The Latvian dative plural in the works of Georg Mancelius

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MA Thesis

Submitted in Partial Fulfilment
of the Requirements for the Degree
Master of Arts, Comparative Indo-European Linguistics

July 2021

LEIDEN UNIVERSITY

FACULTY OF HUMANITIES

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*"**Gāju, gāju garu ceļu, ceļam gala nezināju...**"*
— *Latviešu tautas dziesma*

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Chapter 1: Introduction

The modern Latvian dative plural ending *-m* is known to have replaced an older *-ms* ending, apparently sometime in the 17th century, though the questions of how, why and even when this change occurred are little explored in the literature.

What *is* known for certain, is that the earliest preserved Latvian texts, dating from the 16th century, display the sole dative plural ending *-ms*. The beginning of the 17th century sees a sharp rise in the number of published texts in Latvian, and it is around this time that the *-m* ending begins to appear, completely replacing *-ms* as the dative plural ending in the written texts within a hundred years. Throughout the texts of the intervening period the two endings appear side by side, and any distribution in their use is not immediately apparent. On the basis of the Corpus of Early Written Latvian Texts or *Seno tekstu korpuss*, I set about answering the question of whether there is in fact any distribution in the use of the *-m* and *-ms* endings in this period, with the aim of exploring possible motivations for the shift.[1]

This quest led me to the works of 17th century theologian and linguist Georg Mancelius, one of the most prolific writers and translators in the Latvian language in this period, and it here that my focus lies. Spanning a quarter of this hundred-year period and accounting for 11 of the 45 texts published within it, Mancelius' works seem well-placed to provide an insight into the process whereby this shift took place.

As is true of many languages however, the written Latvian language was at this time a fairly recent development, and it is unclear to what extent surviving texts can be said to accurately reflect the spoken language of the time. Indeed this is perhaps especially true of Latvian. The language of a mainly illiterate population in one of the last European countries to adopt Christianity, spoken Latvian at this time existed alongside the native German of the ruling class, and for roughly the first century of its existence, written Latvian was employed mostly for ecclesiastical purposes, by non-native speakers. For this reason the early texts have been dismissed by many as at best an unreliable account of the Latvian language in that period.

How much can these texts really tell us about the evolution of a feature such as the dative plural ending? In this thesis, I approach this question from several angles, paying due attention to the texts as our only primary source, while presenting the emerging data in light of the unique cultural and linguistic context in which the texts were produced. A focus on the texts of Mancelius allows for an in-depth longitudinal analysis of this shift, as reflected in the works of one of the most influential figures in Latvian literary history.

[1] http://senie.korpuss.lv

My research question is thus: what is the distribution of the *-ms* and *-m* dative plural endings in the works of Georg Mancelius? I provide a quantitative analysis of occurrences of these two competing endings, taking into account lexical category, gender and declension, as well as time period and type of text, followed by a qualitative observations emerging from it. On this basis, and in light of extra-linguistic information available, I speculate as to possible reasons for the patterns observed, and the insights may they offer as to the nature of this shift, before turning to the question of what, if anything, we can infer about the use of these endings in the spoken language.

1.1 Existing theories and emerging questions

The shift from *-ms* to *-m* as the dative plural marker, when referred to at all in the literature, is rarely explored in much detail. The generally accepted views on the topic can be summarised as follows: the old dative plural ending *-ms* was replaced by the dual ending *-m* in the 17th century. This shift probably took place earlier in the spoken language than in the written, and in the meantime, writers and translators were free to choose either ending. The *-ms* ending was preserved in some dialects.

These points are however presented quite separately, and no attempt seems to have been made thus far to bring them together. Let us take a closer look at each of these.

On the origin of the shift, Endzelīns (1971) states simply: *"In modern Latvian... in place of the old plural forms we find the corresponding dual forms... -iems is found in old texts, and even now here and there along the western border of Kurzeme..."*[2] As noted by Baltic philologist Pēteris Vanags, while presented as self-evident, no real justification is given for this assumption.[3]

The continuation of *-iems* in modern (or at least recent) dialectal forms is well documented. Rudzīte (1964) notes its presence in the Rucava area. Here, interestingly, it is said to contrast with the instrumental, which retains its archaic form.[4]

The prevalent theory regarding the co-existence of the two endings in the texts of the 17th century, first propounded by Bērziņš (1944) and repeated by Ozols (1965) and later still Milčonoka (1998), is as follows: *-ms* had probably already disappeared in the spoken language by the time of Mancelius' writing, but was still in use in the

[2] Endzelīns (1971) pp. 136.

[3] *"Parastā teorija — -m ir duāļa forma, kas aizstājusi pl. formu -ms. Raksti gan, šķiet, tam nedod stipru pamatojumu."* P. Vanags, personal correspondence, 29th Jan. 2021.

[4] Rudzīte (1964) pp. 110-1, 117.

written language, and authors were at this time free to simply choose between these two forms.[5] Again, and perhaps more significantly here, though readily repeated, no real justification is presented for this view.

Several studies with a more general focus on the peculiarities of the language in Mancelius' texts refer to his use of the two dative plural endings in fairly neutral descriptive terms, as 'variation', 'inconsistency', or similar.[6]

These accounts, especially taken together, raise several questions, for which no real answers seem to be provided, in particular:

- Do the texts provide any evidence for the *-m* ending having been generalised from the dual?
- What, if anything, can be deduced from the texts about the process by which, and time frame within which, this shift took place in the spoken language?
- How accurate is the assertion that authors were free to simply choose between the two endings?

1.2 Preliminary analysis

With the aim of moving towards answers to these questions, I formulated the following questions as a starting point for my research:

- At what point in the texts of the Corpus do dative plurals in *-m* first appear?
- At what point does *-m* overtake *-ms* as the primary dative plural ending?
- What is the cut-off point after which the *-ms* ending is no longer found?
- When found side by side, in what context do forms in *-m* and *-ms* occur?

Some of these questions were apparently relatively straightforward to answer. A preliminary look at the Corpus reveals the *Catechismus Catholicum* of 1585 to be the first text in which the *-m* ending seemingly appears as a dative plural marker.

> *Dewam par mannim luekt / vnde man ex§kan Dewe wete / no* ***mannems grekem*** *atrai§ciet / vnde toes pamme§t. (CC_1585 p.44, l. 17)*[7]
>
> 'Pray to God for me, and in God's place unbind me from **my sins**, and cast them away.'

[5] Bērziņš (1944) pp. 2, 30; Ozols (1965) pp. 182-183; Milčonoka (1998) p. 52.

[6] E.g. Elksnīte (2011) pp. 31; Frīdenberga (2017) p. 7.

[7] Abbreviations used here as in the Corpus.

In this text however, the ending appears just once, in the word for 'sins,' which also occurs seven times with the *-ms* ending. Interestingly, it appears here in a pronominal phrase, in which the accompanying pronoun ends in *-ms*. For this reason, it is unclear whether the omission of the final *-s* is in fact a lapsus.

In the final texts of the 1500s, including the substantial *Undeutsche Psalmen* and *Evangelia und Episteln* of 1587, the *-m* ending is apparently absent, and so too with the texts of the early 1600s, including the *Enchiridion* and *Psalmen vnd geistliche Lieder*. Indeed, it is not until Mancelius' texts of 1631 that *-m* ending is clearly present as a dative plural marker.

Across the Corpus it is clear that by the 1650s, the majority of dative plurals are now in *-m*, though as late as 1685, when five substantial texts are published, dative plurals in *-ms* continue to appear in significant numbers. After this point the ending vanishes abruptly, and is completely absent from subsequent texts.

The Corpus contains 31 texts published between 1631 and 1685, 11 of which by Mancelius. At a glance it is clear that these, much like the other texts from this period, contain a mixture of the two endings, in varying proportions, with no obvious distributional pattern. Indeed there are numerous instances of the same word appearing with both endings within the same text.

For this reason, the texts of Mancelius seem an interesting and worthwhile focus, and it is there that the answer to the final and most important questions will be sought, namely that of the contexts in which the *-m* and *-ms* endings occur.

1.3 Initial remarks on terminology

The ending here referred to simply as the dative plural ending is referred to in standard Latvian grammars as the dative-instrumental plural ending.

While seven cases are normally referred to (nominative, accusative, genitive, dative, instrumental, locative and vocative), significant case syncretism has taken place within the language, and there is considerable discussion as to the number of cases currently in use.[8] The status of the instrumental is particularly disputed.

