Angus McIntosh Centre
for Historical Linguistics

Grapho-phonological parsing of C15 Scots

A reassessment of the [v]~[f] alternation

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THE UNIVERSITY of EDINBURGH

The FITS Project (***F**rom **I**nglis **T**o **S**cots*)

- 4-year project at the Angus McIntosh Centre for Historical Linguistics
- Researching the early sound/spelling history of Scots
- Data: A Linguistic Atlas of Older Scots (LAOS, Williamson, 2008)
  - c.1250 Scots 'local documents' (c. 400k wds) dated 1380-1500
- Restricted to Germanic root morphemes
- Main RQ: What phonological facts underly the diversity of spelling in Scots (1380-1500) and how did it develop?

The team: Bettelou Los, Vasilis Karaiskos, Joanna Kopaczyk, Warren Maguire, Daisy Smith (and us two!)

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Grapho-phonological parsing

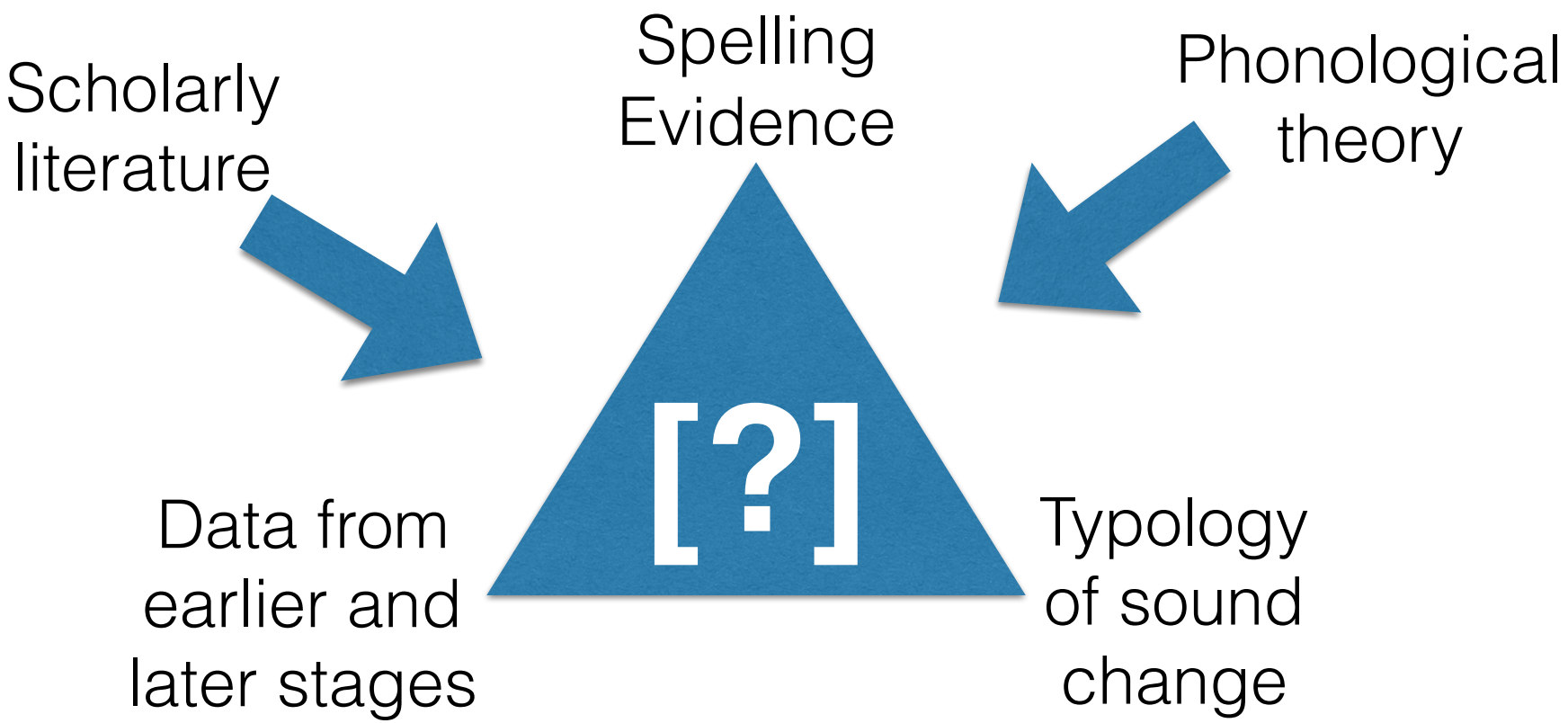
- Resolves word forms into units of spelling, e.g.
  - <fisch> ‘fish’ <f> | <i> | <sch>
  - <houß> ‘house’ <h> | <ou> | <ß>

Grapho-phonological parsing

- Resolves word forms into units of spelling, e.g.
  - <fisch> ‘fish’ <f> | <i> | <sch>
  - <houß> ‘house’ <h> | <ou> | <ß>
- Annotates each token of each spelling unit with:
  - Etymological category, e.g. OSc <sch> < OE [ʃ]
  - Linguistic context:
    - position in word & neighbouring units: phonotactics, graphotactics & morphotactics
    - word class
  - Extra-linguistic context:
    - date, genre & place of origin of source ms.
  - Reconstructed sound value

How do we reconstruct OSc sound values?

