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## On Certain Proper Binding Condition Effects

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- (1) John is likely to win
- (2) How likely to win is John
- (3) There is likely to be a riot
- (4) \*How likely to be a riot is there Lasnik and Saito (1992), following Kroch and Joshi (1985)
- (5) John is likely [<u>t</u> to win]
- (6) John is likely [PRO to win]
- (7) [How likely [t to win]] is John <Out by PBC Fiengo (1977)>
- (8) [How likely [PRO to win]] is John
- (9) There is likely [<u>t</u> to be a riot]
- (10) \*There is likely [PRO to be a riot] <PRO must be controlled by an argument Chomsky (1981), Safir (1985)>
- (11) \*[How likely [t to be a riot]] is there <Out by PBC>
- (12) A problem with this account: It posits a structural ambiguity for (1) but there is no obvious corresponding semantic ambiguity. Huang (1993), Abels (2002). Further, the status of the PBC is now uncertain (especially given the numerous arguments for remnant movement).
- (13) \*How likely to be a man outside is there
- (14) "a man" must replace "there" in LF (as in Chomsky (1986), but this movement is illicit here, being sidewards. Barss (1986)
- (15) Expletive replacement per se cannot be correct, as shown by Chomsky (1991), den Dikken (1995), Lasnik and Saito (1991), Lasnik (1995a):
- (16)a Many linguistics students aren't here ≠
  b There aren't many linguistics students here
   Chomsky (1991)
- (17)a Some applicants<sub>i</sub> seem to each other<sub>i</sub> [ $\underline{t}$  to be eligible for the job]
  - b \*There seem to each other<sub>i</sub> [ $\underline{t}$  to be some applicatns eligible for the job] den Dikken (1995)

- (18)a Someone<sub>i</sub> seems to his<sub>i</sub> mother [ $\underline{t}$  to be eligible for the job]
  - b \*There seems to  $his_i$  [<u>t</u> to be someone<sub>i</sub> eligible for the job] den Dikken (1995)
- - b \*There seem to any philosophers [t to have been no good linguistic theories formulated] Lasnik (1995a), Lasnik (1995b)
- (20) "The operation Move...seeks to raise just F." Chomsky (1995)
- (21) When movement is covert, hence only of formal features, the referential and quantificational properties needed to create new binding and scope configurations are left behind, so no such new configurations are created. Lasnik (1995a), slightly modifying Chomsky (1995)
- (22) The essence of Barss's account can be maintained under the feature movement analysis.
- (23) Suppose following Davis (1984) (and many others since) that <u>there</u> has no agreement features of its own but that Infl must check its agreement features against something. If checking in the Spec-head configuration fails, then feature movement from the 'associate' of <u>there</u> can satisfy the requirement.
- (24) There is [(very) likely [ to be [a man outside]]] [F] [F] [F] [F]
- (25) \*[How likely [t to be a man outside]][ $_{\overline{C}}$  is [ $_{IP}$  there ... ]] [F] [F] [F]
- (26) If movement must be to a c-commanding position, the necessary contrast obtains.
- (27) One other derivation must be prevented though. Suppose feature movement takes place **before** wh-movement:
- (28) There is [how likely [ to be [a man outside]]] [F] [F] [F] [F]
- (29) The movement here is correctly upwards. Then wh-movement

can take place. True, it will seemingly violate the PBC, but on this approach, the PBC is an artifact. The true constraint is that movement is upwards; and in this derivation all movement **is** upwards.

- (30) We must then force feature movement to come later, at least in the relevant derivations. This could simply be stipulated.
- (31) Or, better, we could follow the proposal of Ochi (1999), that feature movement leaves behind a phonetically defective item. Movement is free to take place overtly or covertly, but typically when it is overt, the derivation will 'crash' at PF, unless there is pied-piping or deletion of the remnant, neither of which obtains here.
- (32) \*How likely to be a riot is there
- (33)  $\checkmark$  How likely is there to be a riot Abels (2002)



(35) Under the assumption that the correct underlying constituent structure is [how likely [there to be a riot]], (33) involves extraposition.



(37) While both (34) and (36) are in violation of the PBC, in the latter (but not the former) the required covert feature movement from <u>a riot</u> to Infl is upwards.

- (38) They're trying to make John out to be a liar
- (39) ...make [NP<sub>j</sub> [e]<sub>i</sub> ] out [[NP<sub>j</sub> e] [to VP]<sub>i</sub>] (multiple extraposition) Kayne (1985)
- (40) (\*)They're trying to make there out to be no solution to this problem
- (41) What kind of thing is [NP<sub>j</sub> e]? It can't be NP-trace, because it is not c-commanded by NP<sub>j</sub>. So it must be PRO. This allows NP<sub>j</sub> to be <u>John</u>, as in (38), but not <u>there</u>, as in (40), since <u>there</u> can't control PRO:
- (42) \*There were reptiles before being mammals [p.115]
- (43) I made there out to be a unicorn in the garden Johnson (1991)
- $(44)(\checkmark)$  They made there out to be no solution to this problem



- (46) I've believed John for a long time now to be a liar
- (47) \*I've believed there for a long time now to be no solution to the problem
- (48) ... believed  $[NP_i [e]_i]$  for a long time  $[[NP_i e] [to VP]_i]$
- (49) A Kayne (1985) style account: [NP<sub>j</sub> e] cannot be NP-trace, since not c-commanded by its antecedent (i.e., a PBC violation). It can be PRO, but not if its antecedent is <u>there</u>.

- (50) Our alternative statement of the distinction:
- (51) The PBC doesn't exist, so there is no difficulty in generating (46).
- (52) <u>There</u> has no agreement features, so the Agr it is specifier of must attract the phi-features of the associate. But in (47), by hypothesis, that associate, as part of the extraposed constituent, is outside the c-command domain of the relevant Agr.
- (53) ??What have you believed John for a long time now to have said
- (54) ?\*How have you believed John for a long time now to have solved the problem
- COMPARE:
- (55) What did you make John out to have said
- (56) ?How did you make John out to have solved the problem
- (57) \*I've believed for a long time now John to be a liar
- (58) Since there has been extraposition of IP, the features of John cannot be attracted by  $Agr_0$  and or <u>believe</u>.

## Appendix

(59) Outside is a man (60)??Outside is likely to be a man (61) \*How likely to be a man is outside (62) \*[How likely [ to be a man]] is outside (63) But (61) displays Subject-Aux Inversion (SAI), a process long known to be incompatible with Locative Inversion: (64) \*Is outside a man (65) \*I wonder how likely to be a man outside is (66) \*I wonder [[how likely [ to be a man]] outside is]] (67) If a locative phrase has no agreement features, we can use the same account as for (4). (68) Outside are men (69) BUT the analogue of (33) is still bad, even when we control for the impossibility of SAI: (70)a \*How likely is outside to be a man b \*I wonder how likely outside is to be a man

(71) These facts indicate that the fronted locative, unlike the pleonastic <u>there</u>, is not in subject position. The facts are consistent with an account like that of Bresnan (1994) where the locative is actually a subject, but one that is necessarily topicalized.

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