The Indo-European instrumental case clearly survived into Old Latvian, and though there is uncertainty in some instances as to the exact forms, the *-is* ending of the old instrumental plural, while no longer productive, is widely recognised as

[8] E.g. Andronov (2001), Kalnača (2014) pp. 1-73.

having survived in certain fixed expressions such as *vienis pratis* 'of the same opinion' (lit. 'of one mind'), *retumis* 'in rare cases' etc.[9]

The discussion is therefore reducible to whether the old instrumental disappeared or mutated. As illustrated by Fennell (1975), the semantic distinction alone is not enough to assume the existence of a grammatical case, since the functions of other cases are of course fulfilled by various prepositional constructions, and indeed even this particular construction can arguably be shown to fulfil distinct grammatical functions in different contexts. [10]

Mathiassen (1997) and others argue against the existence of the instrumental case in modern Latvian, maintaining rather that the preposition *ar*, meaning 'with,' which is always used in the modern instrumental, governs the accusative in the singular and the dative in the plural (as is the case, for example, with *par*, 'about').[11] This formulation seems legitimate, not least given that nearly all prepositions have in fact shifted to govern the accusative in the singular and the dative in the plural in modern Latvian.

At risk of breaking ranks with the majority of the Latvian contingent, with I must conclude somewhat reluctantly along with Fennell that this question is in fact largely irrelevant, and that for clarity's sake, as far as forms in *-ms* and *-m,* are concerned, it is legitimate from a formal point of view to speak simply of the dative plural ending.

[9] Endzelīns (1951) pp. 406, para. 223; 432, para. 279.

[10] Fennell (1975) pp. 45-46.

[11] Mathiassen (1997) pp. 41, 189; Lötzsch (1978) pp. 667-671.

Chapter 2: The beginnings of Latvian as a written language

At the beginning of the 16th century, Latvian was the language of a mainly illiterate peasant population inhabiting the southern part of the Livonian Confederation. The ruling class consisted of Baltic Germans, present since the crusades of the 12th and 13th centuries. The Lutheran Reformation of the Church from 1517 saw the switch from Latin to the native language of the population as the language of worship, and the translation of religious texts meant the Latvian language appeared in writing for the first time.[12]

The earliest surviving Latvian texts from this period consist of handwritten fragments of the Lord's Prayer, the oldest of which dates from 1507.[13] For the next almost eighty years, the Lutheran Church continues to produce ecclesiastical material in Latvian, while the first printed book to be published in the language, *Catechismus Catholicum*, was published in Vilnius in 1585, thanks to the efforts of the Counter-Reformation. The *Enchiridion* followed shortly after in 1586.

From the 17th century onwards the quantity and scope of the texts widens considerably, to include lexicographical texts (including four dictionaries), legal documents and statutes.

Significant in any discussion of the early written Latvian language is the fact that the oldest surviving texts are all translations from German and Latin, with original work appearing relatively late. More specifically, the majority of the first translators and authors were German clergymen who, as summarised by Grudule, "had mastered the Latvian language according to their interests and abilities."[14]

Many were less generous still. Prominent Latvian linguist Jānis Endzelīns asserts in the introduction to his 1951 *Latviešu valodas gramatika* that we would do better to look to dialects for an indication of the history and evolution of the Latvian language than to these early texts which, he remarks, are full of mistakes.[15]

Another notable linguist, Artūrs Ozols, makes his position clear in his introduction to *Veclatviešu rakstu valoda*, pointing out the rich culture of folklore, songs and proverbs that is testament to a Latvian literary tradition stretching back centuries. However none of this, he states, is reflected in the early texts, the fruits of a feudal ideological system which in fact existed in opposition to the Latvian culture and literary traditions. The language of these texts he describes as the jargon of foreign

[12] Jones, L. (2005) pp. 756-775.

[13] *Gisberta tēvreize* (Gis1507_PN)

[14] Grudule (1992) pp. 351.

[15] Endzelīns (1951) p. 20, 22

lords – sloppy attempts to render German phraseology in the Latvian language, the result of which is a distortion of the language of the people. [16]

Perhaps unsurprisingly, given the plurality of this context, Latvian philology was a rather late development, and early research on the first Latvian texts consisted of describing the mistakes in them.[17]

2.2 *Seno tekstu korpuss*, the Corpus of Early Written Latvian Texts

In an effort to rectify this situation, scholars at the University of Latvia developed the Corpus of Early Written Latvian Texts, an online collection of the earliest preserved written sources in the Latvian language, which are themselves scattered across libraries and archives in several countries.[18] The Corpus was first launched in 2003, and now contains more than 70 of the earliest preserved written texts in the Latvian language, exceeding one million words, and spanning from the early sixteenth to the late eighteenth centuries. It has also been used as the basis for the first historical dictionary of Latvian, *Korpusā baltīsta elektroniska Latviešu valodas vēsturiskā vārdnīca.*

The groundwork for the Corpus was done in the 1990s when the most significant printed sources were manually transcribed and typed in. Due to limited human resources and interruptions in funding, this only reached partial completion. With the encouragement of Professor Trevor Fennell of Flinders University, South Australia, the project was taken forward in 2001, as a joint effort on the part of the Department of Baltic Languages and the Institute of Mathematics and Computer Science at the University of Latvia.

Texts were initially selected from the Union Catalogue of Ancient Prints in Latvian (*Seniespiedumi latviešu valodā 1525–1855*), published by the National Library of Latvia. The selection was later expanded to include texts held in libraries and archives across the country and further afield.

The compilers note that their intention is to include as many early Latvian texts as possible in the Corpus, and to include all texts in full, rather than selections or edited versions.[19] They acknowledge that as a result of this, the Corpus cannot perhaps be taken to be representative in all senses, due for example to the greater influence of particular authors, the presence of linguistic errors, and the greater number of

[16] Ozols (1965) pp. 8-9.

[17] Andronova (2007) p. 1.

[18] Several fragmentary records from before the sixteenth century have survived, but these are not included in the Corpus, see Andronova, Siliņa-Piņķe, Trumpa & Vanags (2016) p. 2.

[19] Andronova (2016) pp. 6-7.

ecclesiastical texts as opposed to texts of other types.

They state that all of the early texts have a valuable place in the literary picture of the time, and that future efforts to improve the picture should focus on expanding the collection and providing analysis, rather than attempting to level the field in other ways.

2.3 Georg Mancelius[20]

Among the most influential of the early Latvian writers is the Baltic German Lutheran theologian and linguist Georg Mancelius (1593- 1654).[21] Born in Grenzhof, (now Mežmuiža) Zemgale, Mancelius studied Latin and Greek in Riga, before going on to study theology in Frankfurt (Oder), Szczecin and Rostock. In 1616, before he had completed his studies, the Duke of Courland appointed him as pastor of Valle.

From 1620 to 1625, Mancelius was pastor of Sēlpils, and it is here that he began to formally learn Latvian from the farmers in his congregation, in the absence of teachers or written materials. In 1625 he was asked to lead the German Congregation in Tartu, Estonia. Mancelius taught at Tartu's Academic Gymnasium, before being appointed professor of theology at the University of Tartu. Here he published a number of theological articles in Latin, and in 1631, several volumes of translated scripture, including the *Lettisch Vademecum* or Latvian Handbook, a revised and supplemented edition of the Lutheran Handbook, followed by *Die Spruche Salomonis*, a translation of the Proverbs of Solomon, in 1637.

Having by now gained considerable attention as a theologian, in 1638, once again at the invitation of the Duke of Courland, Mancelius returned to Latvia, to Jelgava, where he would remain until his death. He was appointed pastor of the Duke's court, becoming renowned for the richness of language used in his sermons. In 1638, Mancelius published the first Latvian dictionary and didactic materials. In 1654, the year of his death, Mancelius' largest work was published in Latvian, *Lang-gewünschte Lettische Postill*, or the *Long-awaited collection of Latvian Sermons*, which was reissued until the 19th century.

Described by Ozols as the most significant author of the 17th century, and the only one to succeed in introducing some order to the chaotic Latvian written language of the 16th century, Mancelius devoted much of his career to creating a formal discipline

[20] Based on the biographies by C. Girgensohn (1884) and Līgotņu Jēkabs (1924).

[21] In Latvian referred to as Georgs Mancelis and Juris Mancelijs.

of the language, playing an instrumental role in the standardisation of the spelling on the basis of the German orthography of the time.[22]

A great deal has been written about the language of Mancelius' texts, most of which lies beyond the scope of this thesis, but worth a mention is his notoriety as a *wordmaker*, unafraid to create words that he found were lacking, by means of compounding, affixation, reduplication and the deverbalisation of nouns, to name a few. [23]

2.4 Mancelius' texts in the Corpus

The texts used in this study are here divided into the following groups, as explained in section 3.1.

2.4.1 Early

The first four, all translated ecclesiastical texts published in 1631, are: *Der kleine Catechismus* (Manc1631_Cat); *Lettische geistliche Lieder und Psalmen* (Manc1631_LGL); *Das Haus-, Zucht- und Lehrbuch Jesu Syrachs* (Manc1631_Syr), and *Lettische Vade mecum* (Manc1631_LVM). The fifth text in this group, *Die Sprüche Salomonis* or the Proverbs of Solomon (Manc1637_Sal) dates from 1637.

