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# Number sensitive reflexive pronouns in Danish

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## Abstract

The topic of this talk is the observation that the possessive reflexive *sin* in modern Danish only allows singular antecedents, as opposed to all the other Scandinavian languages where *sin* may take both singular and plural antecedents. This is not a new feature of Danish and it is attested in the earliest non-runic sources of Danish, going back to the 13th century. In the same period of time, Danish object reflexive *sig/sig selv* has changed from patterning with *sin* in mainly allowing singular antecedents to the present situation where it patterns with the other Scandinavian languages in allowing both singular and plural antecedents. This is a more recent development, however, finalized as recent as the 20th century. I hypothesize that *sin* may be going the same way as *sig* and changing (back) to allow both singular and plural antecedents. I present some results from a large corpus study of the use of plural antecedent *sin* in Danish. The results show that plural antecedent *sin* patterns differently from the standard forms, locally bound *deres* and *sin* with any kinds of antecedents, within particular morphological, syntactic, and semantic contexts.

## 1. Introduction

Some terminology and very general assumptions:

Some languages like English and Danish have a set of *reflexive pronouns*. These can be characterized in terms of *binding*, a relationship that holds between an *antecedent* and the reflexive pronoun. I assume that the antecedent must *c-command* the reflexive pronoun. In English, the reflexive pronouns have the form *X-self*, and they differ from regular pronouns in that they must be bound in a local relation with e.g. a subject (Chomsky's Principle A), whereas regular pronouns must be free in this same relation (Chomsky's Principle B), (1)a,b.

(1) En. a. He<sub>1</sub> loves himself<sub>1</sub> b. \* He<sub>1</sub> loves him<sub>1</sub>

Danish, in addition to the English-type reflexives, has a *reflexive possessive* pronoun *sin* that allows speakers to distinguish between the two possible readings of the Danish equivalent to English *she loves her cat*. In English, this sentence can in principle either refer to *her own cat* or *someone else's cat*. In Danish, one reading, *her own cat*, requires possessive reflexive *sin* and the other, *someone else's cat*, requires *hendes* (En. *her*).

(2) Da. a. Hun<sub>1</sub> elsker sin<sub>1</sub> kat she loves REFL's cat she loves her cat
b. \* Hun<sub>1</sub> elsker hendes<sub>1</sub> kat she loves her cat she loves her cat

Most of the Germanic languages, except for English, have retained a cognate of Gothic possessive reflexive *seins*. In Gothic, *seins* (glossed *REFL's*) allowed third person antecedents of any gender and number and inflected like an adjective.

(3)	Go.	hairdeis	sa	goda	saiwala	seina	lagjiÞ	faur	lamba
		shepherd-	the-	good-	life-FEM-	REFL's-	lays-down	for	sheep
		NOM-SG	MASC-	MASC-	ACC-SG	FEM-ACC-	-		-
			NOM-SG	NOM-SG		SG			
		the good s	hepherd le	ays down h	nis life for t	the sheep (	wulfila.be, Jo	ohn 10	:11)

In the North Germanic (Scandinavian) languages, Danish, Swedish, Norwegian, Faroese and Icelandic, *sin* is still a proper possessive reflexive. *Sin* must be bound by a subject and cannot occur unbound. In all the languages, *sin* can be bound by third person antecedents of any gender, but in Danish (and apparently for some speakers of the other four Scandinavian languages), *sin* is limited to singular antecedents.

(4)	Danish Swedish Norwegian Faroese	a. b. c. d.	Han <sub>1</sub> /hun <sub>2</sub> /de <sub>3</sub> Han <sub>1</sub> /hon <sub>2</sub> /de <sub>3</sub> Han <sub>1</sub> /hun <sub>2</sub> /de <sub>3</sub> Hann <sub>1</sub> /hon <sub>2</sub> /tey <sub>3</sub>	älskar elsker	sin <sub>1/2/*3</sub> sin <sub>1/2/3</sub>	nye nya nye nýggja	bil. bil. bilen bil.	sin <sub>1/2/3</sub> .
	Icelandic	e.	Hann <sub>1</sub> /hún <sub>2</sub> /Þau <sub>3</sub> he/she loves REFI		car	nýja	bílin	$sinn_{1/2/3}$ .

In the West Germanic languages, e.g. German *sein*, *sein* is not a reflexive pronoun but a genitive personal pronoun corresponding to masculine and neuter. The corresponding genitive pronouns for feminine and plural are variations of *ihr* and none of the languages have preserved or innovated a reflexive possessive.

