

# 16<sup>th</sup> century French final schwa

From variation to diachrony, an OT modelling

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# Thanks to...

- Xico (Francesc) Torres-Tamarrit
- Michela Russo
- Sophie Wauquier
- Jean-Louis Aroui

# Context of this work

PhD thesis: diachrony of Old and Middle French final schwa

- 4 years funding from the PhD school CLI (Paris 8 University)
- Supervisors: Michela Russo & Sophie Wauquier
- *Terminus a quo*: Strasbourg Oath (841)
- *Terminus ad quem*: 16<sup>th</sup> century
- Going backward
  - Start by establishing what is the situation of the 16<sup>th</sup> century
  - Then, see how medieval final schwa evolves to go there
- Of course, everything is hidden in medieval phonology: you have to uncover it
- uncovering schwa, with elements from:
  - graphic transcription
  - meta-language
  - metrics
  - music

# Goal of this work

## Practical point of view

- Collect data for 16<sup>th</sup> century final schwa in the grammarians discourse
- Make generalizations about it
- Merge this generalizations into an OT modelling

## Theoretical point of view

- Modelize each synchronic stage
  - Define the grammar of each variety **and** the diasystemic grammar that comprises them
- Modelize diachronic change
  - How does synchronic variation explain diachronic change?
  - Diachronic change = reduction of several grammars to one
  - Using OT with partial ranking and local constraints conjunction

# A bit of terminology I

In this study, these words have the following meaning:

Schwa I adopt Anderson's (1982) definition: /ə/ = /Ø/

→ raw non-consonantic node, non-specified vowel

→ *I'm not a consonant and... that's it!*

- Schwa is usually written <e>
- It belongs to the phonemes inventory of 16<sup>th</sup> century French
- Phonetic realisation of schwa is not relevant for this discussion

Final A schwa is said final if:

- it is the nucleus of the final syllable of a polysyllabic word
  - *pauvre* 'poor' /pawvrə/ ; *partie* 'part' /parti.ə/ ; *une* 'one' (FEM.) /ynə/
- it is the nucleus of the only syllable of a weak function word
  - *qe* or *que* 'what/that' /kə/
- with or without following consonants

# A bit of terminology II

**Apocope** Non prosodically-driven deletion of the nucleus of a final syllable

- On *heure* in *A ceste heure ma douce amie* → *Asteur' ma douce amie* (Tabourot 1587, ô fol. 5v)

**Elision** Prosodically-driven deletion of the nucleus of a final syllable

- *diffiçil' e* for *difficile et* ; *notre lang' e* for *notre langue est* (Meigret 1550b, fol. 2r (phonetic transcript))
- Apocope ≠ elision

**Contraction** Deletion of final schwa in a  $V\emptyset \#$  sequence

- *espés* for *espées* (Ronsard 1585, pp. 39–40)
- *Oe's* for *Oeés* (Péletier 1555, p. 87 (phonetic transcript))
  - Péletier writes <e'> for any schwa, deleted or not.

# Why start by the 16<sup>th</sup> century?

- The three preceding phenomena are most of the time non written  
→ so we need something else than just orthography!
- 16<sup>th</sup> century: boom of the grammatical discourse over vernacular languages
- During the middle ages (MA), *grammatica* is about Latin. The only French vernacular *grammars* of the late MA are mostly conversational textbooks.
- Since 1521, explosion of the number of texts about French vernacular
  - 'True grammars' (scientific discourse over language)
  - Textbooks for non-native speakers
  - Dictionaries
  - Treatises about orthography
    - including phonetic orthography
- Corresponds to the *codification* stage in French standardisation
- **16<sup>th</sup> century grammarians allow to access the phonology of the language**



**Diachrony of final schwa: from  
phonemic to epenthetic**

# From Latin to Old French

- In Classical Latin, you got *See Appendix for a more detailed account*
  - 1 or 2 posttonic vowels (full V, no schwa)
  - they contrast and express information (number, gender, case, etc.)
- In Old French, you got
  - Only schwa as a posttonic vowel
  - There's no contrast, but schwa/zero alternation can express information
- What happened?
  - All posttonic vowels were deleted except -A (*RÓSAM* → *rose* /rozə/; *POÉTAM* → *poete* /po.ɛtə/)
  - When deletion creates certain final Cs configurations (Sampson 1980, cf. Ségéral and Scheer 2020, pp. 336–338), there's epenthesis (*ÁRBOREM* → *arbre* /arbrə/)
  - This has been lexicalized: even when the Cs configuration have been lost, the vowel is still there (*PÁTREM* → *pere* /pɛrə/; *FRÁTREM* → *frere* /frɛrə/)

# From Old French to Contemporary French

- In Contemporary Standard French,
  - Final schwa is most of the time not realized
  - It can be realized when surrounded by several consonants (depending on the number of Cs (Hutin et al. 2020) and on their type (Storme 2020))
  - Final schwa is most of the time considered epenthetic, even when it's still needed in the UR for other phonological processes (ie. for final C deletion: Dell 1985, p. 235)
- What happened?
  - Apocope has been generalized
  - Phonotactics still generates epenthesis, like it did between Latin and Old French
  - This does not concern only Standard French, it also happened in all oïl dialects

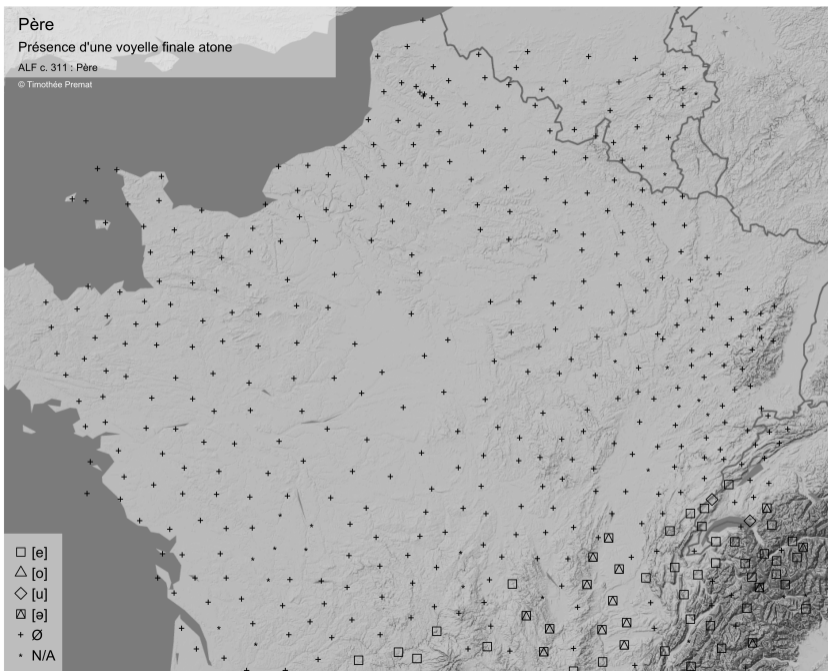
# Père

Présence d'une voyelle finale atone

ALF c. 311 : Père

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- [e]
- △ [o]
- ◇ [u]
- ⊠ [ə]
- + ∅
- N/A



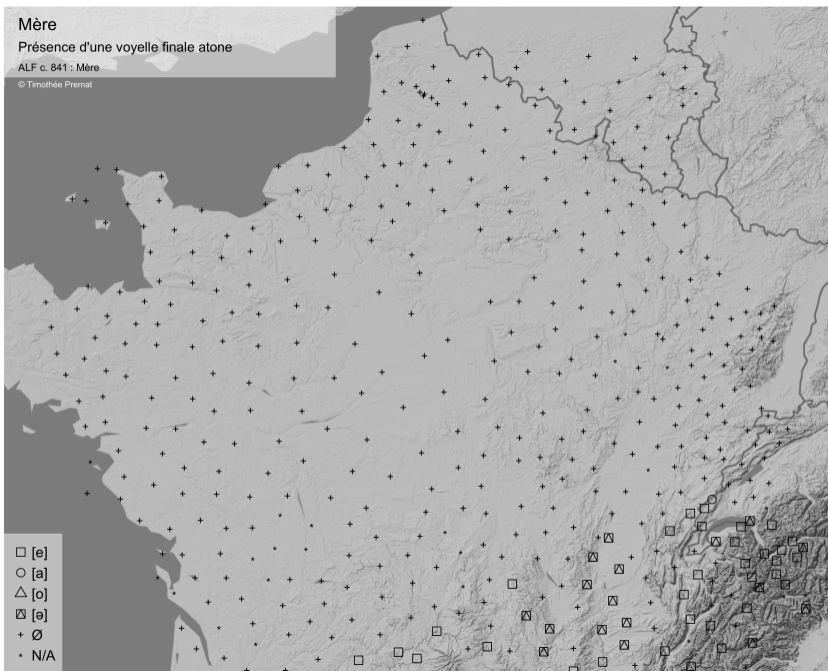
# Mère

Présence d'une voyelle finale atone

ALF c. 841 : Mère

© Timothée Premat

- [e]
- [a]
- △ [o]
- ⊠ [ə]
- + ∅
- N/A



# 16<sup>th</sup> century final schwa: data and generalisations

# No apocope I

→ Refs with ↓ are reproduced in Appendix; the arrow is a link

Outside elision (see below), most grammarians say

- that final schwa is less strongly pronounced than the preceding vowel
  - Barclay ([↓] 1521, p. 807); Palsgrave ([↓] 1530, pp. 4–5); Sibilet ([↓] 1576 [1548], chap. 6); Tabourot ([↓] 1587, fol. 15v); Pillot (1550, p. 19); Bèze (1584, p. 14), etc.
  - which mean that it is still pronounced!
- that final schwa is pronounced
  - Delamothe (1647 [1592], p. 33)
- In his French Manual for English learners, Palsgrave ([↓] 1530, pp. 4–5) says that the learner can easily perceive final schwa when listening to French speakers
  - So phonological acquisition doesn't seem problematic