Triangulate:



Using the FITS database: examples

- Synchronic 15C Scots
  - Interpretations of <ou>
  - Spellings of [ʃ]
- Diachronic (regressive)
  - Sources of 15C Scots [u:]
- Diachronic (progressive)
  - Reflexes of OE /f/
- For *any* unit of sound or spelling
  - Contexts in which attested (linguistic & extra-linguistic)

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OE /f/ in 15C Scots: non-final contexts

	Initial	**Medial**	
Exemplar	*fisch*	*eftir*	*sevin*

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Exemplar	*fisch*	*eftir*	*sevin*
OE	[f]	[f]	[v]
PD Scots	[f]	[f]	[v]

OE /f/ in 15C Scots: non-final contexts

	Initial	Medial	
Exemplar	*fisch*	*eftir*	*sevin*
OE	[f]	[f]	[v]
15C Scots	<f>	<f, ff>	<u, v, w>
PD Scots	[f]	[f]	[v]

OE /f/ in 15C Scots: non-final contexts

	Initial	Medial	
Exemplar	*fisch*	*eftir*	*sevin*
OE	[f]	[f]	[v]
15C Scots	<f>	<f(f)>	<u, v, w>
	MATCH	MATCH	MATCH
PD Scots	[f]	[f]	[v]

OE /f/ in 15C Scots: non-final contexts

	Initial	Medial	
Exemplar	*fisch*	*eftir*	*sevin*
OE	[f]	[f]	[v]
15C Scots	<f>	<f(f)>	<u, v, w>
15C Scots	**[f]**	**[f]**	**[v]**
PD Scots	[f]	[f]	[v]

OE /f/ in 15C Scots: morpheme-final contexts

	Word-final		**Pre-inflection**
	original	new	
Exemplar	*lif* (< OE *lif*)	*luf, gif* (< OE *lufu, giefan*)	*liff+is, giff+in* ('lives', 'given')

OE /f/ in 15C Scots: final contexts

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Exemplar	*lif* (< OE *lif*)	*luf, gif* (< OE *lufu, giefan*)	*liffis, giffin* ('lives', 'given')
OE	[f]	[v]	[v]
PD Scots	[f]	[v] (/Ø)	[v] (/Ø)

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Exemplar	*lif* (< OE *lif*)	*luf, gif* (< OE *lufu, giefan*)	*liffis, giffin* ('lives', 'given')
OE	[f]	[v]	[v]
15C Scots	<f(e, ff(e> <v(e,u(e,w(e>	<f(e, ff(e> <v(e,u(e,w(e>	<f, ff> <u, v, w>
PD Scots	[f]	[v] (/Ø)	[v] (/Ø)

OE /f/ in 15C Scots: final contexts

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Exemplar	*lif* (< OE *lif*)	*luf, gif* (< OE *lufu, giefan*)	*liffis, giffin* ('lives', 'given')
OE	[f]	[v]	[v]
15C Scots	<f(e, ff(e> <v(e,u(e,w(e>	<f(e, ff(e> <v(e,u(e,w(e>	<f, ff> <u, v, w>
	MISMATCH	MISMATCH	MISMATCH
PD Scots	[f]	[v] (/Ø)	[v] (/Ø)

OE /f/ in 15C Scots: final contexts

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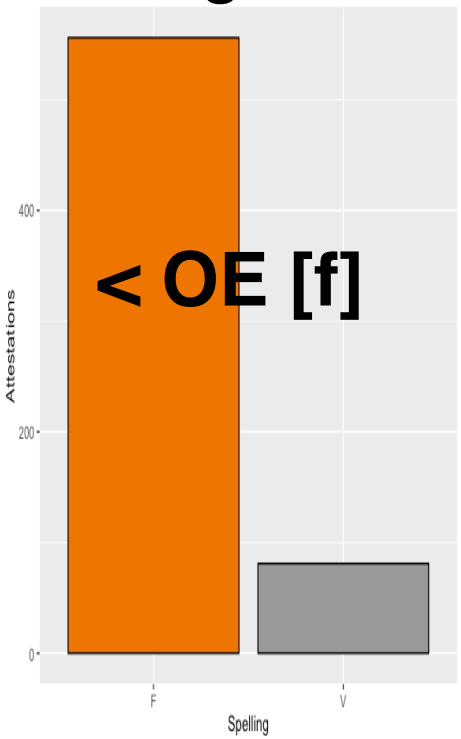
Exemplar	*lif* (< OE *lif*)	*luf, gif* (< OE *lufu, giefan*)	*liffis, giffin* ('lives', 'given')
OE	[f]	[v]	[v]
15C Scots	<f(e, ff(e> <v(e,u(e,w(e	<f(e, ff(e> <v(e,u(e,w(e>	<f, ff> <u, v, w>
15C Scots	**[?]**	**[?]**	**[?]**
PD Scots	[f]	[v] (/Ø)	[v] (/Ø)

