Sepp vs Paradigms

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We present data from a Middle Bavarian language in order to argue against the notions lexeme and paradigm. We argue that there is no level of abstraction at which lexemes have coherent properties, unless that level is the one of morphemes, i.e., of roots and affixes. Our argument is based on an examination of the "paradigm" of clitic determiners: /s/, /d/, /n/ and /da/. We show that each of them has its own phonological, morpho-syntactic and semantic properties. While such data are well compatible with a morpheme-based theory (the finer properties are captured in terms of the properties of individual lexical items, the general properties in terms of natural classes), they illustrate the arbitrariness and incoherence of the notions paradigm and lexeme.

1. Introduction

Jean Lowenstamm's recent work centers around roots, affixes, their status as syntactic terminal nodes and their interaction with other morpho-syntactic objects (Lowenstamm 2008, 2011, 2012, to appear). His work initiated a research program making it possible to carefully decompose the internal structure of vocabulary items into atoms of phonological and morpho-syntactic representations. In this squib, we offer a set of new data we think might be interesting from this perspective.[1]

Southern Ennstal Upper Austrian (short *Sepp*) is an endangered, Middle Bavarian language. It is spoken by the descendants of tribes that mounted the then largely unpopulated Enns valley around 1000AD. The main village Weyer is situated at 47°51′01″N, 14°39′31″E. *Sepp* is endangered because of its complete lack of a written culture, and the overwhelming influence of colloquial Austrian German ("Musikantenstadeldeutsch") on TV and radio, in the schools, and in the social media.

Sepp has a series of clitic determiners. The members of this series should be considered part of a natural class, because they share a meaning (*definite*), a syntactic category (*D*), and a set of morpho-syntactic properties (heads DP, expresses Φ-features). However, careful investigation shows that the class of clitic determiners includes three interesting subclasses identified by their phonological spell-out (*/d/, /n/, /s/*), each with a set of independent properties in phonology, morpho-syntax and semantics. We argue that such data are highly problematic for paradigm-based morphological theories.

Let us adopt the definition of the notion *paradigm* endorsed in *The Handbook of Morphology* by Carstairs-McCarthy (1998), who writes (p.322f): "Each of the actually or potentially distinct word forms belonging to a lexeme is associated [...] with some morphosyntactic property or combination of properties. [...] The entire set of these properties or property combinations constitutes the 'paradigm' for that lexeme, and each individual property or property combination within this set can be called 'a cell'."

Since the word forms belonging to a lexeme are ("potentially" or "actually") distinct, the lexeme cannot be identified by its phonological shape. It must be identified exclusively by a set of more abstract properties, and in order to keep the notion coherent, that set of properties should not be an arbitrary disjunction. The paradigm-bet is then that there should be one level of abstraction, at which we can indeed identify a coherent set of properties for each lexeme.

Adapting the logic of an argument made in Dowty (1991) against thematic roles, we argue that this bet is hopeless. Arbitrariness spreads all the way down to the morpheme. Dowty (1991) observes that "[t]he dilemma is, if we adopt the finer characterization [...] to achieve certain distinctions, do we not thereby miss generalizations by not being able to refer to the grosser [...] category as well?" (p.554). The clitic series of *Sepp's* definite determiner is an excellent case at hand. Should we posit a single, wildly incoherent lexeme identified by the category D (which should probably include demonstratives in the case at hand), or should we rather allow for a set of lexemes, each with coherent micro-properties, but missing the fact that they all belong to the paradigm of definite determiners?

We believe that this problem is not specific to a dying language in the mountains of Central Europe. It is so general that it seriously questions the notion of lexemes, and, *a fortiori*, the notion of a paradigm derived from it. Needless to say, a morpheme-based theory is immune to this kind of problem. It can account for the finer distinctions in terms of the properties of individual lexical items, and for the more general properties in terms of natural classes of morphemes.

