# Pro Drop and the morphological structure of inflection 

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## 1. Introduction

Most Romance languages have full pro drop, whereas Germanic languages do not. The classical approach is to relate this to differences in the inflectional systems, where Romance languages (modulo Standard French) are taken to be "richer". This ultimately requires reference to a paradigm. The fact that English lacks pro drop in 3SG present tense contexts, despite the unique $-s$ marker, must be due to English not being "rich" overall. This creates three problems: (i) Paradigms are epiphenomenal and not constructs the grammar can refer to (Bobaljik 2003), (ii) it begs the question how partial pro drop languages can exist, and (iii) The fact that Romanian and Icelandic both have five agreement distinctions shows that the required definition of "rich" is not obvious. We argue that this Romance-Germanic contrast is related to the following: Romance pro drop languages have separate projections for T and Agr , where a featurally rich Agr head can license a null subject. Germanic languages and Standard French have an unsplit INFL in the sense of Bobaljik \& Thrainsson (1998). Since T and Agr are expressed by the same morpheme, this morpheme is consequently overspecified for null subject licensing: Tense features are incompatible with the null subject the morpheme is supposed to licensed. Hence, even uniquely marked contexts lack pro drop.

## 2. Bi- vs. mono-morphemic.

A first parse of Icelandic and St. German suggests that they express T and Agr bimorphemically (cf. 1), but such an analysis is less obvious fat closer inspection. Both languages have a 3 SG form in the present tense that does not return in the 3 SG past. Given the spell-out rules for the AGR forms in the present tense (2), there are two ways to account for it.
(i) Bimorphemically: The 3 SG slot is expressed by a null allomorph in the past (3). Consequentially, 1SG and 3SG past contexts are analyzed differently (4a) despite the fact that they are similar, even in irregular contexts (cf. 5). Under the assumption that the analysis must capture this system-wide syncretism, this analysis receives competition from (ii).
(ii) Monomorphemically: The 3SG forms ( $-i r$ and $-t$ ) directly compete with the inflectional forms in the 3 SG past contexts ( $-t e$ and $-\Varangle i$ ). Since the same morpheme is targeted, it must express both T and Agr features. The $1 \mathrm{SG} / 3 \mathrm{SG}$ similarity is then straightforwardly captured by underspecification (cf. 4b).
The choice for (ii) over (i) can be seen as a consequence of economy: (i) requires two spell-out rules for 1 SG and 3SG past contexts in the face of alternative analysis (ii) that only requires one. Therefore, any additional analytical step in a bimorphemic analysis that allows one to capture the $1 \mathrm{SG} / 3 \mathrm{SG}$ homophony as syncretic (e.g. by impoverishing the 1 SG context (6)) are useless: one cannot circumvent an economy violation by complicating the analysis further.

## 3. Consequences.

The proposal makes a number of predictions. First, any language that shares the crucial paradigm properties with Icelandic and St. German will be monomorphemic and lack pro drop. It so happens that every Germanic language with agreement has a 3SG form that does not return in the 3SG past and has a system-wide syncretism in the past singular, which leads to a preference of (ii) over (i). Second, we predict that Romance pro drop languages never run into the same economy decision favoring a monomorphemic analysis, even when they show intransparencies between present and imperfect tenses. Third, we predict that Standard French is monomorphemic (lacking pro drop). We argue that these predictions are borne out.

| (1) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Icelandic |  | Standard German |  |
|  | present | past | present | past |
| 1SG- | -i | --i | - | -te |
| 2 SG | -ir | -১-ir | -st | -te-st |
| 3 3G | -ir | -ð-i | -t | -te |
| 1PL | -jum | -ð-um | -en | -te-n |
| 2 PL | -ið | -ð-uð | -t | -te-t |
| 3 3L- | -a | -ð-u | -en | -te-n |

(2) Icelandic

| -i | $<>$ | [Agr: speaker] |
| :--- | :--- | :--- |
| -ir | $<>$ | [Agr: ] |
| -jum | $<>$ | [Agr: speaker, plural] |
| -ið | $<>$ | [Agr: addressee, plural] |
| -a | $<>$ | [Agr: plural] |

Standard German
-e $\quad>\quad$ [Agr: speaker]
-st $<>$ [Agr: addressee]
$-t \quad>\quad$ [Agr:]
-t $\quad<\quad$ [Agr: addressee, plural]
-en $\quad<\quad$ [Agr: plural]
(3) $-\varnothing \quad<>$ [Agr: ]/[T: past]
(4) a. Icelandic

1SG/Past = - $\mathbf{\text { i }}$

- Øi $^{2} \quad<>\quad$ [T: past]/[Agr: singular]
-i <> [Agr: speaker]
3SG/Past = - $\mathbf{\text { i }} \mathbf{i}$
- бi $\quad<>\quad[\mathrm{T}$ : past]/[Agr: singular]
$-\emptyset \quad<\quad$ [Agr: ]/[T: past]
b.

1SG $+3 S G /$ Past $=-ð i$
-ði $\quad>\quad$ [INFL: [T: past], [Agr: ]]

$$
\mathbf{1 S G}+3 S G / \text { Past }=- \text { te }
$$

-te $<\quad$ [INFL: [T: past], [Agr: ]]

## Standard German

1SG/Past = -te
-te $>\quad$ [T: past]
-e $\quad>\quad$ [Agr: speaker]
3SG/Past $=$-te
-te $\quad>\quad$ [T: past]
$-\emptyset \quad>\quad$ [Agr: ]/[T: past]
(5) Irregular past tenses

|  | Icelandic | German |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Inf. | fara (to go) | vera (to be) | gehen (to go) | sein (to be) |
| 1SG | fór | var | ging | war |
| 2SG | fórst | varst | gingst | warst |
| 3SG | fór | var | ging | war |

(6) $[$ Agr: speaker $] \rightarrow \varnothing /[\mathrm{T}$ : past $]$