<f>-type spellings

<v>-type spellings

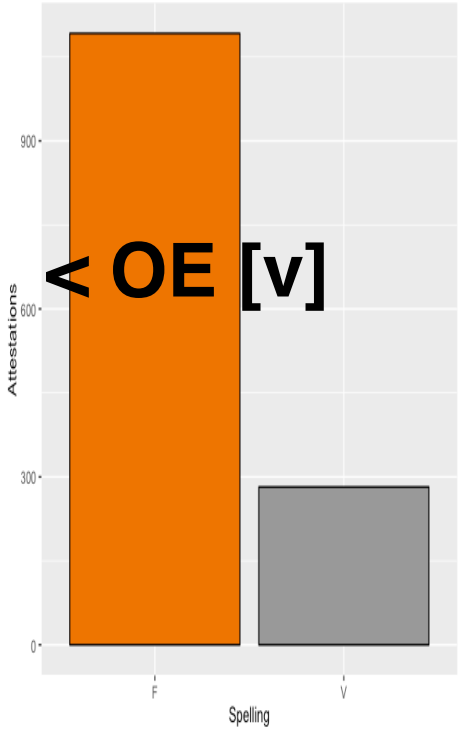
Word-final

Original



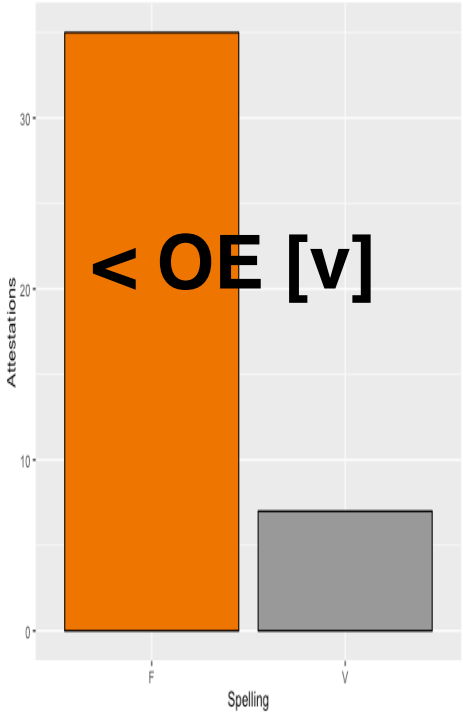
***lif*-type**

New

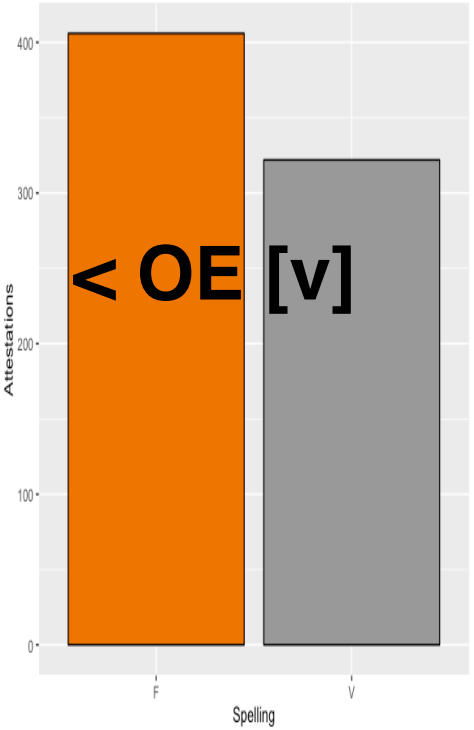


***luf/gif*-type**

Pre-Inflection



***lif*-type**



***luf/gif*-type**

Final Devoicing (FD) in Mediaeval Scots

- Post-Old English apocope led to eME and Pre-Scots having /v/ in word-final position.
- In northern dialects of eME, FD is claimed for fricatives (Mossé 1952: §45, Fisiak 1968: 61)
- Johnston (1997:104) claims that FD is an early "diagnostic of Scots as a whole" and that "even in fourteenth century… final /v/ is almost always represented by <f>"