2. Initial facts

Sepp has a root √*d* that is involved in the formation of three series of determiners: (i) a series of full forms bearing word stress, with demonstrative semantics, (ii) a reduced series of determiners that cannot bear word stress and that has ambiguous semantics: reduced determiners are either demonstrative or definite, and (iii) a clitic series with definite semantics.[2] An example of this three-way contrast is given in (1). In (2), we give the full paradigms, although we will restrict our attention to the structural cases nominative and accusative below. We are interested in the clitic series in (1/2c).

(1) a. *dée lajt kenn- i* (full form, demonstrative)
D people know I
"I know those people."

b. *de lájt kenn- i* (reduced, ambiguous form)
D people know I
"I know those/the people."

c. *d- lájt kenn- i* (clitic, definite)
D people know I
"I know the people."

(2) a. full/stressed/demonstrative

	m.SG	f.SG	n.SG	PL
NOM	dɛɐ	deː	des	deː
ACC	den	deː	des	deː
DAT	den	dɛɐ	den	deː

b. reduced/unstressed/ambiguous

	m.SG	f.SG	n.SG	PL
NOM	da	de	des	de
ACC	den	de	des	de
DAT	den	da	den	de

c. clitic/unstressed/definite

	m.SG	f.SG	n.SG	PL
NOM	da	d	s	d
ACC	(i/a)n	d	s	d
DAT	(i/a)n	da	(i/a)n	d

Clitic determiners share certain morphemes with clitic pronouns. It is therefore useful to compare the two reduced determiner series with the two series of third person pronouns, tonic and clitic, given in (3).[3] Notice that there is no tonic pronoun in the accusative neuter and plural. Full or reduced demonstrative forms (2a/b) are used instead.

(3) a. tonic third person pronouns

	m.SG	f.SG	n.SG	PL
NOM	ɛɐ	si	is	se
ACC	ẽɐm	si	(des)	(de/deː)
DAT	ẽɐm	iɐ	ẽɐm	ẽɐna

b. clitic third person pronouns

	m.SG	f.SG	n.SG	PL
NOM	a	s	s	s
ACC	(a)n	s	(i/a/e)s	s
DAT	ẽɐm	iɐ	ẽɐm	ẽɐna

In the two clitic series (2c, 3b), we observe that various vowels may precede the consonantal markers */n/* and */s/*. In the determiner series, which is our main interest here, the distribution of *in/an/n* (accusative and dative masculine, dative neuter) is phonologically determined: *in* appears, if the determiner clitic is in initial position (4). In non-initial position, it surfaces as *an* after $C_{[+nasal]}$ (5), and as *n* elsewhere (6).[4]

(4) Initial position: */n/* → *in*

a. ***in*** *dooni kenn- i* (ACC M.SG)
D Toni know I
"I know Toni."

b. ***in*** *dooni hob- i- s geem* (DAT M.SG)
D Toni have I it given
"I gave it to Toni."

c. ***in*** *diandl hot- a gfojn* (DAT N.SG)
D girl has he pleased
"The girl liked him."

(5) After $C_{[+nasal]:}$[5] */n/* → *an*

a. *geŋ-* ***an*** *franzi hot- a gvuŋa* (ACC M.SG)
against D Franzi has he won
"He won against Franzi."

b. *nem- **an** franzi liigt- a* (DAT M.SG)
beside D Franzi lies he
"He is/is lying next to Franzi."

c. *nem- **an** haus liigt- a* (DAT N.SG)
beside D house lies he
"He is/is lying next to the house.

(6) Otherwise:[6] */n/* → *n*

a. *fia- **n** franzi oawat- a* (ACC M.SG)
for D Franzi works he
"He's working for Franzi."

b. *sajt- **n** kriag* (DAT M.SG)
since D war
"since the war"

c. *aus- n haus aussi gẽẽ* (DAT N.SG)
out D house out walk
"to walk out of/to leave the house"

The vowel */a/* surfaces for phonotactic reasons banning the adjacency of two nasal consonants in host-clitic sequences. The distribution of the *in* allomorphs follows, if */n/* is an enclitic depending on a host to its left. If no host is available, e.g. in clause-initial position, then *i* is inserted as a dummy host.[7] This is supported by the observation that *i* never appears with pronominal */n/* (3b): pronominal clitics are always supported by a leftward host, as illustrated with the 3m.sg accusative pronoun in (7). The analysis of /n/ as an enclitic will be crucial in the following section.