# No apocope II

- There's also more *direct* testimony, as Meigret's phonetic orthography
  - In the 16<sup>th</sup> century, there's a huge (and sometimes violent!) debate about how the language should be written. It is part of standardisation process.
  - Meigret claims that orthography should be as close as possible to pronunciation ([↓]  
Meigret 1550b, fol. 3v)
  - He managed to convince some printers to create a proper font
- In his *Le tretté de la gramme française* (1550a), Meigret is **really** consistent about final schwa:
  - he writes <e> every time a final schwa\* is followed by a consonant
  - so there is no apocope!
  - see fol. 2r:

\* *every time a final schwa* that should be in the UR, following both etymology and usual orthography



## A O' L E C T E V R S



Ombien qe d'une pouure confide-  
 raçion la plusgran' partie de no' Frã-  
 çoës soët en fantazie qe la poursuyte  
 d'une grammere soët trop diffiçil' e  
 pre'q' impossibl' en nostre lange: je n'en n'ey  
 pas pourtant si dezesperé qe je n'aye fet quelqe  
 dilijençe d'en çerçher quelques moyès, e regles.  
 Çe qe je ne pense point auoer fet san' propos,

# Apocope

But some grammarians attest of apocope. It is always reproved, seems to be dialectal, but can also be simply due to low varieties:

- In Lorraine (Tory 1529, fol. 39r)
  - *lherbet* for *lherbette*; *muset* for *musette*, *chansonet* for *chansonette*, *comper* for *compere*, etc.
- In Wallony (Gardin 1620, p. 42)
  - *Tout chos naist pour mourir* for *Toute chose naist pour mourir*
- In Picardy ([↓] Bovelles 1533, p. 21)
- Apocope is never attested preceded by more than one C
- And always in the North and North-East corner of the oïl area
- There seems to be some geographic proximity between epenthesis and apocope:
  - In Picardy
    - *joure* for *jour*, *amoure* for *amour*, *ouyre* for *ouyr* (Godard 1620, p. 85)
    - ([↓] Bovelles 1533, p. 21)
  - In Paris (Taille 1573, fol. 16v)
    - *oue* for *ou*, *quie* for *qui*

# So... apocope?

- 1 For Morin (2000, p. 200), if grammarians say that schwa is to be preserved, it is because they tend to protect their upper variety from apocope
- 2 But this would work only for grammarians which insist on the fact that final schwa is to be pronounced, not for grammarians that just say that final schwa is less loudly pronounced than the previous vowel
  - The only testimony I have that insist on [1] and not on [2] is from the end of the 16<sup>th</sup> century
  - So 16<sup>th</sup> century grammarians do not seem that frightened by apocope, even if it exist in low and/or regional varieties

## Generalisation about apocope

- In the grammarians' norm, there is no apocope
- Apocope exist in low and/or regional varieties
  - Of course, it does not go against phonotactics (not after several Cs)

# Early schwa deletion in hiatus = contraction

- Morin (2000) says that final schwa deletion was stronger and more precocious in hiatus with a preceding vowel (historical grammars agree)
  - He call these  $V\emptyset$  schwa deletions *contractions*, without stating if they are apocope or some kind of monophthongization. Anyway, schwa seems to be deleted there.
- It is mostly attested by metrics (is contraction needed for isosyllabism?)
- There are three stages in  $V\emptyset$  deletion in metrics:
  - 1 In the first half of the 16<sup>th</sup> century, contraction seems free
  - 2 In the middle of the 16<sup>th</sup> century, contraction is claimed but less and less used
  - 3 At the end of the 16<sup>th</sup> /start of the 17<sup>th</sup> centuries, the context of contraction are avoided

# [1] Data for free contraction

- In the first half of the 16<sup>th</sup> century, there is free alternation of contraction and non-contraction in Vø:

Marot (cit. by Lote 1949-1996 [1991], t. VI, pp. 194-195, chap. II, par. 33-35)

## Contraction:

- 1 *J'aymeroye myeux tumber en l'eau* (Espitres, XI, 33)
- 2 *On s'ennuye d'un pain à manger* (Ibid., LVI, 186)
- 3 *Qu'on joue toujours des gigoteaux.* (Ibid., LVI, 195)

## No contraction:

- 1 *Nous a pourveu de lignee nouvelle.* (Lote doesn't give lines' reference)
- 2 *Et par ainsi fut frappee d'encombre.*
- 3 *Celuy qui prolongeoit la vie des humains*

## [2] Data for claimed but not that used contraction I

- In the middle of the 16<sup>th</sup> century, Péletier and Ronsard claim to do the same, but with graphic transcription of contraction:

Péletier (1555, p. 87)

For Péletier, 'e': any schwa, elided or not.

I'è usè d' Gru's e Oe's : pour Gruës e Oeës, an mon Hyuer : d'emandant c' conge la, e an donnant d' memè.

Ronsard (1585, pp. 39-40; first published in 1565); extended cit. [↓]

*Rolland avoit deux espées en main. Ne sens tu pas que ces deux espées en main, offensent la délicatesse de l'aureille, & pource tu doibs mettre : Rolland auoit deux [espés] en la main, ou autre chose semblable. [...] Contre [la troupe] Ænée print sa picque. Ne sens tu pas comme de rechef Ænée sonne tresmal au milieu, de ce vers ? Pource tu mettras : Contre Mezance Æné bransla sa picque.*

## [2] Data for claimed but not that used contraction II

- Ronsard says that the contraction he prescribe goes 'Against the requirement of the most exigent purists' (*sauf le jugement de nos Aristarques; contre l'opinion de tous noz maistres qui n'ont de si prés auisé à la perfection de ce mestier* (id., [↓]))
  - There are people for whom contraction is not OK
  - Ex: Sibilet ([↓] 1576 [1548], chap. 6)
- But Ronsard can hardly be considered writing a low French
- Interestingly, Morin (2000, pp. 195–196) notes that Ronsard and Péletier use very few contractions!
  - *Do as I say, not as I do*

## [2] Data for claimed but not that used contraction III

- Some years later, Baïf shows a very interesting behaviour (Morin 2000, p. 197):
  - In his 'normal' syllabo-accentual lines, he use almost no contraction (1581 [1992]; 1587 [1963])
  - In his *mesurés à l'antique* (quantitative) lines, he use a lot of them (1574)
    - As Ronsard and Péletier, he does not dare to use a lot of contractions in 'normal' lines
    - But in his quantitative lines, he is rather free (he invented the genre) and use a lot of them
    - So contraction seems to be a mechanism at least available in some varieties, only inhibited in upper style and in isosyllabic lines.



### [3] Data for prohibited contraction

- At the beginning of the 17<sup>th</sup> century,  $V\emptyset$  line-internal will simply be prohibited where elision is not possible
  - Deimier criticizes the *mutilations* of Ronsard
  - The solution is to simply never put a  $V\emptyset$  sequence before a C-initial word

Deimier (1610, p. 101)

On connoist aisément combien le vers est gentil pour estre composé à ce reiglement :

*Je m'escrie après vous et vous prie en mon âme.*

Au lieu que cet autre-cy, où la reigle n'est pas observée, est lasche et languissant :

*Je m'escrie, je plains, et vous prie sans cesse.*

- Malherbe ([↓] [1862], t. IV, p. 384) pretends that contraction is ill-formed in his variety
  - Malherbe is responsible for the *Doctrine de Malherbe*, a bossy reformation of French language at the beginning of the 17<sup>th</sup> century

