

# Diversity of possessor marking in Dutch child language and Dutch dialects

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## 1. Aims of the paper

Children exposed to Standard Dutch use possessive constructions that are not available in the input. Some of these non-adult-like possessive constructions are given in (1). They remind of similar constructions in Dutch dialects, see (2).

- (1) a. Stijn-tje-se moeder kwam onshalen (Dutch child language / 6;7.14)  
Stijntje-se mother came us get (Stijntje is a girl)  
*Standard adult* : Stijntjes moeder kwam ons halen
- b. Dit is wie-se? (Dutch child language / 6;3)  
This is whose?  
*Standard adult*: Van wie is dit? ('from who is this?')
- (2) a. vader-sen hond (dialect of Helmond)  
father-sen dog ('father's dog')
- b. wie-se stoel ('whose chair') (dialect of Helmond)  
who-se chair

The examples in (1)-(2) all have a bound morpheme *-se* adjacent to the possessor.

The main goal of this study is to examine what possessive patterns are produced by children learning Dutch, and what developmental path characterizes the acquisition of possessive noun phrases. In addition to this, we will show that many of the possessive variants as generated by (intermediate) child grammars are also attested in adult dialect systems. This, of course, is not entirely unexpected given the fact that adult dialect systems and child systems both fall within the bounds of Universal Grammar (UG). Taking the variation attested in child language and the variation found in adult dialect systems to be an interesting meeting ground for comparative-linguistic research (see also Van Kampen 1997, 2004), we will explore in what ways variation in the expression of the DP-internal possessive relationship relates to the functional head D. The role of D in the formation of possessive constructions will first be shown for adult (standard) Dutch, and subsequently for Dutch dialects and Dutch child language. A brief survey of possessive constructions will reveal that individual dialects and individual children have a preference for a specific morphological realization. We will consider the child's preference as attempts to arrive at a general expression of the possessor relation. This will lead us to a re-interpretation of the notion 'micro-variation'.

## 2. The empirical domain

Standard Dutch uses the possessive pronouns in (3).

(3)

	<i>Strong poss. Pronoun</i>	<i>Weak poss. Pronoun</i>
1p.sg.	mijn 'my'	m'n
2p.sg.	jou(w) 'your'	je
3p.sg.masc.	zijn 'his'	z'n
3p.s.g.fem	haar 'her'	d'r
1p.pl.	ons 'our'	
2p.pl.	jullie 'your'	
3p.pl.	hun 'their'	

Next to the simple possessive pronouns, Dutch has the complex constructions in (4). The scheme in

(4) shows that possessive constructions in Standard Dutch do not behave uniformly.

(4) Possessive constructions in adult (standard) Dutch

	<b>Proper names</b> <i>Jan</i> , 'Jan'	<b>Pronouns</b> <i>hem</i> , 'him' <i>haar</i> , 'her'	<b>Animate (human) common nouns</b> <i>man</i> 'man'	<b>Inanimate common nouns</b> <i>boot</i> , 'boat'
<b>Analytic construction</b>	<i>de broer van Jan</i> the brother of Jan	<i>de broer van hem</i> the brother of him <i>de broer van haar</i> the brother of her	<i>de broer van de man</i> the brother of the man	<i>de romp van de boot</i> the hull of the boat
<b>Doubling construction</b>	<i>Jan z'n broer</i> Jan his brother 'Jan's brother'	<i>hém z'n broer</i> him his brother 'HIS brother'	<i>de man z'n broer</i> The man his brother 'The man's brother'	*? <i>de boot z'n romp</i> the boat his/its hull
	<i>Els d'r broer</i> Els her brother 'Els' brother'	<i>háár d'r broer</i> her her brother 'HER brother'	<i>het meisje d'r broer</i> The girl her brother 'The girl's brother'	
<b>Possessor -s construction</b>	<i>Jans broer</i> Jan-s brother	* <i>hems broer</i> him-s brother	* <i>de mans broer</i> the man-s brother	* <i>de boots romp</i> the boat-s hull

The relevant sub-cases of the possessive constructions in (4) are based on the distinctions in (5).

