

A Reconsideration of Exceptional Case-Marking

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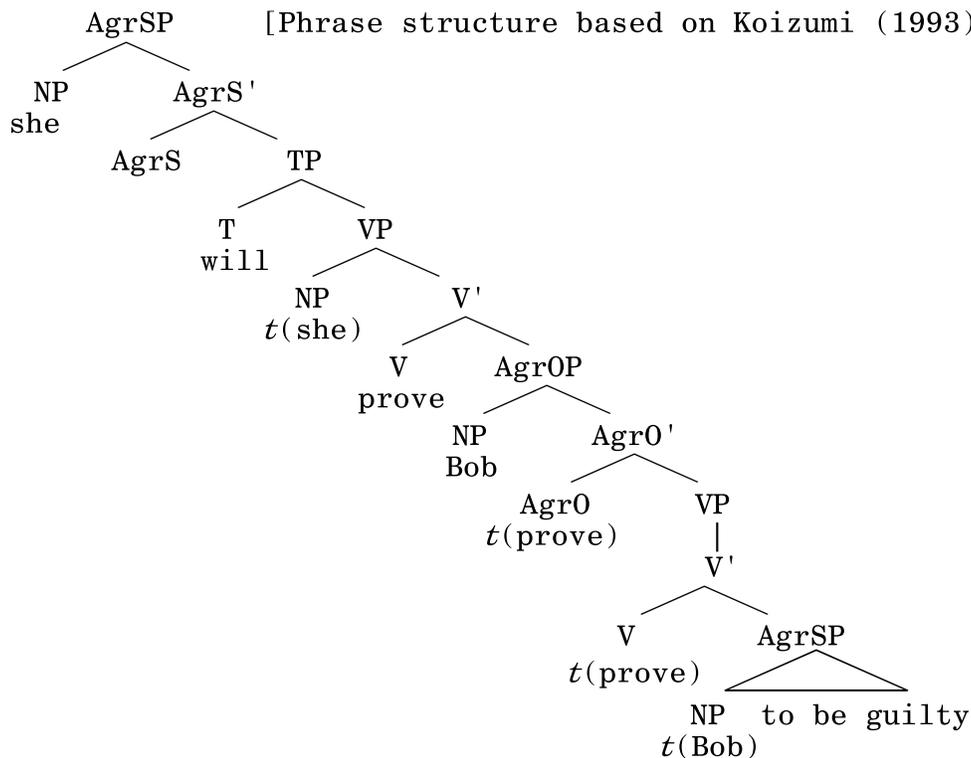
- (1) I believe her to have convinced Bill
- (2) As is well known, in 'deep' respects, the underlined NP in (1) behaves like the subject of the lower predicate, while in 'surface' respects, including morphological case, it behaves like the object of the matrix verb.
- (3) The morphological case of the subject of the infinitive in English is an objective case most typically associated with a direct object. And, for English, there is good evidence that the matrix verb, for example believe in (1), is responsible for that objective case. Overwhelmingly, the English Accusative-Infinitive construction occurs only as the complement of an otherwise transitive verb which is independently capable of licensing case on its complement. When an English transitive verb is made passive, it loses that capability:
- (4) I believe him
- (5) *It is believed him
cf. He is believed
- (6) It is believed that she convinced Bill
- (7) The English Accusative-Infinitive construction patterns with (5) rather than with (6):
- (8) *It is believed her to have convinced Bill
- (9) In Latin, on the other hand, infinitive evidently licenses accusative case on its subject (the traditional view, analogous to finiteness licensing nominative). Even the subject of the complement of an adjective or a passive verb can be accusative:
- (10) Certum est Petrum uenisse
certain is Peter-Acc. come.Past.infinitive
'It is certain that Peter came'
[Rouveret and Vergnaud (1980)]
- (11) Dicitur Petrum uenisse
it-is-said Peter-Acc come.Past.infinitive
'It is said that Peter came'
- (12) For English, it was standardly assumed in early generative grammar that the downstairs thematic subject becomes an upstairs object via transformation(s).
- (13) Chomsky (1955) had a process combining the higher and lower predicates and turning the underlying downstairs subject into the object of this complex predicate.
- (14) Rosenbaum (1967), on the other hand, had the downstairs subject raising into higher object position, a view defended at great length by Postal (1974).