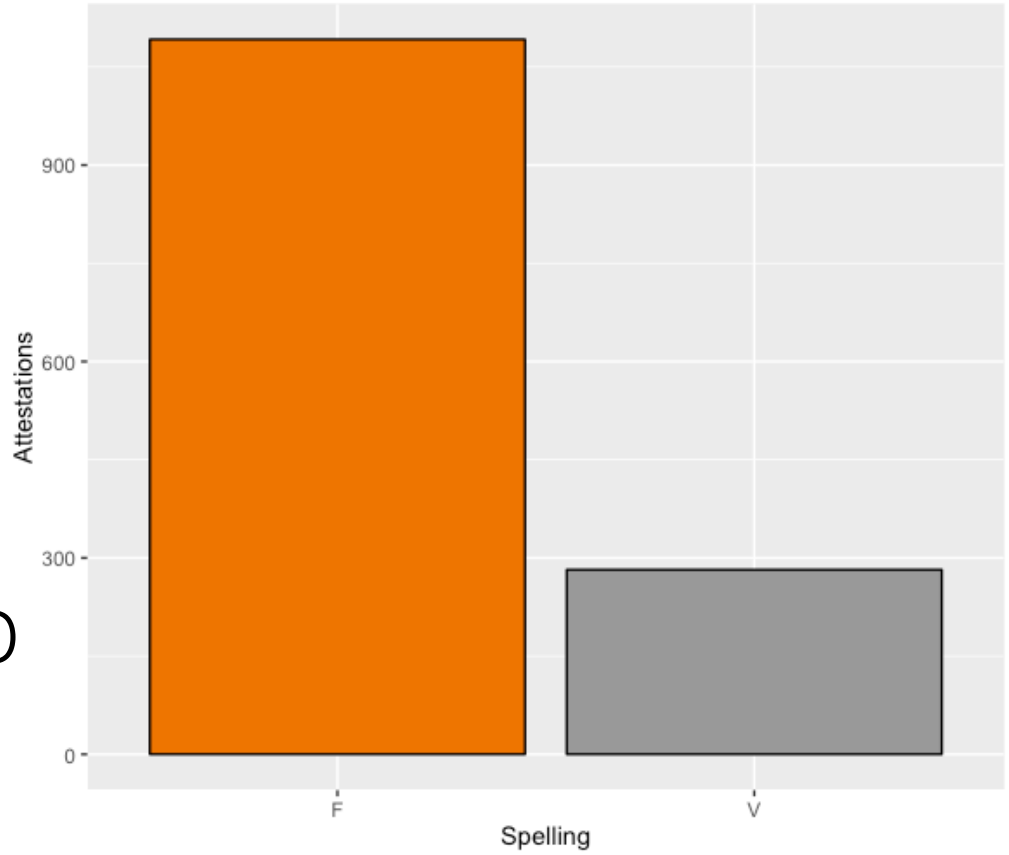
<f>-type spellings <v>-type spellings

Word-final context (NEW, i.e. *luf-/gif*-type)

- Etymologically [v]

<f>-type spellings
- for [f] via FD

<v>-type spellings
- for [f] with ‘residual’ spelling
- or for [v] in cases without FD due to incomplete apocope



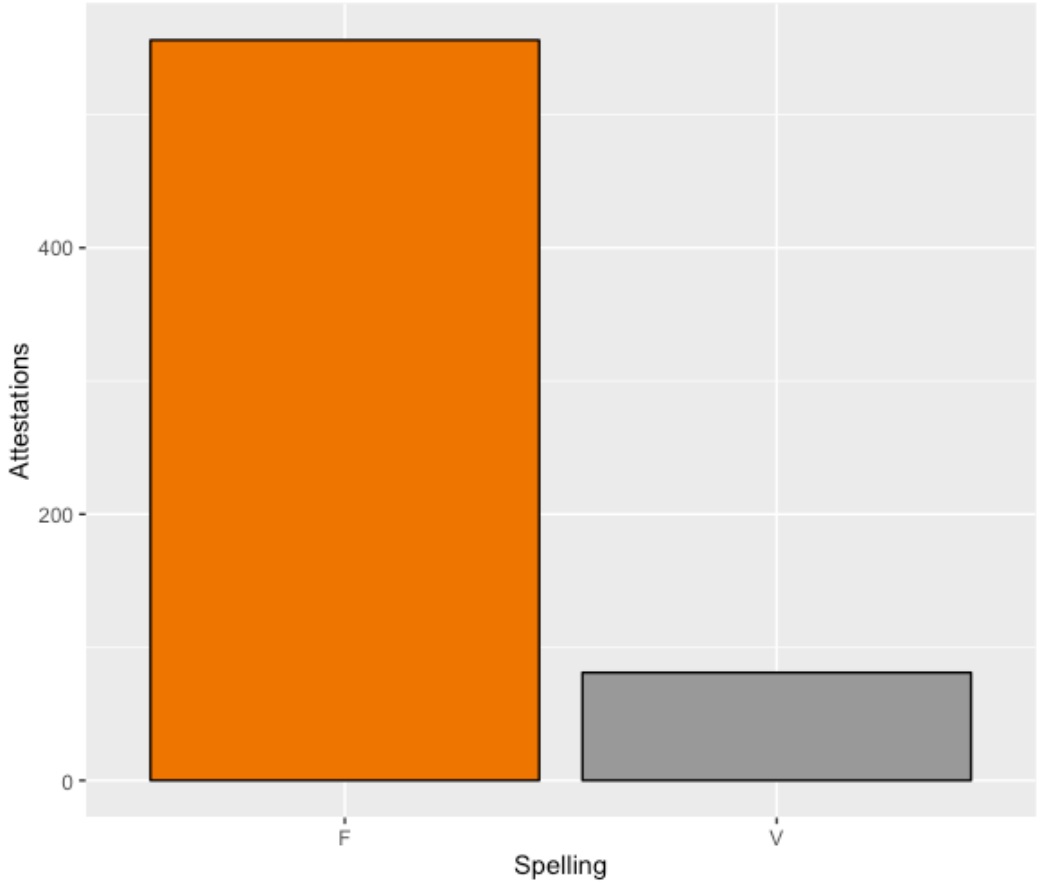
<f>-type spellings <v>-type spellings

Word-final context (ORIGINAL i.e. *lif*-type)

