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 ons halen      (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).

<table>
<thead>
<tr>
<th></th>
<th><strong>Strong poss. pronoun</strong></th>
<th><strong>Weak poss. pronoun</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1p.sg.</td>
<td>mijn ‘my’</td>
<td>m’n</td>
</tr>
<tr>
<td>2p.sg.</td>
<td>jou(w) ‘your’</td>
<td>je</td>
</tr>
<tr>
<td>3p.sg.masc.</td>
<td>zijn ‘his’</td>
<td>z’n</td>
</tr>
<tr>
<td>3p.sg.fem</td>
<td>haar ‘her’</td>
<td>d’r</td>
</tr>
<tr>
<td>1p.pl.</td>
<td>ons ‘our’</td>
<td></td>
</tr>
<tr>
<td>2p.pl.</td>
<td>jullie ‘your’</td>
<td></td>
</tr>
<tr>
<td>3p.pl.</td>
<td>hun ‘their’</td>
<td></td>
</tr>
</tbody>
</table>

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 (* = not accepted in standard Dutch)

<table>
<thead>
<tr>
<th></th>
<th>Proper names</th>
<th>Pronouns</th>
<th>Animate (human) common nouns</th>
<th>Inanimate common nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytic construction</td>
<td>de broer van Jan</td>
<td>de broer van hem</td>
<td>de broer van de man</td>
<td>de romp van de boot</td>
</tr>
<tr>
<td></td>
<td>the brother of Jan</td>
<td>the brother of him</td>
<td>the brother of the man</td>
<td>the hull of the boat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>de broer van haar</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the brother of her</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>de broer van de man</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the brother of the man</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>de romp van de boot</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>the hull of the boat</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doubling construction</td>
<td>Jan z’n broer</td>
<td>*hém z’n broer</td>
<td>de man z’n broer</td>
<td>*?de boot z’n romp</td>
</tr>
<tr>
<td></td>
<td>Jan his brother</td>
<td>him his brother</td>
<td>The man his brother</td>
<td>the boat his/its hull</td>
</tr>
<tr>
<td></td>
<td>‘Jan’s brother’</td>
<td>‘HIS brother’</td>
<td>‘The man’s brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Els d’r broer</td>
<td>*háár d’r broer</td>
<td>het meisje d’r broer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Els her brother</td>
<td>her her brother</td>
<td>The girl her brother</td>
<td></td>
</tr>
<tr>
<td></td>
<td>‘Els’ brother’</td>
<td>‘HER brother’</td>
<td>‘The girl’s brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*hém z’n broer</td>
<td>him his brother</td>
<td>The man his brother</td>
<td>*?de boot z’n romp</td>
</tr>
<tr>
<td></td>
<td>*de man z’n broer</td>
<td>het meisje d’r broer</td>
<td>The girl her brother</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*hém broer</td>
<td>him-s broer</td>
<td>The girl’s brother</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*hém d’r broer</td>
<td>her her brother</td>
<td>‘The girl’s brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>te man broer</td>
<td>*de man-s broer</td>
<td>‘The man’s brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>te man-s broer</td>
<td>*de man-s brother</td>
<td>‘The man’s brother’</td>
<td></td>
</tr>
<tr>
<td></td>
<td>te man-s broer</td>
<td>*de boots romp</td>
<td>‘The boat’s hull’</td>
<td></td>
</tr>
</tbody>
</table>

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).

(6)     DP  
    Spec    DP  
      Jan     D[+possessive]  
      *hij/hem  
      *de man  
      -s  
    NP  
    broer  

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 -s and the article are in complementary distribution.

There are syntactic elements D[+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).

(8) a.  
\[
\begin{array}{c}
\text{DP} \\
\text{Spec} \\
\text{het meisje} \\
\text{Els} \\
\text{Do} \\
\text{D'} \\
\\text{D}^0 \\
\text{broer} \\
\text{NP} \\
\end{array}
\]

b.  
\[
\begin{array}{c}
\text{D'} \\
\text{D}^0 \\
\text{d'r} \\
\text{broer} \\
\text{NP} \\
\end{array}
\]

The possessive –s construction in (6) and the doubling construction (8)a are both cases of complex
D\(^0\)-marking: i.e. the D-head is lexicalized and D\(^0\) licenses a possessor in its Spec-position. The
(weak) possessive pronoun in (8)b is analyzed as a simple D\(^0\)-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\(^0\) and strong pronouns in Spec,DP).

