

LINGUISTICS

OLD ENGLISH FRICATIVE VOICING UNVISITED*

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Things fall apart; the centre cannot hold
– W. B. Yeats

1. The traditional story: Old English

It is a truth universally acknowledged, that voicing was non-distinctive for the Old English fricatives. Voiced and voiceless phones were distributed – in the labial, dental and alveolar sibilant series¹ – roughly this way:

(1) VOICELESS

(a) At Domain Edges

(i) Foot-, Morpheme-Initial: *faran* 'fare', *ge-faren* 'fared' (past participle); *þencan* 'think', *be-þencan* 'consider'; *sēon* 'see', *be-sēon* 'look about', *wyn-sum* 'pleasant'.

(ii) Word-, Morpheme-Final: *wulf* 'wolf', *of-þyncan* 'insult'; *āþ* 'oath', *ūþ-genge* 'evanescent'; *hūs* 'house', *mis-dæd* 'misdeed'.

* It's usual to absolve friends and colleagues from blame for one's mistakes; custom however may be honoured in the breach. The *fons et origo* of this piece of mild lunacy was an evening in Edinburgh, when with the aid of some good wine John Anderson failed to shoot this fantasy down the first time I flew it by him. Later the same week Bob Burchfield reminded me of Virgil, who will have his part to play, but still failed to effect destruction. A general mood of high craziness evoked by the company of Fran Colman and Anne King also helped. Despite all this, the point to be made is a serious one.

¹ The velars are a different problem, and will not concern us here: they do not always survive in the right places, and form no part of the argumentative tradition under scrutiny. The palato-alveolar spelled <sc> seems at first sight also to be irrelevant, as it is supposed to have been only voiceless; but this will prove to be dubious (§ 3). There is, one might add, some argument in support of at least a marginal phonemic distinctiveness for voice in some cases: see Bammesberger (1988).

(b) In Obstruent Clusters

(i) Self-Clusters (geminate): *pyffan* 'puff'; *mopþe* 'moth'; *cyssan* 'kiss'.(ii) Non-self Clusters: *æfter* 'after', *mæst* 'mast'²

(2) VOICED

(a) Foot-medially, Intervocalic: *ofer* 'over'; *oþer* 'other'; *hūsas* 'houses'.(b) Foot-medially, with preceding sonorant: *wulfas* 'wolves'; *ceorfan* 'carve'; *eorþe* 'earth'; *fyrzas* 'furze' (pl), *clānsian* 'cleanse'.

The environments for voicing are sometimes loosely described as 'between voiced sounds' (so Campbell 1959: § 50(1), with some inadequate caveats in fn 2), or 'im Inlaut' (Brunner 1965: § 4(2)); as a case like *wyn-sum*, shows, word-internal position and voiced surroundings may be necessary conditions, but are not sufficient. Here, as modern *winsome* suggests (and cf. *handsel* < late OE *handselen* 'mancipatio', *groundsel* < *grunde-swylige*, earlier *gundæ-swelg(i)æ*), the segment represented by <s> is word-internal and between voiced segments, but is voiceless by virtue of being at an edge, i.e. morpheme-initial. Actually the restrictions and conditions are more complex; the boundary between a base and an inflectional morpheme does not quite count as defining an edge (voicing in *wulf-as*, *hūs-as*), and occasionally derivational boundaries before an inflection may also allow voicing (*cleanse* < *clān-s-ian*: but see Bammesberger 1988). Historically, if the bimorphemic status of a compound becomes obscured, there is also the possibility of junctural voicing in some varieties: while name *Alfred* < *Ælf-ræd* comes down in modern English with the /f/ suggesting the normal development in morpheme-final position, at least some dialects of late OE seem to have suppressed the boundary, as suggested by the form *Alured*, *Aluredi* in the 13th-century 'Proverbs of Alfred' (Jesus Coll. Oxf. MS Arch E 29).

Even leaving aside such details, the layout in (1-2) is phonologically unsophisticated; it avoids a number of problems connected with contrast, neutralization and overlap. A good example is the status of the segment spelled <f> in *leofað* 'he lives', *hafað* 'he has': is this to be assigned to the same phoneme as the <f> in *faran*, *ofer*? Or to the unit spelled in non-medial positions, and <bb> in medial? (Note the absence of intervocalic single in later OE, and the alternations of <f> and <bb> medially, as in the infinitives of the two verbs mentioned, *libban*, *habban*). While these are important issues, they are outside my remit here; I am concerned only with the question of which segments in which positions could properly be said to have been voiced, and which voiceless. (For the interesting and 'deeper' phonological questions, both

² Final geminates could be thought of as derivative cases of ((1.a.ii)), since the second element would be voiceless by position (right-hand edge). The first element would then be voiceless by (b.ii). There appear to be no final geminate dentals. The under-generalisation here is deliberate, as I am not trying to make any serious 'structural' point.

synchronic and historical, see Lass & Anderson 1975: ch. V. and Anderson 1988, which is probably the final word.)

Leaving aside these internal structural matters, the main point is that the distribution of voiced and voiceless continuant obstruent phones in the three articulatory series in question is supposed to have been as laid out in (1-2), and the graphic/phonic correspondences are supposed to have been these:

- (3) <f> = [f] in the voiceless environments, [v] in the voiced;
 <s> = [s] in the voiceless environments, [z] in the voiced;
 <þ/ð> (and earlier <th>) = [θ] in the voiceless environments, [ð] in the voiced.

The bulk of the evidence for this familiar claim (as the examples by and large suggest, and see § 2 below) is in fact from the post-OE period, read back into OE; or at least that's how the standard argumentation most easily reconstructs. In OE itself (on the crucial equivocation 'OE' see § 5), there is not much good internal evidence; and what there is pertains exclusively to the labial series. Still, the conclusion reachable from this material has commonly been projected to the other series;³ it is important, if only for the methodological criteria it makes us think about, and has its part to play in the following argument.

The restriction of OE-internal evidence to the labial series is a function of certain conventional orthographic peculiarities.

First, the symbol <z>, when—rarely—it was used at all, was not the graph of choice for the voiced congener of <s>, but rather a writing for <ts>: *bezt* = *betst*, *milze* = *miltse* (cf. Campbell 1959: § 53; this usage is known in other Germanic traditions as well, e.g. Old High German and Old Icelandic). Hence there was nothing available for writing [z] (if one wanted to); the only (nearly) unambiguous representation for a voiced coronal obstruent was <d>, and this was reserved either for the dental stop or the voiced or voiceless dental fricative (see below). It was of course not beyond the ability of OE writers to invent new symbols if they needed them; the consistent writing of <s> suggests no 'felt need'.

³ Not always to both the dentals and the sibilants. Ellis (1869: 514) for instance recognizes the parallelism of the labials and sibilants; 'the Anglo-Saxons', he says, 'did not then distinguish' [v] from [f]: 'we have reason to suppose' [which he doesn't give: RL] that the letter *f*, like the letter *s*, served the purposes of both hiss and buzz'. The distribution of [θ, ð] however is not clear to him: owing to 'the confused state of the existing manuscripts' (i.e. the irregular use of <þ> and <ð>) Ellis interprets the OE values on the model of contemporary Icelandic. Since in his estimation this is the most conservative Gmc dialect, and the only one still using <þ ð>, and has initial <ð> = [θ] and final and medial <ð> = [ð], 'we should not be justified in pronouncing pure Anglosaxon [sic] in any other way' (515-16).

In the dental series, voicing could not be clearly represented because the main controls on the usage of <þ, ð, th> tended to be word-position, independent of (putative) phonetic exponency—and different in different scribal traditions. So in the Moore Bede (Campbell 1959: §57(5)), <th> is generally used for the dental fricative in initial position, and <d> elsewhere. And in the first 120 lines of the Exeter Book 'Christ I', according to my count, the following distribution of <þ> and <ð> obtains: initial, 83 <þ> to 6 <ð>; medial, 13 <æ> to 21 <ð>; final, only <ð>. Thus there is an overwhelming preference in initial position, a categorial necessity in final position, and more freedom medially. And note that the exclusive final <ð> and over-whelmingly preferred initial <þ> represent categories thought to be voiceless.

The one case where there was a non-velar obstruent graph that could clearly be assigned to a voiced category only—at least in early OE—was the labial series: could apparently represent only a voiced phone, certainly a fricative, and most probably a stop as well—though the latter is not entirely clear at the time of the earliest texts. At any rate, the only place where both early OE usage and historical development within the OE period gives us any interesting evidence is with the labials; I turn now to the most important indications supporting the traditional position.

(i) Early spellings for categories later spelled <f>

These are common in the 8th-century Mercian glossaries (Corpus, Erfurt, Epinal), less so in Northumbrian texts of the period; in the South they occur in some Kentish charters of the 9th centry. Brunner (1965: §191) cites examples from Kentish charters of 831-2, and a few late ones from West Saxon; Cura Pastoralis *næbre* 'never', *weobud* 'altar', and some from Genesis and Exodus.

The spellings are found, interestingly, mainly in those (non-initial) places where what later traditions write <f> is interpreted as meaning [v] (I deal with one unproblematic exception below). That is, in foot-medial position; so Corpus *eobor* 'boar' glossing *aper*, Epinal/Erfurt *hraebn* glossing (*nycti*) *corax*, Corpus *beber* 'beaver' (*castorius*), *teblae* 'die' (*alea*).⁴ The later spellings are typically *eofor*, *hræfn*, *beofor*, *tæfl*. These represent one of two etymological categories: either late medial voicing of Gmc */f/ < IE */p/ (*eobor*, cf. L *aper*; *hraebn*, cf. Skr *krpatē* 'he laments'); or Gmc */β/ < IE */bh/ (*beber*, cf. L *fiber*; *teblae*, cf. L *tabula*).