2.4.2 Middle

This rare secular source produced in 1638 consists of three parts that together make up the first textbook for learning Latvian. This occupies a unique place in the Corpus as the first original, non-translated works published in the Latvian language. The *Lettus* dictionary (Manc1638_L) provides German translations for about 6,000 words, while *Phraseologia Lettica* (Manc1638_PhL) is a Latvian- German phrasebook divided into 51 sections by topic. *10 Sarunas*, or 10 Conversations (Manc1638_Run), contains ten example conversations designed to give the reader an insight into the Latvian mentality.[24]

These differ from the other texts in this sample in a number of respects. Firstly, these are not biblical texts but didactic resources. Here everyday topics are covered, such as agriculture and travel, as well as drinking, smoking and the preparation of food. The conversations are rich in figures of speech, also containing a number of

[22] Ozols (1965) p. 152.

[23] E.g. Frīdenberga (2006; 2017); Milčonoka (1998).

[24] Andronova (2020).

vulgar and slang terms. It is significant too that as the first published work of this nature, many terms relating to everyday life appear here for the first time in print.

Significantly, the foreword to this collection also provides us with a unique insight into the creative process and ideas of this author.[25] Here Mancelius describes his efforts to accurately depict the spoken language, as well as acknowledging difficulties he encountered, and correcting errors in previous works.

2.4.3 Late

This group consists of three volumes of Sermons published in the final year of Mancelius' life. By far Mancelius' most substantial work, *Lang-gewünschte Lettische Postill*, or the Long-awaited Collection of Latvian Sermons, volumes I, II and III (Manc1654_LP1, 2, 3), has a unique place in the Corpus. It is the first work of original prose to be published in Latvian, containing a mixture of ecclesiastical and secular material, including a number of references to contemporary events and cultural practices.[26]

At more than 270,000 running words, this collection is unique too in that it allows for a statistical analysis.

[25] Manc1638_L pp. 1-13.

[26] Andronova (2020) pp. 173-4.

Chapter 3: Methodology and data collection

3.1 Methodology

This study is a search for a distribution in the use of the *-ms* and *-m* dative plural endings in the selected texts, and hinges on a quantitative analysis of their presence among five defined lexical categories (nouns, pronouns,[27] adjectives, numerals and participles);[28] five nominal declensions;[29] two grammatical genders; and eleven texts.

I analysed a total of 11,658 dative plural forms, looking for any distribution in these two endings among the following criteria:

- lexical category (nouns, pronouns, adjectives, numerals and participles)
- nominal declension
- masculine and feminine gender
- type of text

Texts were divided into three groups, for several reasons. Firstly, these eleven texts fall into three categories in terms of function: translated biblical texts, original linguistic resources, and sermons. In addition to their function, preliminary analyses revealed these types of text as sharing other significant characteristics: while there is considerable variation between the texts in terms of length and presence of dative plurals, within each group the numbers are much more easily comparable.

Finally, these groups fall conveniently into chronological order, and while the date of publication is of secondary importance, the observed curve in the overall numbers of dative plurals in *-ms* and *-m* reflects that of the wider corpus over the same period. As such, I refer to these groups as Early, Middle and Late respectively.

3.2 Data collection

My data collection and verification were carried out with the help of a number of Corpus features.

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[27] It is noted that the first and second person dative plural pronouns *mums* and *jums* are not included here. From earlier **mumus* and **jumus*, in turn from East Baltic **nūmōs; *jūmōs* respectively, these never occurred without the final *-s* (Rosinas (1995) p. 34.)

[28] Two other lexical categories are identified within the original data sample, namely adverbs and determiners, but these are not included in my analyses since the latter occur in extremely small numbers, and the former often comprise several words in a phrasal construction for which it is not always easy to provide a morphological analysis.

[29] Declension 3 is absent from this data set, as explained in section 4.5.

The Homepage (*Sākumlapa*) displays a list of all texts in the Corpus, divided by century, then in alphabetical order by author (or title, where the author is unknown).

Figure 1: A Selection of 17th century texts on the Corpus homepage, including those of Mancelius

3.3 Locating dative plurals

The word form index search of the Corpus (*mēklēšana vārdlietojumu indeksā*) allows the user to search for a particular word form, or forms containing a specific component, either within a particular text or across the whole corpus.

For example, word forms ending in *-ms* can be located by entering *%ms* into the search bar, then selecting the name of the text in question.

Figure 2: A search for forms ending in -ms within Der kleine Catechismus (Manc1631_Cat)

Word forms containing *-ms* are then displayed in alphabetical order, along with the number of occurrences of each within the text. Entries can then be expanded to display the line of the text in which a form appears.

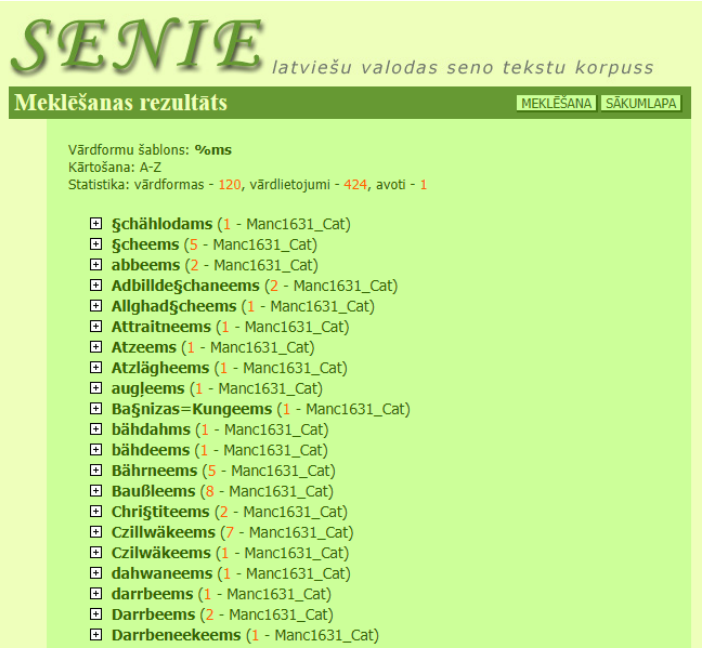

Figure 3: First results of the search for forms ending in -ms within Manc1631_Cat

A preliminary analysis of the texts, with forms ending in *-ms* and *-m* as initial search criteria, yields a mixture of dative plurals and other forms.

A closer examination reveals that the modern dative plural endings in *-iem*, *-ām*, *-ēm* and *-īm* are represented variously throughout the Corpus with the following combinations of vowel + ending:[30]

-a-	***-e-***	***-i-***	***-y-, -j-***
-ahm	*-eem*	*-iem*	*-yem*
-ahms	*-eems*	*-iems*	*-yems*
-ams	*-ehm*	*-ihm*	*-jem*
	-ehms	*-ihms*	*-jems*
	-em	*-im*	*-jemms*
	-emm	*-ims*	
	-ems		

Table 1: representations of dative plural endings throughout data set

[30] It is noted that throughout the Corpus, representations of stem + ending vary considerably. While in some cases these can be said to correspond broadly to declension and gender of forms, this correspondence is not consistent, and in many cases gives the impression of forms appearing to 'switch' declension or gender. This is explored further in section 3.5.

With these as established search terms, dative plurals could be located in the texts with the help of the Corpus' reverse dictionary function (*inversās vārdnīca*, accessible from the Homepage under *statistika un citi dati*) which allows the user to search for forms according to the final letters.

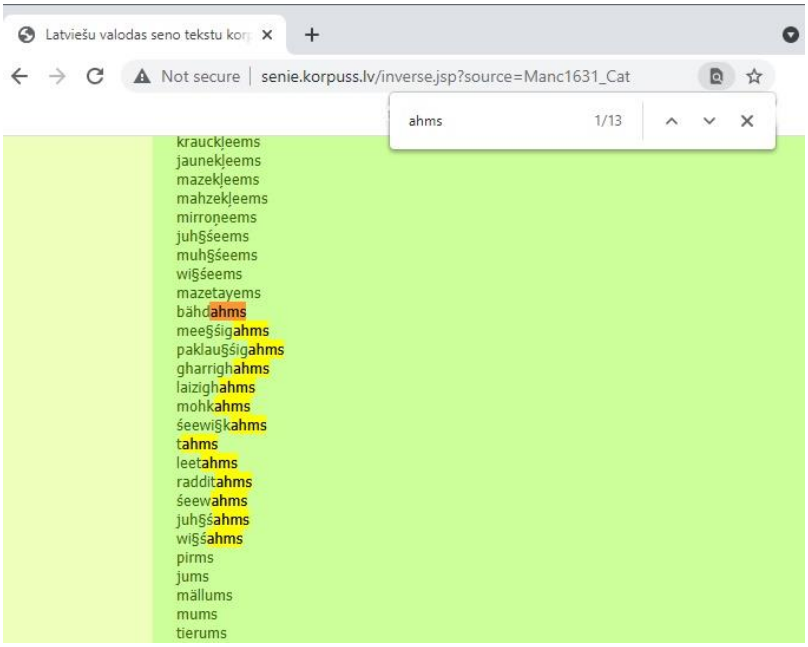

Figure 4: Forms ending in -ahms in Manc1631_Cat, shown using the reverse dictionary function

These were copied and pasted from the reverse dictionary and re-ordered alphabetically, then compared to the word frequency list (*biežumas vārdnīca*) to record the number of occurrences of each form.