# Conclusion about contraction I

In metrics

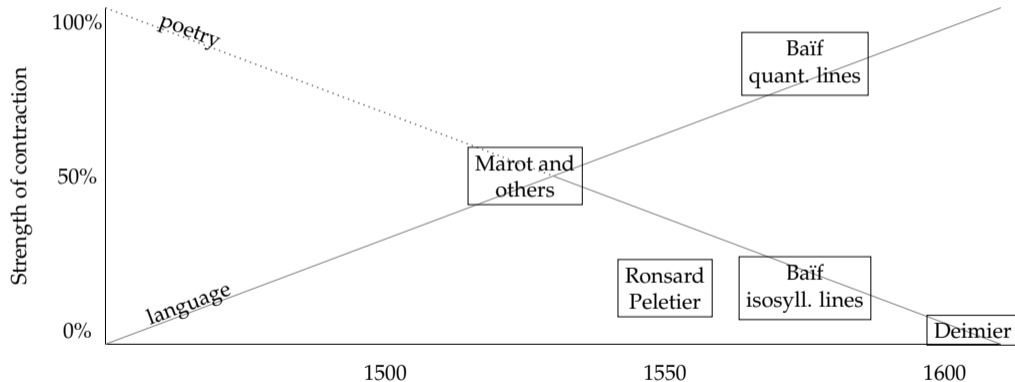
- Contraction is free in the first half of the 16<sup>th</sup> century
- It is claimed but less and less used by the middle of the 16<sup>th</sup> century
  - But it is still used in quantitative poetry
- It disappears in contexts in which it is not over-ruled by elision by the end of the 16<sup>th</sup> century and the beginning of the 17<sup>th</sup> century

# Conclusion about contraction II

- If metrics is a matter of phonology (Hayes 1989, p. 224), it should not produce things that are not attested in 'normal' speech phonology of the language
- Therefore, *unless it is proven otherwise*, if you find something in poetry, it should have a counterpart in 'normal' speech phonology
- That would mean that contraction is available in the phonology during all the 16<sup>th</sup> century
- What changes is
  - 1 Its strength in language (increasing)
  - 2 Its tolerance in poetry (decreasing)

# Conclusion about contraction III

→ So... Two opposite tendencies



# Conclusion about contraction IV

## Generalisation about contraction

- 1 First half of the 16<sup>th</sup> century
  - Contraction is freely optional in poetry and probably in language too
- 2 Middle of the 16<sup>th</sup> century
  - Contraction becomes dominant in language but marginal in poetry
- 3 End of the 16<sup>th</sup> / start of the 17<sup>th</sup> centuries
  - Contraction becomes monopolistic in language but is prohibited in poetry\*

\*Morin (2000, pp. 205–206) has an interesting hypothesis about why it has been prohibited in poetry, i.e. the influence of Occitan poets writing in Standard French and having a phonology based on the graphic form.

# Elision I

## Elision:

- Final vowel is deleted when:
  - it cannot bear stress, i.e.:
    - it is the final vowel of a paroxyton
    - it is the only vowel of a 'weak' function word
  - it has no coda
    - inside the word
    - across word boundary
- For lexical words, it only concerns schwa
- For function words, it concerns schwa and other vowels\*
  - *il me aime* → *il m'aime*; *il me endure* → *il m'endure* (Palsgrave 1530, pp. 42–46)
  - *la artillerie* → *l'artillerie*; *la amour* → *l'amour* (Ronsard 1585, pp. 36–37)
  - \*Others vowels attested in Middle Ages (*ço est* → 'c'est' in *Chanson de Roland*), at the 16<sup>th</sup> century Ronsard says only /i/ and /a/.

# Elision II

- There are explicit definitions of elision:
  - Under the conditions stated above,

Palsgrave (1530, p. 41)

[...] shal the *e* of the worde [...] lese his sounde, and the consonant comyng before *e* be joyned in sound to the vowel folowyng, as though they made both bu one worde.

Ronsard (1585, pp. 36–37)

Toutes fois & quantes que la voyelle, *e*, est rencontrée d'un autre voyelle ou diftongue, elle est tousiours mangée, se perdant en la voyelle qui la suit, sans faire syllabe par soy [...]

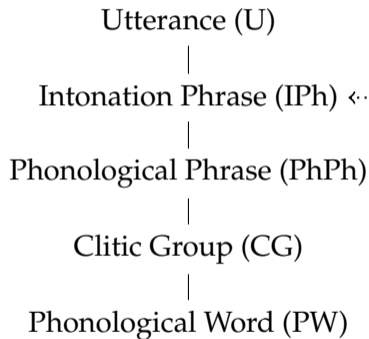
# Elision III

- The rule is quite clear
- Now, what is its domain?
  - Most grammarians say elision does not apply :
    - before *a poynt* (Palsgrave 1530, p. 41), *quelque point autant de virgule [que de fin de clause]* (Meigret 1545 [1542], F2)
    - *A fin de sentence* (Fabri 1534 [1521], fol. 62v), *fin de clause* (Meigret 1545 [1542], F2)
    - Where we should *pauser* (Fabri 1534 [1521], fol. 62v); where *l'on s'arète* (Péletier 1555 [1550], p. 18)
- A domain conditioned by punctuation, syntax and prosody?
  - Actually, by prosody!
  - Punctuation is one marker of prosody in written texts
    - There is prosody in written texts! (Martin 2011)
    - It is normal, given standardisation, that grammarians refer to the written form of language to describe its orality
  - It is partly conditioned by syntax and semantics
  - 'pause' is a feature of IPh boundary (Nespor and Vogel 2007 [1986], p. 188)



# Elision IV

Classical prosodic hierarchy (Nespor and Vogel 2007 [1986]):



..... *Domain for elision?*

## IPh definition:

Comprises one or more PhPh

Corresponds to intonation's domain...

...but can also be domain for other phonological processes

Can be subject to variation (restructuring), based on:

semantics

rhetorics

Is the *locus* of 'pause' insertion

# Elision V

Meigret's (1550) phonetic orthography is consistent with IPh as domain for schwa elision:

- where schwa is preserved before V-initial word, a IPh boundary can be met and there's a punctuation
  - *qe la proprieté n'y soët **obseruée**, **auëq** vn assemblément fët de si bon ordre* (fol. 2r)
  - *soët par le discours de l'aothorité de la sapience **diuine**, **ou** par çelui de la rézon humeine* (fol. 2r)
- where schwa is deleted on PhPh boundary, it is possible to group these PhPhs into one IPh and there is no punctuation:
  - *Or èt il qe nostre **lang'** èt aojourd'hui si ènriçhié* (fol. 2r)
  - *vu q'il èt **impossibl'a** toute naçion* (fol. 2r)
- there is unpredictable restructuring in similar contexts of PhPh's boundary:
  - *il n'èt point d'art, ne siënçe si **diffiçil'è** subtile* (fol. 2r)
  - *estoët **reçonabl'è** neçessère* (fol. 4v)
    - *vs*
  - *pour couurir çete grande **bëtize**, & sott' opiniatreté ?* (fol. 3r)
  - *toute tèle qe de s **fërme**, **è** ch mol.* (fol. 13v)

# Elision VI

- there is also schwa/zéro alternation with autonymy
  - *autonymy*: a sign refers to itself as a sign
  - can be marked by a pause (Dupriez 1984, p. 137)
    - can be its own IPh
  - *Ao regard d'aou par ou clós* (fol. 9r)
  - *nous uzassions de l'y Grec* (fol. 10r)
    - *vs*
  - *il dizet qe a, e, i, conjoins eñsemble*, (fol. 8v)
  - *Or començ'en notre lange la diphthongue, ei, par e ouuert, succeder a çelle d'ai eñ aocuns vocables* (fol. 9r)
- and there is controversy between Péletier (1555 [1550]) and Meigret (1550a)
  - Peletier reproaches to Meigret too preserve to many schwas from elision
  - Meigret responds that one has to pause where he maintains final schwas
    - Disagreement is OK as IPh is recognized to be highly subject to restructuring
    - It should be IPh and not PhPh, as PhPh is less subject to restructuring than IPh

# Elision VII

- Finally, I don't think you can find a syntactic context that met the criteria for schwa elision as IPh does
- And Meigret is very consistent:
  - In the first 20 fol., I have find only one counter-example and I'm not even sure if it a counter-example
    - *nou' pouuons prononçer l'un pour laotre en u consonant'* (fol. 12v)
- Otherwise, Meigret always respect the following:
  - Autonymy: elision and preservation are possible
  - Punctuation = IPh boundary = preservation
  - No punctuation = elision

# Elision VIII

- Remark:
  - Rainsford (2011) established that the domain of group stress in Old and Middle French is PhPh
  - So elision has a different domain than stress assignment
    - I'm okay with that.
- There are also consistent elements in metrics and textsetting that show that IPh is the domain for elision (Chouvion, Premat, and Verner [accepted]; Premat, Chouvion, and Verner [accepted]).

# Recap

The generalisations are:

- 1 For grammarians, there are no apocope nor epenthesis
  - As for Old French, we need schwa in the UR to predict schwa in the SF
- 2 Apocope (and epenthesis) are only attested in regional and low ranked varieties
- 3 Contraction is
  1. available (first half of the 16<sup>th</sup>)
  2. becomes the favoured then the only option (second half)
  3. but ends up being prohibited in versification, which result in simple prohibition of  $V\emptyset \# C$  contexts (beginning of the 17<sup>th</sup> century)
- 4 Elision apply inside IPh and seems highly regular
  - Only well documented exception to this are: some verbal ending, collocations, adverbs, borrowed/new words. They are defined exceptions and not counter-examples. See appendix.

