

A Diachronic and Synchronic Study of English Cases (8): Case-marking of Inverted Subjects

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0. Introduction

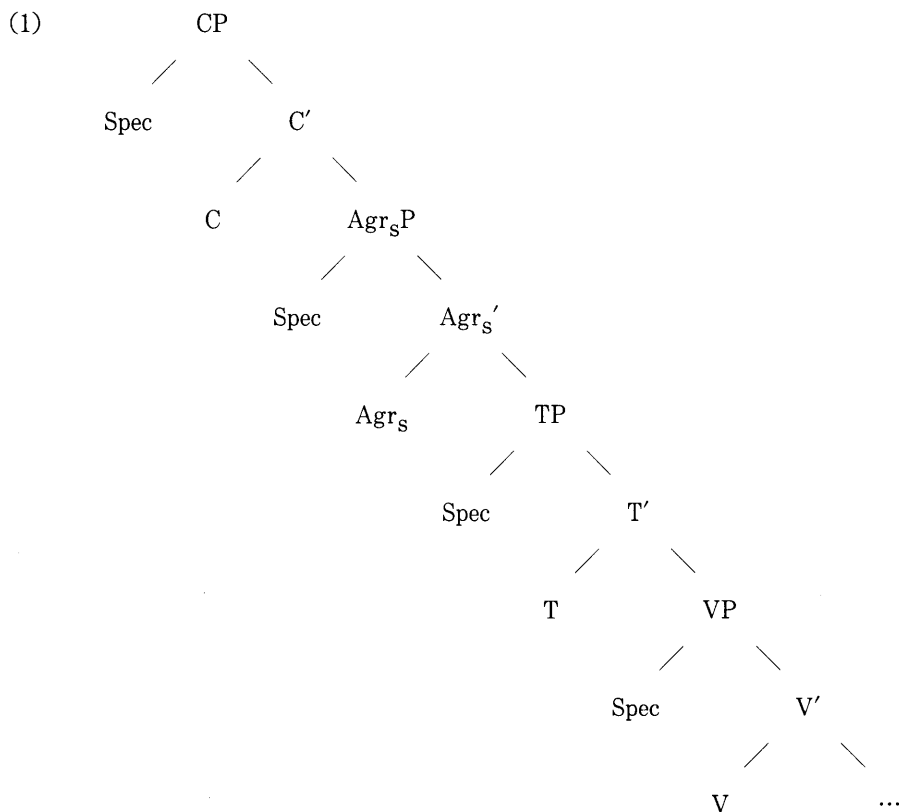
Present-day English (henceforth PE) is indeed one of the most adamant languages of fixed word order. It nevertheless has a variety of inverted constructions that can not be correctly derived without supposing movement rules. Although they yield an immense number of linguistically significant issues, what attracts our attention here is how the inverted subject DPs are Case-marked in the Case theory proposed within the general framework of the Principles-and-Parameters Approach. A hard-line minimalist might object that even inverted subject DPs should be handled on the general assumptions of Minimalist Program; specifically, they should undergo Case-checking under the Spec-Head Agreement, as proposed by Chomsky (1995). It will be shown, however, that Case-marking of inverted subjects is never amenable to Case-checking in the sense of Minimalist Program. Rather, it will be demonstrated that government, already scrapped by minimalists, plays a critically important role in Case-marking of the inverted subject DPs.

We will first try to establish the configurational structure of inverted constructions at S-structure, then discuss Case-marking of the inverted subject DPs, and further see how the proposed mechanism of Case-marking is justified.

1. Syntactic Position of Preposed Categories

Before discussing Case-marking of inverted subjects, it will be necessary to determine the syntactic position of preposed categories in inverted constructions. This is because PE usually does not allow subject positions to be empty but the real subjects in these constructions are in postverbal positions and, significantly enough, the preposed categories are in preverbal positions. The controversial position of the preposed categories leads some linguists to claim that they are actually in subject position and others that they are in Spec-C.

As a basis for discussion in subsequent sections, let us suppose (1) as the skeleton clause structure in PE, omitting minor details irrelevant to discussion here.



First of all, it should be noticed that we adopt the VP-internal subject hypothesis originally proposed by Zagana (1982). Secondly, Agr_O and its projections, proposed by Chomsky (1992/1993) among others, are missing in (1), though Agr_s is present as a functional category. This is just because while subject-verb agreement is morphologically realized in PE, object-verb agreement is never realized in overt syntax. A rationale behind this is that if a linguistic entity exists at an abstract representation, it should have at least 1 percent probability to be morphologically realized. But Agr_O is one hundred percent absent in PE, suggesting that it is absent even at the most abstract level of syntactic representation. By contrast, if we follow the same rationale, Agr_s should exist as an intransient functional category at an abstract level, since it is overtly realized to a certain extent in PE, a morphologically impoverished language.¹ Assuming this much, let us turn to our primary topic.

Emonds (1976) lists a large number of inverted constructions and discuss their various

syntactic characteristics, and the following are his examples especially pertinent to our discussion here.²

- (2) Directional Adverb Preposing
 - a. Away ran John.
 - b. Into that house ran the boys.
- (3) Comparative Substitution
 - a. Easier for us to solve would be a problem from number theory.
 - b. Equally as welcome would be a theorem from geometry.
- (4) Participle Preposing
 - a. Speaking to the President now is our top reporter.
 - b. Examined today and found in good health was our nation's chief executive.
- (5) PP Substitution
 - a. In each hallway is/hangs/has long stood a large poster of Lincoln.
 - b. Among the guests were/sat John and his family.
 - c. On the porch is a large wicker couch.
 - d. Upstairs is/stands/lies all the wine we bought in Europe.
 - e. Here will be (will stand) all the memorial to the war dead.
 - f. Among the guests was standing John.

[Emonds 1976, chap.2]

There are more classes of inversions in PE, some of which are discussed below, and there are interesting syntactic and semantic differences among them. But it is assumed that their fundamental configurational structures are not substantially different, if not identical.

Inversions are subclasses called root transformations, and Emonds claimed that they prepose fronted categories to Comp, which is equivalent to Spec-C widely prevailing since Chomsky (1986). His claim is crucially based on the pseudo fact that the inversions are at odds with veritable Comp substitution rules, as in (6)-(8).