Figure 5: Word frequency list of Manc1631_Cat displaying forms ending in -ahms

It should be noted that while the Corpus has a number of search functions, displaying the forms variously in alphabetical or reverse alphabetical order, or according to number of occurrences, there are also discrepancies between otherwise alphabetical lists, with words containing non-Latin characters, spaces or punctuation symbols appearing in different places. Furthermore, some lists (such as the word frequency list) differentiate between forms beginning with uppercase and lower case letters while others do not. This necessitated additional checking of forms and numbers

3.4 Establishing meaning

While some words are immediately semantically and morphologically identifiable, many others require much more careful analysis. This was achieved through a combination of methods, including:

- analysis of forms in the context of the searchable text itself;
- where applicable, e.g. with some biblical texts, identification of relevant passages and comparison with modern Latvian and/ or English editions
- searching in online and print dictionaries and grammars based on a supposed modern form, then comparing results with context, and where available, translations
- comparison with similar forms in the word list
- consultation with native speakers.

In this way, it was possible to eliminate the following forms:

- dative singulars, in *-am* and occasionally *-em*
- first person plural verbal forms in *-em*, *-am* and *-im*
- present participles in nominative singular masculine form in *-ams*
- abstract nouns ending in *-ums* in the nominative singular
- obsolete forms such as *pat(t)im* (modern *pašam*, 'to oneself' dat. sg.)
- verbs taking the form prefix + root *jem*, an early dialectal form meaning 'to take'
- German words appearing in notes
- other miscellaneous irrelevant forms, such as personal and place names.

A number of challenges were nonetheless present. For example, even in biblical texts, chapter and verse numbers are often absent or incorrect; here the presence of notable words was helpful in locating relevant passages. In addition, in many cases translations do not correspond syntactically, making the identification of certain forms much more difficult.

Some texts contain very many obsolete forms, 'Latvianised' German words, and words now used with a different meaning, as well as forms whose representation does not closely correspond to the regular representation of words of a similar form, in addition to inconsistencies in the orthography making several interpretations of a form possible. One example is that of the words *lieliem* (dat. pl. adj. 'big') and *lielums* (nom. sing. noun 'size'), both appearing as *lelims* in Manc1631_LGL.

There remain several forms whose meaning I have been unable to establish. Apparently dative plurals, these remain in my data set, yet have been excluded from my analysis.[31]

3.5 Methodological dilemmas

The categorisation of forms, particularly that of assigning forms to a particular lexical category or declension, required decisions with sometimes significant implications for the data analysis and interpretation.

One example is that of the frequent occurrence of nominal adjectives and participles. Compare:

> *Tas wadda tos Nabbagus parei§e / vnd mahza teems* ***Nabbageems*** *śawu zeļļu. (Manc1631_LGL p. 424 l 30.)*

"He guides the poor in what is right, and teaches **the poor** his way." Psalm 25:9

> *Chri§tus Je§us gir ta §tippra Pills* ***wi§śeems nabbagheems ißbijajuścheems Ghrezeneekeems.*** *(Manc1654_LP2 p. 65, l. 4.)*

"Jesus Christ is a strong castle to **all poor former sinners**."

Forms such as that in the first example can often be identified as fulfilling a nominal function when used as the subject of the sentence, capitalised according to the German convention, or modified by another adjective.

Ideally in such cases both morphological category and syntactic function would be taken into account, and forms classified accordingly. There are however several difficulties with this, the primary one being that while adjectives fulfilling a nominal function can often be clearly identified, their classification as nouns would necessitate their arbitrary assignment to a declension, presumably declension 1 for masculine adjectives and 4 for feminine, corresponding to their declensional pattern.

[31] See appendix 6. Forms not included in my final numbers, including unidentified forms, are highlighted yellow and accompanied by an explanatory note.

Apart from yielding a disproportionately large number of nouns in these declensions, this would seem something of a methodological liberty. The preferable solution would be to create a separate category for nominal adjectives, without assigning them a declension. However this would necessitate considerable additional work, the added value of which would be debateable.

In this study, forms have been categorised according to their morphological category, rather than their syntactic function, where the two differ. This solution is also not entirely satisfactory, as can be seen for example in Manc1654_LP2, where an uncommonly high ratio of adjectives to nouns is recorded.[32]

Another difficulty is that of nouns apparently "switching" between declensions. This phenomenon has been documented by several authors, and in numerous cases is clearly visible in the works of Mancelius.[33] This is problematic, since any apparent distribution in *-ms* and *-m* endings between declensions or grammatical genders can be cast into doubt by forms apparently switching between these. However this is yet another rabbit hole that will not be explored here in depth, for the primary reason that any speculation as to a pattern in this regard is made more difficult by the extreme variation in orthographical representation of stems, particularly the use of vowels, resulting in numerous examples of given words seemingly appearing in more than one declension within the same text.

When confronted with the same problem in the texts of Rehehusen, Fennell was led to draw his own conclusions as to the author's understanding of the declension system.[34] I am reluctant to attempt to do so, and for this reason have categorised nouns according to their standard modern declension.

Finally, it is noted that the form *tiem* or *tiems*, the third person pronoun 'them', is often used in the early texts in place of a definite article.[35] For the reasons described above, this form is classified here according to its modern usage, though due to its extraordinarily high frequency in some texts, in some cases adds considerably to the category of the pronouns.

[32] See section 4.4.3.

[33] Fennell (1991).

[34] Fennell (1985).

[35] Vanags (2019) pp 288- 9.

Chapter 4: Quantitative analysis

In this section my findings are presented with regards to the numbers of *-ms* and *-m* endings among the dative plurals of my data set.[36] I begin in section 4.1 with an overview of the distribution of these endings across the data set as a whole, before turning to the feature of lexical category in section 4.2. Here I look first at the distribution of the categories themselves within the data set, then at the distribution of *-ms*/ *-m* forms among these categories.

In section 4.3 I turn to the feature of gender, comparing the presence of *-ms*/ *-m* endings between masculine and feminine forms. Again, to contextualise these figures, an overview is given first of the distribution of masculine and feminine forms across the data set. Section 4.4 contains a more detailed analysis of each lexical category, with period and gender also taken into account. In section 4.5 I turn to the nominal declensions, first providing, as before, a breakdown of the distribution of the declensions across the texts.

For each analysis, a summary is provided here, with a more detailed breakdown in the appendices.

4.1 Distribution of *-ms*/ *-m* forms across whole data set

Table 2 is a summary of the presence of dative plurals in *-ms*/ *-m* across the whole data set. [37]

Source	*-m*		*-ms*		Total
1631 Cat	3	1%	312	99%	**315**
1631 LGL	19	3%	695	97%	**714**
1631 LVM	19	1%	1307	99%	**1326**
1631 Syr	11	2%	623	98%	**634**
1637 Sal	12	4%	301	96%	**313**
1638 L	39	57%	29	43%	**68**
1638 PhL	62	55%	51	45%	**113**
1638 Run	38	90%	4	10%	**42**
1654 LP1	2299	65%	1260	35%	**3559**
1654 LP2	1831	62%	1121	32%	**2952**
1654 LP3	1613	99%	9	1%	**1622**

Table 2: dative plurals in -ms/ -m across whole data set

[36] The complete data set can be found in appendix 6.

[37] These figures are presented more detail in appendix 1.

As we can see, across the data set as a whole, the expected shift is observable over time, with the earliest texts containing a majority of forms in *-ms*, through a more equal mixture in the middle period, to a majority of *-ms* forms in the later texts. Many important details are however not apparent in this average progression, as will be seen in the following sections.