Some spellings appear where later OE <f> is interpreted as meaning [f], but only finally, and only as a reflex of devoiced Gmc */β/ < */bh/: so Corpus *tyrb* 'turves' (*cespites*), *staeb* 'staff' (*olustrum*): cf. Skr *darbhā* 'tuft of grass', Latvian *staba* 'pillar'. Most important, does not appear for what is later spelled <f> initially: this holds both for Gmc */f/ < */p/ (Corpus *foeging*

⁴ All citations from glosses and inscriptions from Sweet (1885).

glossing *junctura*, cf. L *pāx* as an example), and Latin loans in <f-> throughout the OE period (see below). They also never appear in clusters, or for later <ff>. Especially significantly, <f> already occurs in these early texts in the medial contexts: so <b~f> in Corpus for 'even': *ebnwege* (*aequipensum*) and *efnum* (*aequatis*).

So appears just where later <f> is presumed to represent [v], and where the post-OE historical evidence points that way as well (e.g. *raven*, *beaver*); or where later <f> is presumed to represent an [f] from final devoicing of an earlier voiced fricative (whether [β] or [v] is immaterial), as in *staff*. The roots of the later tradition of writing <f> everywhere are clear in this early material; indeed, the glosses are rather conservative, as the OE runic inscriptions of the same period already use the /f/-rune everywhere: Ruthwell Cross *heafunaes* 'heaven's', *hlafard* 'lord' as well as *fearran* 'from afar', *fore* 'before'.

It seems then that by the 8th century, whatever the reflex of IE */p/ had become medially in the foot, it was both perceptually different from the reflex initially or in gemination, and either identical or as close as made no difference to that of IE */bh/. And the choice of for the medial graph seems to suggest voicing in any case.

(ii) The Spelling of Latin /f/ and /v/

Loanword spellings are an important part of the interpretive package as well; here again, because of the orthographic peculiarities mentioned above, only the labials are evidential. The OE spellings of the relevant loan-categories are best understood in terms of a series of late Latin phonological developments, which I will sketch out here (for details see the discussions in Campbell 1959: ch. X, and especially Pope 1934: §§ 155, 189, 31-5).

The default case is L initial /f/, which comes down unchanged into Late Latin and the early Romance dialects: so OE *fīc* 'fig' < *ficus*, *fals* 'falsehood' < *falsum*, *facele* 'torch' < *faculum*. This is uniformly spelled <f> in borrowings of whatever date.

The Latin labial series underwent some drastic reorganization in the Late Latin and Gallo-Romance periods, largely through a series of strength-changes: one initial fortition and a set of medial lenitions, giving these results in borrowings into OE:

- (a) L /w/ (spelled <u, v>) > [β] in all positions, later [v]; in early loans this is spelled <f>. So *Fergilius* 'Virgil' < *Vergilius*, *Fulcania* < *Vulcania*, *fers* 'verse' < *versus*, *fann* 'fan' < *vannus*, *earfe* 'tare' < *ervum*, *salfie* 'sage' < *salvia*. That the initial <f> represents phonetic [f] is suggested at least by modern /f/ in *fan*; *verse*, *Virgil* may be assumed to be later borrowings from French or Latin, or—a point I will make a meal of in § 5—from certain dialects of OE

other than those in any kind of lineal relation to the ME dialects of the East Midlands.

In later periods (up to about the 6th century), intervocalic /b, p, f/ lenited, eventually merging in [β], later still [v]:

(b) L /-f-/ > [v]: OE *scrofel* < *scrofula*, *cerfille* 'chervil' < *cherefolium*. Modern English evidence is of no import here; *scrofula* is clearly a later borrowing from the written form, as we can see from the medial <f> and final <a>, *chervil* has, like most OE medial <f> = [v] forms, been respelled (if not in fact reborrowed).

(c) L /-b-/ > [v]: *fefor* 'fever' < *febris*, *trifolian* 'grind' < *tribulāre*, *eofole* 'danewort' < *ebulus*. Some forms of this origin occur early with , as we saw above (e.g. *taebel*). There are a few later forms as well, but these are probably 'Latinisierende Schreibungen' (Brunner 1965: § 191, Anm 2): e.g. CP *diobul* 'devil', *febbres* 'fevers'.

(d) L /-p-/ > [v]: *prafost* 'officer' < *praepositus*, *cæfester* 'halter' < *capistrum*, *cufel* 'vessel' < *cupella*. Modern *provost* is a respelling or reborrowing.

As with the spellings for native lexis, these developments support a view that whatever the history, there's only one phonological category involved in OE. If say an OE phoneme /f/ is realised as [v] foot-medially, but [f] at domain edges and in clusters, then the spelling <f> would suffice, since its interpretation would be unambiguous. The general principle is of course the simple one that if two phones are in complementary distribution, a single graph will be sufficient for spelling them. The principle can also account for such spellings as *Fergilius*, *fers*, and their phonetic interpretation: since, goes the traditional argument, [v] could not appear initially in OE, Latin loans in [v-] had [f] substituted 'in accordance with the OE sound-system' (Campbell 1959: § 539). We will see later that the same interpretive principle allows for a quite different assessment of *Fergilius* and *fers*—not to mention *faran*.

(iii) Late Nonconventional <-u-> for <-f->

The famous case is *hliuade* 'it towered' at Beowulf 1799, for expected *hlifade* (this spelling too occurs at 81, 1898). There are two forms of the same type in the Vercelli Book poems, *eaueðum* 'strength' (dat pl) at *Andreas* 142, and *begrauene* 'buried' at *Elene* 835, and <u> for <f> medial is 'common in the prose parts of the Vercelli MS' (Brooks 1961: 68, also citing the *Beowulf* and *Elene* examples). This usage appears to begin in the later 10th century (Brunner 1965: § 194), and is still variable two centuries later.

On the usual interpretation, which I remember hearing from my teachers almost thirty years ago, this represents a kind of 'phonetic spelling': presumab-

ly a scribe who knew that <u> was used for the sound [v] in Latin words, and in a moment of inattention or heightened phonetic acuity (take your pick) wrote the word as if he were writing Latin. (On initial <u> for <f>, which is quite a different matter, see §§ 4-5).

The story told in somewhat excruciating detail for the labials has usually been transferred whole-hog to the others (though see the comment on A. J. Ellis in note 3). If, as the evidence suggests, <f> = [f] initially, finally and in geminates and clusters, and [v] (foot)-medially, then <s> in the same way represents [s, z] and <þ, ð, th> represent [θ, ð].

2. The traditional story: Modern English reflexes and the phonemicization of /v, z, ð/

Of course it's misleading to take the purely orthographic material discussed above as our strongest evidence. It isn't, but I do think that unpacking possible ways of interpreting it is of use, and it is clear that this kind of thinking is an important part of the (largely implicit) tradition of believing in a particular distribution of voiced and voiceless fricatives in OE. As I suggested at the beginning, however, the clincher—what every account based on a display like what I began with ultimately relies on—is the post-OE developments, the 'modern reflexes' of OE forms associated with or defined by particular spellings. (The reason for this circumlocutory extravagance will become clear later on). At the risk of yet more tedium I will unpack this material with childlike explicitness (is the Emperor clothed or not?), as its import may just not be quite what we like to think it is.

The ModE evidence is at first sight unequivocal, and consists mainly of /v, ð, z/ where OE is supposed to have had [v, ð, ʒ], and /f, θ, s/ where OE is supposed to have had [f(:), θ(:), s(:)], as in the following:

(4) VOICELESS

Initial:	OE	fisc	þencan	singan
	ModE	fish	think	sing
Geminate:	OE	pyffan	moppe	cyssan
	ModE	puff	moth	kiss
Cluster:	OE	æfter	—	mæst
	ModE	after	—	mast
Final:	OE	wulf	āþ	hus
	ModE	wolf	oath	house

- (5) VOICED { OE ofer, wulfas; oþer, furþor; hūsas, fyrsas
 ModE over, wolves; other, further; houses, furze

An inspection of (4-5) makes it clear why the allophony traditionally claimed is generally assumed: the modern reflexes simply could not be what they are without it; nor, looked at the other way round, could the OE spellings (of all sorts) have been what they were under any other conditions. There are however some hiccups that need a bit of discussion, in order to account for apparent 'exceptions'.

(i) There are numerous word-final voiced fricatives in ModE words of OE origin, where the etyma at first sight would imply voicelessness. The problem is both raised and solved, in principle, by my presenting as the origin of *furze* not the OE singular type *fyrs*, but the plural *fyrsas*; the modern word most likely descends from an OE oblique, hence placing the /s/ properly in an intervocalic position, which after ME loss of final unstressed vowels left a final [z] (see below). This is not uncommon: the long vowels in *seal* (the animal), *mare* for instance imply descent from oblique *sēoles*, *mēares* (or, if the OE forms had short vowels, ME ones with open-syllable lengthening), rather than nom sg *seolh*, *mearh*: cf. short-vowel remnants in Scots *silky*, and *marshall* <*/marx-skalk-a-z/.