# OT modelling

# Steps

- 1 Find the constraint's interaction that provokes each phonological process
- 2 Model each variety's grammar
- 3 Merge grammars by synchronic stages
- 4 Merge synchronic stages into diachrony
  - In basic OT
  - Using only ranked constraints and 'grammatical tools'
    - *Grammatical tool*: properties of phonology (for computation of tableaux) that have been postulated and should be universal.



# (No) apocope I

Given that we postulate a schwa in the UR, we have two things to model:

- 1 The absence of apocope in most varieties
- 2 The presence of apocope in some varieties

## 1. No apocope

- No apocope is easily achieved by ranking FAITHFULNESS over MARKEDNESS
  - indeed, schwa deletion should be due to MARKEDNESS constraints:
    - According to the *richness of the base* hypothesis (Prince and Smolensky 2004), there are no constraints on the UR
    - so schwa *can* be in the UR...
    - ...and can only be eliminated through MARKEDNESS constraints
- One widely used constraint for schwa deletion:
  - \*SCHWA Count one violation for every non-specified vowel in the candidate (adapted from Oostendorp 2003).

# (No) apocope II

- For FAITHFULNESS, it is a bit more tricky, because it should not be schwa-specific:
  - Schwa specificity in FAITHFULNESS would make no sense (why schwa?)
  - It should not preserve all segments either (we don't want our ranking to preserve consonants, for example)
    - it could be something like MAX(V), but it is less about being a vowel than about being able to be the nucleus of a syllable
  - I adopt a made-up constraint for that:  
MAX( $\sigma$ )      Count one violation for every vowel of the UR that is not represented as the nucleus of a syllable in the candidate.
- MAX( $\sigma$ )  $\gg$  \*SCHWA prevents apocope (*grande bêtize*, Meigret 1550b, fol. 3r):

/grandə/	MAX( $\sigma$ )	*SCHWA
[grãnd]	*!	
☞ [grãnd.ə]		*

# (No) apocope III

## 2. Apocope

- In some varieties, apocope is active
- We just need to reverse the order:
- \*SCHWA  $\gg$  MAX( $\sigma$ )

	/grandə/	*SCHWA	MAX( $\sigma$ )
☞	[grãnd]	*!	
	[grãnd.ə]		*

So...

(No) apocope is handled by ranking between MAX( $\sigma$ ) and \*SCHWA

# (No) contraction I

Given that we postulate a schwa in the UR, we have to model:

- 1 The absence of contraction in the highest variety of the 16<sup>th</sup> century
  - 2 The possible presence of contraction in others 16<sup>th</sup> century's varieties
    - a Model its activity
    - b Model its optionality
  - 3 The mandatory contraction in 17<sup>th</sup> century's varieties
    - Once more, contraction's activation/inhibition depends on ranking between FAITHFULNESS and MARKEDNESS
    - FAITHFULNESS is still  $\text{MAX}(\sigma)$
    - MARKEDNESS should try to ban:
      - a schwa
      - being part of a VV sequence
- That's a LCC!

# (No) contraction II

## LCC

- *Local Constraints Conjunction* (Green 1993 ; Smolensky 1993 ; 1995). A LCC is a combination of constraints ; violation of the LCC is *worst* than violation of the individual constraints which compose it.
  - Can be noted by the ampersand '&'
  - $C1 \& C2 = \text{LCC}$  composed by C1 and C2
- Criticised for being too powerful. Łubowicz (2005) proposes a restriction:
  - A LCC is valid only if the *loci* (LOC) of the implied constraints are intersecting:
    - $\text{LOC}_{C1} \cap \text{LOC}_{C2} \neq \emptyset$
  - LCC's *locus* is defined as the intersection of the *loci* of the constraints it comprises:
    - $\text{LOC}_{C1 \& C2} = \text{LOC}_{C1} \cap \text{LOC}_{C2}$
  - *Ergo*, LCC's violation only occurs when the infraction is located at the intersection. It has narrower target than the constraints composing it.

# (No) contraction III

- So, we need to target a schwa inside a VV sequence
- That's \*SCHWA & \*HIATUS
  - $\text{LOC}^*_{\text{SCHWA}} \& \text{HIATUS} = \text{a schwa inside a hiatus}$
- \*SCHWA & \*HIATUS  $\gg$  \*SCHWA, \*HIATUS
  - A schwa in a hiatus is *worst* than a schwa outside a hiatus and that a no-schwa hiatus
- Contraction only applies inside word-boundary
  - It's not simply \*HIATUS, but \*HIATUS restricted to word-internal position: should not cross a prosodic boundary:
    - $\not\propto = \text{do not comprise} + \Pi = \text{any prosodic constituent} \quad \rightarrow *_{\text{HIATUS}} \not\propto [\Pi$
  - \*SCHWA & \*HIATUS  $\not\propto [\Pi$  Count one violation for every sequence of two strictly adjacent vowels (Vs are not separated by a prosodic boundary nor by consonant(s)) containing a schwa in the candidate.

# (No) contraction IV

- No contraction in the highest variation is easy:
  - $\text{MAX}(\sigma) \gg * \text{SCHWA} \ \& \ * \text{HIATUS} \not\exists [\text{ɪ}] \gg * \text{SCHWA}, * \text{HIATUS}$
  - Example for *frapee* ('Hitten', ADJ.FEM.SG):

/frapeə/	MAX( $\sigma$ )	*SCHWA & *HIATUS $\not\exists$ [ɪ]	*SCHWA	*HIATUS
[frape]	*!			
☞ [frape.ə]		*	*	*

# (No) contraction V

- Mandatory contraction since the late 16<sup>th</sup> century - beginning of the 17<sup>th</sup> century is also easy: just reverse ranking between MAX( $\sigma$ ) and the LCC
  - \*SCHWA & \*HIATUS  $\not\prec$  [ɪ]  $\gg$  MAX( $\sigma$ )  $\gg$  \*SCHWA, \*HIATUS

/frapeə/	*SCHWA & *HIATUS $\not\prec$ [ɪ]	MAX( $\sigma$ )	*SCHWA	*HIATUS
☞ [frape]		*		
[frape.ə]	*!		*	*

- Now, for optionality in the 16<sup>th</sup> century outside the highest variety, we need to allow both rankings
- *Partial ranking* does that!



# (No) contraction VI

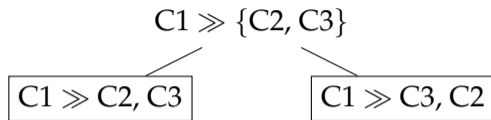
## Partial ranking

- Partial ranking (PR, Antilla 1997; Antilla and Cho 1998) states that some constraints are not exhaustively ranked. It is noted by brackets '{' and '}'
- In  $C1 \gg \{ C2, C3 \}$ 
  - $C1 \gg C2$
  - $C1 \gg C3$
  - but there is no information about ranking between C2 and C3
  - it only works if C2 and C3 are conflicting
- PR is tolerated in the grammar of a subject
- But EVAL cannot deal with PR: it needs a ranking between C2 and C3.
  - Each time EVAL is activated, it generates an arbitrary ranking between C2 and C3.
  - So that one grammar  $C1 \gg \{ C2, C3 \}$  corresponds to two tableaux:
    - One with  $C1 \gg C2 \gg C3$  and one with  $C1 \gg C3 \gg C2$

# (No) contraction VII

$\Gamma$ : Grammar

T: Tableaux



# (No) contraction VIII

$\Gamma$ : Grammar

T: Tableaux

$C1 \gg \{C2, C3\}$

$C1 \gg C2, C3$

$C1 \gg C3, C2$

With our constraints and LCC:

$\Gamma$

$\{ *SCHWA \ \& \ *HIATUS \not\exists [\_ \square, \text{MAX}(\sigma) ] \}$   
 $\gg *SCHWA, *HIATUS$

T

$*SCHWA \ \& \ *HIATUS \not\exists [\_ \square \gg \text{MAX}(\sigma)$   
 $\gg *SCHWA, *HIATUS$

= contraction

$\text{MAX}(\sigma) \gg *SCHWA \ \& \ *HIATUS \not\exists [\_ \square$   
 $\gg *SCHWA, *HIATUS$

= no contraction

# (No) contraction IX

## Conclusion about contraction

- Contraction is modelled by the conflict between  $\text{MAX}(\sigma)$  and the LCC \*SCHWA & \*HIATUS
- 1 In 16<sup>th</sup> century highest variety, contraction is prohibited because  $\text{MAX}(\sigma)$  dominates the LCC
- 2 In other 16<sup>th</sup> century varieties, contraction is optional because  $\text{MAX}(\sigma)$  and the LCC are not exhaustively ranked in the grammar
- 3 In 17<sup>th</sup> century varieties, contraction is mandatory because the LCC dominates  $\text{MAX}(\sigma)$
- [2] has two tableaux: one alike the one of [1] and one alike the one of [3]

# Elision I

- Elision seems mandatory in all varieties
- it deletes a final schwa when it is directly followed by a vowel, with no C between them
  - I use a LCC alike the one for contraction: \*SCHWA & \*HIATUS
- it applies inside IPh : so no IPh boundary between the hiatic vowels
- we don't want it to apply word-internally because... I don't know if it should! And to match with elision's traditional definition
  - $\ni$  = *comprises*
  - $\Pi$  = *any prosodic constituent*
  - $\nrightarrow$  = *not matched with*

$\rightarrow$  \*HIATUS  $\ni$  [ $\Pi \nrightarrow$  IPh

\*SCHWA & \*HIATUS  $\ni$  [ $\Pi \nrightarrow$  IPh

Count one violation for every sequence of two vowels containing a schwa, only separated by a prosodic boundary not matched with and IPh boundary, in the candidate.