- Etymologically [f]

<f>-type spellings
- for [f], as expected

<v>-type spellings
- for [f] as back-spellings based on *luf*-type
- for [v] by levelling with inflected forms (liv<livis)



<f>-type spellings <v>-type spellings

Pre-inflectional context (*lif*-type)

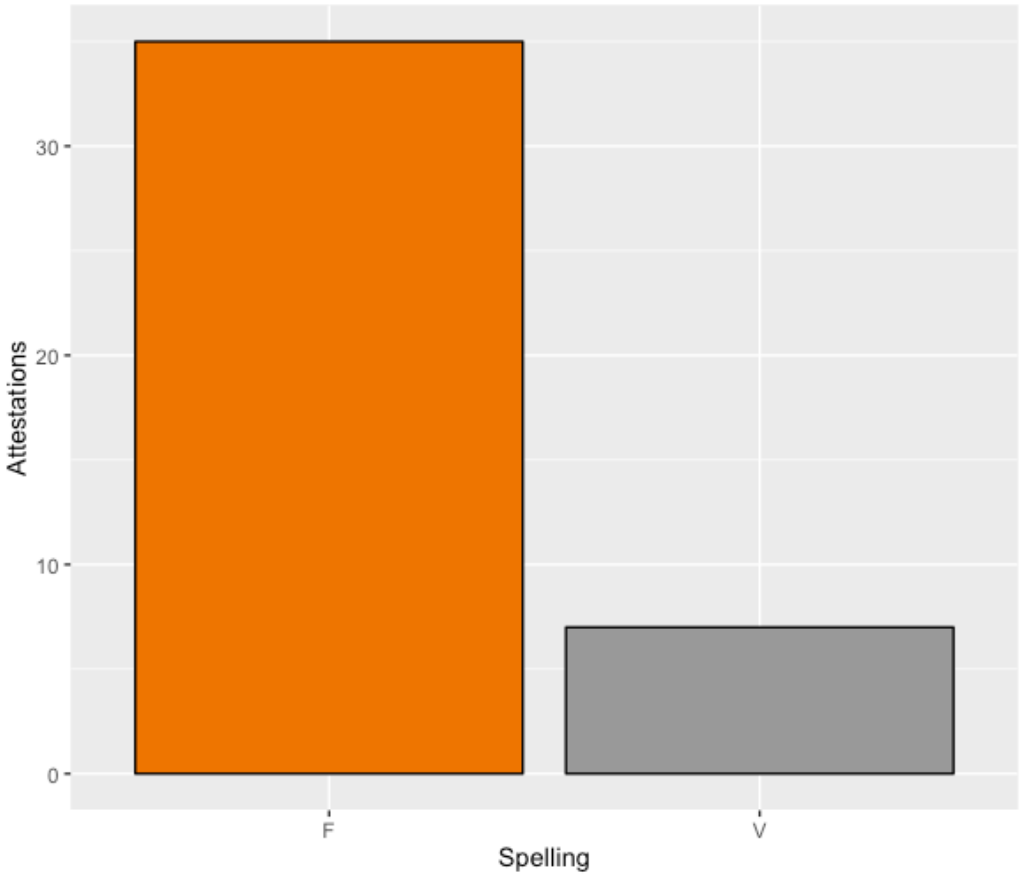
- Etymologically [v]

<v>-type spellings

- for [v] as expected

<f>-type spellings

- [f] spreads from word- to stem-level – via structural analogy (liffis<lif)



