Locative Inversion and Economy:
Evidence for Global Economy from Alleged Evidence for Local Economy

Here I presuppose that the reader is familiar with Collins’s (1997) argument for local economy and against global economy on the basis of Locative Inversion (LI). I consider the following three questions concerning LI. (A) Are a sentence involving LI (LI sentence) and the corresponding sentence with an ordinary word order (non-LI sentence) based on the same Numeration (N)? (B) If the answer to (A) is negative, is it possible to derive from the N for a non-LI sentence a sentence with an inverted order (“pseudo LI” sentence)? (C) If the answer to (B) is negative, what blocks the “pseudo LI” sentence? A negative answer to (A) entails that a LI sentence and its non-LI counterpart do not compete for economy considerations, which in turn entails that the possibility of LI does not undermine global economy. Furthermore, I show the necessity of global economy by tackling the questions (B) and (C).

Let us begin by considering the question (A). Here I propose the following.

(1) a. The preverbal PP in LI is first moved to [Spec, T] to check off the EPP-feature.
   b. The preverbal PP is moved further to the clause-initial topic position.
   c. The postverbal DP remains in its VP-internal "base-generated" position.
   d. The postverbal DP is interpreted as the focus.

Let us show the evidence for (1a). First, the preverbal PP can undergo Raising-to-Subject (*On the hill appears to be located the cathedral*). Second, like a negative element contained in a subject but unlike one contained in a topic, a negative element contained in the preverbal PP can license a negative polarity item (2). This shows that, although it finally moves to the topic position, the PP moves through [Spec, T]. Third, (1a) helps explain the impossibility of unergative verbs in LI (*Onto the ground spit the man*), though the details are not shown here.

(2) a. Fathers of few children have any fun.
   b. *Into none of the classrooms any of the students walked.
   c. Into none of the classrooms walked any of the students.

Let us now turn to (1b), on the assumption that the topic position is the A’-specifier position of a functional category (F) taking a finite TP as its complement. First, like an ordinary topic, the preverbal PP in LI induces an island effect (3). This is explained in terms of Relativized Minimality, because [Spec, F] is an A’-position by assumption. Second, like topicalization (*I want [, this book, to read]*), LI is impossible in non-finite clauses (4). Third, like a topic, the preverbal PP cannot be crossed by I-to-C movement (5).

(3) a. *How do you think that, [F this problem F, John solved twh]? b. *In which park did you say that [F in the foliage fluttered a number of birds twh]?
(4) *I believe through the hole to have run the rat.
(5) a. *Did (,) this problem (,) John solve? b. *Did into the room walk John?
Let us turn to (1c). First, the verb in an LI sentence and the postverbal DP form a constituent (6a). Second, the postverbal DP cannot control PRO in an adjunct clause (6b). Third, when a stage-level predicate is involved, a bare plural as the postverbal DP can have an existential reading but not a generic reading (*In eastern Africa live lions*).

(6)  

a. In the garden [stands an elegant fountain] and [dwells an interesting dwarf].
b. *Near the oasis lay two sheiks without [PRO talking].

Let us finally turn to (1d). First, an LI sentence can be uttered as an answer to a question with a *wh*-subject, but not to a question with a *wh*-locative (7). Second, the postverbal DP, but not the preverbal PP, can be contrasted with an expression with *but not* (8).

(7)  


(8) On the wall hung canvasses, {but not paintings/*but not on the easels}.

Now let us show the derivation of an LI sentence and that of a non-LI sentence. My considerations here depend on the following assumptions: (i) the EPP-feature of T can be checked by a PP; (ii) a topic element is assigned the feature \[\text{Top(ic)}\]; (iii) the feature \[\text{Top}\] overtly enters into a checking relation with the functional head \(F\) taking a finite TP as its complement; (iv) a focus element is assigned the feature \[\text{Foc(us)}\]; (v) the feature \[\text{Foc}\] is licensed at PF by the mechanism that assigns the default focus stress to the most embedded overt element in a clause (Costa 2000); (vi) overtly unchecked formal features are covertly checked by feature-movement (Boskovic 1998; Chomsky 1995, among others). First, consider the derivation of a non-LI sentence (9a). At some point in the derivation, the light verb \(v\) is merged with the VP (9b). Here I tentatively assume that Goal is higher in the thematic hierarchy than Theme. After V is adjoined to \(v\), T is concatenated with the \(v\)P (9c).

Since the theme DP and the goal PP are in the same minimal domain, they are equidistant from \[\text{Spec, T}\]. For this reason, the DP can move to \[\text{Spec, T}\] (9d). The case feature of the DP is covertly moved to \[\text{Spec, T}\] (9e).

