

A Probe-Goal Analysis of Null Arguments

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[Intro] This paper proposes an account of a null subject phenomenon in terms of the probe-goal system under Chomsky's (2008) feature-inheritance system (hereupon, FIS), and gives a unified account for Italian *pro*-drop and German topic-drop phenomena.

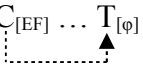
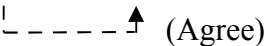
[FIS] The FIS assumes that a phase head C has two probe features, an edge-feature (EF) and Agree (ϕ)-features, that T inherits ϕ -features from C as in (1) (C-to-T-inheritance; henceforth, CTI) (p.148), and that ϕ -probe is subject to minimal search (p.142), but EF-probe is not (p.151). On the CTI, Richards (2007) argues that it is operative at the domain where the edge and nonedge (complement) of a phase are transferred separately. Hence, it is predicted that the CTI becomes inoperative at the domain where the edge and nonedge of a phase are transferred at once. Given that such an at-once-Transfer is the most appropriate manner of Transfer in verb second (V2) environments (Goto 2010 and Obata 2010), we can expect (2) as a natural consequence of Richards' argument.

[Proposal] I propose that in addition to EF and ϕ -features, C can enter a derivation with an E(llipsis)-feature, which makes it possible for an element to be deleted at PF (see (3)), and an element assigned an E-feature can be deleted at PF through an E-feature assignment which is implemented in terms of EF-probing by C or ϕ -probing by T.

[Prediction] The present system makes the prediction under (2) that while an E-feature is inherited from C to T with ϕ -features in a non-V2 language such as Italian, it is not inherited to T but stays on C in a V2 language such as German, as shown in (4) and (5). Thus, E-feature assignment is implemented by ϕ -probe in (4) and by EF-probe in (5).

[Analysis] Given (4) in Italian, the null subject sentence (6) (where [e] indicates the empty subject corresponding to a third person pronoun *egli* 'he/she') is derived as in (7). As soon as C with ϕ -features and an E-feature are introduced into the derivation ((7a)), both features are inherited by T from C ((7b)) and ϕ -features on T enter into a probe-goal relation with *egli*, which is in the minimal search domain of T ((7c)). Given that the probe-goal relation makes it possible not only to value uninterpretable features on T and *egli* but also to assign an E-feature to the agreeing element, *egli* can delete at PF ((7d)). Under the present analysis, the impossibility of the null object sentence (8) is explained as follows: since ϕ -probe is subject to minimal search, it is impossible to assign an E-feature to the downstairs object beyond the intervening subject; hence the object cannot be null at PF. Unlike Italian, given (5) in German, it is expected that not only a subject but also an object can be freely null: since EF-probe can seek any goal in its domain without involving minimal search, it can freely assign an E-feature to an element in its domain. This prediction is in fact borne out by (9). Specifically, this analysis can also explain the ungrammaticality of (10) as follows: since an EF on C is satisfied by *jetzt*,

EF-probe is deactivated, so that it is impossible to assign an E-feature to the arguments in its domain; hence neither the subject nor the object can be null at PF. **[Consequences]** The mechanism of PF-deletion developed so far not only gets rid of *pro* but also unifies the *pro*-drop phenomenon and the topic-drop phenomenon under the FIS.

- (1) $C_{[EF]} \dots T_{[\varphi]}$

- (2) C-to-T feature-inheritance does not take place in the V2 environment.
- (3) $C_{[EF][\varphi][E]} \dots T$
- (4) $C \dots T_{[\varphi][E]}$
- (5) $C_{[EF][E]} \dots T$
- (6) [e] parla. 'He/She is speaking.'
- (7) a. $[C_{[\varphi][E]} [T_{[v^*P]} \text{egli parla}]]$
 b. $[C [T_{[\varphi][E]} [v^*P \text{egli parla}]]]$
 c. $[C [T_{[\varphi][E]} [v^*P \text{egli parla}]]]$
 (Agree)
 d. $[C [T_{[\varphi]} [v^*P \text{egli}_{[E]} \text{parla}]]]$ (Strike-through indicates deletion)
- (8) ?*Alla fine della vacanza il bel tempo ha invogliato [e] a restare.
 at.the end of.the vacation the nice weather has induced to stay
 'At the end of the vacation the nice weather has induced one to stay.'
- (9) a. (Ich) habe es gestern gekauft.
 (I) have it yesterday bought
 b. (Dass) habe ich gestern gekauft.
 (that) have I yesterday bought
- (10) a. Jetzt kenne *(ich) dass nicht.
 now recognize (I) that not
 b. Jetzt kenne'ich *(dass) nicht.
 now recognize (that) not

Selected References

- Chomsky, Noam (2008) "On Phases," *Foundational Issues in Linguistic Theory: Essays in Honor of Jean-Roger Vergnaud*, ed. by Robert Freiden, Carlos Peregin Otero and Maria Luisa Zubizarreta, 133-166, MIT Press, Cambridge, MA.
- Obata, Miki (2010) *Root, Successive-Cyclic and Feature-Splitting Internal Merge: Implications for Feature-Inheritance and Transfer*, Doctoral dissertation, University of Michigan.
- Richards, Marc (2007) "On Feature Inheritance: An Argument from the Phase Impenetrability Condition," *Linguistic Inquiry* 38, 563-572.