(7) a. *i kenn- **an** guad* (after verb-stem)
I know him well
"I know him well"

b. *ea kenn- t- **n** guad* (after subj.agr)
he know AGR.3SG him well
"He knows him well"

c. *daun hob- i- **n** dawiſſt* (after nom. clitic)
then have I him caught
"Then I got him."

d. *si ſikt eam- **an*** (after dat. clitic)
she sends him.DAT him.ACC
"She sends him to him."

We conclude that the vowels surfacing in the masculine accusative/dative and neuter dative clitics are phonologically determined. The underlying representation of these clitics is */n/* and */s/* respectively.

For reasons of space, we do not discuss the clitic pronoun series. We just assume that the vowels in the pronominal clitic series are also contextually determined, and that the underlying morphemes are */n/* (accusative masculine) and */s/* (accusative neuter).

Coming back to the two clitic paradigms in (2c/3b) above, and concentrating on the structural cases nominative and accusative, the two series of clitics can now be analysed as in (8).

(8)

	determiner clitic				pronominal clitic			
	m	f	n	PL	m	f	n	PL
NOM	d-a	d-Ø	Ø-s	d-Ø	Ø-a	s-Ø	Ø-s	s-Ø
ACC	Ø-n	d-Ø	Ø-s	d-Ø	Ø-n	s-Ø	Ø-s	s-Ø

Two observations are in order. First, the structure of the two paradigms is strikingly parallel: in both cases, (i) feminine and plural clitics are bare roots (*√d* for determiners, *√s* for pronouns), (ii) neuter (nominative and accusative) and masculine accusative are bare affixes (*/s/* and */n/* respectively). Second, the determiner clitic paradigm includes three types of objects: roots, affixes, and complex expressions composed of a root and an affix (masculine nominative). So while, at a more general level of syntactic functions, we might want to distinguish determiner vs pronominal clitics,[8] we would likewise be able to express generalizations over roots, affixes, and complex expressions. In what follows, we will show that the different forms within the determiner clitic paradigm do indeed have relevant morpho-phonological and semantic properties that do not follow from their position in the paradigm. They must be stated as features of the morphemes composing them.

(9)

	determiner clitic				pronominal clitic			
	m	f	n	PL	m	f	n	PL
NOM	√+aff	√	aff	√	aff	√	aff	√
ACC	aff	√	aff	√	aff	√	aff	√

3. Morpho-phonological asymmetries

A careful examination of the phonological assimilations involving determiner clitics establishes a three-way distinction between feminine and plural (*/d/*), neuter (*/s/*), and masculine accusative forms (*/n/*).[9] Feminine/plural */d/* and masculine */n/* are subject to phonological assimilation, neuter */s/* never is. Furthermore, the

pattern of assimilation is strikingly different for the feminine and plural on the one hand, and the masculine on the other.

(10)

	status	assimilation	direction
/*d*/	root	+	regressive
/*n*/	affix	+	progressive under P, regressive otherwise
/*s*/	affix	–	DNA

Turn first to the determiner clitic /*s*/ (neuter). The only processes taking place between /*s*/ and the following noun are general, boundary insensitive processes like palatoalveolar assimilation. This process affects the neuter determiner /*s*/ (11a) as well as any other [s] preceding [ʃ]. We illustrate with the final pronominal clitic of a cluster and a following adverb (11b), and with the final N of a topicalized PP and the verb in V2 (11c).

(11) a. *ʃ- ʃpyytsajk* [s] → [ʃ]
D play-stuff
"the toys"

b. *hot- a- ʃ ʃõ ksɛɛŋ* [s] → [ʃ]
has he it/she already seen
"Has he already seen it?"

c. *im buʃ ʃtẽm- ma* [bus] → [buʃ]
in-the bus stand we
"We are standing up in the bus."

