [_{XP} *t*_V+*t*_V+*t*_X [_{VP} him *t*_V+*t*_V [_{VP} *t*_V [_{CP} C [_{TP} *t*_{OBJ} to be honest]]]]] [_{TP} I believed+*v*+X+T *t*_{XP}].
- (5) a. Kare-o syooziki-da to omotta, watasi-wa.
 him honest-is that thought I-top
 ‘Believe him to be honest, I did.’
 b. Kare-o syooziki-da to watasi-wa omotta.
 him honest-is that I-top thought
 (lit.) ‘Him to be honest, I believed.’
 cf. Watasi-wa kare-o syooziki-da to omotta.
 I-top him honest-is that thought
 ‘I believed him to be honest.’
- (6) a. [_{TP} watasi-wa [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-da] to] omotta] *v*] X] T].
 b. [_{TP} watasi-wa [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-da] to] *t*_V] *t*_V+*t*_V] *t*_V+*t*_V+*t*_X] omotta+*v*+X+T].
 c. [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-da] to] omotta] *v*] X] [_{TP} watasi-wa T *t*_{XP}].
 d. [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-da] to] *t*_V] *t*_V+*t*_V] *t*_V+*t*_V+*t*_X] [_{TP} watasi-wa omotta+*v*+X+T *t*_{XP}].
- (7) *Debbie got chocolate, and [_{TP} Kazuko got +*v*_[EPP]+ T_[EPP] [_{VP} *t*_V+*t*_V [_{VP} *t*_V chocolate]]] too.
- (8) John believed (*at that time) [_{CP} C Mary read this book].
- (9) a. Kare-o syooziki-ya (to) omoota, watasi-wa.
 him honest-is that thought I-top
 ‘Believe him to be honest, I did.’
 b. Kare-o syooziki-ya *(to) watasi-wa omoota.
 him honest-is that I-top thought
 (lit.) ‘Him to be honest, I believed.’
 cf. Watasi-wa kare-o syooziki-ya (to) omoota.
 I-top him honest-is that thought
 ‘I believed him to be honest.’
- (10) a. [_{TP} watasi-wa [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-ya] C] omoota] *v*] X] T].
 b. * [_{TP} watasi-wa [_{XP} [_{VP} kare-o [_{VP} [_{CP} [_{TP} *t*_{OBJ} syooziki-ya] C] *t*_V] *t*_V+*t*_V] *t*_V+*t*_V+*t*_X] omoota+*v*+X+T].

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