(5)	German	a.	Er/sie	isst	sein/ihr	Essen.
	Dutch	b.	Hij	eet	zijn	voedsel.
	Afrikaans	с.	Hy	eet	sy	kos.
	Yiddish	d.	Er	est	zeyn	esnvarg.
	Frisian	e.	Hy	yt	syn	iten.
			he/she	eats h	nis/her foo	d

There are remnants of a *sin* in a few Old English texts but the form "occurs mostly in poetry, rarely in prose, and it does not survive into ME" (Mustanoja 1960: 156), although Jane Roberts (2016: 54) speculates that *sin* will have been part of the vocabulary of the 10<sup>th</sup> century English scribe Aldred. The example below is as late as 1065, *ChronC* 194. 17 (Mitchell 1985: 119).

## 7 se froda swa þeah befæste price heahþungenum menn Harolde sylfum æþelum eorle se in ealle tid hyrde holdlice hærran sinum.

(Literary translation: *But the prudent king had settled the realm on high-born men, on Harold himself, the noble earl, who in every season faithfully heard and obeyed his lord,* <u>http://omacl.org/Anglo/part5.html</u>.)

A common denominator for the languages presented here that have preserved *sin* is that they all have (developed) suffixed definiteness markers, whereas the languages that have lost *sin* as a reflexive all have prenominal definiteness markers – incidentally, just like some of the Jutlandic dialects.

As to the other half of the Germanic reflexive spectrum, Gothic had a reflexive pronoun *sik* that surfaces as *sig* in modern Danish and *sich* in modern German. The Ingvaeonic (North Sea) Germanic languages – Old English, Old Frisian, Old Saxon – had all lost *sik* (notice that *sin* presumably was preserved longer than *sik*). *Sik* was preserved in Old Norse, Old Low Franconian and Old High German and survives into all the modern Scandinavian languages. Dutch and Low German borrowed *zich* from High German (Postma 2011 *et seq* for Dutch), while modern Frisian stands out among its neighbours in not having a *sich*. *Sich*, as opposed to *sein*, has not become limited to masculine and neuter and in all the languages that preserve or have adopted it later, *sich* may occur with third person antecedents of all genders and numbers. That is, except for earlier stages of Danish where *sig* only/mainly occurred with singular antecedents and the regular plural pronoun *dem* was used reflexively, just like *deres* is in modern Danish. This development is illustrated in (6). (6)a is a modern translation of (6)b, (6)b is from the Danish poet Grundtvig, (6)c is from Chr. Pedersen's 1550 translation of the Bible and (6)d is from the area law *Jyske Lov*, the original text dated to 1241.

(6)	Danish (2017)	a.	Da	hvælver	rosentelte <sub>1</sub>	$\mathbf{sig}_1$	selv	ved	havets		bred
			then	arch	rose tents	REF	L self	by	ocean.def.	POSS	shore
	Danish (1850)	b.	Da	hvælve	Rosen-Tel	te <sub>1</sub> dem	selv	ved	Havets		Bred
	~ /		then	arch.pl	rose tents	them	self	by	ocean.DEF.	POSS	shore
	Danish (1550)	c.	Menr	niskane <sub>1</sub>	forundrede	$\mathbf{dem}_1$					
				ns.DEF eople marv	marvelled <i>pelled</i>	them					
	Danish (13th c.)	d.	Tha	*	mughæ	skipær1	gøræ	thæm	ı skip	sialf.	
	``'		then <i>then i</i>	the sailors	must/can? must/can? ma	shipmen ake themse			ship	self	

This talk will deal with the modern properties of the reflexives *sig* and *sin* in Danish. At the present stage of the language, *sig* takes third person antecedents of any gender and number and *sin* only singular antecedents of any gender. My summary of the diachronic and synchronic situations is illustrated in an abbreviated form in (7). The middle stage, Danish between 1200 and 1900, is investigated further in papers by Karen Margrethe Pedersen (Pedersen 2017) and yours truly (Ehlers 2020). The properties of *sin* and *sig* in the other Germanic languages were included to illustrate the various paths that the Germanic reflexives have developed along since their common-Germanic state.

