Existential Constructions and the Proper Binding Condition
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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 [t to win]
(6) John is likely [PRO to win]
(7) [How likely [t to win]] is John ((Out by Proper Binding Condition Fiengo (1977)))
(8) [How likely [PRO to win]] is John

(9) There is likely [t 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 Proper Binding Condition]

(12) A problem with this account: It posits a structural ambiguity for (1) but there is no obvious corresponding semantic ambiguity. Huang (1993), Abels (In press) 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 sideward. Barss (1986)

(15) Expletive replacement per se cannot be correct, as shown by den Dikken (1995), Lasnik and Saito (1991), Lasnik (1995):

(16)a Many linguistics students aren't here
   b There aren't many linguistics students here

(17)a Some linguists seem to each other [t to have been given good job offers]
   b *There seem to each other [t to have been some linguists given good job offers]

(18)a No good linguistic theories seem to any philosophers [t to have been formulated]
   b *There seem to any philosophers [t to have been no good linguistic theories formulated]
(19)a Some defendant\textsubscript{i} seems to his\textsubscript{i} lawyer [\textsuperscript{t} to have been at the scene]
b *There seems to his\textsubscript{i} lawyer [\textsuperscript{t} to have been some defendant\textsubscript{i} at the scene]

(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 (1995), 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 there 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 there can satisfy the requirement.

(24) There is [(very) likely [ to be [a man outside]]]
[F]                                  [F]
\uparrow

(25) *[How likely [t to be a man outside]][\tau is [\textsuperscript{3}f there ...]]
[F]                                  [F]
\uparrow

(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]
\uparrow

(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), extending ideas of Chomsky (1995) hinted at above, 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.

(32) *How likely to be a riot is there
(33)  How likely is there to be a riot

(34)                        * CP
                     /    \                     
[How likely [t to be a riot]] C'
              /      \               
          is     IP               
            /    \               
       there    I'               
           / \     \          
          t   VP               
            / \               
             V   AP            
                   t         t

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

(36)                        CP
                     /    \                     
[How likely [t]] C'
              /      \               
          is     IP               
            /    \               
       there    I'               
           / \     \          
          t   VP               
            / \               
             VP   IP            
                   / \          
              [t to be a riot] 
                \               
                  V   AP
                   t         t

(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 a man to Infl is upwards.

(38)  Outside is a man
(39)  ??Outside is likely to be a man
(40) *How likely to be a man is outside
(41) *[How likely [t to be a man]] is outside

(42)  But (40) displays Subject-Aux Inversion (SAI), a process long known to be incompatible with Locative Inversion:
(43) *Is outside a man

(44) *I wonder how likely to be a man outside is
(45) *I wonder [[how likely [t to be a man]] outside is]]
(46) If a locative phrase has no agreement features, we can use the same account as for (4).

(47) BUT the analogue of (33) is still bad, even when we control for the impossibility of SAI:

(48)a  *How likely is outside to be a man
b  *I wonder how likely outside is to be a man

(49) These facts indicate that the fronted locative, unlike the pleonastic there, 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.

References