- (6) a. *Who into the house dashed?
b. *Into the house who dashed?
- (7) a. *Was among the guests standing John?
b. *Among the guests was John standing?
- (8) a. *What would easier to solve be?
b. *Easier to solve what would be?

[Ibid.]

It seems, however, that his conclusion is regrettably too rough-and-ready because doubly

fronDED constructions can be ruled out for a different reason; examples like (6)-(8) can be ungrammatical because they have more than one marked themes in the sense of Halliday (1967a,b, 1968).³ In fact, a number of pieces of evidence have been observed in the literature which indicate that froned constituents are located in the subject position, i.e., Spec-Agr_S to be precise.

First of all, the inversions can occur in embedded clauses with the complementizers *that*, as attested in Hooper and Thompson (1973) among others.

- (9) a. John says that near his house lies a buried treasure.
 b. Carol said that the most embarrassing of all was falling off the stage.
 c. I expect that speaking at today's luncheon will be our congressman.
 d. It was written in the plan that over the entrance should hang the gargoyle.
- [Hooper and Thompson 1973]

Since PE does not allow stacked CP structures, as argued by Bhatt and Yoon (1991), the froned constituents in the embedded clauses cannot be in Spec-C unless they precede the complementizer. Secondly, where inverted constructions are embedded as infinitival complements to raising predicates, the froned constituents can undergo raising.

- (10) a. [Into this house]_i appears t_i to have walked an alcoholic.
 b. [Near the river]_i is likely t_i to be lying an old man.
 c. [Near the fountain]_i seem t_i to have been found two purple bananas and a peach.
 d. [Unable to attend]_i seem t_i to be the chairman and the vicechairman.
- [Postal 1977]

Thirdly, there are tag-questions like (11), where the expletive subject *there* undoubtedly refers to the froned adverbials.

- (11) a. In the garden is a beautiful statue, isn't there?
 b. In the ocean are whales, aren't there?

[Bowers 1976, p.237]

If the froned adverbials are not in the subject positions, this type of tag-questions will be unable to exist in PE. Fourthly, in inverted wh-questions like (12), the helping verb *do* is not required.

- (12) In which garden stands a fountain?
 cf. In which garden does the fountain stand?

[Ibid.]

This is quite similar to cases where ordinary subjects are wh-questioned. Fifthly, a

well-known and most discussed phenomenon, *that*-trace effect, is observed when fronted constituents are extracted out of the sensitive position immediately after the complementizer *that*.

- (13) a. *It's in the villages that we all believe that t can be found the best examples of this cuisine.
 b. It's in these villages that we all believe t can be found the best examples of this cuisine.

[Bresnan 1977, p.180]

Taking together all of these, it would be plausible to conclude that inversions prepose non-subject constituents to the subject position or Spec-Agr_S.

The conclusion above does not prohibit the fronted constituents from raising further to an appropriate position, Spec-CP, as already attested in (12). Here are more examples:

- (14) a. They are planning to destroy the old church under which are buried six martyrs.
 b. They destroyed the church in whose basement is buried the town's founder.
 c. These are the causes to which are attributed most of the financial catastrophes of the decade.
 d. I met the social director to whom fell that terrible task.

[Aissen and Hankamer 1974]

In these cases, it can be said that the wh-phrases are first placed in Spec-Agr_S and then moved to Spec-C leaving behind a trace in Spec-Agr_S. Since this movement is from A- to A-bar-position, the resultant chain will be well-formed.⁴

Although things are far from being clear, it might be said that the preposed constituents in inverted constructions are syntactically associated with Spec-Agr_S at least in a midway stage of derivation.

2. Deportation of PPs

A problem which arises regarding the conclusion in the preceding section is the long-standing and very controversial one: Why do the inverted constructions not undergo subject-auxiliary inversion? If the fronted constituents are really in Spec-Agr_S, questions like (15) should be grammatical. But that is not the case.

- (15) a. [Into the room] walked John.
 b. *Did [into the room] walk John?
 (16) a. [Besides John] stood an old man.

- b. *Did [besides John] stand an old man?
 (17) a. [Most embarrassing of all] was losing my keys.
 b. *Was [most embarrassing of all] losing my keys?

Although it is unclear why questions like (15b)-(17b) are ill-formed in PE, one way to account for their ill-formedness would be to appeal to the Pure Case-Marking Domain Hypothesis proposed in No.7 of this series of work.

- (18) The Pure Case-Marking Domain Hypothesis

While V' is a pure θ -marking domain at D-structure, it is a pure Case-marking domain at S-structure.

Let us now generalize the Case-marking part of this hypothesis so that it can count in the area of Agr_S and its projections as a pure Case-marking domain.

- (19) Agr_S defines its higher projections as a pure Case-marking domain.

This definition does not refer to θ -marking, but there is every reason to assume that Agr_S , as a pure functional category, has nothing to do with any θ -structure and never defines any θ -marking domain. It might be that only lexical categories, with θ -structure, has the ability to define θ -marking domains, and only some of them, like V, has the ability to define both θ -marking and Case-marking domains. Things can be different if we take into consideration inherent Case-marking, but for the moment let us focus on structural Case-marking.

In the original Pure Case-Marking Domain Hypothesis, it was claimed that phrases can be generally classified into three categories in terms of 'purity' with respect to Case-marking.

- (20) a. Pure: DP arguments like direct and indirect objects
 b. Impure: Non-DP arguments like prepositional phrases
 c. Neutral: Non-arguments like V' -adverbials, resultative phrases, and particles

Assuming (20), it was also claimed that while pure arguments stay within a Case-marking domain until S-structure, impure arguments are deported out of a Case-marking domain no later than S-structure, and neutral constituents are not affected in any way.

If the claims of (19) and (20) are correct, impure phrases which do not require Case-marking, such as prepositional phrases, cannot remain in Spec-Agr_S ; they have to be deported out of the Case-marking domain of Spec-Agr_S . In the case of wh-phrases, they will be substituted into Spec-C, as in (12) and (14). If they are not wh-phrases, they will be adjoined to CP. Notice that Spec-C is not available for them if they are not wh-phrases; in

other words, this position is only available for operators such as *wh*-phrases.⁵ Then it is correctly predicted that questions like (15b), (16b) and (17b) are ungrammatical, supposing that *did* or *was* is placed in C.