(7)	Singular antecedent	Plural antecedent
Danish, before 1000 AD	sig	sig
antecedent 3rd person, all genders	sin	sin
Danish, 1200(?)-1900(?) AD	sig	dem
antecedent 3rd person, all genders	sin	deres
(Standard) Danish, 2023	sig	sig
antecedent 3rd person, all genders	sin	<b>deres</b>

# 2. The Danish reflexive system, broad strokes and micro variation

Danish has a fairly complicated system of reflexives that yet can be described across two binaryvalued distinctions, one for elements with *selv* (En. *self*) and one for elements with *sig*. Note that these distinctions at present are only intended as *descriptive tools* and that I make no claim as to whether or not they are also *features* in the formal sense. The ±selv binary corresponds more or less to the English distinction between *him* and *himself* (Chomsky's Principles A and B).

(8) En. a. He<sub>1</sub> loves himself<sub>1</sub>b. \* He<sub>1</sub> loves him<sub>1</sub>

For Danish, this same distinction can derive the difference between the first and second person object pronouns, *mig* and *dig* (En. *me* and singular *you*), and the first and second person reflexive pronouns, *mig selv* and *dig selv* (En. *myself* and *yourself*). I use first person for illustration but second person can be substituted in without any other changes.

(9) Da. a. Jeg<sub>1</sub> elsker mig selv<sub>1</sub>
I love myself
b. \* Jeg elsker mig I love me

As is the case for English,  $\pm$ **selv** is a fairly *local* requirement, illustrated by the fact that the grammaticality is reversed when the relation is non-local. *Local* meaning *minimal IP* is a reasonably good definition for present purposes<sup>1</sup>.

(10) Da. a. \* Jeg<sub>1</sub> bad [IP ham hjælpe mig selv<sub>1</sub>] I asked him help myself
I asked him to help myself
b. Jeg bad [IP ham hjælpe mig ] I asked him help me I asked him to help myself

The  $\pm$ sig distinction does not exist in English where the cognate of *sig* presumably was lost at a time prior to Old English. We see *sig* preserved in most of the other Germanic languages, either with a direct path form the earlier Germanic dialects or through later borrowings from neighbouring dialects (as has been shown to be the case for Dutch).

(11) Ge.	sich
Du.	zich
Da.	sig

 $\pm$ sig derives the distributional difference between the third person singular pronominal possessors and the third person reflexive possessor *sin* (glossed as REFL's). I use *hendes* (En. *her*) as a poster child for the pronominal possessors. In the case of local binding, *sin* and *hendes* are in complementary distribution. (Notice, of course, that the English literal gloss for (12)b is fully grammatical: local binding of possessors in English is unproblematic.)

<sup>&</sup>lt;sup>1</sup> For a discussion of why *minimal IP* cannot be a satisfactory definition of the local binding domain, see Ehlers (2017: 78ff).

(12) Da. a. Hun<sub>1</sub> elsker sin<sub>1</sub> kat she loves REFL's cat she loves her cat
b. \* Hun<sub>1</sub> elsker hendes<sub>1</sub> kat she loves her cat she loves her cat

The complementarity between reflexive *sin* and pronominal *hendes* disappears when the pronouns are non-locally bound. This means that both (13)a and (13)b are grammatical, the only difference being that (13)a in principle is ambiguous between a reading where *he* feeds *her* cat (non-local binding) and a reading where *he* feeds *his own* cat (local binding). This gives the second binary distinction,  $\pm$ sig, where *sin* is +*sig* and *hendes* is -*sig*.

(13) Da.	a.	$Hun_1$	bad	[IP	ham	fodre	$sin_1$	kat ]
		she	asked		him	feed	REFL's	cat
		she a	sked hii	n te	o feed	her ca	ıt	
	b.	$Hun_1$	bad	[IP	ham	fodre	hendes1	kat ]
		she	asked		him	feed	her	cat
		she a	sked hi	m te	o feed	her ca	ıt	

The combination of the two binaries,  $\pm$ **selv** and  $\pm$ **sig**, yields a four-way system that derives the distinction between *sig* and *sig selv*. (This system is grammaticalized in Danish but not e.g. in Dutch or German where it is probably more reasonable to call the cognates of *self* emphatic.) I will mainly discuss the elements in the **yellow** boxes in (14). (14) summarizes the full range of options, given the two binary distinctions  $\pm$ **selv** and  $\pm$ **sig**.

(14)	<u>+selv</u>	<u>-selv</u>
+sig	sig selv	sig
<u>-sig</u>	ham selv, hende selv,	ham, hende,
	den selv, det selv,	den, det,
	dem selv	dem

With binding by a local subject, only *sig selv* is available. Both *sig* and *ham* are ungrammatical when non-locally bound, and *ham selv* seems to not allow binding by subject in general.