4.2 Lexical category

Figure 6 shows the distribution of the dative plural forms of the data set among the various lexical categories.[38]

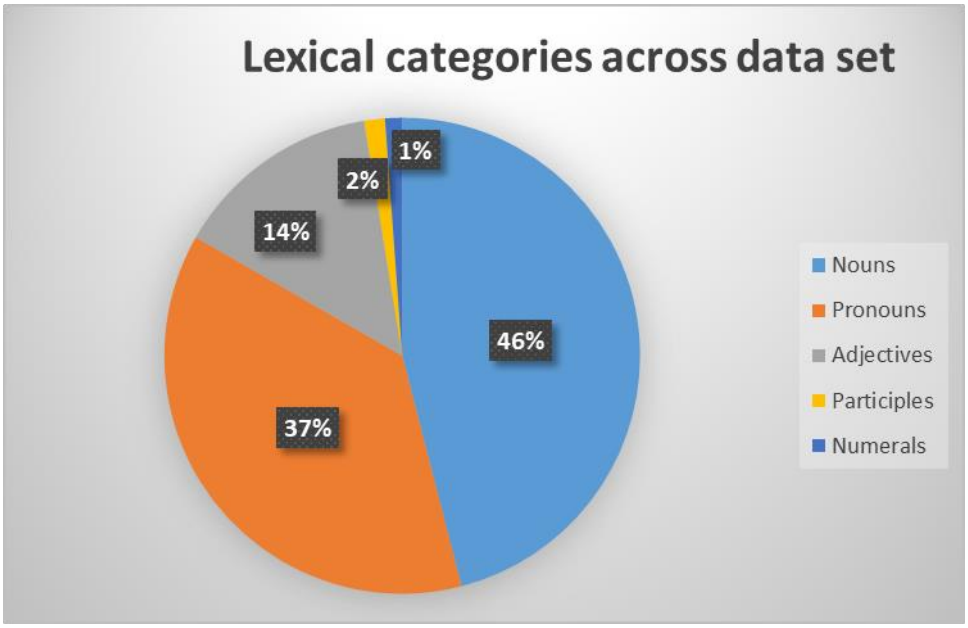

Figure 6: Percentage of dative plurals belonging to each lexical category across whole data set

The distribution of the lexical categories found across almost all texts is as follows: in first place are the nouns, which overall account for 46% of the forms, with this figure ranging between 40% and 80% within individual texts. Two Early texts, 1631 Cat and 1631 LVM, deviate slightly from this order, with each containing fewer nouns than pronouns.

Pronouns are the second largest category, accounting for an average of 37% of forms overall, and between 30% and 50% within individual texts, though this figure is much lower in the Middle texts, at a maximum of 14%. This is discussed in more detail in section 4.4.2.

[38] These figures presented more detail in appendix 2.

The proportion of adjectives found in the dative plural is much lower, but also much more variable: the average is around 14%, with outlying texts however containing respectively many more (24%) and many less (2%). This is discussed further in section 4.4.3.

Participles and numerals make up a very small proportion (1% to 2%) of the total forms.

Notably, in the Middle group participles are completely absent, and numerals are more numerous than adjectives.

4.2.1 Distribution of *-ms*/ *-m* endings among lexical categories

Table 3 shows the number of forms in *-ms*/ *-m* in each lexical category. [39]

	Nouns		Pronouns		Adjectives		Participles		Numerals	
Source	***-m***	***-ms***	***-m***	***-ms***	***-m***	***-ms***	***-m***	***-ms***	***-m***	***-ms***
1631 Cat	1	129	0	152	1	26	0	1	1	4
1631 LGL	10	354	5	242	2	89	1	6	1	4
1631 LVM	10	525	5	648	2	75	1	16	1	26
1631 Syr	6	274	3	251	2	88	0	6	0	4
1637 Sal	8	134	3	118	1	44	0	3	0	2
1638 L	27	18	1	7	3	4	0	0	8	0
1638 PhL	51	38	3	12	2	1	0	0	6	0
1638 Run	30	3	5	1	1	0	0	0	2	0
1654 LP1	1023	586	471	544	744	109	39	11	22	10
1654 LP2	861	494	738	489	197	110	17	15	18	13
1654 LP3	779	1	629	3	149	0	43	5	13	0

Table 3: distribution of -ms/ -m forms between lexical categories

In all texts belonging to the Early group, forms in *-m* make up less than 5% of the overall total, and are distributed fairly equally among the lexical categories. The relatively high proportion of *-m* endings found among participles and numerals is perhaps less significant than it may at first appear, given that within the Early texts the absolute numbers for these lexical categories remains small.

While the absolute numbers seen in the texts of the Middle period are much lower than those of the other groups, the percentages of *-m* forms are relatively high, and more closely resemble those seen in the Late texts, generally falling between 60% and 100% for each lexical category. Within this group, there are significant differences in

[39] For a detailed breakdown of this distribution, plus percentages, see appendix 3.

terms of the proportion of *-m* forms between 1638 L and 1638 PhL on the one hand, and 1638 Run on the other. This is discussed in more detail in section 5.4.

Within the Late group as a whole, again there is little difference in terms of the distribution of *-m* endings between the lexical categories, with each now displaying a minimum of 60% *-m* endings. There are however significant differences between the individual volumes of this group, which is likewise discussed in section 5.4.

4.3 Gender

Table 4 shows the distribution of masculine and feminine forms across the data set.

Source	***masc.***		***fem.***	
1631 Cat	267	85%	48	15%
1631 LGL	517	72%	197	28%
1631 LVM	1089	82%	237	18%
1631 Syr	524	83%	110	17%
1637 Sal	239	76%	74	24%
1638 L	37	54%	31	46%
1638 PhL	71	63%	42	37%
1638 Run	32	76%	10	24%
1654 LP1	2915	82%	644	18%
1654 LP2	2499	85%	453	15%
1654 LP3	1230	76%	392	24%

Table 4: distribution of masc. /fem. forms across the data set

The data set consists of a total of 11,658 dative plural forms. Of these, masculine forms account for 9,420 (81%) and feminine forms for 2,238 (19%). In most texts, the proportion of masculine forms is between 75% and 85%, and that of feminine forms between 25% and 15%. Two texts of the Middle group, 1638 L and 1638 PhL, are a notable exception, containing an unusually high percentage of feminine forms.

4.3.1 Distribution of *-ms*/ *-m* endings between masculine and feminine forms

Figure 7 shows the distribution of forms in *-ms*/ *-m* between the masculine and feminine forms across the data set. [40]

[40] For a complete breakdown of the distribution of *-ms*/ *-m* endings between masculine and feminine forms, see appendix 4.

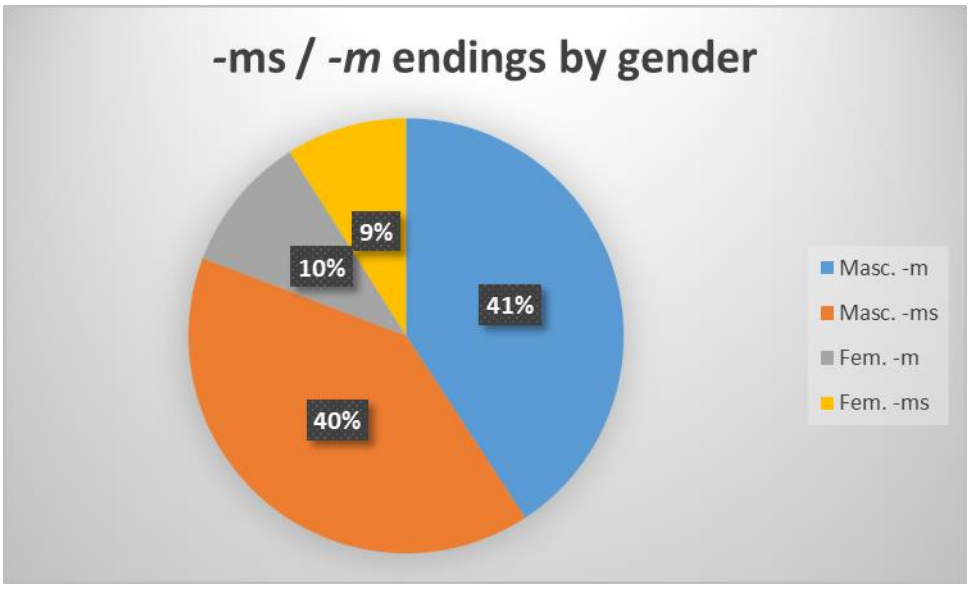

Figure 7: forms in -ms / -m by gender across data set

Within the data set as a whole, the division is approximately: 41% masculine *-m* forms; 40% masculine *-ms* forms; 10% feminine *-m* forms; 9% feminine *-ms* forms.

Of the 9,420 masculine forms, 4,755 (approximately 50%) are in *-m*, with the remaining 4,665 in *-ms*. Among the 2,238 feminine forms, 1191 (53%) are in *-m*, and 1047 (47%) in *-ms*.

Thus overall there are proportionally slightly more feminine than masculine dative plural forms in *-m*. Among the groups, this difference is most clearly visible in the Early group, where the percentages of masculine forms in *-m* are a maximum of 2%, while the percentages of feminine forms in *-m* are between 2% and 9%.

In the Middle and Late groups, there is more variation among the individual texts in terms of the distribution of the endings between the genders. On average, forms in *-m* are distributed fairly equally between the two genders, with one document in each group however displaying striking differences.

In the Middle group this is 1638 Run, where we find 100% of feminine forms in *-m*, to 88% of masculine forms. When the size of the absolute numbers is taken into account however, this difference seems less significant. Here we also find 1638 PhL, the only text in the whole set with more masculine forms in *-m* than feminine.