- (5) a. The marking *-s* is restricted to <+proper name>  
 b. The marking *z'n/d'r* is restricted to <-pronoun>/<+animate>

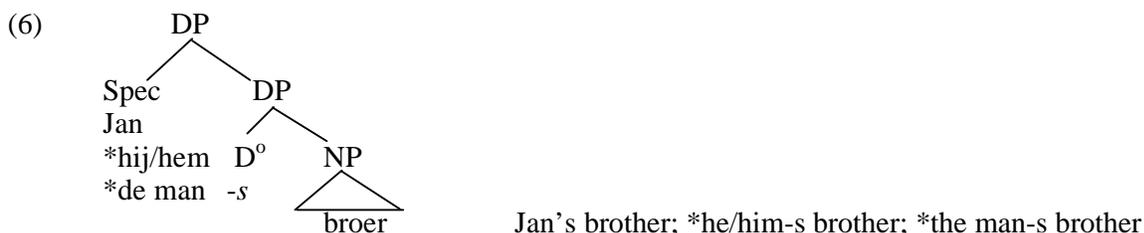
Each of these devices might have been used in a general way, but they block each other. The crucial question is if the complexity of the blocking relations will constitute an acquisition hurdle. To facilitate that discussion, we will begin by reviewing the basic properties of the possessive construction.

### 3. Properties of the possessive constructions

#### 3.1. Structural analysis of the morphological realizations

The structures in (6)/(8)/(9) represent a possible analysis for the morphological realizations of the possessive *-s/d'r/z'n/haar/zijn*. For the sake of exposition, we will ignore here recent phrase structural refinements of the possessor construction (cf. Van de Craats et al. (2000), Coene & D'hulst (2003)); we will adopt a simple DP-structure.

An analysis of the possessive *-s* is the one given by Abney (1987) (see also Corver 1990, De Wit 1997).

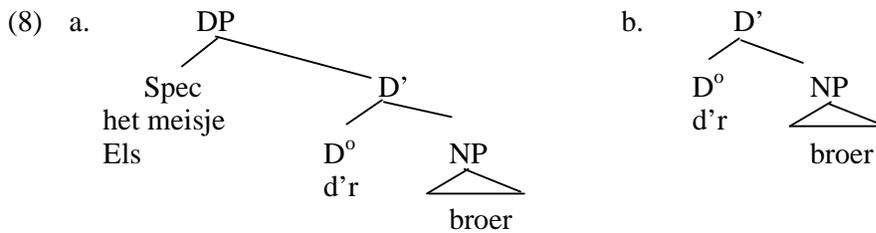


In (6), *-s* appears base-generated as the functional head  $D_{[+possessive]}$ . The language specific properties of *-s* in standard Dutch are listed in (7).

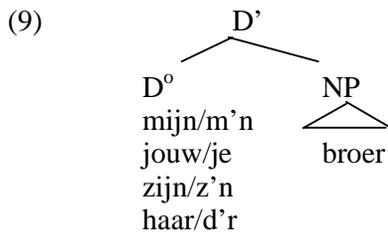
- (7) a. The *-s* marking is almost restricted to proper names  
 b. Possible pronominal forms are: *wiens/elkaars/(mekaars) huis* ('whose/each other's house')

Moreover, as we will show in section 3.2, *-s* and the article are in complementary distribution.

There are syntactic elements  $D^{\circ}$  *z'n/d'r* that may (but need not) define a case-configuration for the specifier phrase, see the structures in (8) (cf. Corver 1990, Haegeman 2000). (8)a is one of the doubling constructions in (4).



The possessive *-s* construction in (6) and the doubling construction (8)a are both cases of complex  $D^{\circ}$ -marking: i.e. the D-head is lexicalized and  $D^{\circ}$  licenses a possessor in its Spec-position. The (weak) possessive pronoun in (8)b is analyzed as a simple  $D^{\circ}$ -head (cf. Postal (1966) for the idea that pronouns are Ds). In (9), this analysis is extended to all (i.e. weak and strong) pronouns (See Corver 2003 for an analysis which places weak pronouns in  $D^{\circ}$  and strong pronouns in Spec,DP).



Up till now, we have come to the following conclusions for possessive constructions in adult Dutch.