(15) Da. a. Han<sub>1</sub> elsker sig selv<sub>1</sub> loves REFL self he he loves himself b. \* Han<sub>1</sub> elsker sig<sub>1</sub> loves REFL he Intended: he loves himself c. \* Han<sub>1</sub> elsker ham selv<sub>1</sub> he loves him self Intended: he loves himself d. \* Han<sub>1</sub> elsker ham<sub>1</sub> he loves him Intended: he loves himself With binding by a non-local subject, *sig selv* is ungrammatical. We do, however, find the same kind of optionality between reflexive and pronominal that we saw with non-local binding of *sin* and *hans*, which is why both (16)b and (16)d are possible.

(16) Da.	a.	*			-			sig selv1 REFL self	]
			she as	sked hi	n te	help	her		
	b.		$Hun_1$	bad	[IP	ham	hjælpe	sig <sub>1</sub>	]
			she	asked		him	help	REFL	
			she as	sked hii	n te	help	her		
	c.	*	$Hun_1 \\$	bad	[IP	ham	hjælpe	hende $selv_1$	]
			she	asked		him	help	her self	
			she as	sked hi	m te	o help	her		
	d.		$Hun_1$	bad	[IP	ham	hjælpe	hende <sub>1</sub>	]
			she	asked		him	help	her self	
			she as	sked hii	m te	o help	her		

Binding of *ham selv* by a subject is still ungrammatical, but it must be bound by an object, (17)a,b. Note, however, that (17)c parses as perfectly grammatical, despite the subject *Trump*, seemingly not c-commanding *ham selv*. (More on these *override reflexives* in Sørensen, Vikner and Ehlers 2019.)

(17) Da.	a.	Hun she				ham selv <sub>1</sub> him self			
		she asked	l him abo	out hin	nself				
	b. *	Vi	spurgte		om	ham selv			
		we	asked		about	him self			
		Intended	: we aske	ed aboi	ut him				
	c.	Trumps	mor	har	endnu	flottere	hår	end	ham selv
		Trump's	mom	has	even	nicer	hair	than	him self
		Trump's	mother h	nas eve	en more	beautiful h	air th	an he	does

The table in (18) summarizes a full proposal for the binding properties of Danish pronouns (discounting inherently reflexive verbs which show a different pattern).

(18)	<u>+selv</u> bound in the minimal IP	<u>-selv</u> not bound in the minimal IP	<u>No ±selv</u> <u>distinction</u> (possessives)
+sig bound by a subject in the minimal <b>finite</b> IP	sig selv	sig	sin
<u>-sig</u> not bound by a subject in the minimal IP	ham selv, hende selv, den selv, det selv, dem selv	ham, hende, den, det, dem	hans, hendes, dens, dets
<u>No ±sig distinction</u> (1. & 2. person & deres)	mig selv, dig selv, os selv, jer selv	mig, dig, os, jer	min, din, vores, jeres, <mark>deres</mark>

I have highlighted *deres* in (18). The number requirement of *sin* makes the system somewhat inconsistent in that *deres* is the only 3rd person item with no restrictions on it at all. I illustrate this inconsistency more explicitly in the table at the top of page 8.

<u>Danish</u>	Singular antecedent	Plural antecedent	
antecedent 3 <sup>rd</sup> person,			
all genders			
Local	sig selv	sig selv	
	sin	deres	
Non-local	sig	sig	
	sin	deres	

The observation that my PhD research revolves about is that this may be changing, or at least that *sin* seems to be used fairly frequently with plural antecedents in Danish. Some relatively recently heard and read examples are reproduced in (19) and in the screenshot from a fireworks campaign from the official Danish governing body *Sikkerhedsstyrelsen* below.

- (19) Da. a. Rigtig mange<sub>1</sub> har ikke mulighed for at passe sine<sub>1</sub> børn hjemme. (facebook, 11/4-19)
   Many people don't have the option of not sending their kids to daycare.
  - b. **De der rådne Oxford-akademikere**<sub>1</sub> der kun kan se **sin**<sub>1</sub> egen næsetip. (KRC, 12/3-19) *Those rotten Oxford academics who are only able to see the tip of their own nose.*
  - c. Jer der har børn1 der har fået sin1 12mdr vaccine blev de syg? (facebook, 3/4-19)
     *Those of you who have kids who have received their 12 month vaccination, did they fall sick?*
  - Medskæringerne<sub>1</sub> viser fortsat sit<sub>1</sub> grimme ansigt (facebook, Danske Studerendes Fællesråd, 2/4-19)
     The budget cuts continue showing their ugly face.



