



*There* can only be merged in a Case-marking, non-Theta-marking position (SPEC-T). When *there* is replaced with an argument due to [D<sub>SPL</sub>], it may simply die off, since it does not seek theta-marking. Once a true argument has entered the ‘D train’ (SPEC-T to SPEC-v), as in (2b), it cannot be derailed by [D<sub>SPL</sub>]. Replacing it with a different argument would leave the first argument without theta-marking.

D features also appear to be active in WHQs. A *wh* phrase can only be merged in SPEC-C<sub>WH</sub> or in a theta-marking position. If affirmative root C<sub>WH</sub> containing a phonetic form bears [D<sub>SPL</sub>] and C<sub>WH</sub> with no phonetic form bears [D<sub>UNI</sub>], then T-to-C in object v subject WHQs is explained (3). (Adger’s (2003) PTR predicts ‘*did*’ in (3a) but ‘*saw*’ in (3b).)

- (3) a. [What [C<sub>WH</sub>/T<sub>Past</sub> [Mary [T<sub>Past</sub> [v<sub>P</sub> ~~Mary~~ [√see+Voice<sub>v</sub>]]]]]]  
           [D<sub>SPL</sub>]          [D<sub>UNI</sub>]          [EA: Mary] [IA: what]  
           ‘*What did Mary see?*’
- b. [Who [C<sub>WH</sub> [~~who~~ [T<sub>Past</sub> [v<sub>P</sub> ~~who~~ [√see+Voice<sub>v</sub> Mary]]]]]]  
           [D<sub>UNI</sub>]          [D<sub>UNI</sub>]          [EA: who] [IA: Mary]  
           ‘*Who saw Mary?*’

In (3a), ‘overt’ C<sub>WH</sub> bearing [D<sub>SPL</sub>] blocks *what* from immediate downward copying. But unlike *there*, *what* requires a theta role, so it is diverted to MB, and emerges to satisfy the internal argument of ‘√see’. In (3b), ‘plain’ C<sub>WH</sub> bearing [D<sub>UNI</sub>] requires that *who* be copied downward onto the D train toward interpretation as the external argument of Voice<sub>v</sub>.

The Comp-trace Effect (C-tE) has a similar explanation. If an element in MB cannot exit in a higher clause, it exits to SPEC-C of the next lower clause. Thus the situation in C-tE constructions is like that in WHQs; an overt C has a *wh* phrase in SPEC. If this overt C bears [D<sub>SPL</sub>], and if English always requires SPEC-T to be filled, this results in the C-tE (4).

- (4) (Who do you think) [~~who~~ [that<sub>CDecl</sub> [Mary [T<sub>Past</sub> [~~Mary~~ [√see+Voice<sub>v</sub>]]]]]]  
                                   [D<sub>SPL</sub>]                                  [D<sub>UNI</sub>]                                  [EA: Mary] [IA: who]

Such a *wh* phrase may become a ‘subject’ if *there* is merged in SPEC-T as in (5).

- (5) (Who do you think)..  
           [~~who~~ [that<sub>CDecl</sub> [there [was/T<sub>Past</sub> [~~who~~ [√sing+Voice<sub>v</sub>]]]]]] (in the hallway)  
           [D<sub>SPL</sub>]          [D<sub>SPL</sub>]          [EA: who]

That the [D] parameter is initially unset/open is suggested by the fact that both children and ESL learners show the root WHQ forms in (6).

- (6) a. Who C<sub>WH</sub> [TP she can see \_ ]?  
       b. Who C<sub>WH</sub> [TP \_ can see her]?

A [D] feature on a head H is set as [D<sub>SPL</sub>] if there is consistent evidence of a different element to the one in SPEC appearing below H, and is set as [D<sub>UNI</sub>] if there is a consistent absence of a different element. A [D] feature on H is left ‘unset’ if there is no such consistent evidence. Thus, embedded WHQs as in (7) show no consistent evidence, and [D] on embedded C<sub>WH</sub> is left ‘unset’.

- (7) I wonder... a. who C<sub>WH</sub> Mary likes \_  
                   b. who C<sub>WH</sub> \_ likes Mary