- (10) a. The major variations for the possessor in Dutch are derived as restricted by the UG distinctions  $\langle \pm \text{proper name} \rangle$ ,  $\langle \pm \text{pronominal} \rangle$ ,  $\langle \pm \text{animate} \rangle$ .  
 b. These distinctions are associated with  $D^{\circ}$ .

#### 4. Language variation & Language acquisition

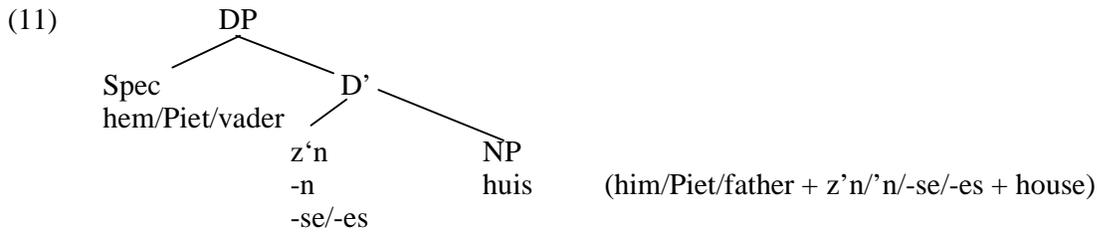
##### 4.1 Dutch dialects

Cross-dialectal variation is not found for the analytic construction. Variation is attested, however, in the possessive patterns in which the possessor precedes the possessed noun. Although a systematic study of the dimensions of cross-dialectal variation was beyond the scope of this study, the table in (12) gives an impression of the range of (morphosyntactic) variation in the expression of the possessive relationship. The examples are mostly drawn from dialect reference grammars. As indicated, variation resides in the formal realization of the functional head D. Besides *-s*, the marking also found in standard Dutch, we find a variety of other (minimal) realizations, including a zero realization.

(12)

Realization of F-head	Example	Dialects
a. $F = \emptyset$ (i.e. empty)	hum jas (him coat; 'his coat')	Oud-Beierland
b. $F = -n, 'n, -en$	Piet- <i>en</i> boek (Pete- <i>en</i> book; Pete's book) Hem ' <i>n</i> jas (him - <i>n</i> coat; his coat)	Zaans dialect
c. $F = -e$ (inflection)	hum(m)- <i>e</i> vogel (him- <i>infl.</i> bird; his bird)	Brabant
d. $F = -se(n)$ (inflection)	vadersen hond (father- <i>infl</i> dog; father's dog)	Helmond

It doesn't seem implausible that the original possessive was *z'n*, and that certain dialects have dropped the *-n* while those that maintained the *-n* dropped the initial sibilant *-se/-es*. Given this assumption, we end up with the following structural analysis:



Let us briefly elaborate on the possessive pattern featuring *-se/-es*, since, as we will see later, this pattern figures quite prominently in Dutch child language. A search in the SAND corpus (Sjef Barbiers p.c.) yielded some thirty examples of this pattern, unfortunately not enough to get a clear and systematic picture of the distributional properties of this element. In (12), some further illustrations are given, mostly from Frisian and West-Frisian. What these examples show, is that the *-es/-se* pattern is found with proper names, pronouns and animated phrases, and that it occurs on the possessor both in its attributive use and its substantive use.

- (13) F=-es
- |   |   |
|---|---|
| <p>a. Dat is Wim-es auto<br/>That is Wim-es car</p> <p>b. Piet-se auto is kapot<br/>Piet-se car is wrecked</p> <p>c. Piet-es auto is kapot<br/>Piet-es car is wrecked</p> <p>d. Die man-es auto is kapot<br/>That man-es car is wrecked</p> | <p>e. Die auto is Wim-es<br/>That car is Wim-es</p> <p>f. Die auto is niet van mij maar sien-es<br/>That care is not of me but his-es</p> <p>g. Die auto is net min-es, maar sien-es<br/>That cae is not mine-es, but his-es</p> <p>h. Die auto, dat is moin-es niet, maar zoin-es<br/>That car , that is mine-es not, but his-es</p> |
|---|---|

#### 4.2 Dutch child language (Standard Dutch)

Figure 1 gives some examples of pre-nominal possessive constructions in child Dutch. Most variants do not survive. These are marked with an asterisk (\*).