Other, more local processes do not apply to the determiner /*s*/. For example, word-initial *s* systematically gets palatalized to *ʃ* to the left of stops (12a). The clitic determiner /*s*/ does not get palatalized in this context (12b). We conclude that clitic determiner /*s*/ and the following stop are not adjacent. /s/ does not interact in a specific way with the following N.

(12) a. *ʃpyyt, ʃtressn*
play.3SG.PRES stress.INF
"(he/she) plays", "to stress/harrass"

**spyyt, *stressn*
play.3SG.PRES stress.INF

b. *s- byyd, s- treppfal*
D image, D droplet
"the image", "the droplet"

**ʃ- byyd, *ʃ- treppfal*
D image D droplet

By contrast, the clitic determiners /*d*/ (feminine, plural) and /*n*/ (masculine accusative) interact in a specific way with the following noun: they undergo regressive assimilation triggered by the following noun. /*d*/ undergoes total assimilation triggered by a following stop or affricate (13). Following fricatives and nasals trigger a partial, place assimilation (14,15).

(13) *d* + *b* → *bb*, *d* + *g* → *gg*, *d* + *k* → *kk*, *d* + p^f → pp^f

a. ***b***- ***b***uam wojn net essn (NOM PL)
D boys want not eat
"The boys don't want to eat."

b. ***g***- ***g***usti wyy net essn (NOM F.SG)
D Gusti wants not eat
"Gusti does not want to eat."

c. ***k***- ***k***ɔtts hot- a tretn (ACC F.SG)
D cat has he kicked
"He kicked the cat."

d. ***p***- ***pf***ostn hot- a ɔkhojt (ACC PL)
D planks has he picked-up
"He's picked up the planks."

(14) *d* + *f* → *pf*, *d* + *v* → *bv*[10]

a. ***p***- ***f***loʃʃn san laa (NOM F.SG)
D bottles are empty
"The bottles are empty."

b. ***b***- ***v***uaʃt hot- s kseeŋ (ACC F.SG)
D sausage has she seen
"She saw the sausage."

c. ***p***- ***f***awauntn wojn net essn (NOM PL)
D relatives want not eat
"The relatives don't want to eat."

d. ***p***- ***f***rottsn hot- s kseeŋ (ACC PL)
D louts has she seen
"She saw the louts."

(15) *d* + *m* → *bm*[11]

a. ***b***- ***m***yyx hot- a auskʃytt (ACC F.SG)
D milk has he spilled
"He spilled the milk."

b. ***b-*** ***mãwna*** *wojn net essn* (NOM PL)
D men want not eat
"The men don't want to eat."

c. ***b-*** ***mãwna*** *hot- s ksɛɛŋ* (ACC PL)
D men has she seen
"She saw the men."

In the case of /*n*/, there is place assimilation in all contexts.

(16) *n* + *b* → *mb*, *n* + *g* → *ŋg*, *n* + *k* → *ŋk*

a. ***im*** *buam hot- s ksɛɛŋ* (ACC M.SG)
D boy has she seen
"She saw the boy."

b. ***iŋ*** *goadn hot- s ksɛɛŋ* (ACC M.SG)
D garden has she seen
"She saw the garden."

c. ***iŋ*** *kostn hot- s ksɛɛŋ* (ACC M.SG)
D closet has she seen
"She saw the closet."

(17) *n* + *f* → ŋ*f*, *n* + *v* → ŋ*v*

a. ***iŋ*** *fyyz mog- a net* (ACC M.SG)
D felt likes he not
"He doesn't like (the) felt.

b. ***iŋ*** *vooŋ mog- a net* (ACC M.SG)
D vehicle likes he not
"He doesn't like the vehicle."

(18) *n* + *m* → *mm*

a. ***im*** ***mãw*** *hot- s ksɛɛŋ* (ACC M.SG)
D man has she seen
"She saw the man."

b. ***im*** ***most*** *mog- a net* (ACC M.SG)
D cider like he not
"He doesn't like (the) cider."

There is a morpho-phonological difference between the assimilations targeting /*d*/ vs /*n*/. While /*d*/-assimilation is specific to clitic determiners, nasal assimilation applies in various heteromorphemic contexts, for example between the indefinite acc.masc determiner *an* and the following noun (19).