# Elision II

- Restricting \*HIATUS not to cross IPh boundary seems actually quite *natural*:
  - as IPh boundaries are *locus* for pause insertion, there should not be any resyllabification here.
  - I don't know any language in which \*HIATUS (or any other constraint that optimises syllabification) apply across IPh boundaries.
    - The restriction is probably implied in all versions of the constraint.
- No matters the variety, it just have to be ranked over MAX( $\sigma$ )
  - By saying  $C1 \gg C2$ , I don't say anything about the fact that others constraints can be interposed between C1 and C2
  - So \*SCHWA & \*HIATUS  $\ni [\square \neq_{IPh} \gg \text{MAX}(\sigma)$  works in all varieties, indifferently from the fact that these varieties have contraction and/or apocope
  - Ex. *Je m'escrie, je plains* and *Je m'escrie après vous* (Deimier 1610, p. 101) and for *je m'escrie* followed by an IPh boundary

# Elision III

**Before consonant:** no elision, but there can be contraction

- 16<sup>th</sup> century: in the highest variety and in one of the tableaux of the others varieties

	~ELID		~CONTR		
/ɛkriə (ʒə)/	*HIATUS ∃ [ɪ ≠IPh & *SCHWA	MAX(σ)	*HIATUS ∄ [ɪ & *SCHWA	*HIATUS	*SCHWA
[ɛkri (ʒə)]		*!			
☞ [ɛkriə (ʒə)]			*	*	*

- In the other tableau of non-highest 16<sup>th</sup> century varieties and in 17<sup>th</sup> century varieties

	~ELID		~CONTR		
/ɛkriə (ʒə)/	*HIATUS ∃ [ɪ ≠IPh & *SCHWA	MAX(σ)	*HIATUS ∄ [ɪ & *SCHWA	*HIATUS	*SCHWA
☞ [ɛkri (ʒə)]		*			
[ɛkriə (ʒə)]			*!	*	*

# Elision IV

**Before vowel:** always elision, in all varieties

- With no contraction

		~ELID		~CONTR		
/ɛkriə (apɾe)/		*HIATUS $\ni$ [ɲ $\neq$ IPh & *SCHWA	MAX( $\sigma$ )	*HIATUS $\not\ni$ [ɲ & *SCHWA	*HIATUS	*SCHWA
☞	[ɛkri (apɾe)]		*		*	
	[ɛkriə (apɾe)]	*!		*	*	*

- If contraction is allowed, it has no separate effect because it converges with elision

		~ELID		~CONTR		
/ɛkriə (apɾe)/		*HIATUS $\ni$ [ɲ $\neq$ IPh & *SCHWA	MAX( $\sigma$ )	*HIATUS $\not\ni$ [ɲ & *SCHWA	*HIATUS	*SCHWA
☞	[ɛkri (apɾe)]		*		*	
	[ɛkriə (apɾe)]	*!		*	*	*



# Elision V

**Before IPh boundary:** No elision, but contraction should be possible (?)

■ Without contraction

	~ELID		~CONTR		
/ɛkriə/][IPh	*HIATUS $\ni$ [ɪ $\neq$ IPh & *SCHWA	MAX( $\sigma$ )	*HIATUS $\not\ni$ [ɪ & *SCHWA	*HIATUS	*SCHWA
[ɛkri]		*!			
☞ [ɛkriə]			*	*	*

■ With possible (?) contraction

	~ELID		~CONTR		
/ɛkriə/][IPh	*HIATUS $\ni$ [ɪ $\neq$ IPh & *SCHWA		*HIATUS $\not\ni$ [ɪ & *SCHWA	MAX( $\sigma$ )	*HIATUS   *SCHWA
☞ [ɛkri]				*	
[ɛkriə]			*!		*   *

# Elision VI

## Conclusion about elision

- Elision is mandatory in all varieties: it just need to be top-ranked
- Its domain is defined by restricting the LOC of \*HIATUS used in the LCC

# Merge grammars by synchronic stages I

We need three stages:

- 1 First half of the 16<sup>th</sup> century
- 2 Third quarter of the 16<sup>th</sup> century
- 3 End of the 16<sup>th</sup> century - beginning of the 17<sup>th</sup> century

And we need three (or four?) varieties:

VA The highest variety

- *A for acrolect*
- It has elision but no contraction nor apocope

VM one high but lower than VA variety

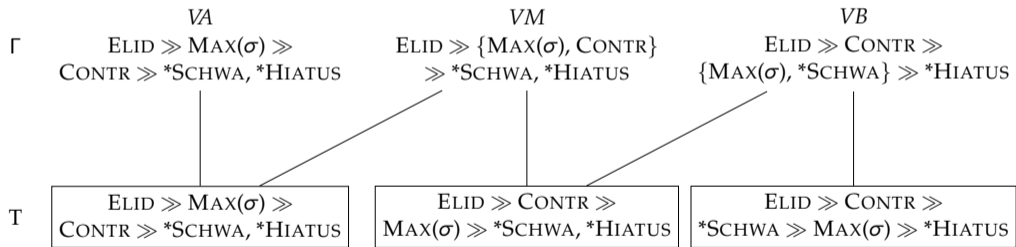
- *M for middle or mesolect*
  - 1 Elision, optional contraction, no apocope
  - 2 Elision, close to mandatory contraction, no apocope
  - 3 Elision, mandatory contraction, no apocope

# Merge grammars by synchronic stages II

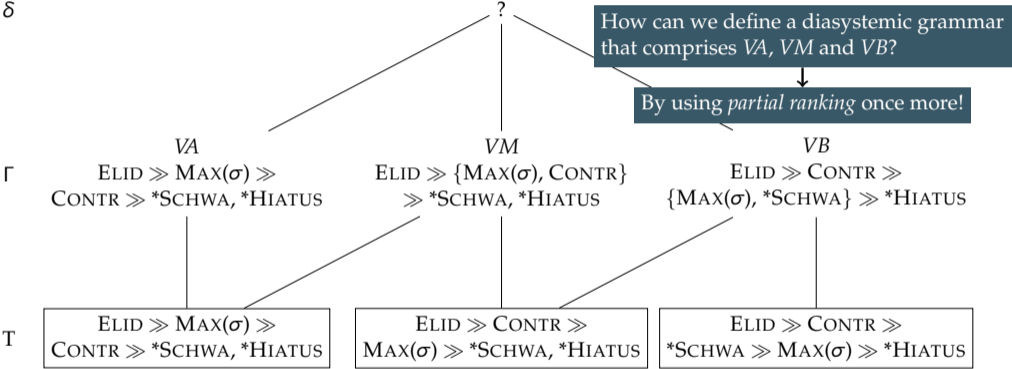
## VB One lower variety

- *B* for *basilect*      Maybe there's a *B*- variety (*lower than B*)
- It has Elision, contraction, optional apocope      in which apocope is mandatory?
  
- The goal is to insert all three varieties in one diasystem  $\delta$  and to show how they interact
- *Partial ranking* comes with a visual way of doing it: tableaux depends on grammars, and grammars can be linked between them (Antilla 1997; Antilla and Cho 1998).
- I use shortcuts for LCCs in ranking (both in grammars and tableaux):
  - $\sim$ **ELID** means \*SCHWA & \*HIATUS  $\ni [\text{ɪ} \neq \text{I}^{\text{Ph}}$
  - $\sim$ **CONTR** means \*SCHWA & \*HIATUS  $\not\ni [\text{ɪ}$

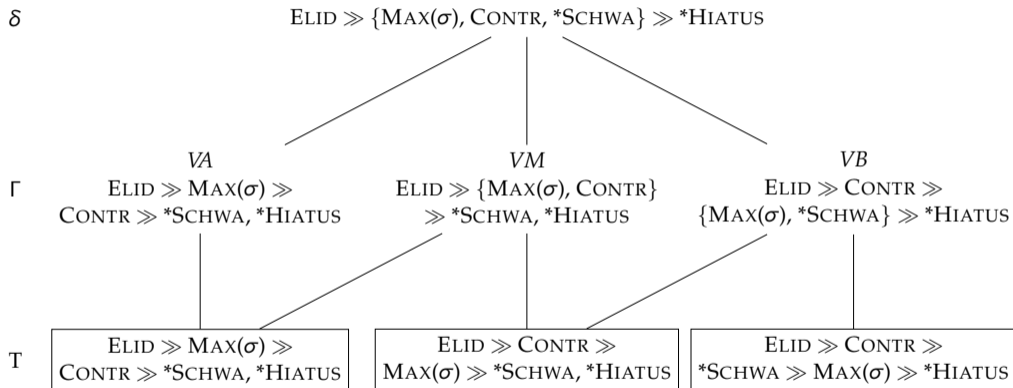
# [1] First half of the 16<sup>th</sup> century



