

Local Licensing and Feature Copy in Language Production

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In the generative tradition, there is a lot of talking about the “psychological reality of grammars”. Still, psycholinguists working on the development of production models hardly ever commit themselves to a particular theoretical framework and only occasionally do grammarians check their formal frameworks against psycholinguistic evidence.

In my talk, I will be concerned with a particular kind of spontaneous speech errors which receive a straightforward explanation within the theory of Distributed Morphology (DM; Halle & Marantz 1993; Harley & Noyer 1998). In DM, the computational system is taken to manipulate nothing but abstract roots and morphosyntactic features. It is only after syntax that Vocabulary items (VIs) are inserted into terminal nodes. Moreover, it is assumed that the traditional terms for sentence elements (N, V, A) are essentially derivative from more basic morpheme types; i.e. there is only one type of lexical node (l-node) whose categorial status is defined by its context. A noun e.g. is a root whose nearest c-commanding functional node (f-node) is a determiner, i.e. a noun is a root which is locally licensed by D_i .

With that in mind consider the following German slips, a perseveration in (1a), an exchange error in (1b), and an anticipation in (1c) (error elements are in bold type):

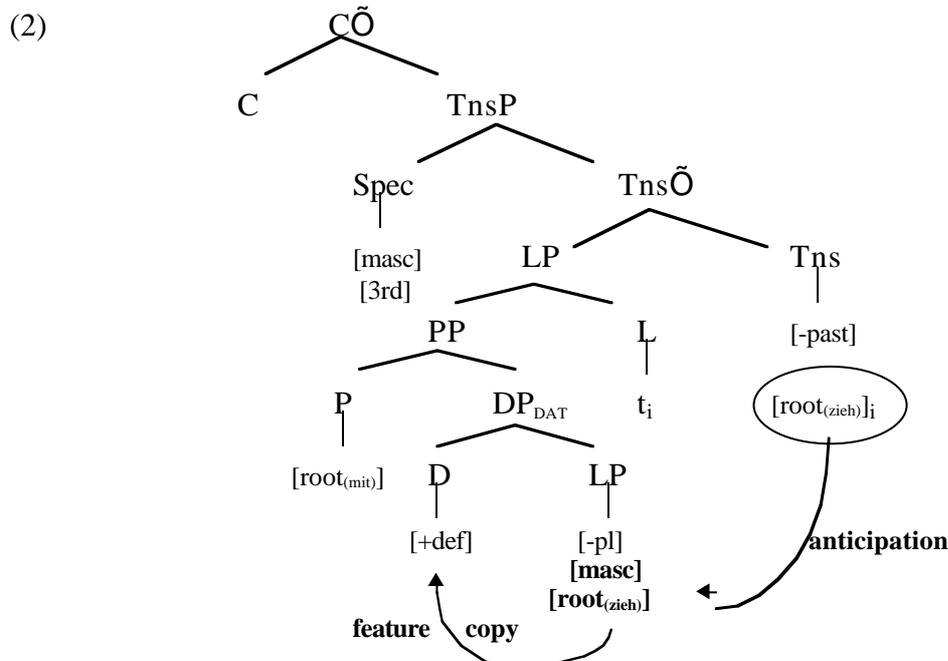
- (1) a. schreibt man das mit Binde-**schrift** ← mit Bindestrich
writes one that with connect-writing ← *with connect-line*
“Do you write that with a hyphen?”
- b. da war der **Bruch** ge-**bann**-t ← der Bann gebrochen
there was the break spelled ← *the spell broken*
- c. dass er mit dem **Zug** zieht ← mit der Masse zieht
that he with the(m.) procession(m.) moves ← *with the(f.) crowd(f.) moves*

In the psycholinguistic literature, the errors in (1) are referred to as “accommodations”. In multi-level feed forward production models, such errors are taken to involve two distinct steps (Garrett 1980ab; Levelt 1989). At an early processing level, the actual error occurs. At a subsequent level, either the error element (the perseverated verb root in (1a)) or the context and the error element (the exchanged verb root as well as the participle suffix in (1b); the anticipated verb root as well as the definite article in (1c)) are taken to accommodate to the error-induced environment. Therefore, the ungrammatical sequences **schreibt man das mit Binde-schreib* (1a), **der Broch ge-bann-en* (1b), and **mit der Zieh zieht* (1c) do not surface.

I am going to show that the errors in (1) are readily explained assuming DM mechanisms. In particular, I will demonstrate that within DM, the assumption of a second (correcting) error step is superfluous. In (1a), for instance, the abstract item [$\text{root}_{(\text{schreib})}$] which is licensed by a light verb in its original position is perseverated in a terminal node where it is locally licensed by an (empty) determiner. Since VIs come along with subcategorization information specifying possible syntactic contexts for insertion, the item with a [+d]-feature will be chosen from the Vocabulary, i.e. the VI /_rift/. The situation in (1b) is quite similar: After the exchange has occurred, [$\text{root}_{(\text{brech})}$] happens to take a position where it is licensed by D_i . The

appropriate VI for that slot is /brux/. Moreover, the [+participle] feature of *bann* is spelled out by a different suffix.

The error in (1c) is more complex. Here, [root_(zieh)] is anticipated and lands in an l-node where it is licensed by D_i. Therefore, the corresponding noun /tsu:k/ will be selected from the Vocabulary. The anticipated root, however, takes along its ϕ -features (gender and number) which will be copied onto D_i. Therefore, the appropriate masculine singular (dative) determiner /de:m/ will be inserted. Below, I give an exemplary (somewhat simplified) structure for the slip (1c) (LP stands for (acategorical) ^alexical phrase_æ):



At PF, the Vocabulary item which best matches the feature bundle contained in a terminal node will be selected for insertion. The two VIs relevant to the error (1c) are given in (3):

- (3)
- a. $\left[\begin{array}{l} [+def] [DAT] \\ [masc] [-pl] \end{array} \right] \longleftrightarrow /de:m/$
- b. $\left[\begin{array}{l} [root(zieh)] \\ [+d] [-pl] \end{array} \right] \longleftrightarrow /tsu:k/$

Please note that all the mechanisms involved in the emergence of the above errors are mechanisms which according to DM apply in the derivation of an utterance anyway. That is, agreement features must be copied before Vocabulary insertion takes place in order to facilitate selection of the appropriate VI. In addition, Vocabulary insertion crucially depends on the featural content of terminal nodes, spelling out abstract roots according to the nature of their local licenser (and, of course, according to other features such as [number]). Consequently, one need not assume adaptation mechanisms of any kind in order to explain the errors in (1). I therefore conclude that the concept accommodation is superfluous and should be abandoned.

References

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