(19) *n* + *b* → *mb*, *n* + *g* → *ŋg*, *n* + *k* → *ŋk*

a. *am* ***b****uam hot- s kseeŋ*
D.INDEF boy has she seen
"She saw a boy."

b. *aŋ* ***g****oadn hot- s kseeŋ*
D.INDEF garden has she seen
"She saw a garden."

c. *aŋ* ***k****ostn hot- s kseeŋ*
D.INDEF closet has she seen
"She saw a closet."

In non-initial context, i.e., after prepositions, the contrast between */d/-* and */n/-* assimilation materializes in a particularly striking way. In this context, nasal assimilation is progressive: assimilation must apply between P and D, and it must not between D and N (20). This directionality follows, once we take the morpho-syntactic configuration into account. As argued above, */n/* is an enclitic, because it needs a host to its left. The directionality of nasal assimilation is further evidence for this analysis.

(20) Progressive */n/*-assimilation under P

a. *duax-* ***ŋ*** *bɔɔx* (ACC M.SG /n/)
through D creek
"across the creek"

b. **duax* ***m-*** ***b****ɔɔx*
through D creek

By contrast, /d/ still undergoes regressive assimilation under prepositions. Any assimilation between the preposition and the determiner is fiercely ungrammatical (21): /d/ is a proclitic.

(21) Regressive */d/*-assimilation under P

a. *auf* **b-/* ***k-*** ***k****istn auffi* (ACC PL /d/)
on D D boxes onto
"onto the boxes"

b. *um* **b-/* ***g-*** ***g****usti* (ACC F.SG /d/)
for D/ D Gusti
"for Gusti"

c. *duax* **g-/* ***b-*** ***b****uag* (ACC F.SG /d/)
through D/ D castle
"through the castle"

The contrast between /d/ and /n/-assimilation is summarized in table (22).

(22)

	/d/	/n/
_C	place	
C_	no assimilation	place

The contrast between */d/* and */n/* is particularly striking with the prepositions *auf* 'on' and *aun* 'at'. As expected, */d/* assimilates with the noun, and */n/* with the preposition, as illustrated for *auf* in (23), but notice that (23b) is not the preferred way to express the construction: when *auf/aun* are followed by */n/*, P+D surface in a contracted form */am/* (24a). Contraction of P+D is excluded for the feminine determiner (24b).

(23) a. *auf *b-/ **k**- **k**istn auffi* (ACC PL */d/)*
on D D boxes onto
"onto the boxes"

b. %*auf- m/ *n- koogi auffi* (ACC M.SG */n/)*
on D/ D hill onto
"onto the hill"

(24) a. *am koogi auffi* (ACC M.SG)
on+D hill onto
"onto the hill"

b. **am (k) kistn auffi* (ACC F.SG)
on+D (D) box onto
intended: "onto the box"

We insist that *am* is the contracted form of *auf* + *n* in the above example. In particular, it must not be confused with *Sepp's* equivalent of Standard German *an* (to), which is *aun,* and undergoes contraction with /*n*/ as well. We illustrate this for both *auf* and *aun* in contexts where the preposition is unambiguously selected by the verb. In (25), the P selects an accusative, in (26), the P selects a dative. Across the board, */n/*, and only */n/* triggers the reduction of the preposition (25/26c). This behavior is independent of case and gender: it happens in both accusative and dative, and it does not affect the demonstrative version of the masculine D (25/26b vs c). Notice furthermore that the feminine dative */da/* patterns with demonstratives (25/26a) in that it does not cliticize to N (cf., note 9 above on another occurrence of */da/*).

(25) a. *ea heat net auf g- gusti* (auf + */d/*)
he listens not on D Gusti
"He doesn't listen to Gusti."

b. *ea heat net auf den noxban* (aun + M.SG.DEM.)
he listens not on that neighbour
"He doesn't listen to that neighbour."

c. *ea heat net am noxban* (aun + */n/*)
he listens not on+D neighbour
"He doesn't listen to the neighbour."