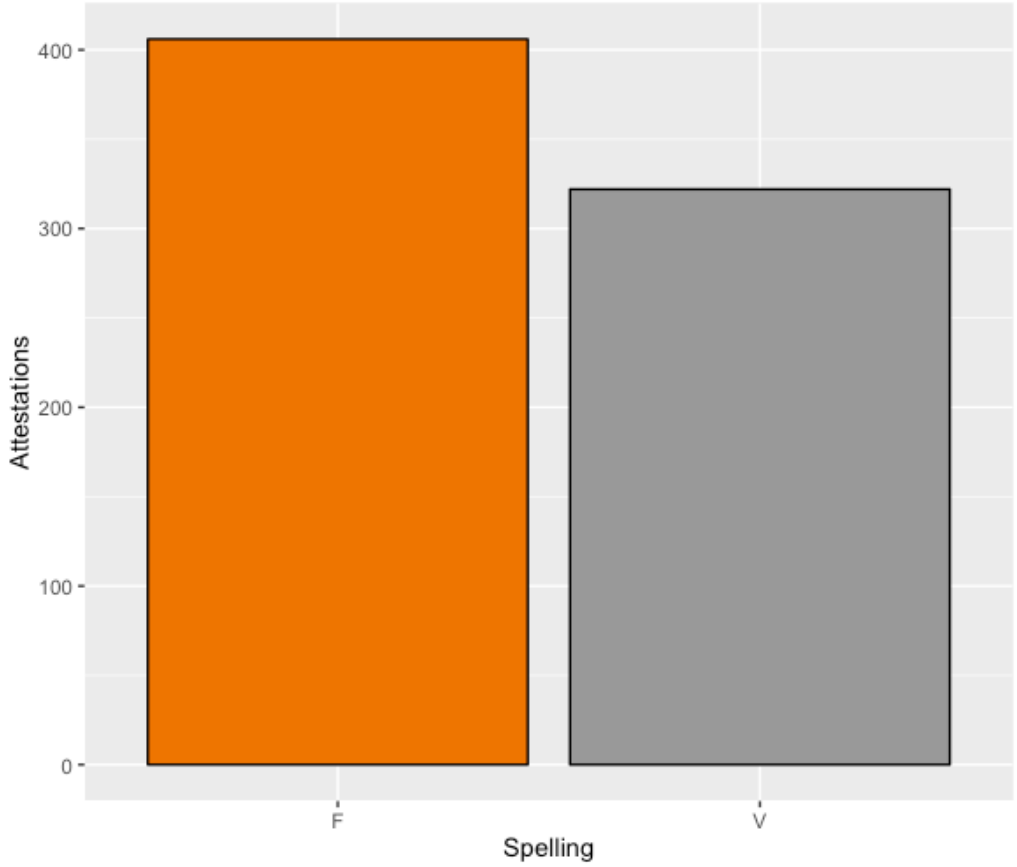
<f>-type spellings <v>-type spellings

Pre-inflectional context (*luf-/gif*-type)

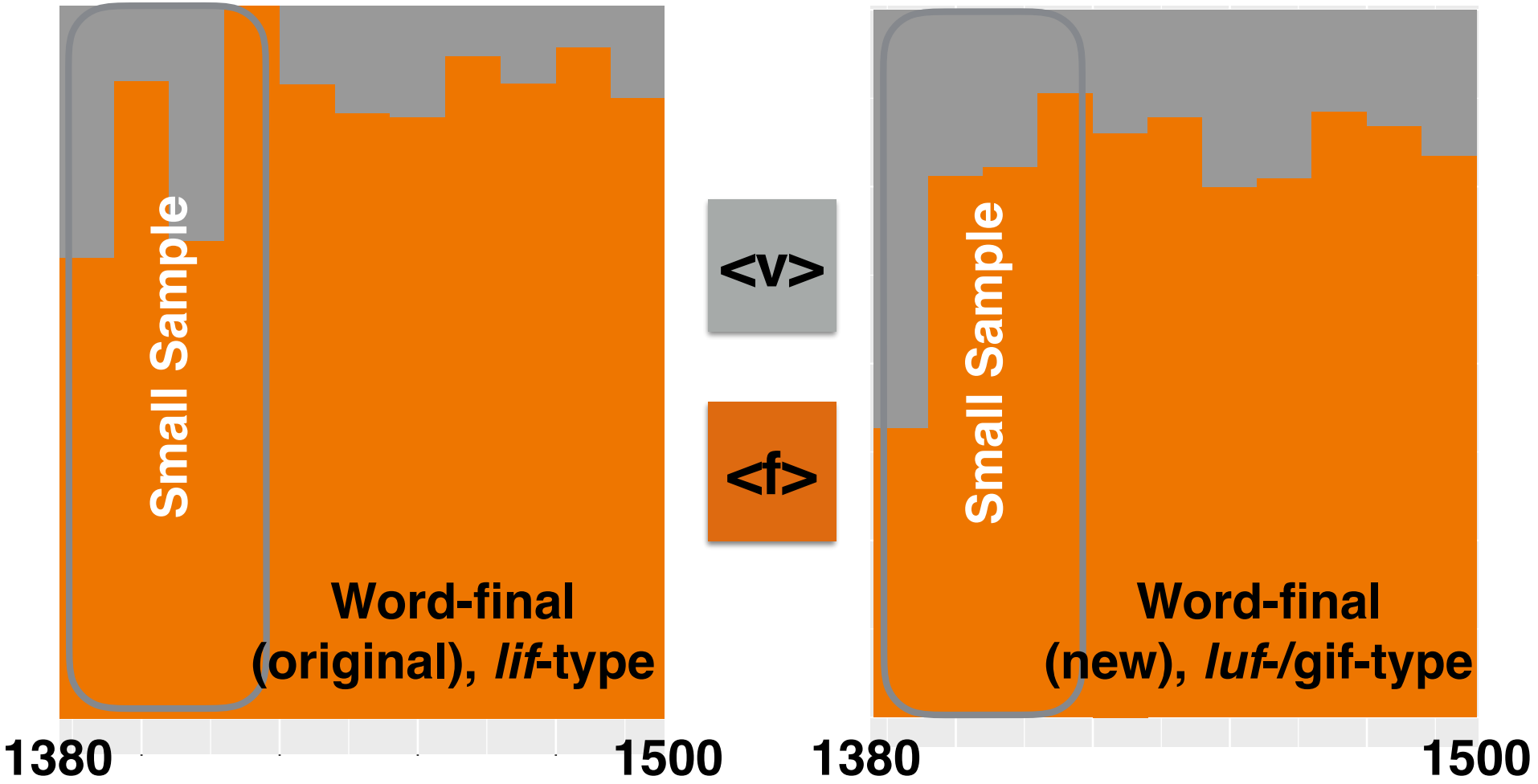
- Etymologically [v]