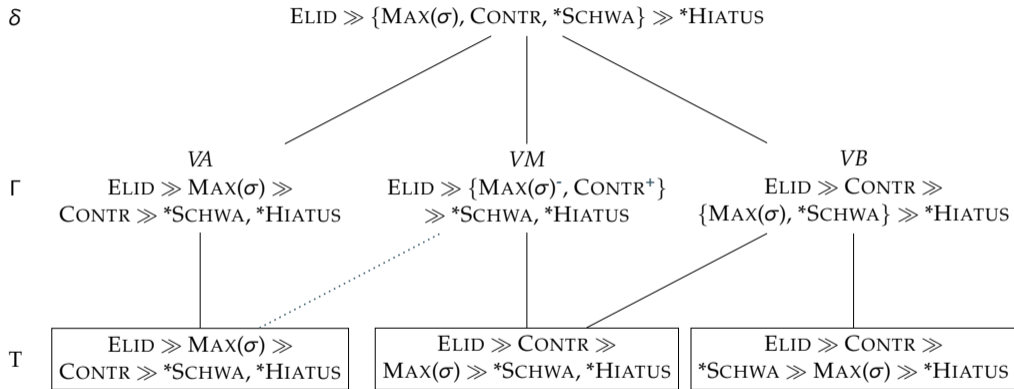
# [1] First half of the 16<sup>th</sup> century



# [1] First half of the 16<sup>th</sup> century

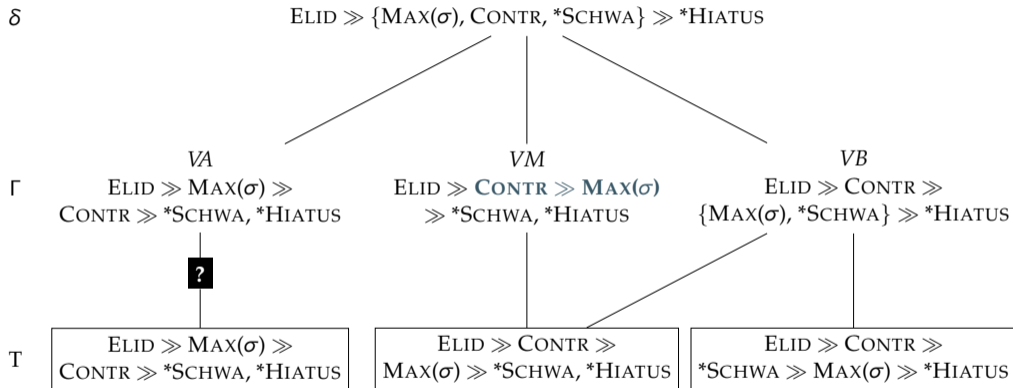


## [2] Third quarter of the 16<sup>th</sup> century





# [3] End of the 16<sup>th</sup> / beginning of the 17<sup>th</sup> centuries



# [3] End of the 16<sup>th</sup> / beginning of the 17<sup>th</sup> centuries

δ

ELID  $\gg$  {MAX( $\sigma$ ), CONTR, \*SCHWA}  $\gg$  \*HIATUS

Γ

VA  
ELID  $\gg$  MAX( $\sigma$ )  $\gg$   
CONTR  $\gg$  \*SCHWA, \*HIATUS

?

T

ELID  $\gg$  MAX( $\sigma$ )  $\gg$   
CONTR  $\gg$  \*SCHWA, \*HIATUS

Deimier's rule for versification prohibits not only contraction, but the circumstances of contraction:

→ *you should not have a V $\emptyset$  ending word before a C-initial word*



No contraction before C-initial word is not allowed either

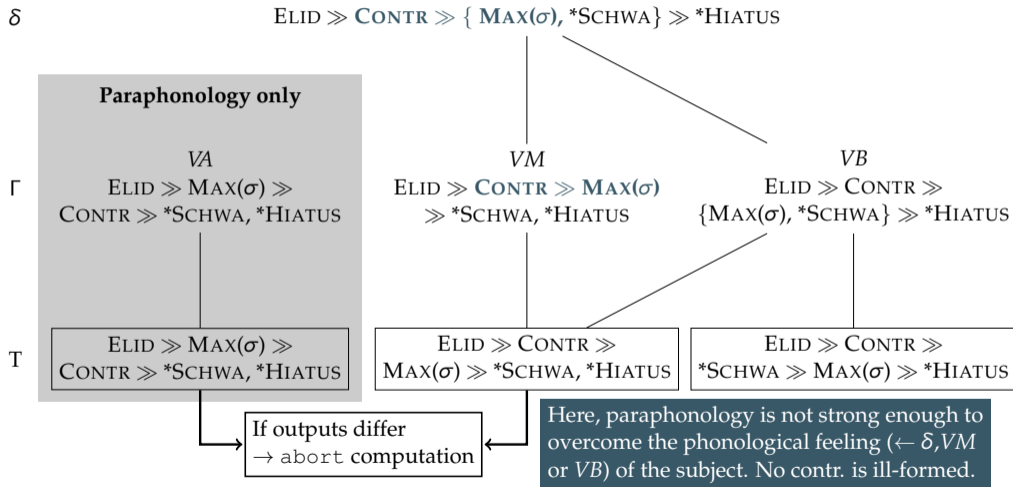


Poetry's paraphonology diverges from phonology (Kiparsky 1977); it preserved VA's grammar, but VA had disappeared by this time.

When it happened, two things were possible:

- Paraphonology wins and lines can, and can only, have no contraction (paraphono. is archaism-friendly), or
- The conflict between paraphonology and phonology is too strong → *avoid this conflict!*

# [3] End of the 16<sup>th</sup> / beginning of the 17<sup>th</sup> centuries



# Recap. I

- Three *ad hoc* varieties: VA, VM and VB
- Three stages:
  - 1 First half of the 16<sup>th</sup> century
  - 2 Third quarter of the 16<sup>th</sup> century
  - 3 End of the 16<sup>th</sup> century and/or beginning of the 17<sup>th</sup> century
- Three constraints and three 'grammatical tools':
  - MAX( $\sigma$ ), \*HIATUS, \*SCHWA
  - LOC specification, Local Conjunction of Constraints and Partial Ranking
- For French final schwa, diachrony works by promoting MARKEDNESS over FAITHFULNESS
  - 1 In lower (and probably first dialectal) varieties
  - 2 MARKEDNESS promotion spreads to higher varieties

## Recap. II

- The range of grammars allowed in parophonology evolves: first it seems to have been *VM*, then more *VA* than *VM* and then only *VA*, but with conflict with *VM* as *VA* became inactive.
- Conflict arise when parophonology is defined as *VA* but *VA* does not belong to  $\delta$  anymore.

**Bonus: what happens next?**

# What happens next? I

We can perform an interpolation between 17<sup>th</sup> century grammars and Contemporary Standard French grammar:

- *Terminus a quo*      Final schwa realisation depends on the UR  
*Dependence on the UR* = FAITHFULNESS  
but there is mandatory contraction  
and apocope in low varieties  
so domination of FAITHFULNESS is already weaken
- *Terminus ad quem*      Final schwa realisation does not depend on the UR  
*Independence on the UR* = MARKEDNESS
- To go from 17<sup>th</sup> century's *VB* to Contemporary Standard French, we just need to break  
PR { MAX( $\sigma$ ), \*SCHWA } into \*SCHWA  $\gg$  MAX( $\sigma$ )
- and to spread it to *VM* and, therefore, to  $\delta$ .

# What happens next? II

- If we want to match Dell's analysis (schwa needed in the UR for final consonant deletion), that's all we need to do.
- If we want to match other analysis in which there is not anymore final schwa in the UR:
  - *Richness of the base* does not prevail over learnability of the base
  - When the domination of MARKEDNESS over FAITHFULNESS hides final schwa often enough, it prevent the learner to know that there is a final schwa in the UR
  - So at some point, a new generation of learners have URs without schwa
- Meanwhile, epenthetic final schwas are generated by other MARKEDNESS constraints:
  - They dominates \*SCHWA
  - They were unable to make a difference when \*SCHWA was dominated by FAITHFULNESS
- Anyway, in my graphs, diachrony is a *movement to the right side*, which coincides with the promotion of MARKEDNESS over FAITHFULNESS. If we continue this movement, we get Contemporary Standard French.