(26) a. *mia liigt nix aun da gusti* (aun + */d/*)
me.DAT lies nothing at D Gusti
"I don't care for Gusti."

b. *mia liigt nix aun den noxban* (auf + M.SG.DEM.)
me.DAT lies nothing at that neighbour
"I don't care for that neighbour."

c. *mia liigt nix am noxban* *(*aun + */n/)*
me.DAT lies nothing at+D neighbour
"I don't care for the neighbour."

Let us now take stock of our observations. The neuter formative */s/* is never subject to any specific assimilation. The feminine and plural form */d/*, and the masculine form */n/* do interact with their host. However, they do so in strikingly different ways. */d/* assimilates with the following noun, never with a preceding element. It is a proclitic. */n/* assimilates with the following noun, but only if it lacks a prepositional host to its left. If */n/* is preceded by P, it must assimilate with P. */n/* is an enclitic attaching to P, or to a dummy host *i*.

The three-way asymmetry we have thus established between */d/*, */n/*, and */s/* is easily stated, as long as we can refer to each one of these formatives as lexical items. At the same time, we can refer to all of them as definite determiners, which expresses the wider generalization.

In a theory that defines lexemes in relation to paradigms, the conflicting sets of morpho-syntactic rules constitutes a problem. If the paradigm is defined by the wider generalization (that should, at least in the present case, include both definites and demonstratives), then the wildly different properties of its word-forms remain mysterious sets of stipulations in the best case, if they are not to be interpreted as paradigm inconsistencies (Carstairs-McCarthy 1998: 324). But if we concentrate on the specific properties of */d/*, */n/*, and */s/*, then all three of them should be considered lexemes, each with its own micro-paradigm, and the wider generalization (all of them are definite determiners) will be lost.

4. Semantic asymmetries

Determiner clitics generally appear with bare nouns as complements. Native speakers often reject D-clitics preceding modified NPs. This seems to be due to poorly understood semantic constraints.[12] One such condition seems to be restrictiveness. The constructions below improve, if the reading of the adjective is restrictive, rather than appositive. Such a reading is easier to obtain for general nouns than it is for body-part expressions. For example, *b-blaue hosn* in (27a) should be read as *the blue item among the trousers,* and not as *the trousers of which we know they are blue.*

(27) a. ʔ***b-*** ***b****uglade nosn* / % ***b-*** ***b****laue hosn*
D bent nose / D blue trouser
"the bent nose/the blue trousers"

b. ʔ***im*** ***b****leedn bluza* / % ***im*** ***b****laun aunzug*
D silly pighead / D blue suit
"the silly pighead/the blue suit"

c. ʔ***b*** ***b****laun auŋ* / % ***k*** ***k****uazn fyym*
D blue eyes / D short films
"the blue eyes/the short films"

However, even the speakers who remain hesitant about the right-hand column of (27) mysteriously accept (28).

(28) *s kloani keppfal* / *s kloani auto*
D small head-dim / D small car
"the small head/the small car"

In other words, there is a semantic asymmetry between the assimilating clitic determiners */d/* and */n/* on the one hand, and the non-assimilating one on the other hand. Assimilating */d/* and */n/* are subject to tight semantic constraints. Non-assimilating */s/* (28) patterns with the reduced definites of (2b): none of them imposes any restriction on the presence or type of adjectives (29).

(29) a. *des kloani keppfal* / *des kloani auto*
D small head-dim / D small careful
"the small head/the small car"

b. *de buglade nosn* / *de blaue hosn*
D bent nose / D blue trouser
"the bent nose/the blue car"

c. *den bleedn bluza / den blaun aunzug*
D silly pighead / D blue suit
"the silly pighead/the blue suit"

d. *de blaun auŋ / de kuazn fyym*
D blue eyes / D short films
"the blue eyes/the short films"

The data in (27) are subtle and slightly unstable. In order to strengthen intuitions, we use inalienable possession constructions (Vergnaud and Zubizarreta, 1992) with nouns denoting single body-parts. In this configuration, an adjective must have an appositive reading, because the extension of the noun is already restricted to a single object, or a single pair of objects, by the inalienable possession relation. A restrictive reading is excluded for the same reason. We therefore predict that */n/* and */d/* should be ungrammatical for all speakers in this construction. This prediction is indeed borne out by the data (30b–d). By contrast, */s/* stubbornly remains grammatical (30a). */s/* behaves like reduced D, not like clitic D: only assimilating clitic determiners impose semantic restrictions on their NP complements.

