Inflection and NP-ellipsis in the acquisition of German: Some insights from a corpus study

Background. Traditional German grammar distinguishes between possessive determiners (1) that appear with a following nominal phrase (3a) and possessive pronouns (2) that appear without one (3b). With the exception of three cells in (1) (the nominative masculine and the nominative and accusative neuter), both paradigms follow the strong inflection pattern of the German nominal system. Intriguingly, in those three cases, a following adjective appears with a strong ending (4a) instead of the expected weak one that usually appears after determiners (4b). This has led researchers to propose that the "pronouns" are actually determiners with an elided NP and exceptionally occurring strong inflection affixes (Lobeck 1995, Wiltschko 1998, Brandt & Fuß 2014, Murphy 2018). For Lobeck (1995) a.o., this inflection licenses NP-Ellipsis (NPE), i.e. is a prerequisite for it, whereas for Murphy (2018) (cf. Saab & Lipták 2016), it is a consequence of NPE that is licensed in other ways. Under the latter approach, inflection is underlyingly present but undergoes Lowering (Embick & Noyer 2001) to NP in whose context it receives a zero-spellout. When the NP is elided, subsequent Lowering cannot take place. Inflection is then overtly realized on the determiner. **Claim.** We argue based on a corpus study in CHILDES that inflectional errors on possessive determiners in children's spontaneous speech support the view that possessive "pronouns" (*meiner*) are possessive determiners *(mein)* plus exceptional strong inflection (ESI), and that an analysis of ESI as a consequence of NPE more pasimoniously accounts for the errors than one in which ESI is a necessary licensor of NPE. **Corpus study.** We targeted all German-language corpora of typically-developing children from the typical onset of the two-word stage (and case-marking on articles, Clahsen 1984, Mills 1986) at 2;0 to 5;0 available through CHILDES (MacWhinney 2000). We queried (including ± 2 lines of discourse) for orthographic variants of NOM.MASC and NOM/ACC.NEUT as well as uninflected forms of possessive pronouns in all person-number-gender combinations (5). The results (3,371) were manually filtered for whether the case-gender of the noun was one of NOM.MASC/NOM.NEUT/ACC.NEUT (relying on inflection and/or context in cases of NPE). These were annotated for presence/absence of NPE and presence/absence of inflection. **Results.** As shown in (6), in 131 of 830 cases of NPE (15,8%) a possessive pronoun occurs without the expected inflection as an omission error (e.g. as *mein* $\langle NP \rangle$ (7)). The reverse error, where a possessive determiner appears with unexpected inflection (e.g. as *meiner* $NP_{[\text{NOM.MASC}]}$ (8)), occurs in 67 of 2,474 cases (2,6%). This error can be understood as a comission error (Slobin 1973, MacWhinney 1985) or an undercompression error (Guasti et al. 2023), where children overtly express material that remains unpronounced / receives zero-spellout in the adult language. The distribution of error rates across age is shown in (10). **Discussion:** If possessive determiners and possessive pronouns were two genuinely distinct elements with different licensing conditions—one occurring before an NP, the other in place of an NP—we would expect error rates to be roughly equal, if not leaning towards the comission side because other determiner elements (*d-er, dies-er*) do show strong inflection before NPs. Instead, omission errors lacking any inflection are five times more frequent. While it is possible that some of these are misannotated fully-inflected ACC.MASC *mein(ə)n* or DAT.MASC/NEUT *mein(ə)m*, it is almost impossible that these make up 80% of the omission errors. The high rate of erroneous uninflected NPE-remnants also speaks against accounts where NPE is licensed only by strong inflection. While it is conceivable that NPE is omitted in the presence of a licensor (the 2.6% comission errors) the large proportion of 15.8% unlicensed NPE remains unaccounted for. Murphy (2018) can account for both errors. Omission errors may result from erroneously first lowering the inflectional element to NP and then eliding NP and the element with it. Comission errors can be attributed to negligence of the secondary feature in (9a) (similar to Hein et al.'s 2024 account of overregularization in English irregular past tense that shows a similar error rate of about 2.5%).