9.52 AM · 16. dec. 2022 · 39,6 t Visninger

# 3. Danish sin with plural antecedents in corpus data

KorpusDK consists of two subcorpora, Korpus90 with data from 1983 to 1992 and Korpus2000 with data from 1998 to 2002. I investigated the occurrence of *sin* with plural antecedent in both subcorpora and estimate the numbers to be as in (20). The difference between Korpus90 and Korpus2000 is statistically significant, but it is probably still a very small effect, given the large sample size and relatively small difference. LANCHART is a Danish spoken-language corpus where the relative occurrence with *sin* can be seen to be somewhat higher than in the written-language corpora, but still not radically different. *Sin* with plural antecedent in the corpora is generally fairly sparsely attested. For the data that I do have, however, there is a distributional difference between *sin* and *deres* with (local) plural antecedents, as well as between *sin* with plural antecedents and *sin* with any kind of antecedent. I walk through the data below (as much as we have time for).

(20)			LANCHART
	Korpus90	Korpus2000	(Jensen 2009:7)
# of <i>sin/sit/sine</i> (all instances)	92877	81818	1247
# of sin/sit/sine with plural antecedent	~500	~700	45
% sin/sit/sine with plural antecedent	0,54 %	0,86 %	3,61 % (paper: 7%)

#### Factor 1: Full noun or pronoun subject

- (193) a. ... og **de**<sub>1</sub> har derfor fået **sin**<sub>1</sub> egen side. and they have therefore got REFL's own page '... and they got their own page accordingly.'
  - b. ... og begge<sub>1</sub> så sin<sub>1</sub> egen frygt genspejlet i den andens øjne.
     and both saw REFL's own fear mirrored in the other's eyes
     '... and both saw their own fear mirrored in the other's eyes.'
  - c. For han er blandt  $dem_1$  der i dag holder  $sin_1$  mund. for he is among them who in day hold REFL's mouth 'For he is one of those who hold their tongue today.'
  - d. Pigerne<sub>1</sub> har vundet sine<sub>1</sub> to hidtidige udekampe i girls.DEF have won REFL's two previous away-games in turneringen.
     tournament.DEF
     'The girls have won their two previous away games in the tournament.'
  - e. **Kortenes motiver**<sub>1</sub> udtrykker med **sine**<sub>1</sub> kønne og varme farver... cards.DEF' motifs express with REFL's pretty and warm colours 'The motifs of the card express with their pretty and warm colours...'

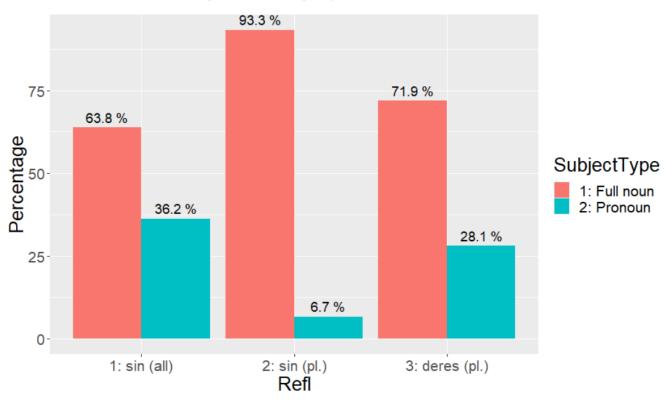


Figure 4.2: Subject: Full noun or pronoun

#### Factor 2: sin in plural or singular DP

- (194) a. Alt for mange<sub>1</sub> undlader at pleje sin<sub>1</sub> krop... all too many fail to tend REFL's body 'Far too many fail to care for their body.'
  - b. ... så **hundeejere**<sub>1</sub> kan tage  $sin_1$  hund med... so do-owners can take REFL's dog with '... so dog owners can bring their dog...'
  - c. ... så vi tror at nordjyderne1 med opbakning fra sit1 so we think that north-Jutlanders.DEF with support from REFL's store publikum klarer opgaven large audience manage task.DEF '... so we think that the north Jutlanders will manage the task with support from their large audience.'
  - d. Bombardementerne\_1 går ind i sit\_1 sjette døgn bombardments. DEF go in in REFL's sixth day 'The bombardments enter their sixth day.'

(195) a. ... er skuespillerne<sub>1</sub> tvunget til at indtage sine<sub>1</sub> måltider på offentlige are actors.DEF forced to to eat REFL's meals on public restauranter... restaurants

'... are the actors forced to eat their meals in public restaurants.'

