



**CHAPTER:**

Ordinal Formation in Standard Dutch and Dialects of Dutch

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## Chapter 6

# Ordinal Formation in Standard Dutch and Dialects of Dutch<sup>1</sup>

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### 6.1 Introduction

Dutch ordinals are formed by adding one of the two Dutch ordinal suffixes *-de* and *-ste* to the corresponding cardinal. In Table 6.1 below the ordinals of Standard Dutch (commonly abbreviated in the Netherlands as AN from *Algemeen Nederlands*, ‘General

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<sup>1</sup>This paper is one of the products of a research internship in 2015 at the Meertens Institute (Amsterdam, the Netherlands) and has benefited greatly from discussions with Sjef Barbiers and Jelke Bloem, among others.

Table 6.1: The Dutch ordinals

Mathematical number	Sample from the range	Dutch ordinal forms
1		<i>eers-ste</i>
2		<i>twee-de</i>
3		<i>der-de</i>
4		<i>vier-de</i>
5		<i>vijf-de</i>
6		<i>zes-de</i>
7		<i>zeven-de</i>
8		<i>acht-ste</i>
9		<i>negen-de</i>
10		<i>tien-de</i>
11		<i>elf-de</i>
12		<i>twaalf-de</i>
13-19	13th	<i>dertien-de</i>
	14th	<i>veertien-de</i>
	15th	<i>vijftien-de</i>
	<i>20th</i>	<i>twintig-ste</i>
20-99	<i>21st</i>	<i>eenentwintig-ste</i>
	<i>99th</i>	<i>negenennegentig-ste</i>
100		<i>honderd-ste</i>
1000		<i>duizend-ste</i>
1000000		<i>miljoen-ste</i>

Dutch') are listed. The forms with *-ste* are given in italics. Column one lists the corresponding conceptual mathematical numbers, conveyed following the convention as Arabic numerals. For some ranges (13-19 and 20-99), the ordinal formation follows the same pattern and thus, I have grouped them together in one cell. For column three I have picked a few random examples from these ranges. In the second column, I give these examples in Arabic numerals with the English ordinal-suffix *-th* attached.

Booij (2010: 13-14) gives a concise description of the formation of Dutch ordinals:

'Ordinal numerals are created in a regular fashion by adding the suffix *-ste* or the suffix *-de*. The suffix *-ste* [stə] is added after the ordinal allomorph for *een* 'one', *eer-*; after *acht* 'eight', after the suffix *-tig* (*twintigste*, *dertigste*, etc.), and after the numerals *honderd*, *duizend*, *miljoen*, and *miljard*. In all other cases (after 2-7, 9-10<sup>2</sup> and numerals ending in these numerals), the suffix *-de* [də] is used.'

A clear pattern is elusive. If we try to account for the facts through phonological rules, this fails. Suppose we assume the following rule: *-ste* is used for all ordinals. Now, we should try to find something that the words *twee*, *drie*, *vier*, *vijf*, *zes*, *zeven*, *negen*, *tien* have in common, formwise, to be excluded from combining with *-ste*. This is a mixed set, with endings on vowels, coronal sonorants ([r], [n]) and a labial voiceless fricative (obstruent). It would

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<sup>2</sup>Much like Booij does in this case, I will use Arabic numerals throughout this paper for the sake of brevity. It is, in my view, the most uncomplicated way to represent a mathematical number and in my case, if it is clear by context, it can also function as an abbreviation of the ordinal that corresponds to that mathematical number.

be very hard (if not impossible) to argue for a phonological analysis that brings about *-de* in any natural way. We can try the following: the stems ending in *-n* (*zeven*, *negen* and *tien*) all get *-de*. So perhaps coronal voiced consonants get the suffix with a coronal voiced consonant: *-de*? This, too, fails. *Miljoen* ends in the same sound, but gets *-ste*.