# Conclusion

# Conclusion

- Generalisations based grammarians's texts and metrical habits:
  - 1 Elision mandatory, contraction optional in *VM* and *VB*, apocope optional in *VB*
  - 2 Elision mandatory, contraction more and more mandatory in *VM* and *VB*, apocope optional in *VB*
  - 3 Elision mandatory, contraction mandatory in *VM* and *VB* but still banned in *VA*, apocope optional in *VB*
    - By this time, *VA* dies as a natural form of language and specialises for parophonology
- OT modelling
  - 1 The highest a variety is, the more it has FAITHFULNESS ranked above MARKEDNESS
  - 2 FAITHFULNESS  $\gg$  MARKEDNESS = schwa depends on the UR
  - 3 MARKEDNESS  $\gg$  FAITHFULNESS = schwa does not depend on the UR
- Diachrony
  - Step by step, MARKEDNESS goes higher than FAITHFULNESS
  - Which can end up in disconnecting schwa in SF from schwa in the UR

# Limitations

- This analysis depends on grammarians' texts and metrical habits
  - Grammarians are never neutral!
  - Paraphonology participates to poetry's *differentia specifica* (Jakobson 1960), including in a sociolinguistic perspective, so it not neutral either
- It has *ad hoc* sociolinguistic categories
  - Clearly not ideal
- Can seem a bit complex (graphs, LCCs and PR, etc.)
- No quantified data
  - That's actually a choice, but it would be grate to have stats for that in the future!

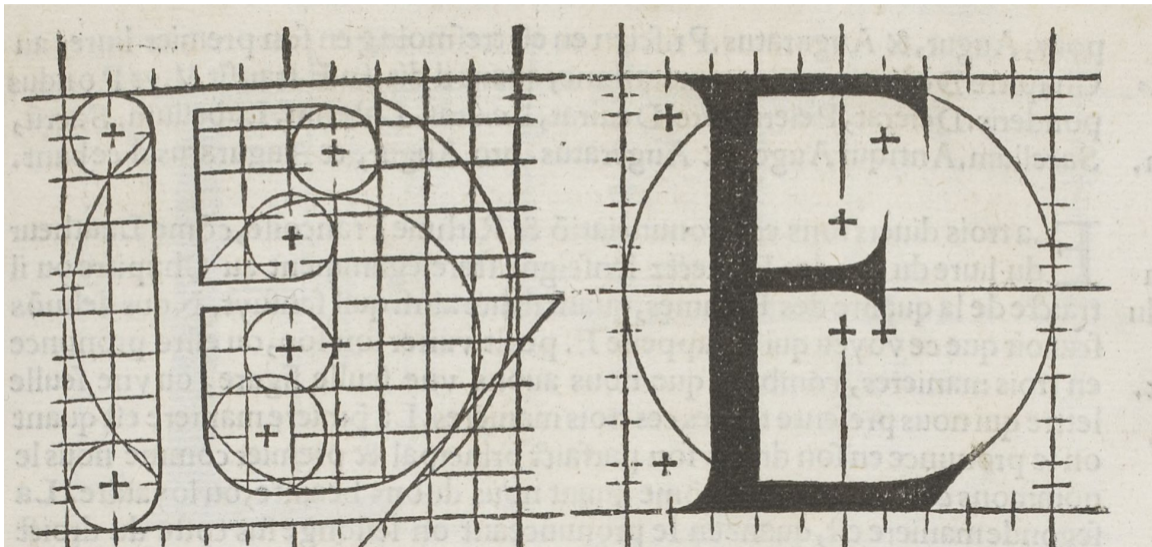
# Advantages I

- This analysis only uses three constraints and three 'grammatical tools'
  - It is *economic*
  - The three grammatical tools (LOC, LCC and PR) are supposed to be universal
- It has a good granularity
  - On the data we have gathered, it does *only* what we want it to do and nothing else
- OK, it uses metrics, but in the framework of generative metrics
  - Using metrics for historical linguistics is dangerous if you think that meter and language are transparent with one another
  - Using Kiparsky's (1977) parophonology, we are aware that the relation between language and metrically shaped texts is not transparent
- All of that is consistent with the fact that a lot of sound change from Latin to French have MARKEDNESS  $\gg$  FAITHFULNESS and that's partly why French is less close to Latin than Italian, Spanish, etc.

# Advantages II

- Finally, once you accept LCC and PR, this OT analysis is *human-readable*:
  - grammars evolved by favouring phonotactics over respect of the underlying form
  - it is a bottom-up linguistic change
  - it is partly gradual (contraction is achieved before apocope)

# Thanks a lot for you attention!



# Appendix

# Counter-examples I

Some categories show a behaviour that is not the one described above:

- Some *-Vent* ending
- Fake apocope/epenthesis because of diachrony:

- 1 In collocations
- 2 In verbal paradigms
- 3 In adverbs
- 4 In borrowed/new vocabulary

## 1 *-Vent* ending

- It concerns Ind.Imp.3Pl., Cond.Pre.3Pl. and the Subj.Pre.3Pl. *soient* and *aient*
- During all the 16<sup>th</sup> and the 17<sup>th</sup> century, these *-ent* ending are not counted in the line, except for *aient* which can freely be counted or not until the end of the 16<sup>th</sup> century (Aroui [2020], pp. 31–33) + Malherbe ([1862], fol. 169r) does not like Desportes's contraction of *aient*.
- There can be a phonological process here, but as it is insulated, I leave it aside.



# Counter-examples II

## 2 Fake apocope/epenthesis in collocations

- In a number of cases, the Old French form has no final schwa, but it has been re-introduced in Middle French by analogy
  - GRANDEM → *grant* (Masc. and Fem.), reshaped in *grande* for the Fem. in Middle French; QUALEM → *quel* (Masc. and Fem.), reshaped in *quelle* for the Fem, etc.
  - Some collocations keep the Old French form, like *grand-chose*, *grand-mère*, *avoir grand peur* (H. Estienne 1582, p. 97); *quel' quelle soit* (Cauchie 1578 [1575], p. 63)
  - It is felt as apocope by 16<sup>th</sup> century grammarians, but it is just frozen collocation;
- In some cases, there is no Old French form without schwa,
  - *bon' nuit* (Cauchie 1578 [1575], p. 63), *frelampier* (*frère lampier*) (Oudin 1645 [1632]).
  - but we can say that collocation and lexicalisation are enough to delete the word boundary and for the final schwa to become internal (there is syncope in the 16<sup>th</sup> century)

# Counter-examples III

## 3 In verbal forms with reintroduced schwa

- Verbals forms with no schwa in Old French, reshaped by analogy with a schwa in Middle French
- *je pry* → *je prie* (*pry* became obsolete in the second half of the 16<sup>th</sup> century)
- *je supply* → *je supplie* (*supply* analysed has apocope in the 17<sup>th</sup> century)
- To some extent, both forms are accessible to certain speakers (including poets), and they can use freely of both until one becomes monopolistic.
- See Palsgrave (1530, pp. 392, 394); Péletier (1550, p. 14); R. Estienne (1549); Tabourot (1587); Lanoue (1596); Val (1604, p. 128); Deimier (1610, p. 144); Fabri (1534 [1521]); (Thurot 1881-1883, p. 179)
- Note that the form with final schwa exists already in Old French but is much less frequent
  - *Nouveau Corpus d'Amsterdam* (Stein, Kunstmann, and Gleßgen 2006) (296 textes, 3+ millions words):
  - *pri* Ind.Pré. : 428 occ. vs *prie* Ind.Pré. : 28 occ.
  - So, analogy worked by inverting the frequency ratio until the form without schwa disappeared

# Counter-examples IV

## 4 In adverbs

- Adverbs are already subject to an intense  $-ə/\emptyset$  alternation in Old French, which continues in Middle French up to the 17<sup>th</sup> century
  - “*onc* for *oncques*, *donc* for *donques*, *avec* for *avecques*” (Palsgrave 1530, p. 394)
  - “Tu diras selon la contrainte de ton vers *or*, *ore*, *ores*, *adonc*, *adoncque*, *adonques*, *avecq’*, *avecques* et mille autres” (Ronsard 1866 [1565], p. 333)
- This is again a frequency effect
  - Both forms exist in Old French
  - One form became more and more used by the 16<sup>th</sup> century (or before)
  - Finally the other form becomes obsolete
  - See Deimier (1610, pp. 137, 178, 185–190); Ménage (1675 [1672], p. 85); Richelet (1693 [1680]); Malherbe ([1862], pp. 308, 463); Palsgrave (1530, pp. 797, 879); Ramée (1572, pp. 117, 123); H. Estienne (1582, p. 72); Tabourot (1587, p. 106); Gardin (1620, p. 55); Meigret (1550b, fol. 119, fol. 131); Ramée (1572, p. 120); R. Estienne (1569 [1557], pp. 98–99); R. Estienne (1549); Vaugelas (1880 [1647], p. 424); Académie (1880 [1704], p. 429); Sylvius [DU BOIS] (1531, p. 154); Péletier (1550, pp. 35–49); Cauchie (1578 [1575], p. 244), etc.