- c. **Alle krige**<sub>1</sub> har **sine**<sub>1</sub> årsager og konsekvenser. all wars have REFL's causes and consequences 'All wars have their causes and consequences.'
- Anders Westers forældre1 har netop udlejet sine1 herlige Anders Westers parents have just rented REFL's delightful træningsfaciliteter...
   exercise-facilities

'Anders Wester's parents have just rented out their delightful exercise facilities.'

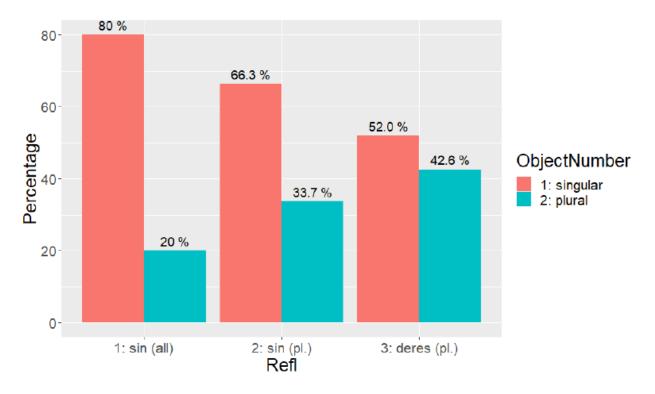
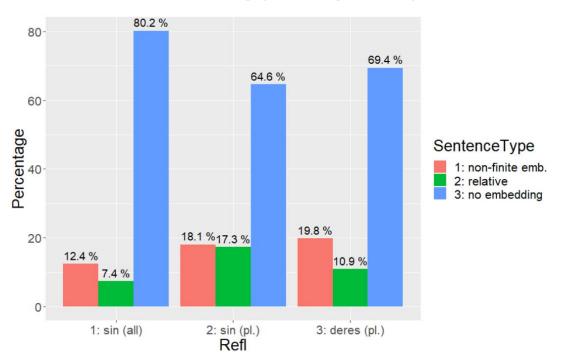


Figure 4.4: Relative occurrence of all *sin*, plural antecedent *sin* and plural antecedent *deres* by number of the DP

#### **Factor 3: Simple or complex sentence**

- (198) a. ... og tvang **tre regioner**<sub>1</sub> til **PRO**<sub>1</sub> at tilpasse **sine**<sub>1</sub> love til and forced three regions to to adjust REFL's laws to forfatningen. constitution.DEF
  - '... and forced three regions to adjust their laws to the constitution.'
  - b. ... men gæsterne<sub>1</sub> formåede ikke PRO<sub>1</sub> at omsætte sine<sub>1</sub> mange but guests.DEF managed not to convert REFL's many dødbolde...
    set-pieces...
    ket the meeter did not mennen te generat their mennen te interest.
  - '... but the guests did not manage to convert their many set pieces...'
- (197) a. ... det var som om hans hænder<sub>1</sub> levede sit<sub>1</sub> eget liv... it was as though his hands lived REFL's own life '... It was as though his hands lived their own life...'
  - b. ... før andre<sub>1</sub> har sagt sin<sub>1</sub> mening.
     before others have said REFL's opinion
     '... before others have voiced their opinion.'
  - c. ... hvordan **FN-styrkerne**<sub>1</sub> kan udføre **sin**<sub>1</sub> opgave mere rationelt. how UN-troops.DEF can perform REFL's task more rationally '... how UN troops can perform their task more rationally.'
- (199) a. Værker<sub>1</sub> ec<sub>1</sub> der  $t_1$  inddrager sin<sub>1</sub> beskuer. works that draw-in REFL's viewer. 'Works that draw in their viewer.'
  - b. ... og  $dem_1 ec_1 der t_1 har sin_1$  ansættelse hos privatbanerne. and them that have REFL's employment at private-railways.DEF '... and those who have their employment at the private railways.'