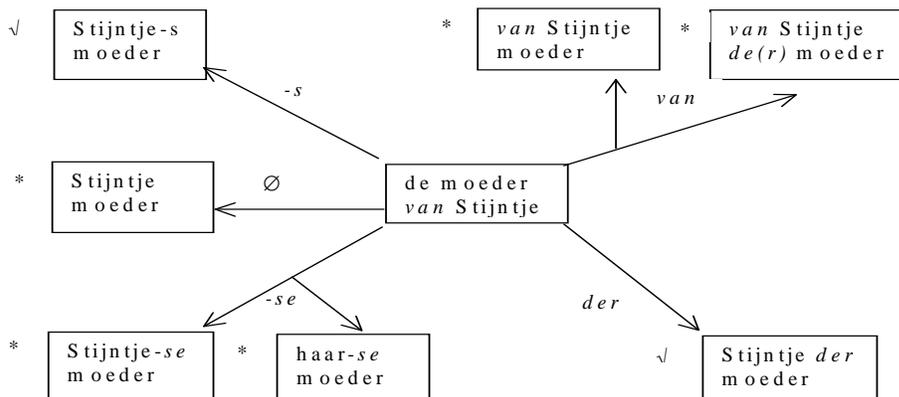


Figure 1: Possessive constructions in child Dutch

The variation of the functional head  $D^0$  in the doubling construction is also found in child language systems. Dutch child language exhibits the same variety in the  $D^0$  morpheme as the Dutch dialects above. One child (Tinke) uses the  $F = -n$  and another (Sarah) the  $F = -se$  strategy. This variation in

child language could not be related to a dialectal background.

- (14) a. Tinke: F = *-n*  
 Sannen (= Sanne's/that of Sanne); Saskian (= Saskia's); Tinken (= Tinke's)
- b. Sarah: F = *-se*  
 jullie-se poppen / mekaar-se spullen / dit is wie-se? / het is Agnes-se / dat is Joep-se  
 you<sub>pl</sub>-se dolls / each other-se things / this is who-se? / it is Agnes-se/ that is Joep-se

Still open is the question how the language-specific interaction of the UG distinctions <± proper name>, <± pronominal>, <± animate> is acquired by the child. The variation in child language seems to be even more extensive than the variation attested between the dialects. Children, as we will see in the next section, are highly creative in the formation of possessive patterns before they become stodgy conformists.

### 5. Options on the rise

Acquisition steps follow a linear order. Some steps will precede others. The order of acquisition steps is probably the same for all children, given a target language. Order and relative speed of acquisition steps can be shown by the construction of acquisition graphs (Evers & Kampen 2001).

The acquisition graph in figure 2 indicates the acquisition of D-marking (i.e. the appearance of articles, demonstratives, possessive pronouns) by Sarah (Van Kampen corpus, CHILDES). Acquisition graphs of a functional feature often have the property to linger for some time below 10-15% of their presence in the target language. Then there is a sudden change into an irreversible rise to 80-90% of the adult target level. These points are indicated here as 'eureka' and 'acquisition point', respectively.