A more widespread instance is the preterites of strong verbs; for instance class I pasts like *drove*, *shrove*, *rose*. Since the segments in question were final (OE *drāf*, *scrāf*, *rās*), we should expect ModE **droaf*, **shroaf*, etc. The forms we do have are apparently remodellings after the pattern of the voiced present, preterite plural and participial forms (e.g. *drīfan*, *drifon*, *drifen*); as Luick put it (1964: § 652), in these verbs 'überwogen bei weitem die zwei- und mehrsilbigen Formen und es wurde daher die stimmhafte Spirans durchgeführt'. The same reasoning holds for the voiced finals in nouns like *glove*, *grave*, *hive* <*glōf*, *græf*, *hȳf*; indeed the long vowel in *grave* (cf. *seal*, *mare* above) is only explicable on the grounds of ME open-syllable lengthening of a disyllabic original: hence the origins of these can't be nominative singulars (= for the most part bare stems), but must be oblique forms. Other monosyllables of OE origin in final /v/ (*give*, *love*, *believe*), /ð/ (*seethe*, *bathe*—in varieties that have the original type /berð/ and not zero-derived /bæθ/ or /bɑ:θ/), and /z/ (*freeze*, *lose*, *rise*) are explicable in the same way, as the results of suffix-loss through ME loss of final nasals and later final /ə/: cf. originals *giefan*, *lufian* (the same for the noun *lufu*), *belēafan*, *sēoþan*, *baþian*, *frēosan*, *lēosan*, *rīsan*.

There are also some cases of voiceless fricatives where voiced ones would be expected: good examples are *belief* (first noted in the 12th century as *bileafle* < OE *gelēafa* with change of prefix, or indeed an unattested **bilēafa*), *sheriff* < *scīr-gerēfa*. In both these cases the source of /f/ is problematic: Onions *et al.* (1966) account for the voiceless finals by saying that 'loss of the final syll.

resulted in unvoicing of the final cons.' (s.v. *believe*), or 'loss of final *e* and consequent unvoicing of *v* (s.v. *sheriff*). If this relation is really 'causal' (as the terms 'resulted in' and 'consequent' might imply), we have a new minor *Lautgesetz*, which counterpredicts *love*, *give*, *have*, *lose*, and all the other cases cited above. I have however nothing better to say.

(ii) There are voiced initial /ð/ where OE ought to have had (and indeed probably did—for the most part have) [θ]: *the*, *this*, *that*, *these*, *those*, *thy*, *thine*, *thee*, *thou*, *though*, *then*, *thence*, *thither*, *there*, *thus*; or where Scandinavian loans into late OE are presumed to have had them (*they*, *their*, *them*). These are commonly interpreted as a result of ME voicing in weak position (so Luick 1964 cf. Lass, Fthc. a) — a later innovation that wrecked the OE pattern. They are however members of two closed grammatical classes: either deictic or conjunctions; initial /ð/ may be taken as a kind of 'lexical prosody' marking these classes.

In all other ModE words, initial <th> represents either: (a) /θ/ < OE or Scandinavian /θ/ (*think*, *thank*, *thief*, *thane*, *thaw*, *Thor*); (b) /t/ in foreign words (*thaler*, *Thomas*, *thar* 'Himalayan antelope', or (c) /θ/ as a spelling-pronunciation of Latinised or Frenchified Greek loans in <θ> (*thallium*, *thesis*, *theory*, *therapy*, *throne*, *thurable*); or in one case a spelling-pronunciation of a transliteration from Devanagari (*thug* < Hindi *thag*).

(iii) There are voiced final /z/ in verbal present 3 sg, noun plurals, and genitives: *goe-s*, *ride-s*, *boys/boy's/boys'*. This is the result of a kind of mirror-image of the voicing of /θ/ discussed above, and begins in late ME, though it is not completed until well into the 16th century (voicing after voiced stem-finals and vowels and in the ending -es after sibilants is still unstable as late as Hart 1569, cf. Lass, Fthc. b).

Writing /v, ð, z/ for ModE indicates the structural evolution that has taken place since OE times: voiced and voiceless fricatives are no longer in complementary distribution, but are now phonemic (if in the case of /θ/: /ð/ rather marginally): *few/view*, *thigh/thy*, *seal/zeal*, etc. This restructuring seems to have come about through the agency of a number of developments; most have been at least hinted at above, but it may be useful to put them all together:

(a) *Initial Contrast*. This was established for the dentals by the voicing in *the*, etc.; for the other series through borrowing. The relevant early loans are mainly French, which introduced initial /v, z/: *virgin*, *view*, *zeal*, *zodiac*, and the like. There was also some borrowing into the dialects ancestral to the modern standard varieties of items from dialects with initial voicing at least of /f/: *vat* (cf. attested OE *fæt*), *vixen* (cf. *fyxen*), *van* (cf. *fann*), *vane* (cf. *fana*); this class also includes some French loans in historical /f/ which seem to have come down at

various times through English dialects of this type: notably *veneer*, *vent*, and *vial*.

(b) *Medial Contrast*. This is largely the result -in native words- of late ME degemination. By c. 1400 anyhow geminates had simplified (cf. Kurath 1956, Lass, Forthcoming a), so that the OE and earlier ME contrast of the type [ff-]: [-v-] were now replaced by [-f-]: [-v-]; hence direct opposition of voiceless and voiced single fricatives in this position (*over*<*ofer* vs. *offer*<*offrian*).

(c) *Final Contrast*. This was brought about for all series by loss of /-ə/ in late ME, which exposed original voiced medials in final position (at a point when there was no active terminal devoicing of the type that resulted in OE *stæf*<*/staβ-/</stabh-/: cf. §1). The scenario can be illustrated at its most complex by the history of the verb *love* (OE *lufian*) into late ME:

(6) luvian > luvien > luven > luve > luv

This group is of course added to by analogical strong preterites (*drove*, *rose*), and - for /z/ - by the voicing of /s/ discussed above in verbal present 3 sg, genitives and plurals.

Indeed, virtually all native voiced fricatives are from sources (b, c), or continue original voiced ones in non-edge positions. The rest, specially initial, are from foreign sources, and mostly 13th century or later. Sources of /v/ include other Germanic languages (NGmc *Valhalla*, *Valkyrie*, *voe*, *vole*, *Viking*, German *vaseline* < *Wasser* + Gr *ē* λ- 'oil' + -ine); Latin (*vacant*, *vaccine*, *vagina*, *vertigo*, *verbena*); Romance (French *vice*, *victory*, *vale*, *vermin*, *very*, Spanish *vamoose*, *vanilla*, *vaquero*, Portuguese *verandah*, Italian *vendetta*, *vermicelli*, *vibrato*, *volcano*); Indic (Sanskrit *veda*, *vedanta*, Hindi *vina*); Slavic (Russian *verst*, *vodka*); as well as non-IE borrowings, e.g. from Turkish (*vizier*), Hungarian (*vampire*), an unidentified Caribbean creole (*voodoo*), Quechua (*viscacha*). Other /v/ occur in proper names of various origins like *Venice*, *Vienna*, *Valparaiso*, *Valencia*, *Venda*, and eponyms (*Vernier* (scale), *Very* (light)).

For /z/, the most important source is Greek (*zeal*, *zed*, *zephyr*, *zeugma*, *zoology*, *zone*), followed by some problematic Romance loans like *zenith* (OF *cenith*), *Zion* (L *Sion* < Heb *tsiyōn*), where the origin of the /z/ is obscure; as well as regular developments like *zodiac*, *Zouave*, Italian *zany*, *zero*. From other Germanic languages there is only *zinc* (German); this, like the eponymous *zeppelin* and *Zinnia* shows an English spelling-pronunciation of G < z>. Other items include *zebra* (unidentified Bantu source), Nguni Zulu, Hebrew *zohar*, and the obscure ('imitative', 'expressive' or whatever) *zip*, *zig-zag*, *zilch*, *zoom*. For both /v/ and /z/ there are a couple of native or semi-native derivations by aphaeresis: *varsity* < (uni) *versity* with the old /er/ > /ar/ change, *Zounds* < (by God's) *s(w)ounds*, (Gad) *zooks*.

The story so far isn't much more than an unusually explicit version of the familiar, if with perhaps a few newish perspectives; it is meant to be cautious, a bit sceptical and uneasy, perhaps, but not contentious. That is still to come.

3. *Zummerzet* extended: how far North be there voiced fricatives?

In the last section I gave a more or less standard version of how the 'canonical' OE voicing alternation (1) got restructured into today's phonemic contrast. This is not however the only type of evolution that has been posited for 'original' /f, θ, s/ (the reason for the scare-quotes will be clear in §4). Middle English and modern evidence (and one OE form that I will discuss later) virtually insist that there was another type of development as well: the familiar but still controversy-ridden and ill-understood initial voicing whose relics are now stereotypical for rural West Country dialects ('*Zummerzet*').

As of the 1950s, at least some instances of [v, ð, z] for assumed historical [f, θ, s] in initial position could be found in an area bounded on the north by a line running roughly from the southeast corner of Herefordshire down through Gloucestershire, Worcestershire, Hampshire and the western edges of Surrey and Kent (with a tiny island in east Sussex), and bounded on the south by a line running roughly through mid Cornwall (St Ewe, a bit southeast of Truro). Within this area, according to the records of the Survey of English Dialects (SED), there is extensive -if variable and lexically specific- voicing: so [v] in *farmer* VIII.4.7, [z] in *six* VII.1.5, [ð] in *thumb* VI.7.6; and, importantly, [3] in *shilling* VII.7.5.⁵ According to the SED materials, the distribution of voiced initials is as shown in map 1 below.