A question which arises here is why they are not adjoined to Agr_SP. A possible answer might be to claim that the position of adjunction to Agr_SP is still part of the Case-marking domain of Agr_S, rejecting adjunction of impure phrases. Although there is no convincing evidence that motivates this claim, the marginal grammaticalness of examples below might possibly indicate that it is true.

- (21) a. Sitting at his right there was an old man.
 b. Walking through the park there was an old lady.
 c. Out of its hanger there rolled the gigantic aircraft.
 d. In a small town in Germany, there once lived a rich merchant...

Since Spec-Agr_S is already filled by *there* in these examples, it will be obvious that the preposed constituents are not in the subject position. If they are adjoined to Agr_SP, it will be predicted that *wh*-phrases, which occupy Spec-C, can appear to the left of the preposed constituents. But this is never borne out.

- (22) a. *...an old man who sitting at his right there was...
 b. *...an old lady who walking through the park there was...
 c. *...the gigantic aircraft which out of its hanger there rolled...
 d. *...a rich merchant who, in a small town in Germany, there once lived...

If the relative clauses are tinkered into non-inverted ones, the results are significantly improved, though still clumsy.

- (23) a. ?...an old man who there was sitting at his right...
 b. ?...an old lady who there was walking through the park...
 c. ?...the gigantic aircraft which there rolled out of its hanger...
 d. ?...a rich merchant who there once lived in a small town in Germany...

It is very difficult to evaluate the reliability of examples like (23), but it might not be implausible to claim that preposed constituents cannot be adjoined to Agr_SP because of the revised Pure Case-Marking Domain Hypothesis.

One might object, however, that prepositional subjects are not always incompatible with subject-auxiliary inversion. In fact, the following are acceptable for some native speakers.

- (24) a. [Over that fence] is a home run.
 b. What kind of hit should [over that fence] be?
 (25) a. [Under the chair] is a nice place for the cat to sleep.

- b. Is [under the chair] a nice place for the cat to sleep?

Intuitively, the difference between (15)-(17) and (24)-(25) is obvious; in the former the prepositional phrases are derived subjects, while in the latter they are base-generated subjects. Things are too enigmatic to determine how this difference is related to their susceptibility to subject-auxiliary inversion. But it might not be impossible to attribute the ungrammaticality of (24b)-(25b) to the derived character of prepositional subjects.

Incidentally, Neeleman (1997) claims in connection with (26) that the prepositional phrase in the subject position is an argument PP rather than a complement or adjunct PP.

- (26) [From Utrecht to the Fresian lakes]_i really was too far, [being such a long distance]_i.

[Neeleman 1997]

It is very difficult to see exactly what he intends to mean by classifying a certain type of prepositional phrases as an argument PP. But intuitively his claim is understandable, with theoretical details aside. It might mean that argument PPs are specified external arguments in θ -structures of predicates, mostly adjectives. Then they are directly projected onto the position of Spec-A as external arguments, then move to Spec-V, Spec-*was* more specifically, and ultimately to Spec-Agr_S; hence susceptible to subject-auxiliary inversion, an operation which moves auxiliary verbs to C. This implies that argument PPs repulse neither θ -marking nor Case-marking, as opposed to complement or adjunct PPs. Given the visibility condition and its wide-spread acceptance, it might not be a groundless consequence.⁶

What we have arrived is essentially just a descriptive generalization that if constituents originated from non-external argument position, arguments or adjuncts, come to occupy Spec-Agr_S, auxiliary verbs cannot move to C. Regrettably enough, any principled explanation does not suggest itself. It seems, however, that the well-known facts below indicate the plausibility of the descriptive generalization.

- (27) a. There is a Dodger in the ballpark.
 b. Is there a Dodger in the ballpark?
- (28) a. It is certain that the Orioles will win.
 b. Is it certain that the Orioles will win?

Given that the expletives *there* and *it* are directly inserted into the subject position, Spec-T or Spec-Agr_S, the generalization above predicts that nothing prohibits the auxiliary verbs from moving to C, as in (27b) and (28b).

Thus, putting aside the argument PPs and expletives, it might be said that the preposed constituents in inverted constructions first move to Spec-Agr_S and then deported to adjoin to

CP, rather than Agr_SP, for the Case-reason associated with the Pure Case-Marking Domain Hypothesis.

3. Syntactic Position of Inverted Subjects

Turning to the syntactic position of the postposed subjects, let us begin by considering the following examples of quotative inversion observed by Collins and Branigan (1997).⁷

- (29) a. "Where to?" asked the driver of his passenger.
 b. *"Where to?" asked of his passenger the driver.
- (30) a. ?Swore the waiter to the judge: "I never saw a thing."
 b. *Swore to the judge the waiter: "I never saw a thing."
- (31) a. "They'll never make it!" cried John to Mary.
 b. *"They will never make it!" cried to Mary John.

[(29)-(31): Collins and Branigan 1997]

Presupposing the VP-internal subject hypothesis, they argue that the subject DPs never move from Spec-V in overt syntax; otherwise, it is impossible to accommodate the fact that they always precede the prepositional complements which are supposed to be inside VP. Since the VP-internal subject hypothesis is irrefutably well-established, their argument appears irresistibly attractive and well-motivated. Then we are obliged to consider how the subject DPs are Case-marked without moving to Spec-Agr_S in overt syntax, an obligatory process in non-inverted constructions.

Collins and Branigan (1997) further argue that the stationary subject hypothesis is supported by unconventional postposing of 'heavy' subject DPs and distribution of subject-oriented floating quantifiers.

- (32) a. "Where to?" asked of us balding driver with blond mustache.
 b. "The strudel is rather dry," whispered to Joan the woman sitting at the end of the counter.
 c. "Their food is expensive," said of the hotel the manager of our guesthouse.
- (33) a. The balding driver with blond mustache asked "Where to?" of his passenger.
 b. *Asked "Where to?" of his passenger the balding driver with blond mustache.

[(32)-(33): Ibid.]

As in (33), the shifting of a heavy subject is not allowed unless the inversion takes place. Since that is a very strict restriction on Heavy NP Shift, its relaxation in (32) is indeed an interesting phenomenon which is worth an explanation. Collins and Branigan take this to be evidence that the subject DPs do not raise to Spec-Agr_S. The distribution of floating

quantifiers in inverted sentences is also very interesting.

