# Documenting vigesimal system and its decimal counterpart (70-80-90) in GalloRomance dialects 



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## 1. Intro

## -1.1. Main topic of this talk

|  | vigesimal | decimal |
| :---: | :---: | :---: |
| 70 | soixante-dix* $^{*}$ | septante |
| 80 | quatre-vingts | huitante/octante |
| 90 | quatre-vingt-dix | nonante |

* soixante-dix is a hybrid form; it is not decimal like septante, but also not vigesimal like its predecessor trois-vingt-dix, on which it is probably based; but we're including it in the vigesimal series.


## 1. Intro

- 1.2. What we're not going to talk about
- The origins of the vigesimal system, cf. Price 1991, 469 ("it does not seem possible to come to any firm conclusions regarding the origin or origins of the vigesimal forms").


## 1. Intro

-1.2. What we're not going to talk about

- The other (numerous!) vigesimal forms in the history of the French language, such as trois-vingt, six-vingt, etc., all the way up to dix-neuf-vingt "380".
- The complex situation in the primary Gallo-Romance dialects.

2. Decimal and vigesimal cardinals
across time and space - outline
-2.1. Decimal and vigesimal cardinals in Frantext
-2.2. Are decimal forms "archaic"?
-2.3. The decimal system in France: French vs. primary dialects
-2.4. The decimal system in Belgium and Switzerland
-2.5. The decimal system in Nova Scotia
-2.6. The special fate of octante
2.1. Decimal and vigesimal in Frantext

- A major flaw of previous studies, as well as dictionary listings, is that textual records of the decimal system were never compared side by side with vigesimal forms, thus making it impossible to actually compare the respective proportions of each variant.
- So we counted each token of them...


### 2.1. Decimal and vigesimal in Frantext





### 2.1. Decimal and vigesimal in Frantext

- 2.1.1. Medieval French ( $11^{\text {th }}-15^{\text {th }} c$.)
- Contrary to general belief, decimal forms were actually far less frequent than their vigesimal counterparts in the Middle Ages.
- Decimal forms did not gradually disappear throughout the centuries: their historical trajectory is irregular.


### 2.1. Decimal and vigesimal in Frantext

-2.1.2. Renaissance French ( $16^{\text {th }}$ c.) and classical French ( $17^{\text {th }} \mathrm{c}$.)

- Rather surprisingly, the decimal forms experienced a big rise in the $16^{\text {th }} \mathrm{c}$., becoming approximately as frequent as the vigesimal ones.
- In the $17^{\text {th }}$ c., most of the records are to be found at the very beginning of the century; in the following decades, the decimal forms gradually disappear.


### 2.1. Decimal and vigesimal in Frantext

- 2.1.2. Renaissance French ( $16^{\text {th }} \mathrm{c}$.) and classical French ( $17^{\text {th }} \mathrm{c}$.)
- In fact, decimal forms were seen as "learned", compared to the more common connotation of the vigesimal ones (see quotations $n^{\circ} 2$ and 3 on the handout).


### 2.1. Decimal and vigesimal in Frantext

- "Nota [sic] also that, all be it the voulgar people use never, septante, octante and nonante, as I shall herafter playnly declare, ye that the lerned men use them [...] : Dix ans ou vingt, trente ou quarante, Cinquante, soixante ou septante, Voire octante, nonante ou cent.";
- "Here foloweth wherin the voulgar people, marchaunte men, and suche as write hystories dyffer from the maner of nombring here afore rehersed : [...] Soixante dix. Quatre vingtz. Quatre vingts et dix." (Palsgrave 1530, 368-9)


### 2.1. Decimal and vigesimal in Frantext

- 1550, MEIGRET, Traité de gramm., éd. F. J. Hausmann, p. 42: "nous avons une autre manière de compter plus reçue et approuvée : par laquelle, en poursuivant le nombre, nous disons soixante et dix pour septante". (TLF s.v. septante)
- The decimal forms typically appear in scientific and philosophical texts (often translations of Latin originals).
- They do not seem to be rooted in everyday usage.
2.1.3. Modern French ( $18^{\text {th }}-21^{\text {st }}$ c.)
- The decline that started in the $17^{\text {th }} \mathrm{c}$. was totally complete by the end of the $18^{\text {th }}$ c.: the decimal forms had lost the battle.
- They did survive, though, but with severe restrictions on their use.
- Some of the most frequent remarks deal with their use in arithmetic (quotation $n^{\circ} 4$ ) or in the scholarly French of foreign speakers (quotation $n^{\circ} 5$ ).
2.1.3. Modern French ( $18^{\text {th }}-21^{\text {st }}$ c.)
- "SEPTANTE. adj. numéral de t. g. Nombre composé de sept dixaines. Il n'a guere d'usage que dans les supputations d'Arithmetique." (Académie 1694, 1718, 1740)
- "Il n’y a que les étrangers qui disent septante, au lieu de soixante \& dix." (Trévoux 1738-1742)


### 2.1.3. Modern French ( $18^{\text {th }}-21^{\text {st }}$ c.)

-2.1.3.1. Regional connotation (quotations $\mathrm{n}^{\circ} 7,8$ )