- (15) "Three traditional arguments for higher object status" of the accusative subject in English [Postal 1974]. (These assume that the relations involved implicate clause-mates.)
- (16) a. Jack believed Joan to be famous
b. Joan was believed to be famous by Jack
- (17) a. *Jack_i believed him_i to be immoral
b. Jack_i believed himself_i to be immoral
- (18) They believed each other to be honest
- (19) A new alternative, Chomsky (1973): The relations in (16)-(18) don't demand clause-mates. Rather, they just require that the two related elements not be separated by a finite clause boundary (the Tensed Sentence Condition). I sometimes call these 'boundary strength arguments'.
- (20) But there are other phenomena [Postal (1974), Lasnik and Saito (1991)] that indicate that the accusative subject is at least as high in the structure as elements of the matrix clause ('height arguments').
- (21) ?The DA proved [the defendants to be guilty] during each other's trials
- (22) ?The DA accused the defendants during each other's trials
- (23) ?*The DA proved [that the defendants were guilty] during each other's trials
- (24) ?The DA proved [none of the defendants to be guilty] during any of the trials
- (25) The DA accused none of the defendants during any of the trials
- (26) ?*The DA proved [that none of the defendants were guilty] during any of the trials
- (27) The students solved three problems each
- (28) *Three students each solved the problems (i.e., on the reading 'The problems were solved by three students each')
- (29) *The students proved that three formulas each were theorems (i.e., on the reading 'Each of the students proved that three formulas were theorems')
- (30) ?The students proved three formulas each to be theorems
- (31) Jones proved the prisoners guilty with one accusation each
- (32) Jones proved the defendants to be guilty with one accusation each
- (33) Jones prosecuted the defendants with one accusation each
- (34) ??Jones proved that the defendants were guilty with one accusation each
- (35) Chomsky (1991) proposed raising, but not to object position, rather to Spec of an agreement projection above the VP, Agr_o, (where, he proposed, objects also raise) in the LF component (because of concerns about the word order; overt raising would incorrectly, for English, place the object or ECM subject to the left of the verb.).
- (36) But Lasnik and Saito argued that at least some of the phenomena they explored implicate overt raising. For instance, covert operations never seem to affect anaphoric binding possibilities, yet, as we have seen, the ECM subject can bind an item unequivocally in the matrix clause. Lasnik and Saito left this as a mystery.

Further

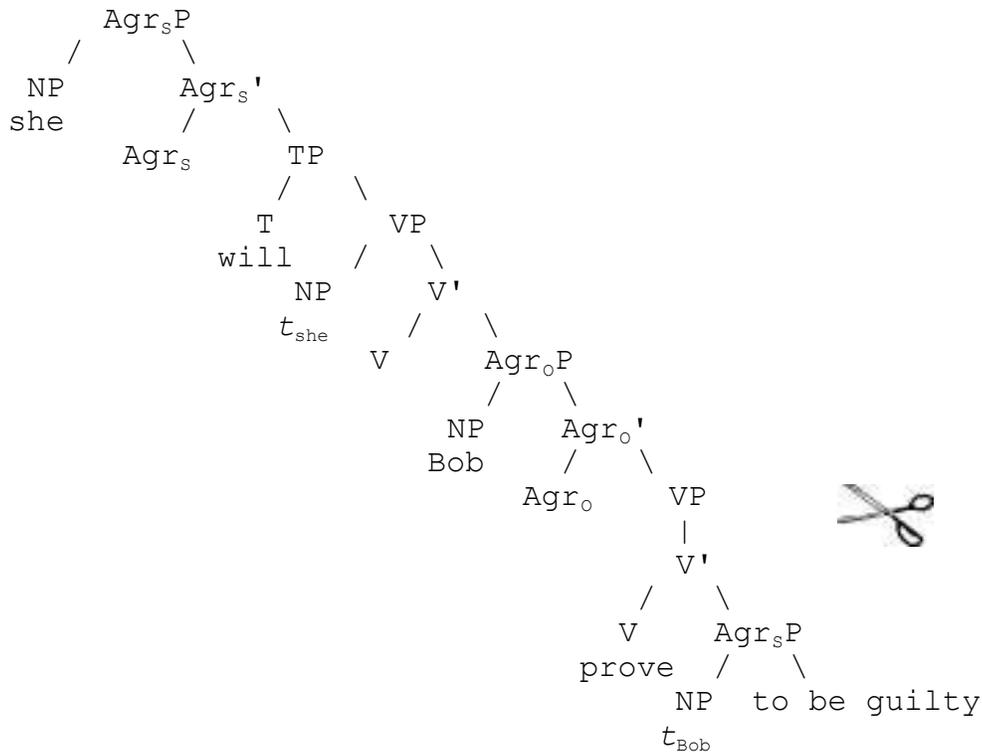
- (37) Sometimes the raising is audible, as in these examples from Postal (1974):
 (38) I figured out [it was more than 300 miles from here to Tulsa]
 (39) I figured it out [*t* to be more than 300 miles from here to Tulsa]
 (40) Or these from Kayne. ((Though not Kayne's analysis. Johnson (1991) and Koizumi (1993) did offer a raising account.))
 (41) (?)They're trying to make out John to be a liar Kayne (1985, p.113), Johnson (1991)
 (42) They're trying to make John out to be a liar
 (43) cf. They're trying to make out that John is a liar
 (44) Koizumi proposed a way that the raising could be overt while still producing the correct word order, his 'split VP hypothesis', with the NP raising and the main V raising still higher.
 (45) She will prove Bob to be guilty