Within the Late group, we again see significant differences between the individual volumes. LP1 has an equal proportion of masculine and feminine forms in *-m;* LP2 contains more feminine than masculine *-m* forms (More feminine than masculine forms (a difference of 6 percentage points). LP3 has 99% in *-m* for the masculine words and 100% in *-m* for the feminine, or in other words, among the 1622 dative

plurals of the final text there remain a mere 9 forms in *-ms*, all of which are masculine.

Thus in all but two texts, the *-m* ending is more common in the feminine, by at least a few percent. In the Early group, the percentage difference within individual documents is between 1% and 7%. In the Middle group this difference is 7% in 1638 L, and 12% in 1638 Run. Two exceptions to this are 1638 PhL and 1654 LP3. The former is the only document in which we actually find more masculine than feminine forms in *-m* (61% compared to 45% percent in feminine forms), while in the latter we find exactly 65% *-m* endings among both masculine and feminine forms. Apart from this, within the Late texts, there are overall 1% to 6% more feminines than masculines in *-m*. In the final text, 1654 LP3, the only remaining *-ms* endings are found among masculine forms.

4.4 A closer look at lexical categories

In this section we take a more detailed look at the distribution of the forms in *-ms* and *-m* among the nouns, pronouns, adjectives, numerals and participles, with gender and period also taken into consideration.

4.4.1 Nouns

The total number of nouns is 5361. The division between masculine and feminine is 3899 (73%) masculine to 1462 (27%) feminine. 52% of nouns across the whole data set are in *-m*, compared to 48% in *-ms*. Thus, while this is by far the biggest lexical category, it is also the one with the most equal distribution between the two endings.

Within the Early texts the total number of nouns is 1450, of which 70% are masculine and 30% feminine. This includes 15 masculine and 20 feminine in *-m*. Thus 1% of the masculine nouns compared to 5% of the feminine nouns are in *-m*. Feminine nouns ending in *-m* are therefore relatively more common.

The texts of the Middle group together comprise 167 nouns, of which 57% are masculine to 43% feminine. The proportion of feminine nouns in this group is therefore much higher than in the others.

Of the 96 masculine nouns here, 65 are in *-m* (68%), compared to 43 of the 71 feminine nouns (60%). These individual texts however display widely varying percentages. For example in 1638 Run, the text containing the smallest data sample, the percentages of both masculine and feminine nouns in *-m* are much higher than average, at 88% and 100% respectively.

Within the Late texts, the total number of nouns is 3744, of which 2783 (74%) are masculine and 961 (26%) feminine. Here, 70% of masculine nouns and 75% of feminine nouns end in *-m*. Here too though, the average percentages hide differences between the texts themselves: LP1 has 63% in *-m* for masculine nouns and 64% in *-m* for feminine nouns. LP2 has 62% in *-m* in the masculine nouns and 69% in *-m* in the feminine. In LP3, 100% of the 780 nouns end in *-m*.

Thus in the Early group, feminine nouns contain 4% more *-m* endings than the masculine. The Middle group overall contains 8% more masculine than feminine nouns in *-m* while one of the group in fact contains 100% feminine forms. The Late group sees a return to the previous situation, in which the *-m* ending is more common among feminine nouns.

4.4.2 Pronouns

Pronouns are the second largest lexical category, and of the 4349 pronouns in the data set, 3787 (87%) are masculine and 562 (13%) feminine. With 43% of pronouns across the whole data set in *-m*, compared to 57% in *-ms*, this is the only lexical category occurring more often with an *-ms* than an *-m* ending overall.

The total number of pronouns within the Early texts is 1446, of which 1264 (87%) are masculine and 182 (13%) are feminine. This includes 9 masculine and 7 feminine in *-m*. Masculine and feminine pronouns in *-m* thus occur in more or less equally small proportions in the early texts; that is, less than 1%.

The texts of the Middle period display a relatively high number of feminine pronouns: of the 29 pronouns in this group, 72% are masculine and 28% feminine. Among the 21 masculines here, 7 are in *-m* (34%) as are 2 of the 8 feminines (25%). Thus as with the nouns, among the Middle group overall there is a higher percentage of masculine than feminine forms in *-m*, though the size of the data sample means these percentages should be viewed with caution.

As with the nouns, significant differences are observed between each volume of the Late texts with regards to the pronouns. With the masculine pronouns the proportion of forms in *-m* is much lower in LP1 than LP2 (43% compared to 62% in *-m*). The proportion of feminine pronouns in *-m* however remains constant, with 62% for both LP1 and LP2.

By the third and final text in the collection, almost all pronouns are now in *-m*, including all 98 feminine pronouns, as well as all but 3 (less than 1%) of the 534 masculines.

4.4.3 Adjectives

In third place in terms of frequency are the adjectives. As with nouns and pronouns, the data set contains many more masculine than feminine adjectives, though the proportions within the texts are quite variable. Taken together, there are 1650 adjectives, of which 1,478 (90%) are masculine and 172 (10%) feminine. 67% of adjectives across the whole data set are in *-m*, compared to 33% in *-ms*. This makes adjectives the lexical category with the highest proportion of *-m* forms.

Feminine adjectives are relatively rare among the Early works, with just 38 among the five texts, of which only one is in *-m* (less than 3%). On the other hand, there are 292 masculine adjectives, of which 7 (about 2%) are in *-m*.

In the Middle period we find a mere 2 feminine adjectives (of which 1 is in *-m* and 1 in *-ms*) to 9 masculine (of which 5 in *-m* and 4 in *-ms*).

In the Late group it is worth considering each volume separately. LP1 contains a relatively large proportion of adjectives, namely 24%, compared to 10% seen in LP2, and 9% in LP3. This discrepancy could be partly explained by the high frequency of adjectives in a nominal function, as discussed in section 3.3.

LP1 and LP2 both contain about 90% masculine adjectives to 10% feminine. LP3, on the other hand, contains an unusually high proportion of feminine adjectives, at 45%. Among the adjectives of LP1, the proportion ending in *-m* is again strikingly high. The share of feminine adjectives in *-m* is even higher in LP2 than LP1. With the masculine adjectives, on the other hand, the proportion in *-m* in LP2 is slightly lower than in LP1.

4.4.4 Participles

Within all eleven texts together there are 163 participles, of which 137 are masculine (85%) and 26 feminine (15%). 62% of these are in *-m*, compared to 38% in *-ms*. This makes participles the second largest category in terms of proportions of *-m* forms.

The Early texts contain very few participles, of which just 2 of the 33 are in *-m*. These are both masculine. In all three texts of the Middle period, participles are completely absent.

In the Late texts, forms in *-m* account for 85 out of 113 (75%) of the masculine participles, and 14 out of 17 (82%) of the feminine participles. It is striking that LP2 has a much lower share in *-m* for both the masculine and the feminine participles than LP1. LP3 contains proportionally more participles than LP1 and LP2, but

relatively few feminine participles. LP3 has only 4 feminine participles, all ending in *-m*. In LP3 there are 5 participles in *-ms* within a total of 44 masculine participles (11%). Thus, of the nine remaining *-ms* forms in LP3, five are participles.

4.4.5 Numerals

The numerals account for a very small number of the forms overall, often making up no more than 2% of the total forms within a document. 53% of numerals across the whole data set are in *-m*, compared to 47% in *-ms*. Across the data set as a whole there are 135 numerals, of which 119 (88%) are masculine and 16 (12%) feminine.

In the early texts we find 36 masculine and 7 feminine numerals. Of these, 3 (7%) are in *-m*, of which 2 are masculine and 1 feminine.

In the Middle texts, though the data sample is here especially limited, a relatively large total of 16 numerals is found, of which 14 are masculine and 2 feminine. It is striking that these all end in *-m*.

In the Late group, feminine numerals appear consistently in *-m* throughout the Late Texts. The masculine numerals show a more varied distribution. In LP1, 18 of the 28 masculine numerals end in *-m* (69%). In LP2 on the other hand, 17 out of 30 masculine numerals end in *-m* (53%). In LP3, all 11 masculine numerals in the dative plural end in *-m*.

4.4.6 Summary of analysis by lexical category

Among nouns, by far the largest lexical category, there is a relatively equal distribution of *-ms* and *-m* endings overall. Across the data set, the *-m* ending occurs relatively more often in feminine than masculine nouns.

The pronouns represent the only lexical category occurring more often with an *-ms* than an *-m* ending overall. In the Middle group, the percentage in *-ms* is particularly high compared to the other lexical categories.

Adjectives display on average more *-m* endings than other lexical categories, and this difference is particularly pronounced in the Late group.

Participles occur in insufficient numbers in the Early group to allow for clear interpretation, and in the Middle group are completely absent. In the Late group, while numbers are still small, they are great enough to note that this category contains an unusually high proportion of *-ms* endings for this period.

While numerals generally also occur in insufficient numbers to make statistical observations as to their place in the shift, some notable peculiarities can be observed in the Middle and Late groups. In the Middle group, all of the unusually high number of numerals end in *-m.* Conversely, in at least one text belonging to the Late group, numerals account for a relatively high proportion of *-ms* forms.