- "Le rapporteur sur les élections, M. Frechet a fait éclater de rire l'Assemblée en disant : - Sur la liste étaient inscrits cent trente mille quatre cent septante sept électeurs. On a crié de toutes parts : Lyonnais ! Lyonnais !" (Victor Hugo, 1885, Choses vues < Frantext)
- "Septante, quoique bien préférable à soixante-dix, puisqu'il est dans l'analogie de quarante, cinquante, soixante, n'est guère usité que par des personnes appartenant au midi de la France." (Littré)
- Very frequent amongst regionalist writers


### 2.1.3. Modern French ( $18^{\text {th }}-21^{\text {st }}$ c.)

-2.1.3.2. Archaic connotation (quotation $\mathrm{n}^{\circ} 6$ )

- "Le jeune avocat, resté nonante jours, pour employer un mot de ce temps" (1846, Honoré de Balzac, Sur Catherine de Médicis < Frantext)
- Metalinguistic awareness.


### 2.1.3. Modern French ( $18^{\text {th }}-21^{\text {st }}$ c.)

- 2.1.3.3. Idiomatic phrases
- les Septante "the translators of the Old Testament; the translation itself" (proper noun)
- septante fois septante "numerous times", taken from the New Testament
- quart de nonante "navigational instrument" (technicism)


### 2.2. Are decimal forms "archaic"?

- It is very common in French lexicography to refer to decimal forms as "archaisms".
- If this means that they were relatively more frequent in the $16^{\text {th }}$ c., at least in formal written language, such a statement is acceptable.
- If, on the other hand, this suggests that they were dominant in medieval French, it is false. As Frantext data shows, vigesimal forms for 70-80-90 were far more frequent than their decimal counterparts back then, and the peak they reached in the $16^{\text {th }} \mathrm{c}$. was an artificial phenomenon that didn't last.
2.3. The decimal system in France:

French vs. primary dialects
■2.3.1. Where primary dialects show a preference for decimal forms
■2.3.2. Where primary dialects show a preference for vigesimal forms

### 2.3.1. Where primary dialects show a preference for decimal forms

■In the southeast of France (Provence), the setanta type (latin cluster-PT->-t-) is inherited and dominates the area.
■It must have triggered or at least supported the use of septante in regional French.


### 2.3.2. Where primary dialects show a preference for vigesimal forms

- In most of France, though, the vigesimal forms are dominant in the 'patois', and the dialectal forms that exhibit a -pt- cluster (totally learned) can only have come from the influence of standard written French.



### 2.3.2. Where primary dialects show a preference for vigesimal forms

- But what could possibly have supported the survival of this learned form in French?

2.3.2. Where primary dialects show a preference for vigesimal forms
- Religious schools seem to be the pathway leading to its introduction (quotation $n^{\circ} 9$ ):
- "D'après la façon dont s'exprimaient les paroissiens, on savait instantanément ceux qui naguère avaient été à l'école publique et ceux qui avaient fréquenté l'école chrétienne. Ceux de 'la laïque' comptaient : soixante-dix, quatre-vingts, quatre-vingt-dix ; ceux de 'l'école libre' comptaient : septante, octante, nonante" (La Croix, 17-18 nov. 1979, p. 6 < TLF s.v. octante).
2.4. The decimal system
in Belgium and Switzerland
- In Belgium and Switzerland, septante and nonante belong to the national standards.
- It was, obviously, the existence of an independent school system that allowed the decimal forms to take root.
2.4. The decimal system in Belgium and Switzerland

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2.5. The decimal system
in Nova Scotia (Acadie, Canada)

- Decimal forms have been recorded in a few isolated French-speaking villages in the south of Nova Scotia (Massignon 1962, 577).
- This tells us a couple of interesting things about Acadian French...
2.5. The decimal system
in Nova Scotia (Acadie, Canada)
- a) despite general assumptions, the historical foundations of this regional variety are not necessarily limited to more colloquial registers and can also include variants that belong to higher spheres;
-b) the extreme isolation of certain Acadian communities has allowed for the survival of decimal forms even without the support of the school system (which in French-speaking Canada only teaches the vigesimal forms).


### 2.6. The special fate of octante

■The inherited form huitante has always been very poorly represented in the written language (it only survives nowadays in a few Swiss cantons).
■By contrast, its learned counterpart octante was relatively well represented in the $16^{\text {th }}$ c., but it totally vanished from the modern language. The competition with quatre-vingts was fatal.

### 2.6. The special fate of octante

- Nevertheless, many authoritative dictionaries maintain that octante is still alive and well: « $V x$, p. plaisant. ou région. (notamment Suisse romande, midi de la France, Canada français). » (TLF).
- This is totally wrong.
- Some Swiss speakers will say huitante, but never octante; the isolated Acadian villages in Nova Scotia actually say huiptante; and no evidence has ever been produced that octante once existed in southern France (the dialects had inherited forms, belonging to the huitante type).


## 3. Concluding remarks

■3.1. The triumph of a popular variant over learned tendencies
■Interesting counterintuitive case study
■3.2. Wish list for future research
■other vigesimal forms in medieval French
■the penetration of learned written French forms in primary dialects
■the imbalance between septante-nonante on the one hand, and huitante (much rarer) on the other hand

# A fresh look at the history, geography and social meaning of the French vigesimal system and its decimal counterpart (70-80-90) 

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