(30) a. *s kloani keppfal hot- a- si ãukhaut*
D small head-dim has he ref hit
"He hit his small head (on something)."

b. **b- buglade nosn hot- a- si ãukhaut*
D bent nose has he ref hit

c. **im- bugladn bugi hot- a- si varissn*
D bent back has he ref streched

d. **b- blaun auŋ hot- a- si vablitzt*
D blue eyes has he ref blinded

We have thus established yet another layer of asymmetries among the set of clitic determiners, adding to the difficulties in the definition of a lexeme 'clitic determiner' with the help of paradigms. The fact that the asymmetry is semantic in nature casts doubt on a conceivable attempt at saving the notion of lexemes with reference to the idea of a shared meaning of word-forms. In semantics, too, the statement of finer distinctions makes us lose the wider generalization.

5. Conclusion

In this squib we discussed new data from a Bavarian dialect, which support a theory of grammar that recognizes roots and affixes as opposed to paradigms and lexemes as lexical items. The ground is now prepared for more interesting questions, to be addressed in the future. One might want to ask, for example, why phonological assimilation should have an impact on semantic interpretation, or why */s/* has a reduced form, but the behavior of an independent determiner.

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Notes

1. We thank two anonymous reviewers for their comments and suggestions.

2. Kloeke (1985) is an early analysis of a similar, yet not identical scenario in a German variety of Middle Bavarian; for an extensive discussion and references concerning the German variants of Middle Bavarian we refer the reader to Weiβ (1998). As far as we can ascertain, *Sepp*'s determiners have not yet been the subject of a theoretically oriented publication, but for the phonology and the verbal system, *cf.* Bendjaballah (2012).

3. The pronouns in (3a) are tonic in the sense that they can appear in the phrasal V2 position to the left of the finite verb in root clauses. Under focus, additional constraints apply.

4. In our examples we give loose transcriptions aimed at readability, except where phonetic detail is necessary for the description of a phenomenon. In particular, Middle Bavarian languages are well-known for not having a voice contrast for obstruents. Instead, they oppose a 'lenis' to a 'fortis' series of obstruents, e.g. [b] and [b̥]. The exact transcription of the obstruents is not relevant for our purpose in this squib, and, for readability, we write p for [b̥], f for [v̥] *etc.*

5. This context includes D-clitics after the following prepositions: *geeŋ* against, *neem* beside, *um* around/for, *weeŋ* because of. Note that the vowel of the preposition is long when P is stressed, *e.g.,* in the citation form. Otherwise, the vowel is short, as in the examples below.

6. This context includes D-clitics after the following prepositions: *noox* after, *aus* out, *auf* on, *sajt* since, *duax* through, *ʃtott* instead of, *trots* despite, *fia* for, *ba* at, *fa* of, *tsa* to, *foa* in front of, *hinta* behind, *yywa* above, *unta* under

7. On carrier morphemes in syntax, *cf.* Cardinaletti and Starke (1999), in phonology *cf.* Bendjaballah and Haiden (2008); Faust (2013).

8. At a still more general level, we might want to unify the paradigms of determiners and pronouns because of their strikingly similar structures. We do not explore this option any further.

9. The masculine nominative */da/* shows yet another behavior. It patterns with the reduced, rather than the clitic series.

10. The velar fricative ɣ systematically patterns with coronals, not velars in *Sepp*: [dɣ]oosn, *[gɣ]oosn "the rose", *cf.* Bendjaballah (2012).

11. The velar nasal *ŋ* never appears word-initially, the rule d + *ŋ* therefore cannot be tested.

12. Brugger and Prinzhorn (1996) propose a number of such constraints for a Salzburg variant of Middle Bavarian. They do not mention paradigm-internal asymmetries like those discussed below, though.