Suppose we try it the other way around. *-de* is the ‘everywhere else morpheme’ and *-ste* is inserted after the following stems: *eer*, *acht*, *x-tig*, *honderd*, *duizend*, *miljoen*. Again, we have coronal sonorants, [r] and [n], but even if we don’t count *eer-ste* due to its suppletive status, we still have [n]; a voiceless fricative *-g* [χ] (voiced in some dialects but voiceless in AN) and finally-devoiced coronal stops.

Now, note that there is no other low cardinal that ends in *-t*, so that might be where *acht* differs from all the other low cardinals and does not give a well-formed result after combining with *-de*: *acht-de*. This *-td-* cluster does not occur anywhere in the Dutch language. For example, in the verb paradigms, we see assimilation of the past tense suffix. This suffix is homophonous to the lower ordinal suffix *-de* (whether these two might be related, is a topic that future research should potentially take up). In examples (6.1) and (6.2) below, we see how this assimilation works: the /d/ of the *-de* suffix becomes a voiceless [t] following a verb stem that ends in any voiceless sound:

		landen	-	land-de
(6.1)	a.	land-INF	-	land-PAST
		‘to land’	-	‘landed’
		planten	-	plant-te
	b.	plant-INF	-	plant-PAST
		‘to plant’	-	‘planted’

		krabben	-	krab-de
(6.2)	a.	scratch-INF	-	scratch-PAST
		‘to scratch’	-	‘scratched’
		kappen	-	kap-te
	b.	chop-INF	-	chop-PAST
		‘to chop’	-	‘chopped’

Taking these facts into account, *acht-de* would most likely not survive as a form: it must either undergo some sort of phonological change, such as *s*-insertion, as a type of dissimilation to break the cluster;<sup>3</sup> or it could be that the entire suffix gets substituted.

Since trying to fit all the forms into one phonological rule does not seem to work, one might instead divide the ordinal number line in a lower half and an upper half: with *-de* as the lower half suffix, and *-ste* for the upper half (Barbiers, 2007: footnote 4, p. 861). This leaves us with two exceptions: *1ste* and *8ste*. The ordinal *1ste* consists of a suppletive stem *eer-* plus *-ste*. This is not surprising: scholars from different fields (semantics, typology, syntax, a.o.) agree that it stands out from all the other ordinals (e.g. Barbiers, 2007; Sleeman, 2010: 10 and Veselinova, 1998). The present study investigated the other exception: why is 8 the only number in the lower half of the number line that takes the *-ste* suffix for creating an ordinal? In order to find an answer to this question, I looked for different occurrences of stem-suffix combinations in both historical and present-day varieties of Dutch.

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<sup>3</sup>Marc van Oostendorp, pers. comm. (2015), notes that the case of *achtste* may be an instance of Obligatory Contour Principle Effect: the two sounds are too closely related (*t* and *d* are formed in the same place and in the same manner of articulation). In some dialects of Dutch, the diminutive form shows this effect too: *lamp* - *lempke*; *boek* - *boekse*.

## 6.2 Methodology

The data assembled for the current study was gathered by first performing a diachronic search for ordinals, and then searching synchronically in the regions of the Dutch speaking area that were pointed out by the diachronic research. For the historical research, I collected forms from several historical dictionaries<sup>4</sup> via <http://gtb.inl.nl> between 1200-1600 CE. The dictionaries consulted indicated that some interesting different patterns might occur in Flanders and North Brabant. This led me to conduct an areally wider, dialectal present-day study, in which I compiled lists of cardinals and ordinals from reference grammars of varieties of Dutch, from the period 1897-2007. The works I used were Aarts (2009), Alsters et al. (1993), Cornelissen & Vervliet (1903), Daan (1950), De Bont (1962), De Vin et al. (1998), Dek (1928), Diddens (1986), Fokkema (1948), Goemand (1897), Jacob (1937), Kats (1939), Lafeber & Korstanje (1967), Landheer (1951), Mazereel (1931), Pannekeet (1979), Smout (1905), Swanenberg & Swanenberg (2007), Teirlinck (1986), Van der Velde (1994), Van Gompel (2003, 2006) and Wanink (1948). Additionally, I elicited some data from a native speaker of Roeselare West-Flemish.