- (34) a. "We must do this again," the guests all declared to Tony.
 b. "We must do this again," declared all the guests to Tony.
 c. *"We must do this again," declared the guests all to Tony.
- (35) a. "Do you have the time?" the bankers each asked of the receptionist.
 b. "Do you have the time?" asked each of the bankers of the receptionist.
 c. *"Do you have the time?" asked the bankers each of the receptionist.
- (36) a. "I admire you," Sam and Isaac both whispered to Sheila.
 b. "I admire you," whispered both Sam and Isaac to Sheila.
 c. *"I admire you," whispered Sam and Isaac both to Sheila.

[(34)-(36): Ibid.]

In order to account for the examples of (34)-(36), Collins and Branigan adopt the quantifier-stranding hypothesis which assumes that quantified DPs, instead of quantifiers, move around leaving quantifiers in-situ. Given this, we can straightforwardly account for the ungrammaticalness of the (c) examples by assuming that the subject DPs stay in Spec-V throughout the derivation. So far, so good.

An ironic consequence of the stationary subject hypothesis is that it obliges the proponents to claim that verbs, main or auxiliary, raise up to Agr_O in overt syntax.⁸ An initial response to this cannot be but negative for three reasons. First, PE cannot have Agr_O as noted above. Second, main verbs do not raise out of VP in PE in other constructions. Third, evidence that Collins and Branigan present for the overt raising of main verbs is far from satisfactory. They attempt to verify the overt raising by resorting to the minimal link condition (MLC) and the assumption that Neg is a functional head situated immediately above Agr_OP.

- (37) a. "Let's eat," said John just once.
 b. "Let's eat," John didn't just say once.
 c. *"Let's eat," said not John just once.
 d. *"Let's eat," not said John just once.

[Ibid.]

If *John* is in Spec-V, the correct linear order is only obtained when *said* raises out of VP, at least onto Agr_O. The only grammatical negation of (37a) is the non-inverted one of (37b), and the inverted versions of (37c,d) are both ungrammatical.

Collins and Branigan first focus on (37d). Assuming that the MLC applies in overt syntax,⁹ they argue that *said* has to raise to T and Agr_S for checking its formal features. But

the raising past Neg does not occur in overt syntax in (37d), and if it takes place it violates the MLC. Hence the derivation does not converge. Meanwhile the verb *said* overtly raises in (37c) without violating the MLC, as desired. But the result is undesirable. The authors claim that this is just because the verb has raised higher than it is supposed to. This means that the highest position to which a main verb can raise is Agr_O. If this is the case, however, it implies that main verbs can raise only up to Agr_O even in affirmative inverted constructions, leaving their formal features unchecked, and then they never converge. The only examples Collins and Branigan present as evidence for their claim that verbs overtly raise out of VP are the following:

- (38) a. *John Agr_ST not [_{VP} eats].
 b. John is_{Agr} t_T not [_{VP} eating]. [Ibid.]

Since (38b) is grammatical, they assume that verbs can overtly raise out of VP without incurring a violation of the MLC. But what (38a,b) show is that while auxiliary verbs raise, main verbs like *eats* never do so. But the authors, strangely enough, conclude that every kind of verbs do overtly raise in inverted constructions. Everybody knows very well that auxiliary verbs raise even in non-inverted sentences, but there is no genuine evidence for the overt raising of main verbs in PE.

Thus it seems that a correct conclusion we should elicit is rather a conventional one: Apart from auxiliary verbs, in PE verbs stay within VP at least in overt syntax. Then to yield the right linear order of inverted constructions, it is necessary to assume an operation postposing the subject DPs from Spec-V onto a position after the verbs. We will investigate some details of the postposing operation which will be called Light NP Shift here in parallel with Heavy NP Shift.

4. Postposing of the Subject DPs

Let us begin this section by investigating precisely where the subject DPs are situated when they undergo Heavy and Light NP Shift.

Since Heavy NP Shift is applicable to the subject DPs, as in (32), they do not have the choice of moving to Spec-Agr_S or Spec-T. If they do, the shift should be inapplicable to them. Thus it might be reasonable, regardless of theoretical framework, to assume that they are still in Spec-V at the stage where Heavy NP Shift applies. Moreover, the position of Spec-Agr_S needs to be reserved for the preposed constituents. When they are deported from Spec-Agr_S which is part of the pure Case-marking domain, a trace will be left behind in the spec position, and thus the subject DPs cannot move there because of the recoverability

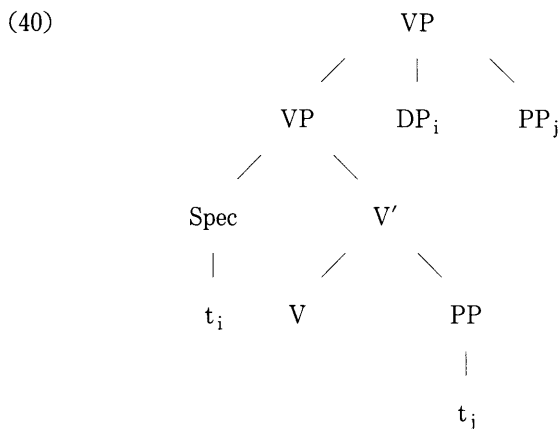
condition on deletion of the trace. Given this much, it will follow that Light NP Shift as well as Heavy NP Shift postpones them directly from Spec-V to a postverbal position. Although a considerable elaboration is needed on the precise relationship between Heavy and Light NP Shift, let us put it aside for the moment and investigate the landing site of Light NP Shift.

If we take into account the proper government condition on traces, it will be desirable to assume that the landing site of Light NP Shift is higher than Spec-V so that the postponed subjects can c-command the trace left in the original position. Following a number of preceding studies, let us suppose that Light NP Shift Chomsky-adjoins them onto VP. The examples below will render a support for this supposition.

- (39) a. ?Near the factory sat a wreck on Tuesday.
 b. *Near the factory sat on Tuesday a wreck.