4.5 Nominal declension

In this section nouns are examined from a different angle, this time in terms of the presence of *-ms* and *-m* forms among the nominal declensions.

As with lexical categories and grammatical genders, the declensions occur in extremely variable proportions between the various texts. For this reason, to contextualise the figures in the following analysis, an overview is first provided as to the composition of the data set in terms of the distribution of the declensions themselves.

Direct comparison between the Early, Middle and Late groups is here made difficult by the tremendous variation between these groups in terms of numbers of dative plural nouns present, and their distribution among the various declensions. This is especially true of the Middle group, which apart from containing a particularly small data sample, displays widely varying figures between the three texts. For this reason the Middle group is excluded from this analysis, while the Early and Late groups are first discussed separately, then compared with one another.

In addition it is noted that among the texts of the Late group, the third and final one displays almost 100% *-m* endings among nouns, while for the other two the average is around 60%. For this reason the first two texts of the group are first analysed and compared, before moving to a shorter, separate analysis of the third.

As a technical point it is noted that generally, declensions 1- 3 are masculine while 4- 6 are feminine, though there are some exceptions. A notable one is that of the word *ļaudis*, meaning 'people, folk,' which occurs very frequently throughout the texts of the data sample. For this reason it is necessary to speak of nouns both in terms of declension and gender.

It is noted furthermore that nouns of the third declension, corresponding to Indo-European *u*-stems, are completely absent in this data set. Nouns of this declension are relatively rare, and are often uncountable (e.g. *medus* 'honey'; *ledus* 'ice'; *lietus* 'rain') thus occur infrequently in the dative plural.[41]

[41] Mathiassen (1997) pp. 45-6.

4.5.1 Distribution of dative plurals among nominal declensions

Figure 8 is a summary of the distribution of the dative plurals of the data set among the nominal declensions.

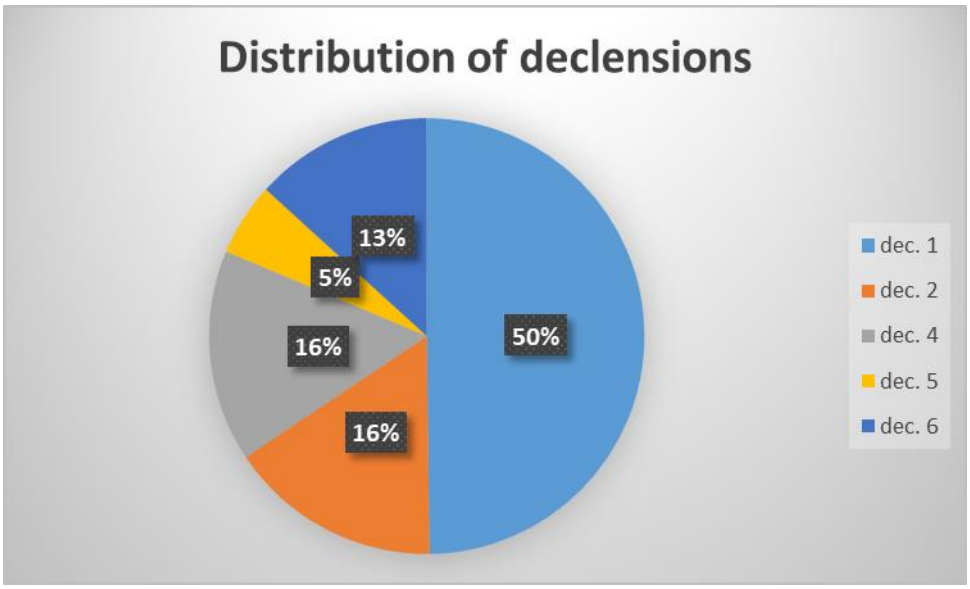

Figure 8: distribution of declensions across data set

Declension 1 is by far the largest and makes up 2670 (almost 50%) of the total number of nouns across the data set.

Declension 5 is the least common, accounting for just 290 (5%) of the total number of nouns overall. Declensions 2, 4 and 6 make up the remaining 45% of the total nouns, in roughly equal proportions.

By comparison, the Middle group contains a relatively large number of nouns of declensions 4, 5 and 6.

4.5.2 Distribution of *-ms* and *-m* forms among nominal declensions

Figure 9 shows the division of forms in *-ms* and *-m* among the nominal declensions.

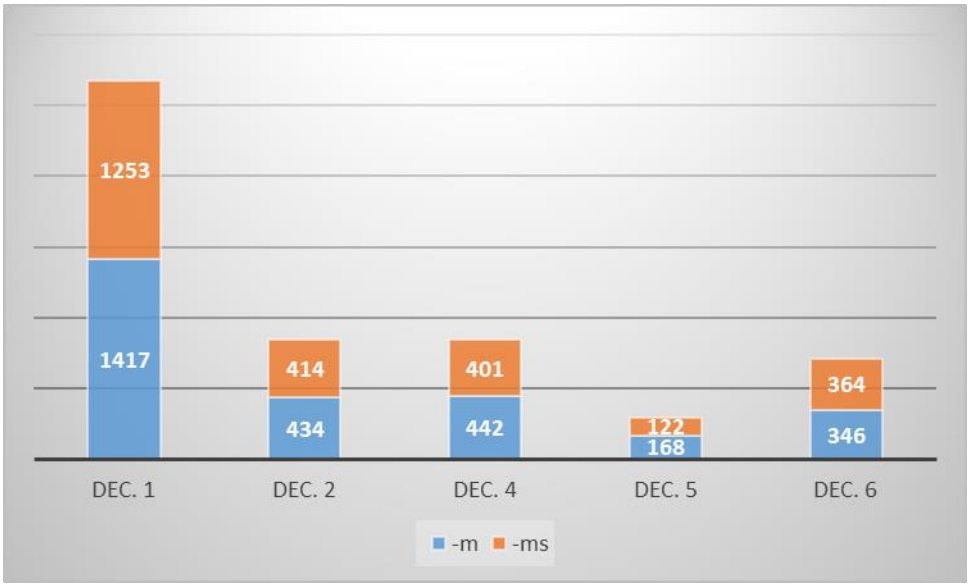

Figure 9: forms in -ms / -m by declension across data set

Within the Early texts, the percentages in *-m* are generally low. Declensions 1 and 2 together contain 14 dative plural forms in *-m* while declensions 4-6 contain 21. The percentages are higher for declensions 4, 5 and 6, but this may be due at least in part to the fact that these declensions are less represented in the data samples.

Table 5 shows the distribution of nouns in *-m* among the declensions within the Early group. [42]

	1631 Cat		1631 LGL		1631 LVM		1631 SYR		1637 SAL	
dec. 1	1%	1	2%	3	1%	2	2%	2	3%	2
dec. 2	0%	0	2%	1	2%	2	0%	0	5%	1
dec. 3	-		-		-		-		-	
dec. 4	0%	0	2%	2	2%	2	2%	1	15%	4
dec. 5	0%	0	7%	2	11%	2	7%	3	9%	1
dec. 6	0%	0	5%	2	1%	1	3%	2	0%	0

Table 5: distribution of nouns in -m among declensions; Early group

In summary, within the Early group, declensions 1 and 2 appear to be more conservative, with relatively fewer forms in *-m* than declensions 4, 5, and 6. Declension 5, the smallest of all in terms of absolute numbers, occurs proportionally most often in *-m*.

[42] For a complete breakdown of the distribution of *-ms*/ *-m* endings between the nominal declensions, see appendix 5.

Within the Late group, the same tendency for a greater proportion of *-m* forms in the 4th and 5th declensions is present. However, since we now see a complete reversal of the picture seen in the Early group, it is perhaps more appropriate to consider it rather in terms of where the *fewest -m* forms occur.

Leaving aside for a moment 1654 LP3, which contains almost exclusively *-m* endings, there are considerable differences between the other two texts of this period, as well as between the declensions within each text. Table 10 reveals an important detail, namely the difference between the highest and lowest values respectively for each of these two texts.

	LP1		**LP2**		**LP3**	
dec. 1	65%	523	59%	428	100%	403
dec. 2	63%	180	68%	135	99%	103
dec. 3	-		-		-	
dec. 4	69%	147	67%	122	100%	146
dec. 5	64%	48	80%	53	100%	46
dec. 6	54%	125	66%	124	100%	81

Table 6: distribution of nouns in -ms and -m among declensions; Late group

With LP 1, the difference between the declensions with the highest and lowest percentages in *-m* (declensions 4 and 6, with 69% and 54% *-m* endings respectively) is 15%. For LP2, this percentage difference is 21%: declension 5 has 80% endings in *-m*, while declension 1 has 59%.

	dec. 1	**dec. 2**	**dec. 3**	**dec. 4**	**dec. 5**	**dec. 6**	***% difference***
LP1	65%	63%	-	69%	64%	54%	15
LP2	59%	68%	-	67%	80%	66%	21
Difference	6	-/-4	-	2	-/-16	-/-12	

Table 7: distribution of -m forms among declensions; 1654 LP1 & 1654 LP2

4.5.3 Summary of analysis by declension

Among the texts of the Early group, percentages in *-m* are low, but slightly higher for declensions 4, 5, and 6.