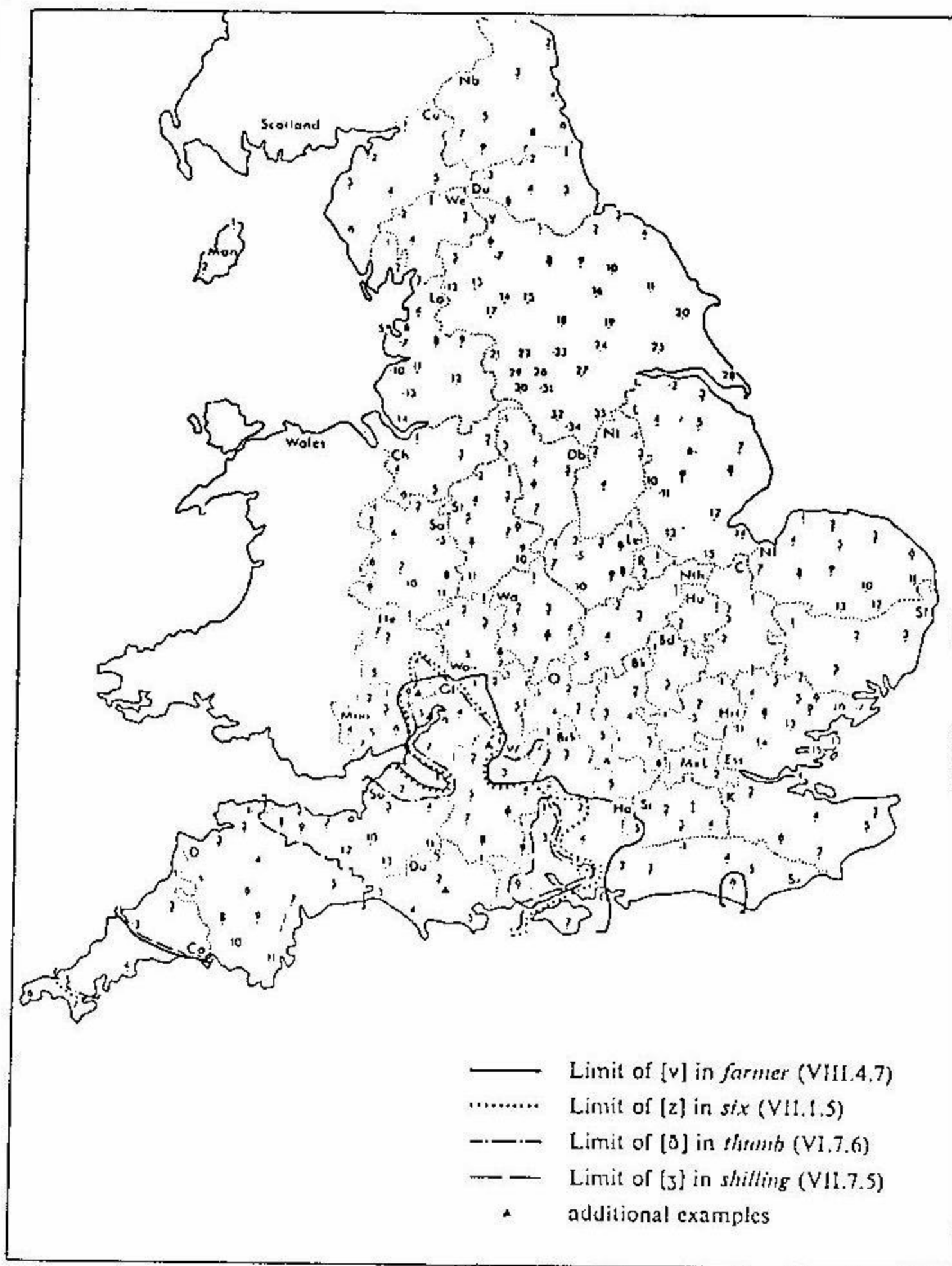
This clearly represents the relics of a formery much more extensive distribution: there is ME evidence for voicing throughout Kent and the Southeast generally, and for an extension of the northern boundary well up into West Midlands (see below). But some serious interpretive problems remain:

(i) How extensive was the voicing phonologically? I.e. did all fricatives (/f, θ, s/ and even /ʃ/) participate? In any case, was the voicing general for all lexical items in the dialects that had it?

(ii) When did the voicing begin? Is it as late as the existing documents suggest, or was it perhaps earlier-even centuries earlier, and maybe even 'original'?

Question (i) actually suggests another, and both can perhaps be seen as parts of a single question:

⁵ For the actual material see Orton & Barry (1969) for the West Midlands and Orton & Wakelin (1967) for the South. Further discussion in Wakelin (1975: ch. 5), Lass (1987a:5.2), Fisiak (1984) and the text below.



Map 1. Initial fricative voicing in the SED records (Wakelin 1972: 93)

(i') How extensive was the voicing in any given region?

(i'') Did all regions show the same pattern, i.e. either variant or invariant attestation, or the same (sub)set of fricatives involved?

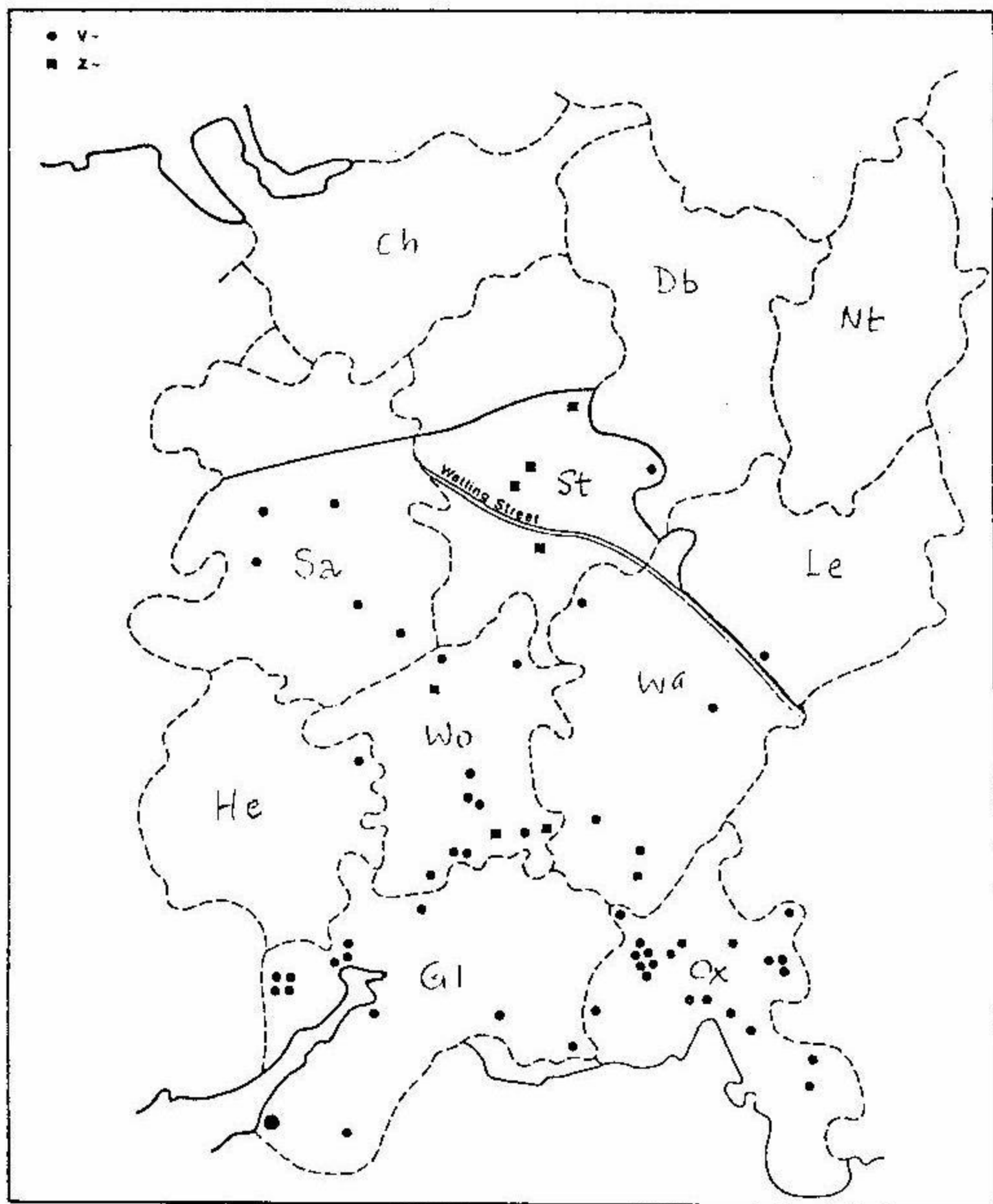
I will attempt to deal with (i', i'') in this section, and will take up (ii) in §4 below.

We must note at the outset that there is no widespread consensus on these issues, though some opinions are less maverick than others. The discussion at least of (i) was until fairly recently in some disarray, with very little in the way either of new work or synthesising discussion; this has now been remedied by the masterful overview in Fisiak (1984), which takes account not only of traditional sources, but of important new work as well. Fisiak's treatment will be starting point, if implicitly; its impress will be clear in much of what follows.

The distribution in map 1 is a classic picture of isogloss recession; if we had no other evidence, that little Sussex enclave of voiced /f/ would raise the suspicion that voicing once had a much wider geographical range (see Appendix). And indeed, the Middle English materials show precisely this-though they are in many ways hard to interpret. (Much harder in fact than the rather positive interpretation in the handbooks suggest, as we will see.) Perhaps the worst difficulty is that whatever direct evidence there is covers only /f/ and /s/. The reason for this seems to be similar to that for the restriction of OE evidence for medial voicing to the labials (§1): orthographic convention. That is, while virtually all ME spelling traditions after about 1150 had devices for indicating voiced labial fricatives (<u/v>) and voiced sibilants (<z>), there was no way of indicating [ð] (there still isn't), or [ʒ] – if it existed.

The ME evidence for voiced initial /f, s/ shows different things, depending on what sources one uses, and – to a certain extent – what one takes them to mean. The standard picture based on literary texts shows a sharply discontinuous distribution of initial <u/v> and <z>: in the usual handbook picture spellings indicating [v] appear in the S, SE and SW and part of the SWML from quite early on, but indications of [z] are restricted to the SE, and there only from the mid-14th century. There is also one <z> spelling from Gloucestershire (Jordan 1968: §214), the form *izode* 'scethed'. The question is how one is to evaluate a picture like this: what is the value of a single form, or even a scatter of forms showing a particular spelling? I will return to this further consideration of the basic ME geographical evidence as we now see it.

