

Reducing PRO: a Defective Goal Analysis

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While there exists considerable crosslinguistic variation in the availability of null subjects in finite clauses, PRO is consistently silent crosslinguistically. I present a novel approach to the obligatory silence of PRO rooted in the typology of pronominal subjects in Holmberg (2010). I propose the following: 1) PRO is unpronounced because it is a Defective Goal in the sense of Roberts (2010); it has no features not shared with its Probe and is thus deleted in the same way that copies are. 2) When PRO is not a Defective Goal, it may be overt, which happens in PRO-control configurations (in the sense of Landau (2008)) where PRO bears a Focus feature.

Account of PRO's silence: Holmberg (2010), following Roberts (2010), claims that null pronouns result from an Agree relation with a Defective Goal: when a Probe enters into an Agree relation with a Goal whose features are a subset of those of the Probe, a chain is formed. Chain reduction allows only the highest link to be pronounced, making the consequences of Agree indistinguishable from movement in these instances.

Holmberg's subject pronoun typology (1) relies on three layers of DP structure (2) and includes three pronoun types: full DPs, which correspond to overt referential pronouns, and two types of structurally deficient null pronouns. Pronouns that lack a D layer altogether, ϕ Ps, correspond to *pro*. Since the features of a ϕ P are a subset of those of T, a chain is formed when they enter into an Agree relation. Chain reduction ensures that *pro* is silent, since T is the highest link in the chain. (DPs with an unvalued D feature correspond to contextually linked null subject pronouns in partial null subject languages (Holmberg and Sheehan 2010).)

(1) Holmberg's (2010) Subject Pronoun Typology

$[_{DP} D [_{\phi P} \phi [_{NP} N]]]$	Overt subject pronouns
$[_{DP} uD [_{\phi P} \phi [_{NP} N]]]$	Null subjects in finite embedded clauses in Partial-Null-Subject languages
$[_{\phi P} \phi [_{NP} N]]]$	<i>pro</i> in Null-Subject languages

(2) Pronominal Structure: $[_{DP} D [_{\phi P} \phi [_{NP} N]]]$

(Holmberg 2010)

Holmberg's typology predicts the existence of a fourth type of pronoun: a ϕ P with unvalued ϕ -features ($u\phi$), parallel to the uD null subjects: $[_{\phi P} u\phi [_{NP} N]]]$. I propose that this pronoun does exist, and that it is PRO. Since PRO only has ϕ -features, it will be a Defective Goal, and thus silent, whenever it enters into an Agree relation. Assuming that PRO must have its ϕ -features valued via an Agree relation with a higher functional head, which receives ϕ -features from the controller (Landau 2008), PRO will always be silent. Furthermore this analysis correctly predicts PRO to be prohibited from matrix clauses, which lack a full DP to value the features of a functional head capable of valuing PRO's ϕ -features.

Account of overt PRO: Szabolcsi (2009) demonstrates that a number of languages, like Hungarian, do allow what can be analyzed as overt PRO in certain contexts, as in (3). Szabolcsi argues that the overt pronoun in (3) behaves like PRO in allowing only a *de se* interpretation.

(3) A(z amnéziás) hős nem akart csak ő kapni érdemrendet. (Hungarian)

the amnesiac hero not wanted.3SG only he get.INF medal.ACC

`The (amnesiac) hero did not want it to be the case that only he gets a medal'

Notably, all of the instances described by Szabolcsi contain either a focusing particle like *only*

or contrastive intonation. The possibility of overt PRO is predicted by the present analysis: the presence of an additional Focus feature on PRO makes it no longer a Defective Goal, since the matrix functional head that PRO Agrees with (T or v) is not marked for Focus. Lacking a DP layer, PRO cannot be a Topic, explaining why only Focus is compatible with overt PRO.

Landau proposes that PRO's ϕ -features can be valued in two different ways by the matrix functional head: under PRO-control, PRO Agrees with the matrix functional head directly, while in C-control, infinitival C enters the derivation with a bundle of unvalued ϕ -features, and mediates the relationship between the matrix functional head and PRO. Crucially, in C-control, it is the infinitival C that assigns case to PRO (dative in Russian), meaning that only under PRO-Control does PRO bear the case of its controller.

The present proposal accounts for the observation that overt PRO is incompatible with C-control. In addition to the fact that overt PRO bears the case of the controller (nominative) in Szabolcsi's examples, Szabolcsi (2010) notes that overt PRO is incompatible with a partial control reading. In partial control (e.g. *The mayor wanted to meet at six.*), PRO is interpreted as plural despite a singular controller. Landau (2008) argues that partial control is possible only under C-Control, where infinitival C can have features additional to those of the matrix functional head. Under the present proposal, when PRO is marked for Focus, this Focus feature is also shared by the infinitival C. Therefore under C-Control PRO would again have no features separate from its Probe (the infinitival C), making it again a Defective Goal.

Extensions: The present approach can be extended to account for the possibility of an overt Focused pronoun coreferential with the matrix subject in English ECM constructions. The Focused pronoun has a *de se* reading and can be analyzed as overt PRO in the infinitival clause.

- (4) a. *I want me to leave. *no Focus on me*
b. I want ME to leave (and you to stay). *Focus on me*

The present analysis of PRO also extends naturally to non-obligatory control (NOC). Adopting Landau's framework in which infinitival C enters the derivation with ϕ -features, I propose that in NOC, where no matrix functional head can value the ϕ -features on C, C must enter the derivation with default ϕ -features, which value the features on PRO.

Conclusion: The present proposal fits PRO naturally into a typology of null subject pronouns, reducing its silence to the silence of other subject pronouns. While capturing an appealing intuition of the Control-as-Movement theory (Hornstein 1999)—namely that PRO is silent for the same reason that copies are silent—the present proposal also predicts instances of overt PRO and extends naturally to NOC. Moreover, by providing a principled explanation for overt PRO, the present proposal covers more empirical ground than most approaches to control, which reduce the silence of PRO to its restriction to non-finite clauses.

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