(46) [Phrase structure based on Koizumi (1993)]



- (47) An additional argument for overt raising of an ECM subject (or, for that matter, a matrix object); Pseudogapping as VP ellipsis (Jayaseelan (1990)), with the remnant having raised to Spec of Agr_o (Lasnik (1995)).
 (48) Mary hired John, and Susan will ~~hire~~ Bill
 (49) He proved Jones (to be) guilty and she will ~~prove~~ Bob (to be) guilty

(50)



- (51) One nice feature of a raising analysis (either that of Chomsky (1991) or Koizumi (1993)) is that structural Case is always licensed in the same configuration: Spec of a functional head, a point made by Chomsky.
- (52) BUT there is evidence that the raising into the higher clause does not invariably take place, at least for some speakers.
- (53) %They're trying to make out John to be a liar Kayne (1985, p.113), Johnson (1991)
- (54) They're trying to make John out to be a liar
- (55) A curious surface constraint discovered by Postal (1974) was used there to argue for raising, and for its obligatoriness.
- (56) *Not*-initial NPs occur only in (derived) subject position. Postal (1974, p.95)
- (57) Not many gorillas have learned to tap-dance
- (58) ?*Joe kissed not many models
- (59) Not many Albanians have been interviewed by Severeid All from Postal (1974)
- (60) %Harry proved not many of those formulas to be theorems
- cf.
- (61) Harry proved that not many of those formulas were theorems
- (62) Postal uses (60) to argue for obligatory raising. However, for some speakers, the example isn't so bad, suggesting that the raising need not have taken place.
- (63) The contrast emerges even more clearly in the *make out* infinitival construction:

- (64) ?They made out not many articles to have been published
(Needless to say, this one isn't good for those who don't get make out NP to ... word order in the first place.)
- (65) *They made not many articles out to have been published
- (66) An observation about scope that Zubizarreta (1982) attributes to Chomsky, and that is discussed again by Chomsky (1995), provides further evidence for the optionality of object shift with ECM subjects for some speakers:
- (67) a. (it seems that) everyone isn't there yet
b. everyone seems [t not to be there yet]
- (68) Chomsky (p.327) argues as follows: "Negation can have wide scope over the Q in [(67)a]... but not in [(67)b]", concluding that "...reconstruction in the A-chain does not take place, so it appears."
- (69) Thus, a universal quantifier in subject position can be understood in the scope of clausal negation; but not if that quantifier has undergone raising.
- (70) I believe everyone not to be there yet [Based on Chomsky (1995)]
- (71) For some speakers, Chomsky among them, this can have 'everyone' with scope below 'not', just as in the situation of "I believe that everyone isn't there yet".
- (72) What happens when the word order indicates whether or not raising has taken place?
- (73) The mathematician made every even number out not to be the sum of two primes
[Only has the crazy reading that the mathematician was pretending that no even number is the sum of two primes.]
- (74) The mathematician made out every even number not to be the sum of two primes
[For speakers who get this word order in the first place, in addition to the crazy reading also has the sane reading that the mathematician was pretending that Goldbach's conjecture is false.]
- cf.
- (75) The mathematician made out that every even number isn't the sum of two primes
Lasnik (1999), Lasnik (2001)
- (76) Thus, we have more evidence that, at least for some speakers, the raising in ECM constructions is optional.

One final argument for optionality of raising:

- (77) *John_i injured him_i
- (78) *John_i believes him_i to be a genius
- (79) *Mary injured him_i and John_i did too
- (80) %Mary believes him_i to be a genius and John_i does too
- (81) Bizarrely, a PF process, deletion, looks like it is repairing a Condition B violation in the ECM situation, at least for some speakers.
- (82) Suppose Postal (1966), Postal (1974) was right (contra Chomsky (1973)) that the relevant structural configuration for such obviation is based on the notion clause-mate. (For related discussion, see Lasnik (2002) and Ausin (2001).)