The regional picture sketched above changes considerably if we go beyond the usual literary sources, and look for instance at onomastic materials. For example, according to names collected from the Subsidy Rolls by Gilles Kristensson (1987), both <v> and <z> for presumed original /f/ and /s/ appear in the WML as far north as central Staffordshire (see map 2 below).



Map 2. Initial fricative voicing in the West Midlands (Kristensson 1987: 247; county names added for convenience)

Among the examples for <v> adduced by Kristensson are the following from WML counties (1987: 205):

SHROPSHIRE: *Vaston* <fæst(en)-tūn (1327), *Veyr* <fæger (1327), *Boleuych* = **Boleuyinch* = 'Bullfinch', OE -finc (1327).

STAFFORDSHIRE: *le Valang* <OE fælging 'ploughed land' or fælling 'clearing' (1332)

HEREFORDSHIRE: *Yedeven* (1332), second element OE *fenn*.

WORCESTERSHIRE: *Foruelde* (1327), 2nd element OE *feld* (note the modern name *Fairfield*, which shows the spread of 'standardlike' /f/); *Le Vithelere*, *le Vythelar* (1327) <OE fiðelere; (le) *Vynch* (1327) <OE fync.

WARWICKSHIRE: *Atte Venne* (1332); *le Vorn* (1332) <OE or ON *forn* 'trout'.

LEICESTERSHIRE: *le Veer* (1327) <OE gefēra.

GLOUCESTERSHIRE: *atte Vairoke* <OE fæger (1312); *atte Venne*, also *le Vennare* (1312); *le Veltare* (1312) <OE felt 'felt'; *Vischar* <fiscere (1312).

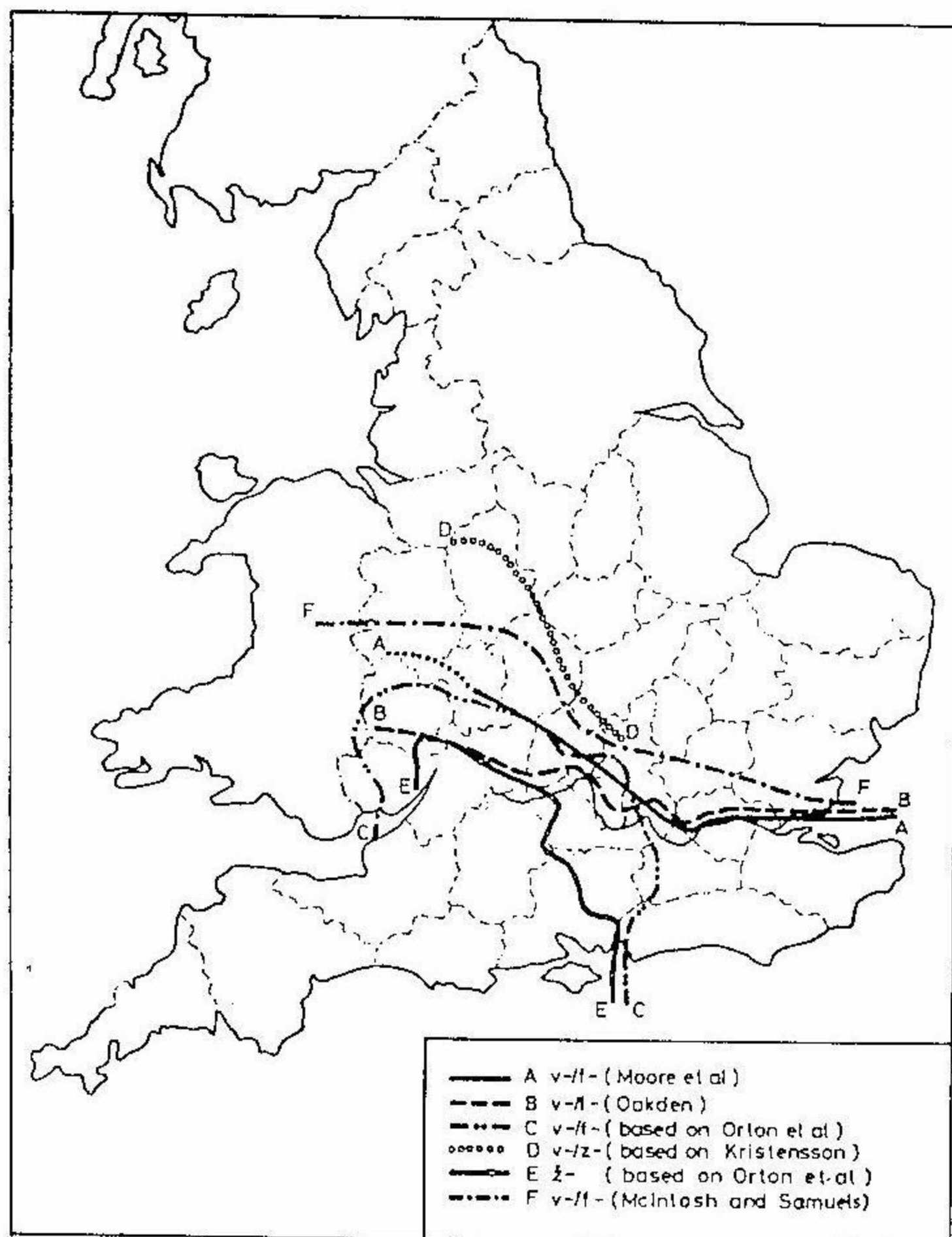
OXFORDSHIRE: *atte Venne* (1316), *le Venner* (1327); *le Vinch* (1316), *le Vischere* (1316); *le Vithelere* (1327); *le Vole* (1316), *le Voul* (1327) <OE fugol; also *le Vouler* (1316); *le Vrend* <OE frēond (1316).

Examples of <z> are much rarer; Kristensson has only a few from Staffordshire and Worcestershire, all apparently containing the same element, OE *sælig*: *St Zalewy* 1327, *Zelymon* 1327, *Wo Zely* 1327, *Zelimon*. A number of both the <v> and <z> forms appear with <f> or <s> variants: *le Voul/le Fowel*, *le Vrend/le Frende*, *Zelimon/Selimon*, *Zalewy/Salewy*.

Assuming that these etymologies are no more tendentious and shaky than name etymologies usually are (cf. Lass 1973), we can take this scatter of forms as evidence for the 'northern limits of voicing' (whatever that means: see below). Putting this together with previous [f]/[v] isophones drawn by Moore *et al.* (1935) and Oakden (1930) for earlier ME, and McIntosh & Samuels (1986) for later ME, as well as the SED records, Fisiak has produced a useful composite map, illustrating both the putative ME limits of voicing, and the modern relic distributions (including [ʒ] </j/; 1984: map 4). This is reproduced as Map 3 below.

If these maps fairly accurately represent the ME situation and its modern outcome, it's obvious that the usual view of initial voicing as 'southern' is off the mark: 'southern and western' would be better, since the relevant area includes a good chunk of the West Midlands. Indeed, the earliest texts giving a reasonable sample of voiced forms come from the South and the WML at virtually the same time: e.g. the *Poema Morale* and *In Diebus Dominicis* (Lambeth MS), *Owl and the Nightingale* (Cotton MS), *The Vox and the Wolf* (Digby 86), *Layamon* (Cotton Cal. A IX) and the Katherine Group complex.

The real question though is what 'voicing' means (or what various people have thought – or not bothered to think – it might mean). What do these early



Map 3. Medieval and modern fricative voicing (Fisiak 1984: Map 4)

texts show us? The picture they typically present is not straightforward, and is subject to quite a number of reasonable and contradictory interpretations. We are now about to look at one of the more delicious indeterminacies in our historical phonology.

Let's examine the evidence provided by one early text, the Cotton MS of *The Owl and the Nightingale* (S(W), c. 1200). Characteristically, one modern editor (Stanley 1960: 9) sums up the evidence this way:

Initially in words of native origin *þ*, *s*, and *f* were voiced in the South and in the SW Midlands; but in the spellings of O & N this is apparent in the alternation of *f* and *u* (or *v*) only, e.g. *fare* and *uare*, *forþ* and *uorþ*.

This is an interesting comment, which encapsulates just about every conceptual confusion and difficulty of both the scholarly tradition and the texts themselves. Note the following:

(a) Apparently we know in advance 'where the voicing occurred', and for which segments; implicitly this is true of O & N as well, since its provenance falls within the area. How do we know? Well, the handbooks say ... and presumably they do this (though nobody likes to admit it) precisely on the basis of messy stuff like the O & N spellings. Or these, plus the modern evidence, which as we will see later is in fact just as equivocal.

(b) Nonetheless, there is evidence in O & N only for voicing in the labial series; and this is problematic, since

(c) voicing is 'apparent in the alternation of *f* and *u*', i.e. non-categorical and variable implementation for one category somehow proves that 'the change has occurred'. At least this the obvious reading of 'were voiced in the South'.