#### Factor 4: Animate or inanimate antecedent

- (203) a. ... det gælder også for sølvmåger<sub>1</sub> som tager sin<sub>1</sub> del af this counts also for herring-gulls who take REFL's part of ællingerne.
  ducklings.DEF
  '... this is also the case the herring gulls who take their part of the ducklings.'
  - b. Når vore folkevalgte<sub>1</sub> ikke lytter til sine<sub>1</sub> vælgere...
     when our electees not listen to REFL's voters
     'When our electees do not listen to their voters...'
  - c. ... at børn<sub>1</sub> har en god kontakt med sine<sub>1</sub> forældre... that children have a good connection with REFL's parents '... that children have a good connection to their parents...'
- (204) a. ... og gennemtænkte sjove film<sub>1</sub>, der henter sin<sub>1</sub> humor i and thought-out funny movies that fetch REFL's humour in nuet.
   now.DEF
   '... and thought-out funny movies that fetch their humour in the now.'
  - b. ... hvorvidt **digtene**<sub>1</sub> kan have **sin**<sub>1</sub> oprindelse længere syd på... whether poems.DEF can have REFL's origin further south on '... whether the poems can have their origins further to the south...'
  - Nu kan industriens virksomheder<sub>1</sub> teste sine<sub>1</sub> ufaglærte now can industry's.DEF companies test REFL's unskilled medarbejdere... workers

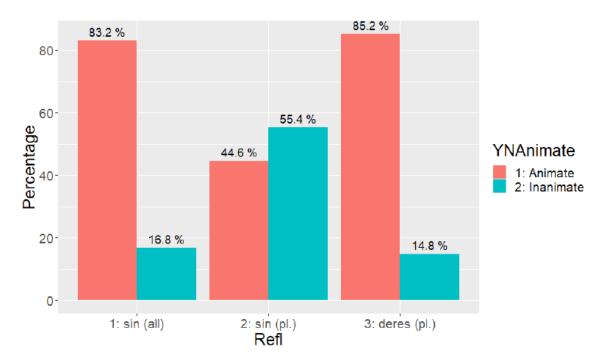


Figure 4.7: Animate or inanimate

#### **Factor 5: Coordinated antecedent**

- (205) a. ... så **bestanden og dens afkom**<sub>1</sub> sikres i **sin**1 eksistens. so herd.DEF and its offspring secure.PASS in REFL's existence '... so the herd and its offspring are secured in their existence.'
  - b. ... også lønmodtageren og den lille landmand<sub>1</sub> skal have sin<sub>1</sub> also wage-earner.DEF and the small farmer shall have REFL's retmæssige del... rightful share '... also the wage-earner and the small farmer must have their rightful share ... '
  - og en regering<sub>1</sub> skal dømmes på sine<sub>1</sub> c. ... men et land but a country and a government shall judge.PASS on REFL's handlinger... actions

'... but a country and a government must be judged by their actions...'

- (207) a. Flosklerne og klicheerne<sub>1</sub> taler sit<sub>1</sub> eget sprog om... platitudes.DEF and clichés speak REFL's own language about 'The platitudes and the clichés speak their own language about...'
  - b. ... men tidligere rygskader og benskader<sub>1</sub> har åbenbart but previous back-injuries and leg-injuries have apparently krævet sit<sub>1</sub>. demanded REFL's '... but previous back injuries and leg injuries have apparently taken their

toll.'

(206) a. Kampen og blodsudgydelserne1 sætter sine1 tydelige spor i fight.DEF and bloodsheds.DEF set REFL's clear marks in Ionatan... Jonatan

'The fight and the bloodshed leave their clear marks in Jonatan ...'

b. ... og både husholdningerne og industrien1 har øget sin<sub>1</sub> and both households.DEF and industry.DEF have increased REFL's andel. share

'... and both the households and the industry have increased their share.'

c. ... at visionerne og selvrealisationen $_1$  har sine $_1$  bedste that visions.DEF and self-realisation.DEF have REFL's best vækstvilkår... growth-conditions

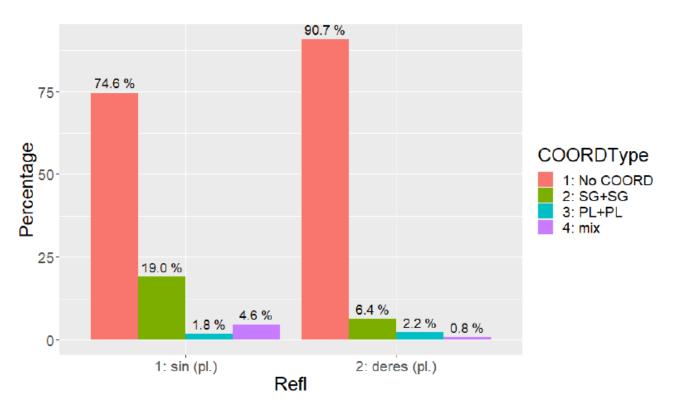


Figure 4.8: Coordinated antecedents (singular, plural, mix)

