

Plural Insertion is Constructed Plural

In a number of unrelated languages, (e.g. Classical Ainu, Shibatani, 1990; Kiowa, Harbour, 2003a; Wardaman, Merlan, 1994; Nocte, Gupta, 1971) verbs show plural agreement in specific contexts where the verb agrees with two singular objects. Thus in Nocte transitive forms with a 1st person singular subject and a 2nd person singular object instead of singular agreement markers as in (1a,b), the agreement affix also used in (transitive and intransitive) 1st person plural forms appears (1c). Harbour (2003b) concludes that “plural insertion” of this type is impossible in a version of Distributed Morphology where all morphological operations are feature-deleting (Trommer, 1999, 2003) and hence that such a system is untenable. In this talk, I argue that a minimalist approach to the representation of number features obviates this argument and makes it possible to derive plural insertion without postsyntactic feature insertion.

The Representation of Number: Departing from the feature-geometric model of number introduced in Cowper (2003), I propose to substantially simplify the geometric representations (2) and to replace all number features by a single numerical entity (written “•”). Presupposing with Cowper contextually determined interpretation of • – • this results in the minimal system in (3) which still allows to differentiate number categories in two- and three-number systems and mirrors the semantics of number by simple iconicity: more instances of • correspond to an increase in cardinality.

Analysis of Plural Insertion: Assuming that morphosyntactic features in vocabulary items (VIs) are specified disregarding hierarchical structure, a VI spelling out plural morphology in a language with a two-number system can be represented as $x:\bullet\bullet$. Following Müller (2005) who shows that a morphological operation specifying a feature collection $[F_1 F_2]$ can either target a single head H containing both F_1 and F_2 , or two structurally adjacent heads H_1, H_2 where H_1 contains F_1 and H_2 contains F_2 , $x:\bullet\bullet$ can either spell out one head specified plural ($H:\bullet\bullet$) or two heads specified singular ($H_1:\bullet, H_2:\bullet$). Plural morphology as in (1c) is hence not due to arbitrary insertion of features, but follows from the combinatorial potential of a maximally simple system of number categories. The fact that Nocte does not show plural morphology for other combinations of singular arguments is derived by independent factors, namely the fact that 3rd person arguments in Nocte never show any plural marking, and the crosslinguistic tendency to suppress number distinction in transitive forms with two non-third person arguments (Noyer, 1992). Both phenomena are straightforwardly expressed by general impoverishment rules.

Further Consequences: The proposed representation of number features allows to maintain important results from previous research on number morphology. *First*, three-way number systems involving dual, are more complex than two-way systems since they require more complex tree configurations. *Second*, the system allows to derive the so-called “constructed dual” along the lines of Cowper (2003). Thus the Hopi data in (4) are taken as evidence by Harley and Ritter (2002) that dual is composed from different features specific for singular and plural. Crucially, the data follow in the minimal number system if Hopi has the number representations in (3), and the VI for nominal plural has the form $x:\bullet\bullet$, (while nominal singular corresponds to a default VI). and verbal plural is of the form $y:\bullet\bullet\bullet$ (verbal singular again being expressed by a default VI). *Third*, in the minimalist number system, two-way neutralization (dual \rightarrow plural and plural \rightarrow dual) can be captured without feature insertion in a similar way to the analysis of Trommer (2003) based on the system of Harley and Ritter (2002).

(1) **Plural Insertion in Nocte (Gupta, 1971)**

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|----|---|----|--|----|--|
| a. | <i>hetho-ang</i>
teach-I-1
'I will teach him' | b. | <i>hetho-h-o</i>
teach-INV-2
'he will teach you (sg.)' | c. | <i>hetho-min</i>
teach-1pl
'we will teach him'
or: I will teach you (sg.)' |
|----|---|----|--|----|--|

(2) **Representation of Number Features in Cowper (2003)**

- | | | | |
|----|-------------------------------|----|---|
| a. | Two-way number system | b. | Three-way number system |
| | Singular Plural | | Singular Dual Plural |
| | # | | # # # |
| | | | |
| | > 1 | | > 1 > 1 > 2 |

(3) **Minimalist Representation of Number Features**

- | | | | |
|----|-------------------------------|----|---|
| a. | Two-way number system | b. | Three-way number system |
| | Singular Plural | | Singular Dual Plural |
| | • | | • • • |
| | | | |
| | • | | • • • |

(4) **Number in Hopi (Corbett, 2000)**

- | | | | | | |
|----|----------------------|----|----------------------|----|----------------------|
| a. | Singular | b. | Plural | c. | Dual |
| | Pam wari | | Puma yútu | | Puma wari |
| | that(sg.) ran(sg.) | | that(pl.) ran(pl.) | | that(pl.) ran(sg.) |
| | 'He/she ran' | | 'They ran' | | 'They (two) ran' |

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