# Counter-examples V

## 5 In borrowed/new words

- In word borrowed from Latin and Greek, it takes some time to reach consensus:
- Some authors borrow the word without schwa: *public, caduc, brut, exact, fisc, tabac*
- Others borrow the word and add a final schwa: *servile, sénile, fébrile, fisque, tabaque*
- It gets regularized by the end of the 16<sup>th</sup> century - start of the 17<sup>th</sup> century
- See Palsgrave (1530, p. 315); R. Estienne (1549); Cauchie (1570, p. 94) and Cauchie (1578 [1575], p. 19); Tabourot (1587, fol. 10v); Lanoue (1596); Deimier (1610, p. 206); Thurot (1881-1883, pp. 187–191)

## Conclusion about these categories

- These categories are exceptional, but there are clearly identified.
- For 3Pl *-Vent*, it seems to be a specific phonological process, but I won't treat it
- For the others cases, it is not so much computation than the UR in the lexicon that is at play

# From Latin to Old French

## Latin

- 1 or 2 posttonic vowels, but no schwa vowel
- They are not neutralised: they contrast and express information
  - *Árma vírumque cáno qui prímus ab óris*
  - information of number and case : *árma* (NEUTER.PL.ACC)
  - information of person : *cáno* (IND.PRÉ.3sg.)

## Old French

- 0 or 1 posttonic vowel, always schwa
- Contrast between posttonic vowels is neutralized, but information can be expressed by  $\text{ə}/\text{Ø}$  alternation
  - *bel* /bɛl/ (MASC) ~ *bele* /bɛlə/ (FEM)

# From Latin to Old French II

**What happened?** All posttonic vowels are deleted except:

- Final -A
  - RÓSAM → *rose* /rozə/ ; POÉTAM → *poete* /po.ɛtə/
  - that's why -e sometimes express FEM
- Final vowel preceded by two or more consonants in some configurations (Sampson 1980, cf. Ségéral and Scheer 2020, pp. 336–338)
  - PÁTREM → *pere* /pɛrə/ ; FRÁTREM → *frere* /frɛrə/ ; ÁRBOREM → *arbre* /arbrə/
- Very Old French (842 - 11<sup>th</sup> century) still have some other graphic vowels than <e> in posttonic position, but there are reasons to think that the distinction is only graphic.

## Final schwa is not epenthetic

When CC have been deleted, or when ə ← -A, schwa is not predictable based on phonotactics. Therefore, it cannot be said epenthetic).

# From Old French to Modern French I

In contemporary standard French:

- Final schwa is most of the time not realized
- But some factors induce the possibility of a realization:
  - Precession of several consonants
    - /ə/ realisation probability is proportional to the number of consonants (Hutin et al. 2020)
    - with interaction of the type of surrounding consonants (Storme 2020)
  - In 'classical' generative analysis, schwa is still needed in the UR to protect final consonants to deletion (Dell 1985, p. 235)
    - *fort* /fɔrt/ [fɔʁ] (MASC) ~ *forte* /fɔrtə/ [fɔʁt] (FEM)
  - But final schwa in the UR is not responsible for final schwa realization
    - Once final consonant deletion is computed, all final schwas are deleted
    - Then, some are introduced by epenthesis for phonotactic reasons
    - UR /fɔrtə/ → /fɔrt/
      - [fɔʁt], or:
      - [fɔʁtə], particularly if followed by consonant(s)

# From Old French to Modern French II I

- Final /ə/ in the UR is not responsible anymore for schwa realization
- If we don't care about final consonants, we can get rid of final /ə/ in the UR
- Final /ə/ does not carry information anymore
  - It did in Old French *fort* [fɔrt] ~ *forte* [fɔrtə]
  - But it does not anymore in *fort* [fɔʁ] ~ *forte* [fɔʁt]

## What happened?

- Apocope has been generalized
- Phonotactic reasons generate final schwa epenthesis in some contexts, like it was between Latin and Old French
- It is not important to me to know whether or not schwa epenthesis in Modern French depends on something in the UR or is purely SF-based.



# From Old French to Modern French II II

## Final schwa went steady to epenthetic

- Through this journey, final schwa came from:
  - full vowels (Latin), or
  - epenthetic (between Latin and Old French)
- Final vowels loosed their contrast (*schwaisation*)
- And then their ability to be most of the time realised
- To become epenthetic vowels

→ This is not an evolution that concerned only Standard French; it is the same in all *oïl* dialects.

# Quotations I

Barcley (1521, p. 807) ↑

For [the] letter *d* is not sounded nor pronounced in frenche, nor founde often wryten in the ende of any worde. And though some wolde say in these frenche wordes, *viande* [...], *demande* [...] and the *d* is sounded in ende of the worde, it is not so. For in these wordes and other lykes, such as truly pronounce Frenche, resteth the sounde on the last letter of the worde whiche is *e* and not *d*.

## Quotations II

Palsgrave (1530, pp. 4–5) ↑

If *e* be the laste vowell in a frenche worde beyng of many syllables, eyther alone or with an *s* folowyng hym, the worde nat havynge his accent upon the same *e*, that shall he in that place be sounded almoste lyke an *o* and very moche in the noose, as these wordes *hómme, fémme, honéste, párlé. hómme, fémme, honéste, avécques* shall have theyr laste *e* sounded in maner lyke an *o*, as *hommo, femmo, honesto, parlo. hommos, femmos, honestos, avecquos* ; so that, if the reder lyft up his voyce upon the syllable that commeth nexte before the same *e*, and sodaynly depresse his voyce whan he cometh to the soundynge of hym, and also sounde hym very moche in the noose, he shall sounde *e* beyng written in this place accordyng as the Frenche-men do. Whiche upon this warnynge if the lerner wyll observe by the frenche mens spekyng, he shall easely perceyve.

- let aside the /*õ*/ pronunciation (prob. Norman dialect)

## Quotations III

Sibilet (1576 [1548], chap. 6) [↑] [↑]

L'*e* femenin [...] n'a que demy son et est autrement tant mol et imbecille, que, se trouuant en fin de mot et de syllabe, tombe tout à plat, et ne touche que peu l'aureille [...] Prononçant, *aimée, desestinée*, tu sens bien le plein du premier *é* masculin en la syllabe *mé* : et le mol et flac son du second *é* femenin en la syllabe derniere *e*.

## Quotations IV

Tabourot (1587, fol. 15v) ↑

[Le schwa final] se prononce comme si on se vouloit retirer de la prononciation entiere et ne la declarer qu'à demy, comme en ces deux vers faits de foeminines terminaisons seulement :

*Le sire de nostre prouince*

*Se monstre magnanime prince.*

Lequel é [sic : e], encor qu'il remplisse sa syllabe au milieu du vers aussi bien qu'une masculine, si est-ce qu'à la fin il n'a nulle force et s'esuanouit en l'air, tellement qu'au lieu de neuf syllabes il n'en faut compter que huit.

# Quotations V

Meigret (1550b, fol. 3v) ↑

je m'efforçe de decharjer notr'ecritture de' lęttres superflúes, e la rendre lizable suiuant l'uzaje de la prolaçion

Bovelles (1533, p. 21) ↑

[Veromandui] omnem dictionem quæ finem facit in littera E finiunt in præcedenti consonante : et vice versa eam onmem quæ in littera consonante exitum habet, finiunt in adiectione literæ E

Near Saint-Quentin, all the words that should end on schwa actually end on the previous consonant, and all the words that are consonant-final end on an epenthetic schwa.

# Quotations VI

Ronsard (1585, pp. 39-40; first published in 1565) [↑] [↑]

[A line must not be gaping] Et pource, sauf le jugement de nos Aristarques, tu doibs oster la derniere, e, fœminine, tant des vocables, singuliers que pluriers, qui se finissent en [ée], & en [ées], quand de fortune ils se rencontrent au milieu de tous vers. Exemple [...] *Rolland avoit deux espées en main*. Ne sens tu pas que ces deux espées en main, offensent la délicatesse de l'aureille, & pource tu doibs mettre : *Rolland avoit deux [espés] en la main*, ou autre chose semblable. Exemple [...] : *Contre [la troupe] Ænée print sa picque*. Ne sens tu pas comme de rechef Ænée sonne tresmal au milieu, de ce vers ? Pource tu mettras : *Contre Mezance Æné bransla sa picque*. autant en est-il des vocables terminez en ouë et uë, comme *rouë, jouë, nuë, veuuë*, & mille autres qui doiuent recevoir syncope [1565: syncope & apocope] au milieu de ton vers. Si tu veux que ton poeme soit ensemble doux & sauoureux : pour ce tu mettras *rou', jou', nu'*, contre l'opinion de tous noz maistres qui n'ont de si prés auisé à la perfection de ce mestier.

## Quotations VII

Malherbe, *Commentaire sur Des Portes*, éd. in [1862], t. IV, p. 384 [↑]

Desportes. — *Je t'invoque, ô Proté! cet autel je te dresse*

Malherbe. — *Jamais ne dis ni Proté ni Promété, mais Protée et Prométhée.*

- The formatting is mine; Malherbe had a book of Desportes' poetry and he annotated it.



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