Among the Late group, there is considerable variation between the three texts. LP2 contains considerably more forms than LP1 in declensions 5 and 6. We also see the same for declension 2, but the difference is much smaller.

LP2, on the other hand, has fewer forms in *-m* than LP1 in declension 1. In declension 4 we see the same thing, but the difference remains marginal. The differences between the declensions are smaller for LP1 than for LP2.

With declensions 5 and 6, the percentage in *-m* is significantly higher for LP2 than for LP1 (16% and 12% respectively). Also for declension 2, the percentage in *-m* is higher for LP2 than for LP1, but the difference in this case is small, at 4%.

With declension 1 the opposite is true, with the percentage in *-m* higher in LP1 than LP2. However, the difference is just 6%. With declension 4, the percentage in *-m* is also higher for LP1 than LP2, though the difference here is smaller still, at just 2%.

Overall, relatively more forms in *-m* belong to declensions 4, 5, and 6. Declension 5, the smallest of all in terms of absolute numbers, occurs proportionally most often in *-m*, with declensions 1 and 2 appearing to be more conservative.

Chapter 5: Qualitative analysis

In this section I describe from an evaluative perspective the figures outlined above, asking where there appears to be a distribution in the use of the two dative plural endings. As with the quantitative analysis, I do this in order of topic.

5.1 Lexical category

The lexical category with the highest proportion of *-m* endings overall is that of the adjectives. This is especially noticeable among the Late texts, where the numbers are also large enough to be considered statistically significant.

Throughout much of the data set participles and numerals contain markedly high percentages of forms in *-m*. In most cases these represent absolute numbers too small to be able to conclude anything with certainty about these lexical categories, though viewed in context this fact may nevertheless provide valuable insights into the use of the two competing endings. This is especially true of the Middle group, in which, for example, 100% of the relatively high number of numerals end in *-m.*

As far as nouns are concerned, within the Early and Late groups the *-m* ending is most common among the feminine forms. In the Middle group the opposite is true, but this fact should be interpreted with caution given that 1) the sample size is relatively small, and 2) the numbers vary greatly between texts, in one of which 100% of feminine nouns are in *-m*.

Pronouns overall display lower numbers of *-m* endings as compared to the other lexical categories. This tendency is particularly marked in the Middle and Late groups, where numbers of *-m* endings are generally much higher. It could thus be speculated that pronouns are overall more resistant to this change.

5.2 Gender

As far as the feature of gender is concerned, the *-m* ending is overall slightly more common overall among the feminine forms. While the picture is varied and in some cases more ambiguous, across all groups and most individual documents, feminine forms can be said to display at least a small percentage more *-m* endings than masculines, and within LP3, the final text of the data sample, all of the remaining *-ms* forms are masculine.

5.3 Nominal declension

Overall, the highest percentage of *-m* forms is found in declension 5, the smallest declension in terms of representation across the data set, and within most documents. This trend can already be discerned in the Early texts. Declension 4 also contains a relatively high number of *-m* forms, thus also among the nouns, it is accurate to say that more feminine than masculine forms appear in *-m*.

5.4 Differences between periods and individual texts

Within the Early group, numbers of *-m* forms are very low, and are quite evenly distributed between lexical categories. Feminine nouns, pronouns and perhaps also adjectives have a dative plural form in *-m* relatively more often than the masculine ones.

	Adjectives	Nouns	Pronouns	Numerals	Participles
M	2%	1%	1%	6%	8%
F	3%	5%	4%	14%	0%

Table 8: percentage of forms in -m in Early group, by lexical category and gender

Overall, the picture for the Middle group is quite particular. The overall number of forms is very small, and variation between volumes particularly high, when compared with the rest of the data set. This data sample could be considered too small to even be significant, yet due to the unique place of these texts in the Corpus, they cannot be dismissed so easily. The relative proportions of *-m* endings in this group are strikingly high.

	Adjectives	Nouns	Pronouns	Numerals	Participles
M	56%	68%	33%	100%	N/A
F	50%	61%	25%	100%	N/A

Table 9: percentage of forms in -m in Middle group, by lexical category and gender

The unusual distribution of lexical categories found in this group can be explained by the fact that these texts, rather than continuous prose, are respectively a dictionary, a list of idioms, and dialogues.

It is noteworthy that in this group, pronouns display a comparatively low proportion of endings in *-m*, considering the relatively high frequency of *-m* endings overall.

	Adjectives		Nouns		Pronouns		Numerals		Participles	
	LP1	LP2	LP1	LP2	LP1	LP2	LP1	LP2	LP1	LP2
M	88%	64%	63%	62%	43%	60%	64%	57%	76%	54%
F	70%	73%	64%	69%	62%	62%	100%	100%	89%	50%

Table 10: percentage of forms in -m in Late group, by lexical category and gender

Within the Late group, the greatest number of *-m* forms clearly occurs within the adjectives. Among these texts, the one containing the highest number of *-ms* forms is LP1. In LP2, there is an unusually high proportion of *-ms* endings among the numerals. LP3 is considered separately, in terms of which forms remain in *-m*. Most are participles.

Chapter 6: Conclusions

This thesis has been an attempt to investigate the process whereby *-m* came to replace *-ms* as a dative plural marker, and the timeframe in which this took place, with a focus on the search for a distribution in the use of these endings within the texts of Mancelius.

Due to the density and variety of the texts in the data sample, patterns were slow to emerge, and indeed due to the nature of the data, hard conclusions are not easily drawn. Nevertheless, some tendencies are evident, which I now discuss in general terms, along with possible reasons for these, before returning to the extra-linguistic evidence, to ask how much weight we can attribute to these findings. Finally, in light of this, I return to the theories and emerging questions outlined in section 1.1.

6.1 Preference for the *-m* ending among feminine forms

Within my data set there is a clear preference for the *-m* ending among feminine forms, which is further supported by the preference for this ending among 5th and 4th declension nouns.

From a phonological point of view, it could be speculated that the long vowel in the stem of the feminine dative plurals could have led to the loss of the final *-s*, contrasting with the diphthong in the masculine forms. This could have been compounded by the fact that as a language with fixed stress on the first syllable, loss of a word-final consonant, especially in a cluster, is relatively common.[43]

As a less technical explanation for the prevalence of this ending among feminine forms, it could be observed that in early biblical texts, dative plurals occur much more frequently in the masculine, as this is the unmarked form, as well as the fact that earlier texts mainly refer to and address males. As a result of this, Mancelius may have been more inclined to choose that ending, rather than an apparently colloquial one.

6.2 Preference for the *-m* ending among adjectives

Of the lexical categories, there is a clear preference for the *-m* ending among adjectives. While no clear reason is present for this distribution, it could be speculated that this may have originated in definite adjectives, which being especially long, may have been more inclined to lose a word-final *-s.*

[43] Beekes (2011) p.64

6.3 Use of the *-m* ending in the spoken language

The markedly high proportion of *-m* endings in the texts of the Middle period, those depicting the spoken language, supports the theory that the *-ms* ending was in fact a relic, preserved in the literary language for some time after it had disappeared from everyday use.

6.3 Possible reasons for Mancelius' use of these endings

The dramatic shift seen in Mancelius' use of these endings over the course of his career could be tentatively explained in several ways. Perhaps most obviously, this could reflect a change in the spoken language. Crucially, even if we accept the theory that the *-ms* ending had in fact fallen out of use in the spoken language some time before this change was reflected in the literature, and in particular in the works of Mancelius, we have no real indicator of when this would have happened. It is possible that by the time of publication of the later texts the *-m* ending was by now so common, or rather, the *-ms* ending was so marked, that this change could no longer be ignored.

It is also noted by Mancelius himself in the foreword to *Lettus* that he was familiar with different varieties of the spoken language. While he does not specifically mention the dative plural endings, it is possible that he was exposed to varies that used both endings to a greater or lesser extent.

Even if aware that the *-ms* ending was a literary feature and *-m* a spoken one, this difference may not have always been clear cut, and his position may have necessitated a certain amount of switching between the two.

The shift to almost 100% use of the *-m* ending by the final volume of the sermons, compared to around 60% in the two earlier volumes, could likewise have several plausible explanations. It is likely, given the substantial length of these sermons, that they were written and compiled over a number of years. It is also noteworthy that the sermons were published the year of Mancelius death, and the possibility cannot be ruled out that this final volume was in fact edited by somebody else. It could likewise be speculated simply that by this time Mancelius had become aware of this particular inconsistency, deliberately opting for the apparently by now more common form.

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