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#### **Factor 6: Distributivity**

- b. ... der var jo **visse personer**<sub>1</sub> der altid skulle ha'  $sin_1$  vilje there were yes certain people who always should have REFL's way '... there were after all certain people who always wanted to get their way.'
- c. ... at der er  $mange fædre_1$  som gerne vil have  $sine_1$  børn that there are many fathers who certainly will have REFL's children boende hos sig. living with REFL

'... that there are many fathers who will certainly want to have their children living with them.'

 d. Stadig flere firmaer<sub>1</sub> vælger at sende sine<sub>1</sub> chauffører på køreteknisk still more companies choose to send REFL's drivers on driving kursus... course

'Still more companies choose to send REFL's drivers on a driving course...'

e. **Alle dele**<sub>1</sub> har **sin**<sub>1</sub> egen funktion... all parts have REFL's own function 'All parts have their own function...'

- (209) a. Irakerne<sub>1</sub> solgte sin<sub>1</sub> råolie til Storbritannien... Iraqis sold REFL's crude-oil to Great-Britain 'The Iraqis sold their crude oil to Great Britain...'
  - b. Fremad Valbys håndbolddamer<sub>1</sub> måtte indkassere sit<sub>1</sub> femte
     Fremad Valby's handball-ladies must.PST rake-in REFL's fifth
     nederlag i træk...
     defeat in row
     'Fremad Valby's handball ladies had to rake in their fifth defeat in a row...'
  - c. Hitler's forbrydelser<sub>1</sub> var på det tidspunkt kun i sin<sub>1</sub> vorden. Hitler's crimes were on that time only in REFL's infancy 'Hitler's crimes were only in their infancy at the time.'
  - d. ... som **museets** forevisninger<sub>1</sub> har oplevet i hele sin<sub>1</sub> as museum's.DEF screenings have experienced in whole REFL's levetid. lifetime

'... as the museum's screenings have experienced in their entire lifetime.'

e. **Bombardementerne**<sub>1</sub> går ind i **sit**<sub>1</sub> sjette døgn. bombardments.DEF go in in REFL's sixth day 'The bombardments enter their sixth day.'

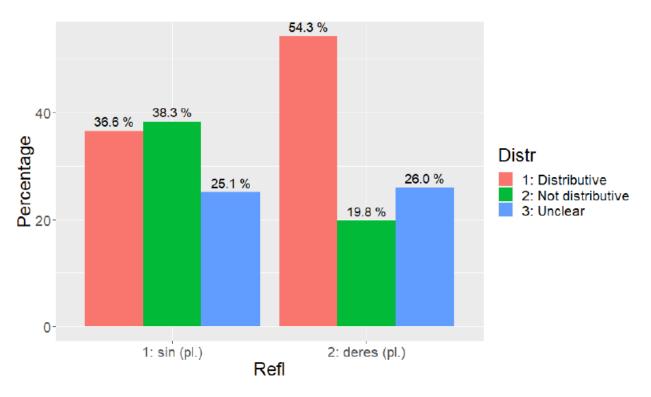


Figure 4.9: Distributivity in the KorpusDK data

## 4. Conclusion

In Danish, as opposed to the other Scandinavian languages, the third person reflexive possessive *sin* only accepts antecedents that are not plural. In modern Danish, however, this generalization is not completely set in stone. I wanted to investigate whether the variation that can be seen in this domain is just that – variation – or if the Danish reflexive system is in fact being restructured to allow *sin* with plural antecedents. I still cannot say anything conclusive.

In this handout, I have presented some results mainly from the written Danish corpus KorpusDK. The corpus data indicate that *sin* with plural antecedents patterns differently from the distribution of *deres* and *sin* with any kinds of antecedents. Plural antecedent *sin* occurs less often with pronoun antecedents than the standard forms. It occurs *more often* in plural DPs than *sin* does in general, but *less often* than locally bound *deres*. It occurs more often in complex sentences than the standard forms, particularly with relative clauses. The distribution of animate and inanimate antecedents is very different for plural antecedent *sin* than for the standard forms: Inanimate antecedents are greatly overrepresented with plural antecedent *sin* compared to the standard forms. Plural antecedent *sin* occurs more often singulars than locally bound *deres* does. Finally, an oft-repeated hypothesis in the literature is that plural antecedent *sin* occurs more frequently in distributive sentences. The sentences with locally bound *deres* occur in distributive sentences rather more frequently than plural antecedent *sin* does, so the data essentially argue against this hypothesis.

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