If time adverbials like *on Tuesday* are adjoined to a position higher than VP, IP or Agr_sP, the difference of grammaticality in (39a,b) can be taken to indicate that the landing site of Light NP Shift must not be higher than VP. Thus the VP adjunction is not a groundless supposition, but it still raises a number of problems.

In the first place, why must the postponed subjects follow the complements, as shown in the quotative inversions of (29)-(31)? This is a natural consequence under the proposal of Collins and Branigan (1997). But what should be noted here is the fact that all the complements adduced in (29)-(31) are prepositional phrases. Here comes in the Pure Case-Marking Domain Hypothesis.¹⁰ If it is correct, the PP-complements, which are impure, have to be deported outside VP, probably adjoined to VP. Then the VP part of inverted constructions would look like the following:



The linear order of DP_i and PP_j , adjoined to VP as sisters to each other, is basically unfixed and interchangeable, which means that there are no configurational factors that determine the linear order of DP_i and PP_j . Then what requires DP_i to PP_j precede? The answer here is their difference of relative 'heaviness.' The basic idea is that if there is a set of constituents which are sisters to each other, the heavier constituents are likely to be linearly aligned after the lighter ones in a configurational structure. In order for this to work in (29)-(31), it must be the case that the complement PPs are heavier than the subject DPs. Where the physical lengths of constituents in question are not so different, their structural complexity of syntactic structure will come into play to scale their relative heaviness. Thus PP is scaled heavier than DP, since the former, with a DP embedded within it, is structurally more complex than the latter.

The heaviness hypothesis predicts that even DPs are aligned after PPs if the former obviously outweigh the latter in the physical length. Remember that in (32), where the subject DPs are considerably heavy, they follow the complements PPs. Then it would not be untenable to claim that Heavy NP shift and Light NP shift are essentially the same and one, and attempt to unify the two types of shift. But such unification will cause different problems irrelevant to the present purposes, so it should be left unsettled here.¹¹

What we should see next is what will happen if the complements are DPs rather than PPs. The Pure Case-Marking Domain Hypothesis does not deport DP complements out of VP; rather, it requires them to remain within VP throughout overt syntax. Thus it predicts that in such cases the subject DPs must be placed after the complement DPs in inverted constructions. But since saying verbs like *tell*, which take a DP complement besides a reported clause, normally do not take a direct quote, it is practically impossible to obtain appropriate examples. This means that we should turn to other types of inverted constructions. But this is also a turmoil at best, since usually only intransitive or simplex transitive verbs contribute to engendering inverted constructions. But Makita (1997) points out the existence of stunningly suggestive examples.¹²

- (41) a. Suddenly there entered the hall an ugly old man.
 b. Suddenly there opens the door a six-eyed troll.
 c. There was slowly making its way toward us a figure in black.
 d. In the tower there strikes the hour a clock of many chimes.
 e. There hit the stands a new journal.
 f. There visited us last night a large group of people who traveled all the way from India.

g. And there followed him a certain man...

[(a) Levin (1993, p.90), (b) Bobaljik and Jonas (1996, fn. 17), (c,d) Bolinger (1977, p.102), (e,f) Chomsky (1995, p.343), (g) Hannay (1985)]

These are all examples of transitive *there*-presentational constructions where the subject DPs must follow the object DPs which need to be Case-marked. They clearly indicate that the subject DPs are postposed from Spec-V at least in this type of inversions by Light or Heavy NP Shift. Otherwise, the linear order in (41) cannot be obtained, rendering a support for the subject movement hypothesis. Clearly even more extensive and sophisticated discussion is indispensable to generalize this conclusion to other types inversions, but it might be at least said that it is on the right track, if not flawless.

Turning to a second problem with the subject movement hypothesis, let us consider what is the motivation for Light NP Shift. Nobody knows if every movement needs motivation, but it might be methodologically desirable if it is established that a given movement is motivated by a particular linguistic factor. The examples below with a pronoun subject would help pinpoint a motivation for inversions.

- (42) a. Into the house he ran/*ran he.
 b. Out she walked/*walked she.
 c. Down the hill it rolled/*rolled it.

Why is the subject postposing interdicted where the subjects are pronouns? It has been argued in the literature that pronouns, especially personal pronouns, are generally intolerable in focus positions. Although linguists and grammarians say different things, it is already an indisputable fact that pronouns, which inherently represent old information, are likely to be at odds with focus positions, and Light NP Shift has something to do with focus assignment. Thus let us assume that focus assignment is the motivation for Light NP shift.

As opposed with Case or agreement features, focus is a not a syntactic feature but a discourse property assigned to a sentence final or contrastively stressed constituent. As such, it is only assigned when interpretatively required from a flow of discourse where a given construction is embedded. In this sense, focus assignment is discourse-dependent and no constituents require it as their intrinsic property.¹³ So no principle is violated if a given constituent is not assigned focus in a context where it is not necessary. By contrast, there immediately appears an ungrammatical sentence if a formal feature is not assigned to or checked against a constituent that formally requires it. In fact, subject postposing, indigenously connected to focus assignment, is optional in certain classes of inversions.

- (43) a. We saw the same man as John did/did John.
 b. "Who's on first?" Joe demanded/demanded Joe.
 c. So your brother thought/thought your brother.
 d. She spoke more convincingly than Harry did/did Harry.

[(c)-(d): Emonds 1976, p.24]

If the motivation for inversion is a formal one, this kind of optionality will be unexpected. Thus optional inversions like (43) would render a support to the claim here.

A related question which arises here is whether or not Heavy NP shift has anything to do with focus assignment. If it is just a special case of a general process from which Light NP Shift also stems, as suggested above, the answer should be positive. But since Heavy NP Shift does occur in contexts where focus assignment is irrelevant, the positive answer is not necessarily acclaimed. A better solution would be to argue that heavy subject DPs are first adjoined to VP in the same fashion as light subject DPs, as in (40), and then interchange the positions with the sister PPs in consideration of heaviness of the relevant constituents. Thus it might be that the later interchanging of the positions is not a process of Heavy NP Shift, but a purely stylistic one.

A third problem with the subject movement hypothesis is concerned with the controversial position of subject DPs in locative inversions. This type of inversion occurs only with intransitive verbs but not with transitive verbs. Furthermore, intransitive verbs split as to whether or not they allow it, as repeatedly pointed out in the literature.