<v>-type spellings
- for [v] as expected

<f>-type spellings
- Final devoiced [f] (**still in variation with [v]**) spreads from word- to stem-level – via structural analogy

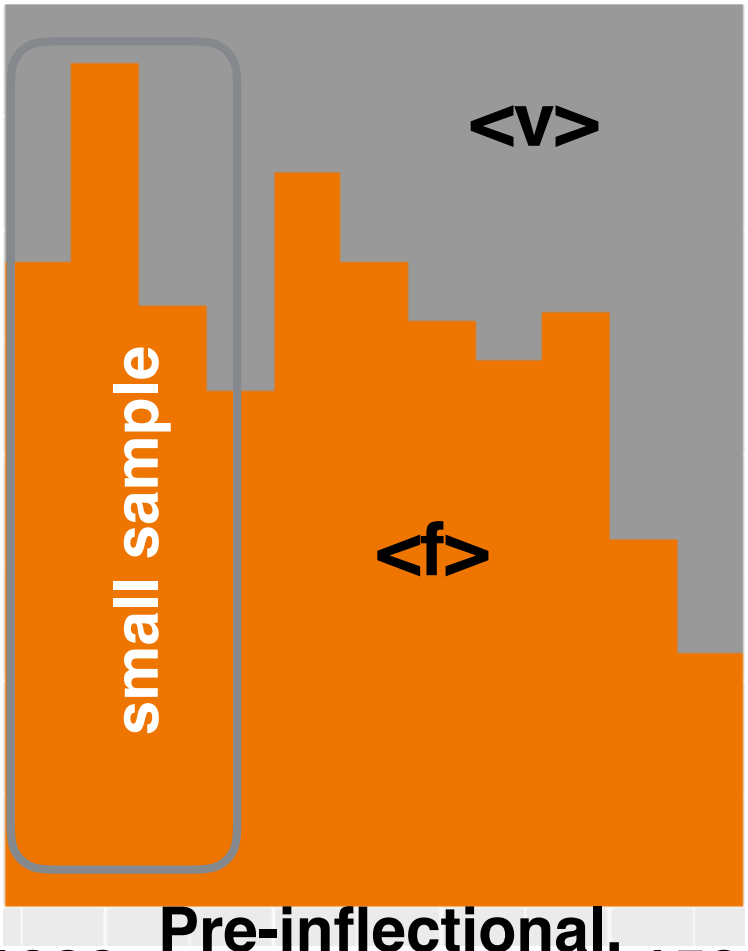


The diachrony of Final Devoicing (FD)



The proportion of <v> vs. <f> type spellings remains stable

The diachrony of Final Devoicing (FD)



Within the LAOS period:

- <v> is on the rise, pre-inflectionally
- Partial analogical spread of [f] to stem-final position is waning
- The pan-Anglic trend to have pre-inflectional voiced fricatives is (re) instated
- This requires lexical diffusion advancing and then retreating, but aligns with present day data

The diachrony of Final Devoicing (FD)

FD enters the Phonology of Pre-Scots

FD begins as phonetic and gradient, fed by apocope

- **[v]~[v̥] word-finally**

It eventually effects a change in phonological category

- **/v/>/f/ word-finally**

/f/, however, probably remained in variation with /v/, as a result of of FD applying before apocope was complete

- **/v/~/f/ word-finally**

The diachrony of Final Devoicing (FD)

/f/ spreads to the stem-level in Pre-Scots

By structural analogy, [f] in uninflected forms levels to inflected ones, spreading gradually across the lexicon

- **[v]>[f] stem-finally**

Structural analogy and lexical diffusion are both non-categorical, so the change is not complete

- **[v]~[f] stem-finally**

Greater proportion of <v> in luf/gif-type (as opposed to lif-type) stems from [f]~[v] alternation in the uninflected forms

The diachrony of Final Devoicing (FD)

Pre-inflectional [f] is replaced by [v] once again

During the 15c pre-inflectional /f/ is again replaced by /v/ for the luf/gif-type words

- **[f] > [v] pre-inflectionally (luf-/gif-type words)**

This happens in a general region where pre-inflectional fricatives are voiced (pan-Anglic pressure)

Based on the present day data, *lif*-type words must have changed back from [f] to [v] pre-inflectionally, as did the *luf*-/gif-type, word-finally.

