Superiority

Chomsky 1973 pp.245-246

(1) John knows [who [t saw what]
(2) *John knows [what [who saw t]

(3) *What books does [John know [to whom [ (PRO) to give t t ]]
(4) *To whom does [John know [what books [(PRO) to give t t ]]

(5) "... wh-Movement cannot move a wh-phrase across a wh-subject (just as it cannot move a
wh-phrase across a wh-COMP)."

(6) No rule can involve X, Y in the structure
...X ... [z ... Z ... -WYZ ... ] ...
where the rule applies ambiguously to Z and Y and Z is superior to Y

(7) Superior (informal): "closer to the root of the tree"
(8) Superior (more formal): A is superior to B if every major category dominating A dominates B
as well but not conversely.

(9) John knows [what books [ (PRO) to give t to whom ]]
(10) John knows [to whom [ (PRO) to give what books t ]]

(11) John knows [what [ (PRO) to give t to whom ]]
(12) John knows [to whom [ (PRO) to give what t ]]

Possibly cf.
(13) *John knows [who(m) [(PRO) to give what to t ]]


(14) Shallowness: An operation must be the shallowest p. 258
(15) α is shallower than β if and only if the depth of α is properly included in the depth of β. p. 260
(16) Depth: The depth of a Move-α operation affecting α is the union of the depth of α in the
input of the operation and the depth of α in the output, where the depth of α is the set of
maximal projections which dominate α. p. 258
<<This led to the 'Attract' view of movement, by which the movement of α is to satisfy the needs
of the head β to which it moves.>>
Chomsky Ch. 3, p. 181

(17) Whom₁ did John persuade t₁ [(PRO) to visit whom₂]
(18) *Whom₂ did John persuade whom₁ [(PRO to visit t₂]

(19) Whom₂ "has failed to make the shortest move". [Not quite accurate]
(20) "... Movement of whom₂ to [Spec, CP] is longer in a natural sense (definable in terms of c-command) than movement of whom₁ to this position."

Similarly for wh-islands:

(21) *What did you wonder where John put
(22) [cp,[ip, what₁ did [ip, you wonder [cp, where₂ [ip, John put t₁ t₂]]]]]

(23) Where is closer to the matrix C than what is, so where is an intervener preventing what from moving. [And where is for some reason frozen in place.]

and 'Superraising':

(24) *John seems that [it is likely [t to be arrested t]]

(25) It intervenes between matrix subject position and John preventing the latter from moving. [Even though it is frozen in place.]


(26) Y is in a Minimal Configuration (MC) with X iff
there is no Z such that
(i) Z is of the same structural type as X, and
(ii) Z intervenes between X and Y

<<Intervention is standardly defined in terms of c-command.>>

In the following, the intervener is in **bold**:

RM and head movement:

(27) a. They have left.
   b. Have they <have> left?
(28) a. They could have left.
   b. *Have they could <have> left?
   c. Could they <could> have left?

RM and A-movement:

(29) a. It seems that it is likely that John will win.
   b. It seems that John is likely t to win.
   c. John seems t to be likely t to win.
   d. *John seems that it is likely t to win.
RM and Ā-movement:

(30)a. How many people do you consider __ intelligent?
    b. How intelligent do you consider John __?

(31)a. ??How many people do you wonder whether I consider intelligent?
    b. *How intelligent do you wonder whether I consider John __?