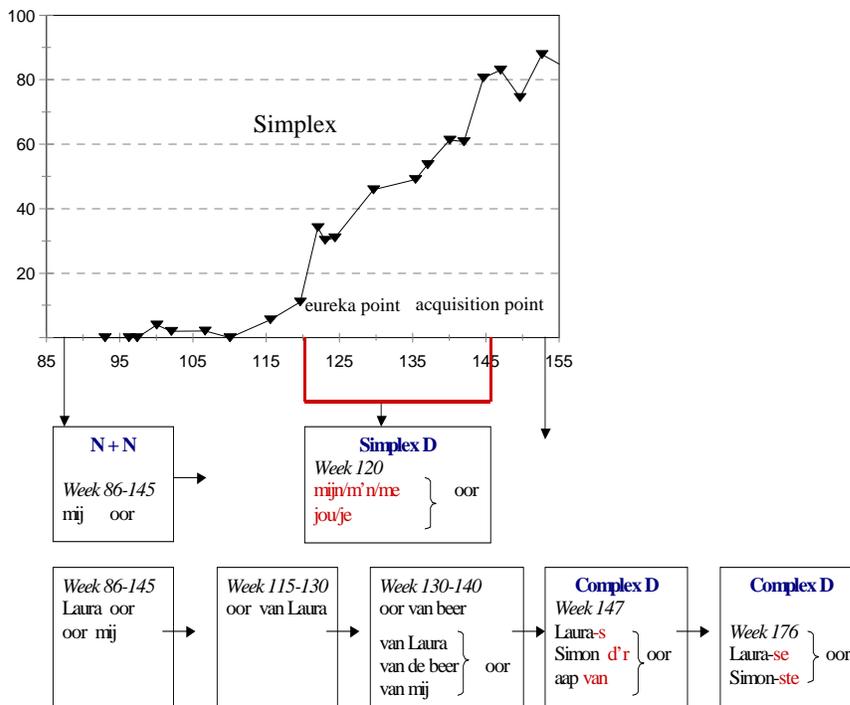


Figure 2 Longitudinal picture of the acquisition of possessor marking on DO (Dutch Sarah)

Our present topic, the diversity of possessor marking within the DP, is part of D-marking. Some possessor markings appear earlier than others.

The order of possessor-possesum is initially favored due to input frequency, but without

grammatical marking, *Laura oor* (cf. Van der Linden & Blok-Boas 2004). Then there is a period in which the possessor is mentioned by a first personal pronoun (15)a, or by a proper name marked by *van*, that follows a determinerless possessed noun, as in (15)b.

- (15) a. mijn beer (my bear)  
 b. oor van beer (ear of bear; 'bear' is the name of the teddy bear)

The *van* possessor-marking is acquired before the *-s* marking. This is probably due to its semi-lexical content, whereas *-s* is a pure formal grammatical marking.

Before Sarah acquires complex D-marking, she starts to pre-pose the possessor phrase and does not yet apply D-marking by the article; i.e. the D-position remains phonetically empty.

- (16) van de beer  $\emptyset$  oor (of the bear ear; 'the bear's ear')

Figure 2 shows that possessive pronouns (15)a appear in the simplex D period. That is, in the same period as the acquisition of D-heads, the acquisition of articles and anaphoric pronouns, like *hem/haar* takes place. This appearance of possessive pronouns in this period tallies well with the analysis in (9)a of simplex D<sup>0</sup>-marking. Complex D-marking does not appear before week 147; see (17).

- (17) a. Laura's oor/ Simon d'r oor (week 147)      b. Laurase oor/ Simonste oor (week 176)  
 Laura's ear/ Simon her/his ear                      Lausa-se ear/ Simon-ste ear

Thus, simplex (i.e. lexicalization of D only) and complex D-marking (i.e. lexicalization of D and its Spec) are successive procedures.

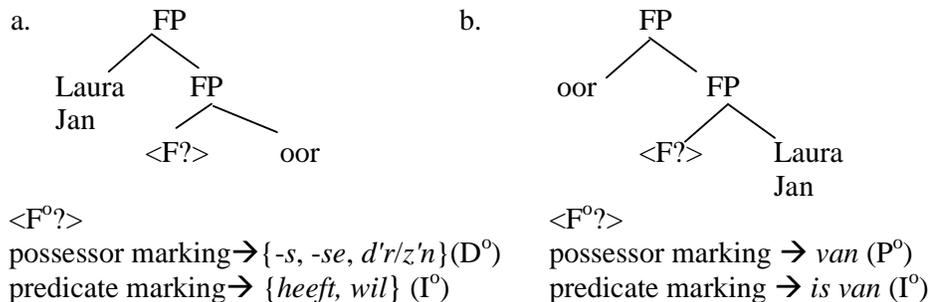
## 6. Identifying <F?> as part of an extended projection

The acquisition of the possessive construction must be part of a general approach to the acquisition of functional categories. We assume that the child observes the functional categories quite well, because they have a 100-300 time higher frequency in the input. Still, there is a hesitation period to identify (and 'internalize') them, since they have no 'salient/strong' semantic content (i.e. their meaning is more grammatical). So, the child may introduce them at first as <F?>.

- (18) Grammar acquisition consists in identifying the functional category <+F?> as associated with the semantic function/theta role of an associated content word.