Now on the face of it either (c) is not true, or badly put; since though <f> and <v> vary, they don't strictly 'alternate'. This however is probably just loose usage. More important, though, Stanley does not specify the domain of variation, which is of considerable interest. In this sense also the statement about 'alternation' is false, on the evidence of the text itself, and other similar texts (see below on *The Fox and the Wolf*). If we examine O & N carefully, we find the following types of representation for the categories in question:

Type I. Only <f> Spellings

'fall': falle, fallest, falþ, ifallen

'fly' (v): fleo, flon, flo, flizst, flizt, flizþ, flop

'flesh': flesch(e), flehs, flesches, fleses

'fort' (prep. 'until'): fort 3x

'fowl': fuzel, fuzelen, fuhelen, fo3le

'full': ful, fulle 8x, also fulliche, fulliche
 'follow': folzi, folzeþ, fulied
 'friend': frond, frondes

Type II. Only <v> Spellings

'fen': uenne, venne
 'foe': uo, iuo
 'fold' (v): uolde, volde
 'fang' (i.e. 'seize'): uonge

Type III. Both <f> and <v> Spellings

'fast': fast, fastrede; uastre
 'feed': fedest; iued
 'fell': felle; uel, uelle
 'far': feor, for, feorre, forre; uor, vorre
 'fight': fiȝt(e), fiȝtinge, fiht-lac; viȝte, uaȝt
 'for': for; vor
 'for-': for-, vor-, uor-
 'fox': foxes, fox; uox
 'from': from, fron; vrom, vram, urom
 'foul': ful, fule, fulne, fole; vvl, vvle

This is an exemplary rather than complete list, but includes the bulk of lexemes of native origin presumed to have OE /f-/ that appear in the text more than once. If we consider those items that appear only once (hence with no evidential value for variation, but still maybe of interest, we find:

<f>: falevv 'fallow', felde 'fied', fele 'good',
 fell 'knock down', fenge 'round, bout', fihs 'fish',
 flo 'arrow', fnast 'breath', folc 'folk', fitte
 'fit, match', flockes 'flocks', flod 'flood',
 floþ, floweþ 'floweth', foze 'propriety', freo
 'free', frogge 'frog', frouri 'comfort', fust 'fist'

<u>: uecche 'fetch', ulize 'flies' (n), uote 'foot'

Without exact quantification (which isn't to the point here), the pattern is clear: more items show <f~u/v> variation than show either spelling categorically, and of the categorical items (here the list is exhaustive), there are many more with <f> only than with <v> only. Of those that appear only once, more have <f> than have <u/v>.

A similar situation can be seen in another SW text of the same period, *The Fox and the Wolf* (text from Bennett & Smithers 1966). This is a shorter piece, with a larger proportion of the relevant lexis appearing only once; but we note

that (a) the very common 'fox' is always *vox* or *wox* (this is the only categorical <v> item); (b) the verb 'find' appears as *fond*, *founde*, *vind*; (c) among the items that occur only once, there is evidently voicing in *wrogges* 'frogs', *wous* 'eager' <fūs, while all the other English lexis shows <f>: *fare*, *frend*, *fulpe*, *-for(e)*, *fort* 'until'. French lexis shows only <f>, as in *frere(n)* 'friar(s)', *ifaie* 'in faith'. It is common in texts from voicing areas for French loans in voiceless initials to remain unchanged, which could serve as possible dating evidence (see §4); but we still have modern problems like *vial*, *veneer*, *vent* with Old French /f/, which seem to show that in at least some varieties some French lexis underwent voicing too. We will see some further evidence for this below.

How is a picture like that in O & N to be interpreted? I can think of at least the following reasonable conclusions that one might draw from this and similar material:

- (1) There is voicing of /f/ only, but the spelling has not yet (completely) caught up with the sound change. All /f/ nevertheless have become [v].
- (2) There is voicing of /f, θ, s/ ('in the South...'); but for reasons of convention only the labials show this in spelling.
- (3) The orthographic variation represents the phonetic/ phonological state of play for historical /f/: some items have been voiced categorically, others variably, still others have not yet been affected.
- (4) The orthographic variation for /f/ represents phonetic token-variation as in (3); the lack of variation for /θ, s/ is non-evidential because of the familiar orthographic lacuna for [ð], and resistance to use of <z>. The voicing has nonetheless affected /f, θ, s/ the same way.

Positions (1, 2) are progressively less evidence-based 'non-variationist' or 'neogrammarian' interpretations. Sound change is categorical, and for all relevant items either has or has not occurred (*mit blinder Notwendigkeit, ausnahmslos*, etc). Positions (3, 4) are 'variationist' (say by Toon 1983 out of Labov and Chen): for /f/ in (3), 'what you see is what you get'; position (4) is also variationist, but with the orthographic convention hedge, which allows unattested change to be posited on some kind of theoretical grounds.

We have what looks like a choice of two main positions, and two subsidiary ones. The main positions (types 1, 3) are neogrammarian vs. variationist; the subsidiary positions (2, 4) are simply differential treatments, under the larger rubrics, of the question of whether the orthographic evidence—however you might wish to interpret it—is to be projected to the other (putative) phonological categories that modern evidence (and of course linguists' desire for neatness—see below) suggest ought to be included as well, even with no documentary support.

That is, (2, 4) are 'natural class' or notational parsimony positions: if one voiceless fricative is voiced initially, the others ought to be as well. And this of course has—in a non-chronological or history-neutral sense—historical support as well (see map 1). The natural-class prediction, that is, is borne out by the modern evidence: At some time /f, θ, s, ʃ/ were indeed voiced. Whether they ever got to the neogrammarian 'exceptionless' stage is another question, and is arguable; it is a matter of analytical faith rather than being derivable from textual—or even fieldwork—evidence. We will see shortly that this issue is undecidable.

At the present stage in the development of historical phonology, there is probably nobody left who seriously swallows the whole neogrammarian position. Insofar as there are any shared articles of faith in the trade, I suppose most of us would accept that sound change is never 'instantaneous' or initially categorical, but has a 'time dimension' (Chen 1972); and that a change is an epigenesis and not a 'catastrophe', that proceeds over time by (Labovian) cumulatively weighted variation in a particular direction, and (Wang-Chen) lexical diffusion. The evidence from a text like O & N is clearly compatible with this view, and suggests that either for all fricatives (on the 'theoretical' account (4)) or for /f/ alone (the cautious (3)), the change from voiceless to voiced is at this stage in progress.

Unfortunately the evidence—given what we know of the general conservatism and quirkiness of orthographies—is just as easily interpreted as indicating positions (1) or (2), or at least post-completion attestation of what once was or may have been a variational process. No change ever gets adopted immediately in the written medium, which has all kinds of inertial drags acting on it, both mechanical and sociolinguistic. If we believed that voicing of /f/ (or of the whole set) had been completed half a century or a century earlier, and was now (phonologically) categorical, it would be very difficult, from the state of the text, to find any evidence whatever against this position. (This problem will get worse in §4).

The real question is: what does spelling variation mean in a Middle English (or any other) text? And the answer is that it can mean lots of things, depending on your antecedent beliefs about 'what really happened'. (We saw an example of this in Stanley's remark about fricatives having been 'voiced in the South...') I am at this stage suggesting only that orthographic evidence in this case and similar ones is compatible both with the view that voicing is a late change, even still active at the time the text was written down, and with the view that it is an old or even ancient (completed) change, just getting itself institutionalised in the orthography. (We might note in support that though medial voicing of labials was, on the account in §1, already established in the earliest Old English, it is still only variably written in texts as late as the 12th and

13th centuries: a quick look at the spellings for various forms of 'give' in the *Peterborough Chronicle* and Layamon will make this quite clear).

There is actually one piece of evidence that at first appears to support change-in-progress at the phonological level: for one text, and that weakly. This is the irregular but not uncommon alternation in the *Ancrene Riwe*, where <u/v> appears often in initial position after a voiced ending on the previous word, but <f> appears after a voiceless final: e.g. *þe ueorðe* vs. *þet feorþe*, *þe vifte* vs. *þet fifte*, etc. (cf. Fisiak 1984: 7). This material (also alluded to by Hall 1920: II, 364f) was interpreted by Jespersen (1909: 42) as indicating the origin of initial voicing in external sandhi: but the material is not regular enough to support this, as Fisiak shows. Indeed, the AR spellings could just as easily (and perhaps more naturally) be interpreted as representing precisely the reverse: sporadic devoicing in sandhi with preceding voiceless sounds. Of course, as Fisiak notes in a footnote to the discussion, p. 7, note 3, following an example of mine, voicing assimilation in English has generally tended to be regressive rather than progressive; but there is plenty of evidence for various sorts of progressive assimilations across word-boundaries throughout ME, and we can't disallow this interpretation with any certainty.) In any case, there isn't enough evidence to support Jespersen's claim that this is the origin of the whole business, and it all happened very late. I am also dubious of explanations in which sandhi changes are extended to become context-free over a whole phonological category; I know of no really well supported cases. I will return to the question of dating in the next section.

ME texts from later periods (and of different provenance) show much better established voicing, for both /f/ and /s/; though following the argumentation above it's still not clear what this means. The best instance is the *Ayenbite of Inwit*, firmly localised and dated to Kent in 1340, and even metalinguistically identified by the author as written 'Mid Engliss of Kent' (Mossé 1950: 221). In this text virtually every OE /f-/ item is written with initial <u/v>, and nearly all /s-/ items (unless the /s/ is followed by another consonant other than /w/) with <z>. Thus *zuiche* 'such', *zuyn* 'swine' but *speche*, *slast* 'slayest'. French loans, however, tend to be written with <s>, even when a vowel follows: not only *studieþ*, *strif*, but *seruese*, *saynt*, *sostenyi* 'sustain'.

A cautious summary of the ME position is given by Jordan (1968): for /f/, voicing is established in the SW and SWML (§214); for /s/, voicing 'läßt sich nur für Kent ... nachweisen' in the 14th century (§208). For /θ/, there is evidence in the 14th century only for those categories that show it in the modern standard, e.g. deictics and the like (cf. §2 above); Jordan adduces Chaucer's famous *sothe: to the rhyme*, and spellings from the next century like the Pastons' *dis*, *dan*, *dedyr*. This however says nothing about the possibility of voicing in items like *think*, *thigh*, etc.; indeed, since all of this material is from

the East, this looks like evidence for quite a different kind of process, and we have nothing on voicing of /θ/ in open-class items until modern times (see below).