(9)  

a. John walked into the room.  
b. \([_{vP} V\ [_{vP} PP\ [_{v\nu} V\ DP]]]\)  
c. \([_{TP} T\ [_{vP} V-\nu\ [_{vP} PP\ [_{v\nu} tv\ DP]]]]\)  
d. \([_{TP} DP\ [_{vP} V-\nu\ [_{vP} PP\ [_{v\nu} tv\ DP]]]]\)  

Let us turn to the derivation of an LI sentence. The PP is assigned the feature \[\text{Top}\] and the subject DP, the feature \[\text{Foc}\] (10a). After V is adjoined to \(v\), T is concatenated with the \(v\)P (10b). To check off the EPP-feature, the PP is attracted to \[\text{Spec, F}\] (10c). Since the PP is assigned the feature \[\text{Top}\], it must overtly move to \[\text{Spec, F}\] (10d). Since the DP with \[\text{Foc}\] is the most embedded overt element, it is assigned the default focus stress, which licenses the feature \[\text{Foc}\]. Finally, the formal features of the DP is covertly moved to \[\text{T}\] (10e).

(10)  

a. \([_{vP} V\ [_{vP} PP_{\text{Top}}\ [_{v\nu} V\ DP_{\text{Foc}}]]]\)  
b. \([_{TP} T\ [_{vP} V-\nu\ [_{vP} PP_{\text{Top}}\ [_{v\nu} tv\ DP_{\text{Foc}}]]]]\)  
c. \([_{TP} PP_{\text{Top}}\ [_{T} T\ [_{vP} V-\nu\ [_{vP} tPP\ [_{v\nu} tv\ DP_{\text{Foc}}]]]]]\)  
d. \([_{FP} PP_{\text{Top}}\ [_{F} F\ [_{TP} tPP\ [_{T} T\ [_{vP} V-\nu\ [_{vP} tPP\ [_{v\nu} tv\ DP_{\text{Foc}}]]]]]]]\)  
e. \([_{FP} PP_{\text{Top}}\ [_{F} F\ [_{TP} tPP\ [_{T} FF (\text{DP}) - FF (V-\nu)\ - T\ [_{vP} V-\nu\ [_{vP} tPP\ [_{v\nu} tv\ DP_{\text{Foc}}]]]]]]]\)

It is now clear that the answer to the question (A) is negative: an LI sentence and its non-LI counterpart differ with respect to the features \[\text{Top}\] and \[\text{Foc}\]. This means that they do not compete, under the definition of the notion reference set proposed in Chomsky (1995).
Therefore, the fact that they are both possible does not undermine global economy.

Let us now turn to the question (B). What is important here is that there is no English sentence in which the word order is the same as that of an LI sentence but the PP does not function as the topic (and the DP does not function as the focus). In other words, a “pseudo LI” structure (11) where the PP remains in [Spec, T] is impossible, which is shown by the obligatory topichood of the preverbal PP. If (11) were possible, then (“pseudo”) LI would not induce an island-effect, would be possible in non-finite clauses, and would be compatible with I-to-C movement, contrary to fact. The answer to the question (B) is negative.

(11) *[TP PP [T [T' T [VP V-V [VP FP [V: v DP]]]]]]

Now let us turn to the question (C). Since PP can check off the EPP-feature of T and features overtly unchecked can be covertly checked, it is not the case that the derivation of (11) crashes. An answer to (C) can be provided by global economy. Unlike the derivation of an LI sentence, the derivation of (11) is based on the same N as that of its non-LI counterpart. As seen above, the derivation of a non-LI sentence involves the following derivational steps, irrelevant details aside: (i) overt movement of DP to [Spec, T], (ii) covert movement of FF (V-\(v\)) to T. In contrast, that of the “pseudo LI” structure (11) involves the following steps: (i) overt movement of PP to [Spec, T], (ii) covert movement of FF (V-\(v\)) to T, (iii) covert movement of FF (DP) to T. The third step is necessary because the case features of T and the DP, and the \(\phi\)-features of V-\(v\) are overtly unchecked. It is now clear that the derivation of (11) consists of more derivational steps than that of its non-LI counterpart. Since the difference in the total number of derivational steps is not relevant to it, local economy cannot be responsible for the choice between a “pseudo LI” sentence and its non-LI counterpart. If we assume that a global economy principle is operative in UG that favors a derivation involving the smallest number of operational steps (Kitahara 1997), the two can be correctly differentiated: the derivation of (11) is blocked in favor of that of (9a). Therefore, we still need global economy.

References