- (44) a. Among the guests was sitting my friend Rose.
 b. *Among the guests was knitting my friend Rose.
 (45) a. Onto the ground had fallen a few leaves.
 b. *Onto the ground had spit a few sailors.
 (46) a. Into the hole jumped the rabbit.
 b. *Into the hole excreted the rabbit.
 (47) a. Toward me lurched a drunk.
 b. *Toward me looked a drunk.
 (48) a. On the corner was standing a woman.
 b. *On the corner was drinking a woman.

[(44)-(48): Bresnan 1994]

Given the apparent unaccusative nature of verbs allowing locative inversion, at least two paths of analysis regarding the position of the inverted subjects suggest themselves. One is base-generation of the subjects in the object position of unaccusative verbs, where they

remain throughout overt syntax (cf. Kathol and Levine 1993). The other is relocation of the subjects into the object position (cf. Levine 1989).

Although the unaccusative hypothesis is very attractive, it has its own congenital problem; it has to be verified that unaccusative verbs lack external arguments as their lexical properties. But as convincingly argued in Pesetsky (1995), it is virtually impossible to verify the non-thematic nature of their subject position. In addition, since the hypothesis implies that the “inverted” subjects in (44a)-(48a) are stationary and never move out of their original position, they never raise to a position related to subject like Spec-V, Spec-T or Spec-Agr_S. Thus it is necessary to forge an unprecedented device of Case-marking to the stationary subjects. We return to this problem below.

It might also be objected that locative inversion occurs in passives and it means that the “inverted” subjects are in the object position. This objection might appear impeccable, because the non-thematic nature of the subject position is far more obvious than in the unaccusative constructions.

- (49) a. My mother was seated among the guests of honor.
 b. Among the guests of honor was seated my mother.
- (50) a. The reclusive lyrebird can be found in this rainforest.
 b. In this rainforest can be found the reclusive lyrebird.
- (51) a. A tarte Tatin has been placed on the table.
 b. On the table has been placed a tarte Tatin.

[(49)-(51): Ibid.]

However, if the “inverted” subjects stay in the object position in the (b) examples, the Case-marking problem arises immediately, just as in the inversions with unaccusative verbs. Meanwhile if they move to Spec-V, Spec-T and eventually to Spec-Agr_S, then they cannot be relocated in the object position, because the position is occupied by the trace created by the first movement.¹⁴ Thus it seems that the most undisputable position for the inverted subjects is the one Chomsky-adjoined to VP through postposing from Spec-V.

Turning to a fourth problem, let us see how the movement subject hypothesis can account for distributions of floating quantifiers. According to Collins and Branigan (1997), this phenomenon is best accounted for under their stationary subject hypothesis if quantifier stranding, rather than quantifier floating, is presupposed. For expository conveniences, let me repeat a paradigm of fundamental examples.

(52) = (34)

- a. “We must do this again,” the guests all declared to Tony.

- b. “We must do this again,” declared all the guests to Tony.
 c. *“We must do this again,” declared the guests all to Tony.

[Collins and Branigan 1997]

The present analysis is coincidentally similar to that proposed by Collins and Branigan in that the subject DPs do not raise to any subject position. Under the analysis, however, they are postponed from Spec-V to VP. The non-inverted case of (52a) does not pose any problem for the movement subject hypothesis. As for the inverted case of (52b), a potential path of explanation is to assume that *all the guests* has moved around as a constituent, ending up at the VP adjunction position. The ungrammaticality of (52c) is also straightforwardly explained under our proposal.¹⁵ If the quantifier stranding analysis is correct, *all* can never appear to the right of the subject unless the latter moves leftward.¹⁶

It might already be clear that the movement subject hypothesis can deal with the major problems pointed out in the literature. We are now in a position to address to Case-marking to the inverted subjects.

5. Case-marking to the inverted subjects

A crucially important fact to notice here is that where the inverted subjects are pronouns, the favored morphological case is nominative rather than objective, though pronominal subjects are rather awkward in inverted constructions.

- (53) a. Under the garden wall sat I.
 b. *Under the garden wall sat me.

[Wakayama 1997]

- (54) a. ?? “Don’t snore,” pleaded they.
 b. * “Don’t snore,” pleaded them.

- (55) a. ?? “I’ve lost my keys,” said he.
 b. ** “I’ve lost my keys,” said him.

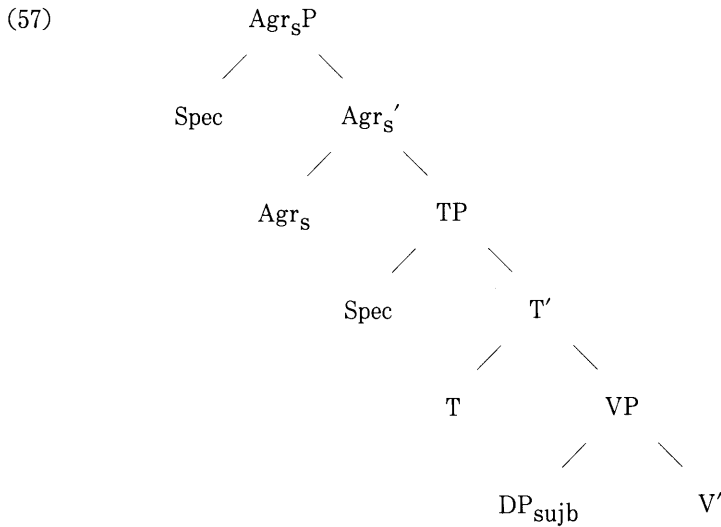
[Collins and Branigan 1997]

- (56) a. ?? Speaking to the President now is she.
 b. *Speaking to the President now is her.

These are remarkably striking examples in view of the fact that objective Case is the default Case in PE which appears in context where regular Case-marking process is inapplicable. This incites us to work out a syntactically well-defined process for Case-marking the inverted subject DPs.

We claim here that nominative Case-marking always originates in a subject position, and

this is true for the nominative Case in inverted constructions. Although a formal definition of subject position is notoriously elusive, we suggest that it should include at least three positions: Spec-V, Spec-T, and Spec-Agr_S.¹⁷ Since the subject DPs do not raise to Spec-T or Spec-Agr_S in inverted constructions, it would follow that Spec-V is the only candidate for the position where nominative Case-marking to the subject DPs takes place. This may sound bizarre, but let us see exactly what happens in the following configuration.