It seems then that for the ME period we cannot say for sure what the extent of the voicing was (with respect to /f, s/) in any variety or location other than the ones that furnish us with suitable texts; for /s/, indeed, there is nothing of use outside of Kent, where it looks as if we have something close to completion of the process for both categories. The evidence from early southern and WML texts is useful only in indicating *some* voicing of /f/ in some lexical items in some texts, if we take a conservative view; Kristensson's onomastic materials show, again, only some voicing of /f, s/ in some items in some places, but further north than the traditional isophones suggest. For /θ, ʃ/ there is nothing at all.

The modern dialectal data however shows clearly that at *some time* in the region delimited at the beginning of this section (map 1) there was *-again-* at least *some* voicing of some tokens of *all* initial voiceless fricatives in *some* items. It gives us, however, no clear picture of dating or the early extent of lexical involvement. Indeed, if one looks carefully at the SED Basic Material rather than at the maps drawn on the basis of (a particular interpretation of) this material, the modern dialect picture comes out looking much like that in the early SW and WML texts: Consider for instance the initials of a group of items in original /f, θ, s/ from two loci in the West Country (SED: Orton & Wakelin 1967, s.v.): Blagdon, Somerset (So 2) and Ashton Keynes, Wiltshire (W 1):

(7)	So 2	W 1
furrow II.3.1	v	v
farrow III.8.10	v	f
fox IV.5.11	f	v
frogs IV.10.13	f	v
thirteen VII.1.11	ð	ð
thigh VI.9.3	θ	θ
thaw- VII.6.21	θ	ð
thunder VII.6.21	θ	ð
saddle I.5.6	s	z
suck III.7.1	s~z	s
sow III.8.6	z	z
some V.8.4	s~z	z

A sample of 2835 tokens of items with potential voicing from six 'core' West Country counties (Somerset, Wiltshire, Cornwall, Devon, Dorset, Hampshire)

yields some interesting figures.⁶ These will have some relevance for the argument in §4.

First, the overall percentages for voicing, given for all the four fricatives /f, θ, s, ʃ/ individually:

(8) % Voicing All Fricatives:	50.6
% Voicing /f/:	60.9
% Voicing /θ/:	81.1
% Voicing /s/:	53.2
% Voicing /ʃ/:	7.4

On average, then, about half the tokens of potentially voiced items in the sample show voicing; and it is clear that this overall figure reflects a skewing for different places, dragged down markedly by /ʃ/. But the picture is a little different, and more interesting, if we consider it in finer detail. In particular, if we look at native vs. French lexis, and, for /s/, the distinction between onset clusters containing /sl-, sn-, sm-/ and onsets containing /sw-/ or a simple /s/.

First /f/, which we recall is the first fricative to show voicing in English materials, and the most widely noted in ME texts:

(9) /f/-Voicing	
Average Overall Voicing:	60.9%
Average Native Voicing:	66.3
Average French Voicing:	31.3

This is more or less in accord with expectations based on textual evidence, and suggests (among other things) a pre-Conquest date for the major voicing, and a later tail-off.

The figure for /θ/, where voicing is rarely indicated in texts (for SE examples see Samuels 1971) (but see §4 for other traditions):

(10) /θ/-Voicing	
Average Overall Voicing:	81.1%

This is by far the highest, and the only fricative where voicing is categorical for any large group of SED areas. In the sample, /θ/ shows up as [ð] or [d] (or [d]

⁶ The sample consisted of 18 lexical items from each etymological class; they were chosen to illustrate a range of environments (e.g. cluster and non-cluster). The paucity of French items is due to skewing of the SED's lexical list. The items in the sample were as follows: /f/, *fields, forks, foal, filly, farrow, flitch, flood, fox, fleas, frogs, fern, freckles, fart, fire, pheasants, fester, faint*; for /θ/ *thistle, thatch, thicken, thread, thimble, throat, thumb, thigh, thirsty, three, thirteen, thirty, thousand, third, Thursday, thaw-, thunder, threepence*; for /s/ *saddle, sack, sawdust, sledge, slugs, snout, snails, smoke, soot, some, sweets, sweep, sew, see, suck, some, suet, suit*; /ʃ/ *shepherd, share, sheaf, sheep, shears, shallow, shovel, shelling, shelf, shoulder, shirt, shoe, shilling, shy, she, shut, chemise, sugar*. The occurrence of several words containing the same morpheme (*three, third; shepherd, sheep*) is not a problem; such sets do not show any particular coherence in voicing across the areas.

in clusters with retroflex /r/) without exception in all SED loci in Devon and Dorset, and with high preponderance elsewhere. We will see in §4 that this might not be unexpected.

For /s/, the figures are rather more complex. There is a distinct skewing with respect to voicing in /sC-/ clusters (where C=any sonorant except /w/). In summary:

(11)	/s/-Voicing	
	Average Overall Voicing:	53.2%
	Average Native Voicing:	53.3
	Average French Voicing:	28.0
	Average /sC-/ Voicing:	9.9
	Average Voicing Excluding /sC-/:	70.3

So /s/ – if we exclude /sm-, sn-, sl-/ – is second to /θ/ in pervasiveness of voicing, and the native/foreign effect shows up here as it did for /f/. And note that for /f/, there appears to be no difference between plain initial /f/ and /fl-, fr-/ clusters, which may be of significance later on.

Finally /ʃ/, which produces a very different sort of outcome, in almost every way:

(12)	/ʃ/-Voicing	
	Average Overall Voicing:	7.4%
	Average Native Voicing:	5.4
	Average French Voicing:	23.9

The problem here is that some of this may be a data-artefact. There are only two non-native items in /ʃ/ in the SED list: *sugar* V.8.10 and *chemise* V.11.1. Of these, *chemise* shows no voiced token, and *sugar* has a scatter over the whole area. There is however a strong suggestion of late operation of voicing, at least for /ʃ/, since this palatalization is probably rather late.⁷ (The two highest concentrations of voicing in this category are *sugar*, with 23 out of 54 tokens (45.6%), and *shilling* with 18 out of 54 (33.3%).) It looks as if, despite its coverage of the same geographical range, this voicing is pretty marginal.

What are we actually looking at here? Can these results in any way be projected back into history, to give us some idea of how the story unfolded? There are many difficulties. One is that given say the practice of the *Ayenbite*, there is an unexpectedly high attestation of voicing in French loans, which is generally not what the handbooks tell us is the case in Middle English. This might suggest some post-Conquest productivity; on the other hand, it might

⁷ The initial /ʃ/ in *sugar* is not original, but the result of a palatalization of uncertain date. In London this is no earlier than the 16th century (cf. Lass, Fthc. b), but how early it was in the West Country is unknown.

suggest a scribal idiosyncrasy, in particular in Dan Michel. On the other hand, maybe Dan Michel is not such a good model, since he's from the other side of England, and there's nothing to say that orthographic representation in the SE (or for that matter SE phonology) should be the same as what obtained in the West.

But the real problem is what the variability in either the ME or modern materials represents. The SED unfortunately does not give us 'sociolinguistic' information on individual variation, frequency over age-groups, etc. But even the purely lexical dimension is interesting. Is this variation the same kind we find as in O&N and similar texts, suggesting incomplete lexical diffusion? (At least the SED data can't reflect complete change and orthographic diffusion!) Or, given the time-lapse involved and the general sociolinguistic situation, do we see here the effects of contact with the London standard, the same thing as suggested by the cartographic picture of isogloss recession? Does this material reflect the familiar inverse of lexical diffusion, what Dressler calls 'lexical fading'? Once again, an indeterminacy. Consider two lexical items, A and B, both with original /f/, where at present A has [v] and B [f]. There are at least two possible (contradictory) scenarios that could lead to this result:

(13) Scenerio I					
A	B > [A	B > A	B > A	B] > A	B
f	f	f ~ v	f ~ v	v	v ~ f
(i)	(ii)	(iii)	(iv)	(v)	
Scenerio II					
A	B > [A	B > A	B > A	B] > A	B
f	f	f ~ v	f	v	f
(i)	(ii)	(iii)	(iv)	(v)	

Scenario I gives at stage (iii) a categorical implementation of the voicing rule; at (iv) loss begins in B through variable lexical fading. At (v) we get the current state, where A has [v] and B [f]. Scenario II is quite different: the categorical stage (A, B standing for the whole set of voiceable items) is never attained, there is no lexical fading, and B has never voiced at all. The final result however is indistinguishable from the output of I. Assuming that the middle stages (ii-iv) are invisible (no attestation), which I indicate by brackets, there is no empirically-based way of deciding which one was the case in any given instance.

We are still hung up on the question of what 'voicing of initial fricatives' means, though we can perhaps see the problems more clearly:

(i) Did all the fricatives voice at the same time?

(ii) Did the change go to complection and then start to reverse (Scenario I), or did it never complete (II)?

The data, such as it is, grossly underdetermines the shape of the narrative. If we want a history, we will have to try some kind of theoretical or 'transcendental' arguments, rather than simple empirical inference.

I can think of two kinds of arguments we might use to get up a good story; both are ultimately flawed and not very convincing. I will nevertheless look at them in some detail, under the assumption that failures are at least as interesting as successes, and maybe more enlightening; especially when one tries to unpack arguments that are often more sketched than actually given. At the worst such a procedure will tell us something about the limitations of our tradecraft, which can't hurt; a dose of technical unease is good for us.