The child would do well for Dutch if it associated all functional categories to the right, in the direction of the phrasal stress; i.e. the functional category connects to an element on its right side. The adult targets for the possessor relation may take a predicative form or a determinative form, see (19). Before the acquisition of basic I-marking and D-marking, the child could hardly take a decision.

- (19) Initial identification of possessor constructions in Dutch child language



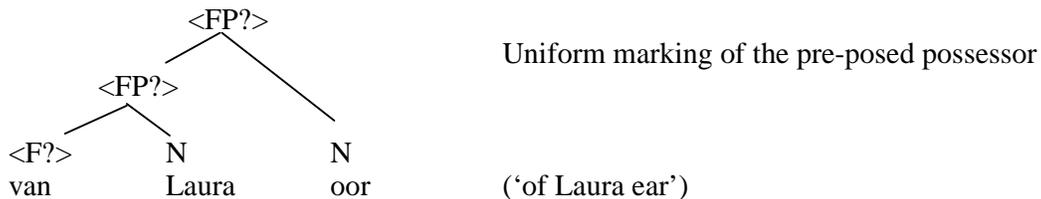
Most of the child's initial variants in figure 2 will not reach the adult target. We will now re-interpret the possessor variants as attempts by the child to arrive at a general expression of the possessor relation by D-marking.

### 7. The child's attempts to generalize possessor marking

We will give here four attempts by the child to arrive at a general expression of the possessor relation.

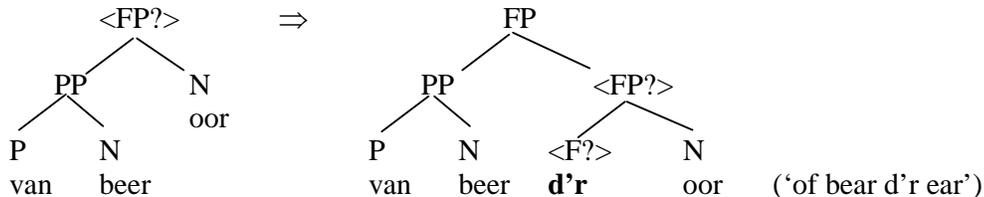
The first attempt is the pre-posing of the *van*-phrase. This yields a possessor-possessum order, known from the pronoun constructions (*mij beer* 'my bear') and from the predicative constructions (*Laura wil/heeft een beer* 'Laura wants/has a bear'). It is the most frequent order in the Dutch adult input.

- (20) I. Attempt to generalize over possessor marking by *van* with possessor-possessum order



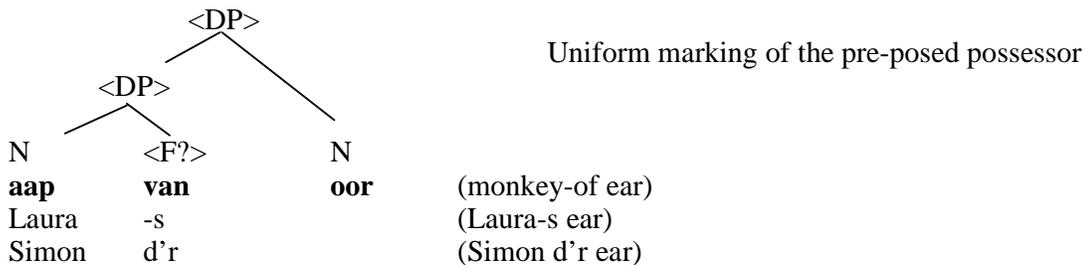
Quite remarkable are a few attempts where a functional category *d'r* (a weak possessive pronoun) is placed between possessor and possessum, although the possessor is already marked by *van*.

- (21) II. Attempt to get the <F?> between possessor and possessum



What should we do, or rather what did Sarah do, with examples like *aap van oor*? Up to this point, the pre-position *van* in the speech of Sarah was associated with a possessor to the right. But here, the possessor is to the left, while the marking of the possessor relation is again between the two names (possessor-possessum).