## 6.3 Results

In the historical dictionaries, both suffixes were found for all ordinals 2-19 (except *\*3ste*). Also, the form *8de* was found, along with other variants: *‘acht-e’*, *‘acht-en-de’*, *‘acht-e-de’* and *‘acht-en-ste’*. In the synchronical reference grammars, I found that some dialects have a broader range of ordinals formed with *-ste* in comparison to

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<sup>4</sup>MNL online, ONL online, VMNL online, WNT online.

Standard Dutch; this will be discussed in the following sections. No variation was attested for *1ste*, *20ste*, *100ste*, *1000ste*; no evidence for use of *-de*, neither in historical nor contemporary literature.

## 6.4 Discussion

Taking the information found in the various reference grammars, I have made a first attempt at drawing an isogloss around the area where dialects are spoken which, according to my conclusions, use the *-ste* suffix more widely than Standard Dutch deploys it. It is displayed in Figure 6.1 below. I have marked with red dots the places where, according to my findings, *-ste* is used more widely than in AN. The places marked with black dots are those of which I have consulted grammars that reported no differences (in terms of suffixing) compared to AN.

I cannot stress enough that the research done for this paper was based on a rather crude sample; this was due to time restraints. I have given my best efforts in making sure to balance my sample of dialects, while at the same time paradoxically paying unequally much attention to those areas that seemed more fruitful in terms of expected results (predicted by the preliminary diachronical research). But, in spite of all these efforts, fine-grained field research will be essential for drawing more precise maps of the *-ste* suffix distribution in ordinals of Dutch dialects.

## 6.5 Conclusion

The motivation for writing this paper was the unexplained suffix selection of *-ste* for *acht-ste*, in the middle of an ordinal number-line with otherwise exclusively *-de* suffixes. To find out why this

Figure 6.1: Isogloss of dialects which use *-ste* more frequently than Standard Dutch (Blank map kindly provided by <http://www.meertens.knaw.nl/sand/zoeken/kaarten.php?atlas>)



was the case, I researched historical versions of the ordinals. The results of this research showed that at least for the ordinals 5-13 (and a likely chance that this also applies to 14-19, on account of their formation being identical to that of 13), there are historical attestations as early as the 13th century, for both a *-de* form as well as a *-ste* form. These forms were probably regionally bound: *-ste* was found in West-Flanders and Brabant, while *-de* was found in Limburg.

After researching synchronical reference grammars of the different dialects that I selected to be in the sample, it became evident that a wider use of *-ste* as an ordinal affix in the lower section of the number line – wider in comparison to AN – can still be found in varieties of Dutch to this day. A region can be drawn on the map, in which some dialects have ordinals that can take either suffix; other dialects have a more rigid paradigm without variation, but with a set of *-ste*-taking ordinals larger than the AN set {1, 8, 20-99, 100, 1000, 1000000}.

Before we conclude this paper, let us briefly revisit some of the phonological possibilities we explored in section 2 above. I argued that *acht-de* is not phonotactically allowed in Dutch, because we don't see it occur anywhere in the language. One of the possible phonological changes I listed there was *acht-de* > *ach-de*. The historical data actually show that there was a period of time in which this word existed. Somehow it got replaced, because it is not found today, in any of the dialects.

Now that we know that there are dialects of Dutch in which there are other ordinal stems than just *acht* capable of combining with *-ste* – but the fact still stands that there is no dialect of Dutch today that has *acht* combining with something other than *-ste* – the question of why the Dutch ordinal paradigm is shaped the way it is,

remains a puzzle unsolved. Of the phonological potential solutions we thought up in section 6.2, none worked perfectly. After finding the results we found, the reservations against these phonological analyses still stand. Future research might benefit from comparing the Dutch cardinal and ordinal paradigms not only to those of dialects of Dutch, but also to those of other related Germanic languages (such as Swedish, Icelandic, German and Afrikaans) in order to arrive at a better understanding of the suffix selection in the Dutch ordinal system.

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