- **[f] > [v] pre-inflectionally (lif-type words)**
- **[f] > [v] word-finally (luf-/gif-type words)**

Assessing the Final Devoicing account

Pros:

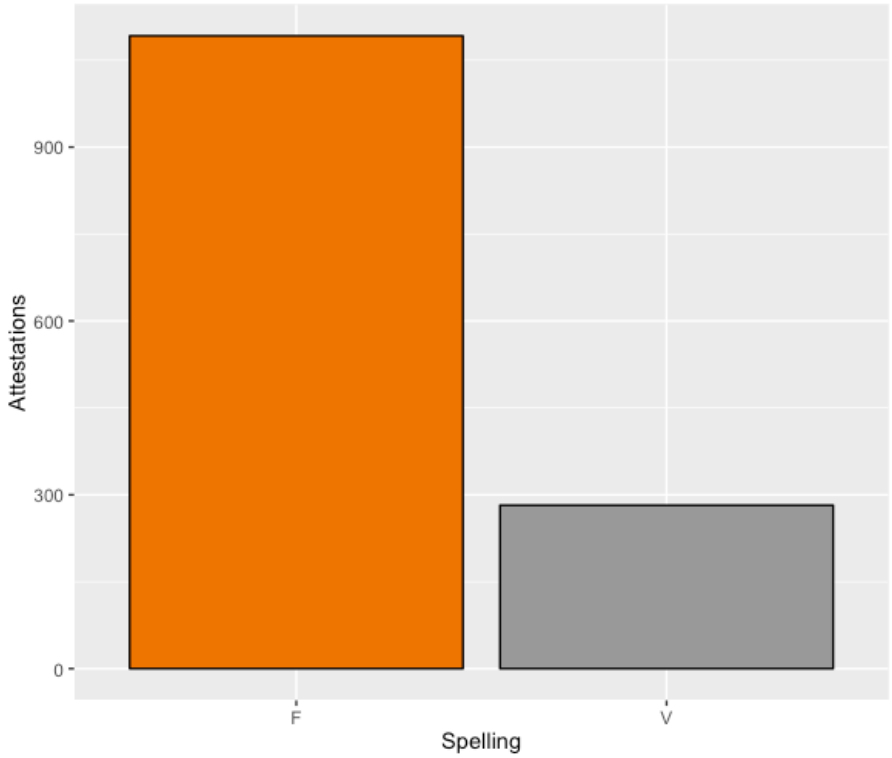
- Is consistent in following a transparent spelling/ sound mapping for all positions of the fricatives
- Follows well attested phonological patterns in the spread of changes (FD, analogy, diffusion)

Cons:

- Proposes a change that does not come to completion and actually retracts (after spreading)
- There are no unambiguous reflexes of FD in present-day Scots.

Should we accept Final Devoicing in early Scots?

- Primary evidence is the preponderance of final <f> spellings for words with etymological [v] (e.g. *luf, gif*)
- Is there another explanation?



luf/gif-type

The alternative to Final Devoicing

- A spelling-only change? I.e. Did <f> come to be used for [v] word-finally and pre-inflectionally?

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- A spelling-only change? I.e. Did <f> come to be used for [v] word-finally and pre-inflectionally?
- Problems:
  - <f> usually represents [f], e.g. *fisch, offer, lif*, etc
  - [v] is spelled <v> elsewhere, e.g. *vicar, sevin*, etc
  - would mean OSc spellings are unreliable

OE /f/ in Older Scots: conclusions

Case study:

- Shows how we identify and handle problems in our segmental histories
- Demonstrates the value of quantitative and qualitative data in the FITS database
- Illustrates how we can use FITS data to test and refine what others have claimed

FITS database:

- Supports claims of final devoicing of /v/ in pre- Scots
- Offers new insights:
  - FITS data suggests devoicing: was variable; spread into new domains; had begun to recede in C15

THANKS!

Additional thanks to: the rest of our team +
Pavel Iosad, Patrick Honeybone, Heinz Geigerich,
Keith Williamson, Meg Laing, Roger Lass and Julia
Fernández-Cuesta

(Refs on request)

Hybrid version: FD **and** spelling change

- Final <f> via FD; pre-inflectional <f> via levelling from word-final <f>
- Treats final <f> as the outcome of FD
  - *Problem*: no unambiguous PD reflexes
- Treats pre-infl. <f> as a spelling development: incipient standardisation?
  - *Problem*: diachronic trend is a reversal of pre-inflectional <f> in 15C
  - *Problem*: undermines our confidence in the phonetic faithfulness of OSc spellings