- (22) III. Attempt to get the <F?> between possessor and possessum

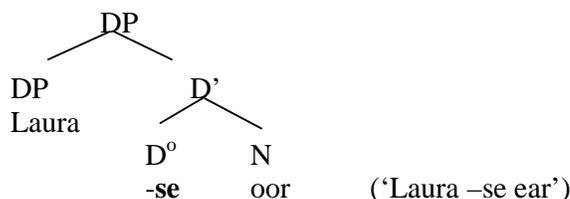


If we maintain the general principle that functional categories associate to the right (i.e. connects with an element on its right), the *van* gets associated with *oor*, marks the possessum and the core element of the phrase. One might also maintain that morphological constructions take precedence and that *van* is realized as a suffix and associates to the left, as in (22). Our attempts to get Sarah's

functional categories into a UG frame, hesitating between morphology (associate to the left) and syntax (associate to the right), need not be that different from Sarah's attempts to get ours.

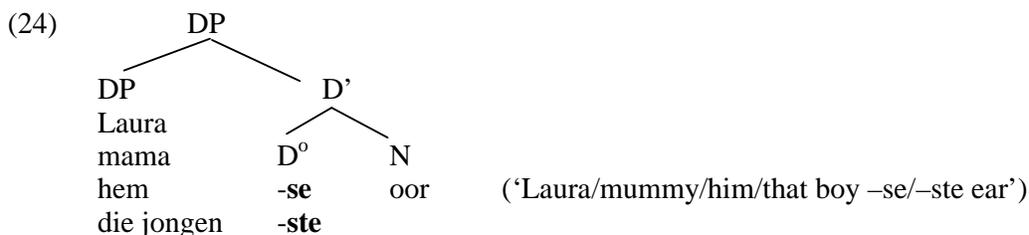
The last development in the acquisition of Sarah's possessive phrases is the *-se* construction in (23). We interpret the *-se* construction as Sarah's attempt to generalize over pre-posed possessor and attributive phrases by attributive D-marking.

(23) IV. Attempt to generalize over pre-posed possessor and attributive phrases by attributive D-marking.



### 8. The generalized *-se* construction

The most remarkable possessor marking on the D-head is the suffix *-se*. Sarah starts using possessive *-se* (eureka point) after she has acquired simplex D-marking (acquisition point) and also after complex D-marking by possessive *-s*. The new *-se* construction applies to proper names, to pronouns and to <+animate> phrases; see the analysis in (24) and some examples in (25).



Although *die auto-se toeter* (that car-se car horn') is not attested, we expect that the *-se* construction will be used by children with <-animate> phrases as well.

- (25) (i) *-se* + NP
- a. iedereen vindt z'n mama-se kusjes het lekkerste (S. 5;5.4)  
everybody considers his mommy-se kisses the best
  - b. we vinden elkaar-se zoenen lekker, he (S. 5;9.3)  
we consider each-other-se kisses good, huh
  - c. Simon-ste papa was jarig (S. 3;4.13)  
Simon-ste daddy had his birthday
- (ii) *-se* + ∅ NP
- d. en achterop staat Laura-ste (S.4;5.6)  
and at-the-back stands Laura-ste (= Laura's drawing)
  - e. en als het opa-ste is ? (S. 4;5.22)  
and if it grandpa-ste (= grandpa's glasses) is?
  - f. dit is wie-se? (S. 6;3)  
this is who-se?

The *-se* construction has been attested for six children (Laura & Sarah, van Kampen corpus in CHILDES; Carl, Maïke, Sanne & Tinke, Schlichting corpus). A google search on the Internet confirmed our suspicion that the *-se* construction is spreading in teenager Dutch. Examples like {*mekaarse* (each other-se), *iederse* (everyone-se), *mijnse* (my-se), *jouwse* (your-se), *welkse* (which-se)} were used freely in chatting between teenagers.