(1) 1.SG *possessive determiner inflection*

	MASC	FEM	NEUT
NOM	**mein**	mein-e	**mein**
ACC	mein-en	mein-e	**mein**
DAT	mein-em	mein-er	mein-em
GEN	mein-es	mein-er	mein-es

(2) 1.SG *possessive pronoun inflection*

	MASC	FEM	NEUT
NOM	**mein-er**	mein-e	**mein-es**
ACC	mein-en	mein-e	**mein-es**
DAT	mein-em	mein-er	mein-em
GEN	mein-es	mein-er	mein-es

(3) a. **Mein** Freund/Kind hat geschlafen
my friend.NOM.M/child.NOM.N has slept
'My friend/child slept. . . '

b. . . . und **dein-er/dein-es** auch.
and your-NOM.M/your-NOM.N too
'. . . and yours too'

(4) a. Mein neu-er Drucker und mein neu-es Bild werden in mein
my new-NOM.M printer.NOM.M and my new-NOM.N picture become in my
alt-es Regal gestellt.
old-ACC.N shelf put
'My new printer and my new picture are being put on my old shelf.'

b. D-er neu-e Drucker und d-as neu-e Bild werden in d-as alt-e Regal gestellt.

(5) *Queried forms*

1.SG	*mein, meiner, meina, mein(e)s*
2.SG	*dein, deiner, deina, dein(e)s*
3.SG.M	*sein, seiner, seina, sein(e)s*
3.SG.F/3.PL	*ihr, ihrer, ihra, ihr(e)s*
1.PL	*unser, uns(e)rer, unsra, uns(e)res, unsers*
2.PL	*euer, eu(e)rer, eura, eu(e)res, euers*

(6) *Counts*

	inflection		
NPE	yes	no	error rate
yes	699	131	15.8%
no	67	2474	2.6%

(7) Simone (3;07, Miller 1979)

a. TOM: will der mein(e)s trinken.
wants he my.ACC.N drink
'Does he want to drink mine?'

b. CHI: nee, der will **mein**.
no, he wants my
'No, he wants mine.'

(8) Falko (2;01, Szagun 2001)

a. CHI: das **meiner** Kaffee is(t).
this my.NOM.M coffee is
'This is my coffee.'

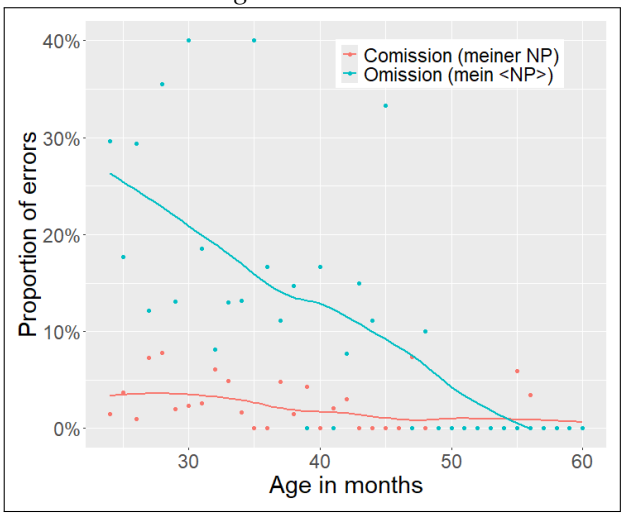
b. MOT: dein Kaffee is(t) das.
your coffee is this
'This is your coffee.'

(9) *Vocabulary entries*

a. -∅ ↔ [NOM.SG.M] / __NP

b. *-er* ↔ [NOM.SG.M] / elsewhere

(10) *Error rates over age*



Sel. Refs.: Guasti et al. (2023). Undercompression errors as evidence for conceptual primitives. *Front. Psychol. 14*. • Hein et al. (2024). Errors of Multiple Exponence in Child English: A study of past tense formation. *Morphology*. • Mills (1985). The acquisition of German. *In:* The Crosslinguistic Study of Language Acquisition. Lawrence Erlbaum Associates. • Murphy (2018). Pronominal inflection and NP ellipsis in German. *J. Comp. German. Linguistics 52*. • Slobin (1973). Cognitive prerequisites for the development of grammar. *In:* Studies of Child Language Development. Holt, Rinehart, & Winston.