As argued above, the preposed constituents drop in at Spec-Agr_S in inverted constructions before they are deported onto CP. At the stage where DP_{sujb} occurred at Spec-V, if a Case-resistant constituent had already preposed to Spec-Agr_S, where does nominative Case go which Agr_S or the complex [Agr_S-T] is supposed to assign to DP_{sujb} in Spec-Agr_S? A possible answer would be that it is assigned to DP_{sujb} in Spec-V under the condition of government.

It should be noted that Agr_S or [Agr_S-T] c-commands Spec-V, and thus governs Spec-V if there are no barriers, in the sense of Chomsky (1986), on the path from Agr_S to Spec-V. There seem to be no barriers on the path, since every type of constituents can move out of VP and arrive at various positions above it.¹⁸

But a couple of problems remain to be resolved. First of all, if Agr_S can Case-mark under government as well as Head-Spec agreement, why can it not Case-mark subject DPs remaining in Spec-V in non-inverted constructions? A pivotal assumption here is that UG contains two major configurational relations which trigger structural Case-marking: Head-Spec relation for nominative Case and Head-Complement relation for objective Case. As such, they

override other minor configurational relations for Case-marking, government relation. Notice that Spec-V is neither a specifier nor a complement of Agr_S in (57); it is just governed by Agr_S. Thus Agr_S primarily assigns nominative Case to its Spec position when pure constituents, DPs, arrived there. Then it is predicted that inversion is illicit if a pure argument is preposed to Spec-Agr_S, as in (58a).

- (58) a. *[A new technology]_i t_j developed t_i [Ben Leonard]_j.
 b. [An attractive woman]_i t_j is t_i [Lee Seymour]_j.
 c. [To find a job]_i t_j is t_i [our desire]_j.
 d. [That the house is very old]_i t_j is t_i [Camille's problem]_j.

The example of (58a), where the object DP was preposed, is ruled out because Agr_S primarily Case-marks it, leaving the subject DP caseless. By contrast, the examples of (58b,c,d) are licit, because Case-resistant constituents are preposed to Spec-Agr_S, sending nominative Case to the subject DPs in Spec-V.¹⁹ These all may constitute evidence for our proposal. Meanwhile V primarily assigns objective Case to its complements rather than DPs in its Spec position. But it exceptionally Case-marks DPs which are not its complements but governed by it; hence ECM constructions are allowed in PE.

Secondly, if Spec_S Case-marks the Spec-V position, why are the preposed Case-resistant constituents deported out of its Case-marking domain? Since Spec_S usually assigns just one nominative Case, there will be no reason for the constituents to be deported when the single Case is assigned to the governed subjects in Spec-V. This should be the case if the right principle were the Case-Resistance Principle proposed by Stowell (1981). Under his proposal, Case-resistant constituents are forced to move only when the relevant constituents themselves face the threat of Case-marking. Under the Pure Case-marking Domain Hypothesis, however, any Case-marking domain must be pure in the sense that only a Case-assigner and Case-assignee can remain in the domain when Case-marking is carried out. This means that the Case-resistant constituents, which are impure, are deported even if they themselves are not Case-marked.

Thirdly, why is the postposing of the subject DPs almost obligatory in most inverted constructions? If the Case-marking to Spec-V under government is correct, it will be predicted that the postposing of the subjects is optional, for they are Case-marked in the base-generated position and do not have any purely syntactic reason to move. As noted above, this is the case with quotative inversion and other inversions with pronoun subjects. They are somehow exceptional as inversions or even cannot be examples of inversion. But syntactically they can be rather normal, if not paramount. It would be in order here to note

that we argued above that the motivation for subject postposing is focus assignment rather than syntactic feature-checking or Case-marking. Thus let us claim that focus assignment to subject DPs is obligatory in the majority of classes of inversions. If this sounds aberrant, it should be recalled here that inversion is a discourse phenomenon to emphasize part or a whole of a sentence by putting focus on a certain constituent, usually the subject DP. Thus we can conclude that there is nothing vulnerable with the proposal here if subject postposing is not carried out in a syntactic fashion.²⁰

Last but not least, are there any other cases where Case-marking is directed to governed DPs because of the presence of impure constituents in an otherwise Case-marked position? Although this is a rather uphill battle to wage in PE, examples like (59) will be of use at least to some extent.

- (59) a. There arrived a man in the room.
 b. I believe [there to be a man in the room].

Following the lines thus far discussed, let us assume that *there* is inserted in the matrix Spec-Agr_S and embedded Spec-Agr_S in (59a,b), respectively. Following Chomsky (1995, p.287), let us further assume that *there* is a pure expletive and lacks formal and semantic features, including Case-feature or ϕ -features, apart from its category D. It could receive nominative and objective Case in (59a,b), respectively, but as a Case-resistant category it will repulse any Case. Then the Cases will be transmitted to *a man* base-generated in Spec-V, matrix or embedded. Thus it is expected that the inverted subject is nominative in (59a) and objective in (59b). This Case difference is never realized overtly in PE, but if we turn to other languages, like Icelandic, with more rich morphology, we can see it clearly.

- (60) a. það höfu sennilega sokkið einhverjir bátar/*einhverja báta í fir inum.
 There had(3PL) probably sunk some boats(NOM/*ACC) in bay-the
 b. Hann taldi [*pro* hafa sokkið *einhverjir bátar/einhverja báta í fir inum].
 He believed have sunk some boats(*NOM/ACC) in bay-the

[Vikner 1995, pp.175-6]

Where the expletive is in the matrix Spec-Agr_S, where it could receive nominative Case, its associate is also nominative, as in (60a). By contrast, where the expletive, though empty, is in the embedded Spec-Agr_S, where it could receive accusative Case, its associate is also accusative, as in (60b).²¹ This difference is precisely what is expected under the present proposal. The Case-marking in (60) has often been treated as instances of Case-agreement or Case-transmission between an expletive and its associate. If the claim above is correct, we can dispense with such a process of Case-marking at least in PE.

An additional piece of evidence comes from the fact that the expletive *it* never allows DP as its associate in PE. As opposed with *there*, *it* must receive Case, never transmitting Case to Spec-V. If its associate were DP, it leads to a violation of the Case Filter. Thus only DP, a Case-resistant category, is tolerated as its associate.