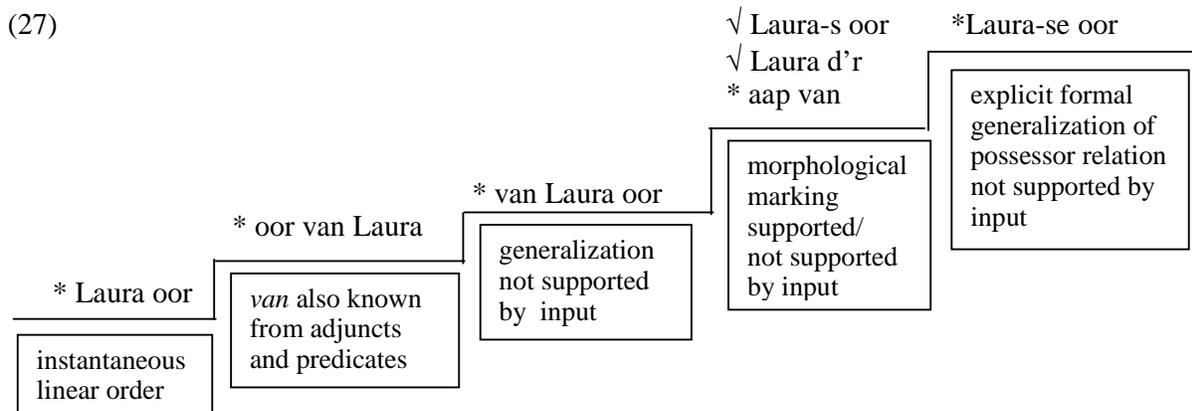
We identify the marking *-se* (sometimes *-ste*) with the attributive marking on adjectives for two reasons. Firstly, the child (Sarah) acquires the *-e/∅* opposition on the adjective phrase at the

moment she acquires the *-se* construction. Before that time, Sarah overgeneralizes the *-e* marking on the adjective (see also Weerman 2002). Secondly, the attributive possessive D-marking *-se/-ste* and the attributive Adj-marking *-e* both have the striking property of NP drop, as was shown by the examples in (25)(ii).

- (26) *-se* as attributive D
- se* and *-ste* may be extensions of the adjectival attributive marking.
  - the child *-se* construction allows the highly remarkable NP-drop (*dit is Laurase*) which also holds for adjectival *-e* in adult language. (*een bruine beer en een witte*).

Child language exhibits different morphological realizations of the D<sup>o</sup> possessive ending { *-s/-ste/-n/d'r/z'n* }, a characteristic also attested for Dutch dialects. These morphological realizations may just be variants of the same functional element; cf. the dialect variation in (12). Firstly, in the child's pronunciation, the phonological ending *-se* is not that different from the general possessor marking *z'n*. Secondly, the child does not see *d'r/z'n* as gender variants: cf. *Simon d'r moeder*. Thirdly, the *-se* generalization over  $\langle +\text{proper name} \rangle$ ,  $\langle +\text{pronoun} \rangle$ ,  $\langle +\text{animate} \rangle$  for pre-posed possessors comes in late, after the acquisition of simplex D-marking. This presumably is the moment, around 3 ½ years for Sarah, that the child has mastered the core grammar (i.e all non-idiomatically restricted variants; all variants that can be characterized by functional features only). Now, the child may still escape the micro-variations that have been acquired. She proposes, in vain, a general possessor D-marking.

The stepwise acquisition of possessives in (27) (reproduced figure 2) shows Sarah's uphill battle to reach a UG generalization against the variation in the input. The *-se* construction in (27) is on top of the hill. Not only because it is last in appearance, but also because it is most general and economical in its formal expression than the micro-variants of the input language, defied by  $\langle +\text{proper name} \rangle / \langle +\text{pronoun} \rangle / \langle +\text{animate} \rangle$ .



The boxed characterizations are mere plausibility, but they suggest a learnability theory to predict order and to bridge input data and UG generalizations.

This leads us to the following conclusion. In adult Dutch, there is no general solution for marking the pre-nominal possessor in a complex D.

- (28) a. The marking *-s* is restricted to  $\langle +\text{proper name} \rangle$   
 b. The marking *z'n/d'r* is restricted to  $\langle -\text{pronoun} \rangle / \langle +\text{animate} \rangle$

Each of these devices might have been used in a general way, but they turn out to block each other. The *-se* generalization overcomes the micro-restrictions of the adult language for a long time. It was still attested for the six children around 6-7 years. It shows the attempts by the child to reach a single general UG expression in spite of the competing forms in the input. This analysis of ours suggests the redefinition of “micro-variation” in (29).

- (29) Micro-variations are morphological features that prevent in somewhat arbitrary ways a general syntactic marking.

The 'idiomatic' micro-variations will come in the company of their competitors, whereas the typological macro-parameters come alone.

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