(9)  
\[
\begin{array}{c}
\text{D'} \\
\text{D}^0 \\
\text{mijn/m'n} \\
\text{jouw/je} \\
\text{zijn/z'n} \\
\text{haar/d'r} \\
\text{NP} \\
\text{broer} \\
\end{array}
\]

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 <± proper name>, <± pronominal>, <± animate>.

b.  These distinctions are associated with D\(^0\).

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)  

<table>
<thead>
<tr>
<th>Realization of F-head</th>
<th>Example</th>
<th>Dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. F = ø (i.e. empty)</td>
<td>hum jas (him coat; ‘his coat’)</td>
<td>Oud-Beierland</td>
</tr>
<tr>
<td>c. F = -c (inflection)</td>
<td>hum(m)-e vogel (him-infl. bird; his bird)</td>
<td>Brabant</td>
</tr>
<tr>
<td>d. F = -se(n) (inflection)</td>
<td>vadersen hond (father-infl dog; father’s dog)</td>
<td>Helmond</td>
</tr>
</tbody>
</table>

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:

3
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 /-se
a. Dat is Wim-es auto
   That is Wim-es car
b. Piet-se auto is kapot
   Piet-se car is wrecked
c. Piet-es auto is kapot
   Piet-es car is wrecked
d. Die man-es auto is kapot
   That man-es car is wrecked

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 (*).

The variation of the functional head Do in the doubling construction is also found in child language systems. Dutch child language exhibits the same variety in the Do 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.
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 D^0 (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-possessum 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 ∅ 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\(^0\)-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- and D-marking, the child could hardly take a decision.

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

a.

Laura  
Jan  
FP  
<\text{F?>}  
oor

b.

oor  
FP  
<\text{F?>}  
Laura  
Jan

\text{<\text{F}\text{o?>>}}  
possessor marking \rightarrow \{ -s, -se, d’r/z’r \} (D\(^0\))

\text{<\text{F}\text{o?>>}}  
possessor marking \rightarrow van (P\(^0\))

\text{<\text{F}\text{o?>>}}  
predicate marking \rightarrow \{ heeft, wil \} (I\(^0\))

\text{<\text{F}\text{o?>>}}  
predicate marking \rightarrow is van (I\(^0\))

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 adult Dutch.

(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
We interpret the –se construction as Sarah’s attempt to generalize over pre-posed possessor and attributive phrases by attributive D-marking.

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 horn’) is not attested, we expect that the -se construction will be used by children with <+animate> phrases as well.

The –se construction has been attested for six children (Laura and Sarah, Van Kampen corpus in CHILDES; Carl, Maike, Sanne and 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), mijnese (my-se), jouwese (your-se), welkse (which-se)} were used freely in chatting between teenagers.

We identify the marking –se (sometimes –ste) as a kind of hypercorrection on attributive possessive marking due to the attributive marking –e on adjectives.¹ We have two reasons to do so.

¹ See Den Besten 2004 for this type of hypercorrection in Afrikaans.
Firstly, the child (Sarah) acquires the \(-e/\emptyset\) 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
   a. se and -ste may be hypercorrectly application of the adjectival attributive marking to the possessive marking.
   b. 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\(^0\) possessive ending \{ -si/-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 <+proper name>, <+pronoun>, <+animate> 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 more general and economical in its formal expression than the micro-variants of the input language, defied by <+proper name>/<-pronoun>/<+animate>.

(27) √ Laura-s oor √ Laura d’r oor * aap van oor √ van Laura oor * Laura-se oor
    oor van Laura
    * Laura oor
    * van Laura oor
    * Laura-se oor

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 <+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 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.

References