

A Syntactic Approach to Locative Inversion Constructions in English

Suguru Mikami, Ryuta Fukui, Yurika Kambe, and Masaru Kanetani

This joint research deals with locative inversion constructions in English (henceforth, LICs), which are exemplified by a sentence like the following:

- (1) In the corner was a lamp.

Sentence (1), in which a locative PP occupies the preverbal position and a DP appears postverbally, means that *a lamp* exists *in the corner*.

Not only copula verbs but also unaccusative verbs (i.e. verbs with no external arguments), passive verbs (i.e. verbs with suppressed external arguments), and certain unergative verbs (i.e. verbs with external arguments) are found in LICs, as shown in (2):

- (2) a. From the kitchen appeared a fat woman.
 b. On the table has been placed a tarte Tatin.
 c. On the second floor worked two young women.

Sentence-initial locative PPs in LICs bear some subjecthood. Observe the following sentences:

- (3) a. Over my windowsills seems to have crawled an entire army of ants.
 b. Out of which barn {ran/*did run} a horse?

In (3a), the locative PP is raised to the subject position of the raising construction. In (3b), the auxiliary verb must be absent when *wh*-movement applies to the locative PP. These parallel behaviors to the subject have led some researchers (e.g. Nakajima (1996), Doggett (2004), etc.) to the claim of the locative PP in LICs occupying [Spec, TP]: the canonical position of subjects. However, such PPs do not have all the subject-like properties:

- (4) In the garden {stand/*stands} two fountains.

Sentence (4) shows that the verb does not agree with the locative PP, but with the postverbal DP. Moreover, the PP in LICs shares some properties with the preposed element in topicalization, given in (5):

- (5) a. *In which park did you say that in the foliage fluttered a number of gray birds?
 b. *I wouldn't expect behind the tree to stand a large building of some kind.

Sentence (5a) suggests that it is not possible to extract the *wh*-element out of the embedded clause, which means that the PP in LICs creates a *wh*-island. Sentence (5b) shows that LICs cannot appear in ECM constructions. Nishihara (1999) argues that this parallelism between LICs and topicalization suggests that PPs in

LICs, like topicalized elements, move further to [Spec, TopP] via [Spec, TP].

In contrast to Nishihara (1999), we propose that the PP in LICs occupies [Spec, TP]; not [Spec, TopP]. The derivation for LICs with copula verbs, unaccusative verbs, and passive verbs converges as follows:

$$(6) \quad [_{TP} PP_i [_{T'} T [_{vP} V_j [_{vP} DP [_{V'} t_j t_i]]]]]$$

A locative PP and a theme DP are base-generated in Comp and Spec of V, respectively. Then, v is merged and V-to- v raising takes place. As soon as T is introduced by Merge, T searches down the tree for a goal, and finds the theme DP; consequently, the ϕ -feature and the case-feature on T are deleted. Finally, the PP raises to [Spec, TP], satisfying the EPP on T. Note that the movement of the PP to [Spec, TP] causes no locality violation, because both the PP and the theme DP are in the same minimal domain and thus they are equidistant from T. It is not necessary to project the structure further into TopP in terms of the economy principle, because the proposed derivation can account for the topic-like properties of the locative PP as well. As we have observed above, Nishihara (1999) claims that the locative PP in (5a) occupies [Spec, TopP] and that sentence (5a) is ungrammatical because its *wh*-element is extracted out of [Spec, TopP]. However, the *wh*-elements cannot be extracted out of [Spec, TP] as well as [Spec, TopP], which is exemplified in (7):

$$(7) \quad *I \text{ wonder } [_{CP} \text{ what}_i [_{TP} [\text{a book about } t_i] \text{ appeared last year}]].$$

Thus, just because LICs have a similar behavior to topicalization does not mean that the PP in LICs occupies [Spec, TopP]. That is, the locative PP in (5a) is not necessarily extracted out of [Spec, TopP]. The ungrammaticality of (5b) may be accounted for as follows: The theme DP is not adjacent to the matrix verb and the subordinate T in ECM constructions is not associated with any case-feature. Hence, it does not bear any Case, and as a result, sentence (5b) is ungrammatical. This leads to the conclusion that the similarities between LICs and topicalization do not necessarily guarantee that PPs in LICs occupy [Spec, TopP].

The proposed derivation is, however, apparently problematic for LICs with unergative verbs: Because such verbs require an agentive DP in [Spec, v P], the agentive DP and the locative PP are not in the same minimal domain. That is, the DP is closer to T; consequently, the locative PP cannot normally raise to [Spec, TP]. In this connection, Kaga (2005) observes that unergative verbs, which generally do not have the existential sense, occur in LICs when they denote a manner of the existence. Following Kaga, we propose that unergative verbs can be used in LICs only when they are combined with the empty verbs which take a locative PP and a theme DP in the same projection. As a result, the derivation for LICs with unergative verbs converges in the same way as (6).