6. Conclusion

After having established the configurational structure of inversions at S-structure, we have discussed Case-marking of the inverted subject DPs. It was claimed that the preposed constituents are substituted for Spec-Agr_S and deported out of the Case-marking domain of Agr_S, in accord with the Pure Case-Marking Domain Hypothesis. Meanwhile the subject DPs are base-generated in Spec-V, and postponed onto VP because of the requirement of focus assignment. Since the preposed constituents always drop in at Spec-Agr_S, they cannot raise there without violating the recoverability condition on deletion. This means that they can be postposed by Heavy NP Shift as well as Light NP Shift, despite their status as subjects. Before the postposing, they are Case-marked by Agr_S under the condition of government. A critically important thing to notice is that main verbs are never raised out of VP even in inverted constructions. Therefore it is necessary to assume the existence of subject postposing to yield the correct linear order.

Many problems still remain unsolved. In particular, although we dispensed with Case agreement or Case transmission in favor of Case-assignment under government, it would cause a variety of problems in other languages than PE. If the necessity of Case agreement or Case transmission is endorsed in other languages, we will have to come back to its availability in PE.

Notes

1. Although Chomsky (1995, chap.4) attempts to eliminate both Agr_S and Agr_O from universal grammar, this cannot be a well-founded move, simply because there are many languages which have overt morphology of object-verb agreement as well as subject-verb agreement.
2. Obviously it is not the case that all types of inversions have the same syntactic or semantic properties. For instance, directional adverb preposing and direct quote preposing only produce grammatical sentences when verbs have simple tense.
 - (i) a. *In has come John!
 - b. *Down the street was rolling the baby carriage!
 - c. *Across the park will be thrown the ball!
 - cf. Across the park will be erected a war memorial.

- (ii) a. *"Bill is crazy," was repeating Mary.
 b. *"I am late," has exclaimed Bill.

[(i)-(ii): Emonds 1976, p.38]

I cannot present any explanation for this tense limitation. As for quotative inversions, Collins and Branigan (1997) explain from a standpoint of Minimalist Program, in particular the feature checking theory. Very roughly, in this inversion C has a special feature, [+quote], which must be checked by covertly raising a main verb to C, but it is blocked by an auxiliary because of the minimal link condition (MLC). If this is the case, Collins and Branigan will have to assume a similar feature for directional adverb preposing as well, but not for the other inversions.

3. Halliday notes that fronted constituents are marked themes, while subjects are unmarked ones. Only the sequence of marked theme and unmarked theme is allowable.
4. This presupposes that the identical chain condition on ordinary constructions applies to the inverted constructions, though there is no evidence for this. There might be no evidence to suppose to the contrary.
5. Under the proposal of Chomsky (1995), movement into Spec-C is obligatory from the necessity of feature-checking; it is necessary to check Q-feature sited in C with a moved operator under the general relation of Spec-Head Agreement. This could be true. Given the overall doubtfulness of his feature-checking theory, however, it will be a dubious move to ascribe the obligatoriness of movement into Spec-C to the necessity of checking the Q feature.
6. It might be that in examples like (24)-(26) the subject PPs are transiently used as DPs or NPs in a certain way which is very difficult to formalize theoretically.
7. Collins and Branigan claim that in quotative inversions the quotes are adjoined to CP and an empty operator is in Spec-C to induce inversion, and control the empty operator to identify the content of the latter. This is not an unacceptable move insofar as the quotes are actually adjoined to CP.
8. In Koizumi (1995), among others, it is claimed that main verbs raise overtly, assuming the so-called split-VP structure redolent of the VP-shell structure proposed by Larson (1988). But verbs raise from the lower V to the higher V, and never move outside the higher VP.
9. The authors show no evidence for this assumption.
10. For our present purposes, the Case-Resistance Principle proposed by Stowell (1981) is enough. But it is unsatisfactory if we consider whole problems involved.
11. As discussed below, Light NP Shift is triggered by a factor related to focus. Heavy NP Shift also would have something to do with focus, but it might not be the only factor that triggers the latter.
12. Arimura (1987) argues that transitive there constructions are more common in ModE.
13. Chomsky (1995), among others, treats focus as a formal feature that must be checked, and Bresnan (1994) as a lexical property of predicates such as unaccusative verbs. These all seem to be unconvincing moves since they present no arguments for them.
14. One might argue that since the relocated subjects and trace have an identical index, the replacement of the latter with the former is allowed under the recoverability condition on deletion. But who knows that it is allowable in universal grammar?
15. This does not necessarily mean that quantifier stranding analysis is on the right track. See

note 16, for related discussion.

16. The analysis in the text incorrectly predicts that floating quantifiers can appear before main verbs, as in i), if they are stranded in Spec-V by subject postposing.

i) "We must do this again," all declared the guests to Tony.

There are two things to notice. The first is that the quantifier stranding analysis is not necessarily correct. See Akiyama (1994), for discussion. Secondly, to my knowledge, there are no examples where floating quantifiers appear to the left of DPs to which they are semantically associated. Thus it seems that there is a general condition which interdicts quantifiers from occurring to the left of their associates.

17. It is unclear if there is empirical evidence that indicates subject DPs appear in or pass through Spec-T. In Chomsky (1995), among others, it is assumed that D-feature resides in Spec-T, and a constituent has to move to Spec-T to satisfy the EPP. This seems to be a rather enigmatic move, but let us retain Spec-T as a theoretically possible subject position.

18. For empirical arguments that VP is not a barrier, see Amano et al. (1987).

19. In the Pure Case-Marking Domain Hypothesis, only DP arguments are regarded as pure, and PP, AP and CP arguments all are impure. As for the demarcation between pure and impure, see the previous issue of the present series, especially No.7.

20. Collins and Branigan (1997) demonstrate that quotative inversion is justified in a stream of discourse. It seems that basically the same will apply to the other inversions.

21. There are still a number of problems with (59) and (60), one of which is the position of the expletives. What is their position at S-structure? They cannot be exported out of the Case-marking domain despite the fact they are Case-resistant, since they tolerate subject-auxiliary inversion. This might originate in their categorial property as a noun.

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