- (83) Weak pronouns must cliticize onto the verb, as proposed by Oehrle (1976)
- (84) The detective brought him in
- (85) *The detective brought in him Chomsky (1955)
- (86) I gave it to Mary
- (87) *I gave Mary it
- (88) Suppose cliticization demands structural locality (in addition to linear locality). And suppose that in (80) him stays in the lower clause to evade a Condition B effect. The resulting failure to cliticize would cause a PF violation, but in (80) the failure is repaired by ellipsis, as the would-be clitic is gone.
- (89) In (79), on the other hand, the pronoun and its antecedents are clause-mates all along, so deletion doesn't help. The cliticization requirement will invariably be satisfied but Condition B will invariably be violated.
- (90) So how is Case licensed when the ECM subject doesn't raise? Possibly, as in LGB, by government across the infinitival clause boundary. Or, a more modern version of the idea, via long distance Agree.
- (91) But there is a potentially nicer possibility.
- (92) Davis (1984) rejected the classic LGB analysis, which was based on the idea that S, unlike S', is not a maximal projection, so does not block government of the embedded subject by the matrix verb, allowing the latter to Case-mark the former. Thus, following "S'-deletion", a process triggered by a particular class of verbs, 'believe' governs and Case-marks 'John' in
- (93) We believe [John to be intelligent]
- (94) But, Davis noted, once clauses are fully incorporated into X' theory, this becomes untenable: S is actually the maximal projection of Infl, so the needed government would not be available. As an alternative, Davis proposed that the Case feature of 'believe' percolates down to the head of its complement, non-finite Infl, thus providing the latter with accusative Case-marking ability.
- (95) Three notes on this:
- a. Modern Minimalist feature inheritance is remarkably reminiscent of Davis's approach
 - b. Davis didn't comment on this, but a special configuration of Case-marking is eliminated - head to specifier of complement. In the new account, subjects are always assigned Case in the Spec-head configuration of a functional head, and this remain so even if the ECM subject doesn't raise.
 - c. In the 'Accusative-Infinitive' construction of Latin and Classical Greek, non-finite Infl was evidently directly responsible for the accusative Case on its specifier. Under Davis's proposal, these languages are actually quite similar to English, the only difference being that in English, non-finite Infl needs to inherit the Case-assigning feature while in Latin and Classical Greek, infinitival Infl has that feature intrinsically.
- (96) An alternative version of Davis's proposal, suggested to me by Bob Freidin:
- (97) Already in the lexicon there are (at least) 2 kinds of infinitival Infl, one of them (presumably the marked one) licensing accusative Case on its Spec, the other one not.
- (98) Most English speakers have only the latter, so for them, raising will be necessary.

- (99) The other speakers have, in addition an infinitival Infl (almost like the one in Latin) that does license accusative. An 'ECM' verb has the option of selecting this second type of Infl. (The difference from Latin is that the Acc-licensing Infl seems to be freely available in the latter language.) One problem with this alternative is that ECM verbs when passivized must be prevented from selecting Acc-licensing Infl.
- (100) Either version of the Davis idea is of benefit with respect to another observation of Kayne's (stated in my terms): With small clause complements, raising is obligatory for all speakers.
- (101) They're trying to make John out a liar Kayne (1985, p.108-109)
- (102) *?They're trying to make out John a liar
- (103) This correlates well with the 'not'-initial NP constraint:
- (104) Mary believes that not every politician is a liar
- (105) Mary believes not every politician to be a liar [OK for some speakers]
- (106) *Mary believes not every politician a liar [* for all]
- (107) Why should this be? If, as I have been assuming/arguing, the issue is Case, it would be strange if the subject of a small clause could not be governed by the matrix verb while the subject of an infinitive could be. If one would anticipate a difference at all, it would be that a small clause boundary is weaker than any full clause boundary.
- (108) On a Davis type approach, one would just have to say that whatever the head of a small clause is, it's not the kind of thing that can have (or inherit) a Case feature.
- (109) There is yet another virtue of a Davis style account to ECM. Davis suggested that an ECM difference between English and French pointed out by Kayne (1981) can be accounted for in terms of her proposed percolation mechanism.
- (110) As is well known, French does not allow English style ECM, but does allow apparent ECM when the embedded subject undergoes \bar{A} -movement:
- (111) *Tu crois [Jean être intelligent]
 You believe Jean to be intelligent
- (112) Quel homme crois-tu [t être intelligent]
 Which man believe-you to be intelligent
- (113) Davis's proposal is that in French, unlike in English, the infinitival complement here is a full CP, not just an IP. The accusative Case feature of *croire* would then be passed to C, the next head down, not all the way to Infl. Thus, accusative Case can be licensed on the Spec of C, ensuring that the \bar{A} -chain is Case licensed.
- (114) There is one additional property of Latin that must be mentioned: Usually, if a nominal expression is in a position to which Case can be assigned, it is incapable of undergoing A-movement from that position. Yet in Latin, the subject of an infinitive can undergo raising, as seen in these examples from Horrocks (2011):

- (115) (a) dicunt [Homerum caecum fuisse]
they-say Homer-Acc blind-Acc to-have-been
They say Homer was blind
(b) dicitur [Homerum caecum fuisse]
it-is-said Homer-Acc blind-Acc to-have-been
It is said that Homer was blind
- (116) Homerus dicitur [caecus fuisse]
Homer-Nom is-said blind-Nom to-have-been
Homer is said to have been blind
- (117) There are at least a couple of ways to implement this:
(a) Simply say it is a lexical property of Latin infinitival Infl that it optionally licenses Acc on its Spec.
or
(b) There are 2 different infinitival Infs in Latin, one licensing Acc and the other not. This is reminiscent of the Freidin version of Davis's proposal. The difference from English would be that the former one in Latin has a freer distribution.
- (118) The situation with Latin ECM is somewhat reminiscent of what we find in Korean, as discussed by Hong (2002) and Hong and Lasnik (2010).
- (119) John-un Mary-ka/lul mitep-ta-ko sangkakha-n-ta.
John-Nom Mary-Nom/Acc reliable-Dec-Comp think-Pres-Dec
'John thinks that Mary is reliable.'
- (120) John-un Mary-*ka/lul mitep-kye sangkakha-n-ta.
John-Nom Mary-Nom/Acc reliable-SCmarker think-Pres-Dec
'John thinks Mary reliable.'
- (121) Full clause allows nominative or accusative subject (the latter depending on properties of the matrix verb and the complement predicate, all of which I abstract from). Small clause allows only accusative.
- (122) (a) kakka-uy haksængtul-i Mary-**ka/lul** toktokhata-ko mitess-ta
each-Gen students-Nom Mary-**Nom/Acc** intelligent-Dec-Comp believe-Pres-Dec
'Each of the students believe Mary to be intelligent.'
(b) *haksængtul-i Mary-**ka** kakkak toktokhata-ko mitess-ta
students-Nom **Mary-Nom** each intelligent-Dec-Comp believe-Pres-Dec
(c) haksængtul-i Mary-**lul** kakkak toktokhata-ko mitess-ta
students-Nom Mary-**Acc** each intelligent-Dec-Comp believe-Pres-Dec
- (123) A floated quantifier associated with matrix subject can appear to the right of an accusative complement subject but not a nominative one, strongly suggesting that the former, but not the latter, has raised.
- (124) An apparent Condition B phenomenon provides further support:

- (125) a. John_i-un ku_i-ka taytanhata-ko saengkakhanta
 John-Nom he Nom great-Comp think-Past-Dec
 'John_i thinks/considers that he_i is great.'
 b.*John_i-un ku_i-lul taytanhata-ko saengkakhanta
 John-Nom he-Acc great-Comp think-Past-Dec
 '*John_i thinks/considers him_i to be great.'
- (126) *John_i-un ku_i-lul taytanha-key saengkakhanta
 John-Nom he-Acc great-SCmarker think-Past-Dec
 '*John_i thinks/considers him_i great.'
- (127) The embedded accusative subject cannot be coreferential with the matrix subject, while the embedded nominative subject can.
- (128) If, as suggested earlier in this talk, the relevant domain for Condition B is the clause, as in classical generative work on anaphora ...
- (129) Then (125) indicates that in ECM contexts, the embedded subject can raise (and be accusative), or remain below (and be nominative).
- (130) (126) indicates that the subject of a small clause must raise, just as we saw in English.
- (131) Note that Korean ECM, unlike that in English or Latin, is possible when the embedded clause is finite. Thus, if the constraint mentioned above barring A-movement of a Case-marked nominal is to be maintained, it must be that Korean finite Infl, like Latin infinitival Infl, need not assign its Case. The two possible instantiations of this property suggested for Latin could carry over to Korean.
- (132) Here are a couple of remaining research questions:
 (a) What further kinds of exceptional Case marking occur in the languages of the world?
 (b) To what extent do the phenomena presented here, and additional ones in Lasnik (2001) implicating optional raising, all correlate? It would be really nice if they correlated perfectly. But that's surely too much to expect.

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