One class of argument involves notational or conceptual parsimony: what is the 'simplest' account consistent with the data? Obviously the best of all, on formal grounds (given certain foundation beliefs about the desirability of particular forms for phonological events/processes) would be a straightforward, across-the-board voicing rule for initial fricatives: put in one familiar feature-notation,

$$(14) \left[\begin{array}{l} +\text{obstruent} \\ +\text{continuant} \end{array} \right] \rightarrow [+voice]/\# -$$

(We could, coupling a variationist continuation or implementation to this categorical beginning, come out with a neat history. One must of course not be anachronistic; the kind of description that finds (14) superior to more complex formulations generally assumes 'rule-addition' or the like, and does not mess about with variation, or 'low-level' implementation. Still, one can hold some brief for formal criteria while still believing that things happen more messily in the real world.)

If we think the attested materials are too messy and articulatorily disparate to support (14), we could take a second option, in which there is a gradual rule-simplification: we could imagine a sequence of changes in the structural description of an initially more complex change, like this:

(15) Stage I: anterior noncornals: /f/ only

Stage II: anteriors: /f, θ, s/

Stage III: fricatives /f, θ, s, ʃ/

Which of course gives the same result as the 'simpler' rule -in the end. And this might be weakly supported by the fact that the earliest indicated voicing seems to be for /f/, and the least categorical for /ʃ/. Or, since /θ/ is the most

widespread (and see §4), we might have stage I as voicing anterior coronals, so that the sequence is /θ, s/, then /f/. Isolating /θ/ alone would be still more complex, etc. The matter of completion is left undecided, except by fiat: if a categorical or obligatory process is 'simpler' than a variable or lexically tagged one, we discount the empirical 'appearances' for the sake of a 'deeper' reality. The assumptions behind such a move (notational parsimony, the projection of this to speakers in a spirit of maximize computation, minimize storage or whatever) have no empirical support; they are aesthetic predilections that in fact generally fail to match up with what history offers us. If we don't like this, then, we must turn elsewhere.

These days there are other more popular argument types (and equally abused ones). One often invoked in historical work is the argument from typology or 'universals'. That is: might it be the case that certain scenarios give to consequences which either conform to or violate putative universals? In this case, what consequence might certain possible stories have with relation to what we (think we) know about fricative systems?

A possible argument goes like this: consider what would happen to the obstruent system of Old English or early Middle English if the change had applied to all fricatives and had gone to completion within that period. Since there was no phonemic contrast between [f-v], [s-z], [θ-ð], [ʃ-ʒ] in OE, but only 'underlying' /f θ s ʃ/ and a rule of medial voicing, what would happen if all fricatives in initial position were to voice? This would restrict the occurrence of voiceless fricative phones to two main positions: at the edges of certain domains, and in obstruent clusters. Now since voicelessness in clusters could be taken as assimilatory, and since final obstruent devoicing is a highly 'natural' and expectable process, the state of affairs resulting would pose certain analytical problems. That is, we would have, say for [f] and [v], the following distribution:

$$(16) \# \quad \frac{\quad}{v} \quad \frac{V}{v} (R) V \quad \frac{\quad}{f} \text{Obs} \quad \text{Obs} \frac{\quad}{f} \quad \frac{\quad}{f} \#$$

Since there is nothing particular about initial position that predisposes to voicing, but there is something about final position that predisposes to devoicing, the 'natural' analysis of a set-up like (16) would seem to be phonemic /v/ with [f] as a contextual allophone; and the same for /θ, s/, which we now reanalyse as /ð, z/, and /ʃ/ which becomes /ʒ/.

This then gives us -as before- a fricative system with only one lexical or non-derived glottal state, but this time voiced rather than voiceless. Is this legal? The answer seems to be no. According to the best recent survey (Maddieson 1984: ch. 2), there don't appear to be any languages like this; and on the general uniformitarian principle that we do not reconstruct for the past any *état de langue* that is in principle impossible at present (Lass 1980: ch. 2,

Appendix; Lass 1986), we cannot allow an OE or early ME with the fricative inventory */v, ð, z, ʒ/. Actually the situation isn't that bad, I suppose, since we have velar /x/ as well. This gives an inventory */v, ð, z, ʒ, x/ which does not violate the universal that no language has only voiced fricatives.

This is however a crude approach, and the 'improved' system still seems to be illegal, but in a different way. It is often (mistakenly) assumed that there is a universal that says that the presence of a voiced fricative in a given position implies the presence of its voiceless congener. This is not quite right, as Maddieson's data shows (and see the discussion, 1984). No language may have only voiced fricatives, and no language may only have certain particular unpaired voiced fricatives; but subset asymmetries are allowed. If we take the relevant pairs, /f-v/, /θ-ð/, /s-z/, /ʃ-ʒ/, and check them against UCLA's UPSID data-base, as given by Maddieson (1984: 263-422), we find in a sample of 317 well-chosen languages of extremely diverse genetic and geographical provenance, the following cases of voiced fricatives without voiceless partners:

/v/ but no /f/: Lithuanian (IE), Finnish (Uralic), Lelemi (Niger-Kordofanian), Saek (Austro-Tai), Tiddin Chim (Sino-Tibetan), Yagaria, Nambakaengo (Indo-Pacific), Mixe (Penutian), Luiseño, Hopi (Uto-Aztecan), Diegueño (Hokan), Apinaye (Macro-Ge), Kota (Dravidian).

/ð/ but no /θ/: Cheremis, Yurak, Tavgy (Uralic), Moro (Niger-Kordofanian), Kunjen (Pama-Nyungan), Koiari (Indo-Pacific), Mixtec (Oto-Manguean), Luiseño (Uto-Aztecan), Tacana (Pano-Tacanan), Aleut (Eskimo-Aleut).

/z/ but no /s/: none

/ʒ/ but no /ʃ/: Atayal (Austro-Tai), Apinaye (Macro-Ge).

In terms of percentage attestation (which with suitable caution we might imaginatively project to 'all languages'), we have: /v/ only, 4.1%; /ð/ only, 3.75%; /z/ only, 0%; /ʒ/ only, 0.63%. Languages with two unpartnered voiced fricatives (Apinaye, Luiseño) account for 0.63% as well. Only one language in the whole set is Indo-European, and only two from Europe (both from the Baltic North, incidentally); otherwise languages with unpaired voiced fricatives appear to be restricted pretty much to Asia, Northern Africa, the southern Americas, and the Pacific. In terms of an 'index of oddity' (Lass 1984), unpaired voiced fricatives are distinctly non-Indo-European and non-European; this should to some extent militate against reconstructing them.

If we take this kind of universals argument seriously, we can say that if the voicing ever went to completion, it must have done so at a point where a phonemic contrast of voiced and voiceless fricatives existed, i.e. after degemination of medial voiceless fricatives, and loss of final /ə/ (see §2 above). In other words, no earlier than the later 14th century. If we allow for non-completion, this argument falls away, but others take its place.

So if we assume, on the other hand (a big assumption, I admit) that the 'family habits' of these major language groups have not changed much over the past two millennia or so, it is then most unlikely that a situation ever developed in which any unpaired voiced fricative (except perhaps /v/) existed in any variety of English. On the third hand, however, we have the SED data cited above, which suggests dialects of English with /ð/ but no /θ/; this would seem at first glance to put them uneasily in the tiny class with Cheremis, Kunjen, Mixtec and Aleut above - strange bedfellows, maybe? The point, though, about statistical oddity (especially when it is being computed on the basis of a sample that does not contain the material you're looking at) is that it does occur: if it didn't, its probability would be zero, not some positive quantity below .50. Improbabilities need more evidential support than probabilities, of course; though when one sees them clustering in a genetic and areal group they are less of a problem than they would be in a scatter. (Nobody really minds marsupials in America and Australia; but one marsupial in Poland would be suspicious indeed.) We will see in the next section that a different kind of sampling makes the presence of English dialects with /ð/ but no /θ/ not only not suspicious, but entirely in keeping with a major development in Continental West Germanic. But this is (perhaps) another story, if one closely related to ours.

All of this is inconclusive and feeble, though the universals argument does (weakly) support either non-completion of voicing, or at least late completion. In the next section however we will look at some other evidence that suggests a very early date, and this may prompt a reconsideration of everything we've looked at so far.

In summary, we don't have a very good history of the ME and post-ME fortunes of initial voicing; but a few things seem clear enough so that we can accept them, at least provisionally:

- (i) It is unlikely that voicing ever went to completion for all four fricatives in any one variety.
- (ii) It seems that it did for /θ/ in at least some areas in the SW of England.
- (iii) The evidence available suggests that /f/ was more subject to voicing, and earlier, than /s/.
- (iv) From the early 14th century the nature of the ME evidence suggests recession of voicing from the North and West; this is bolstered theoretically by the increasing influence of London speech in that period, and empirically by the distributional pattern in the SED records.

4. How Franconian was Old English? Or, Bennett *redux* (sort of)

Initial fricative voicing in West Germanic is not of course unique to English; neither are the historiographical problems. A quite systematic remnant of voicing characterises the more conservative dialects of the Netherlandic

complex, and has left its traces in both the orthography and phonology of Modern German.

The situation in modern Dutch is as follows: a large portion of native lexis shows voicing of original /f, s/; all of it shows voicing and occlusivization of original /θ/ (remember the SW). Some typical examples:⁸

/f/: *vadem* 'fathom', *vader* 'father', *veer* 'feather', *veld* 'field', *vink* 'finch', *vinden* 'find', *vlees* 'flesh', *voet* 'foot', *vogel* 'fowl', *vracht* 'freight', *vriend* 'friend'

/θ/: *dak* 'roof' (cf. *thatch*), *dan* 'then', *denken* 'think', *derde* 'third', *dief* 'thief', *dij* 'thigh', *dol* 'thole', *donder* 'thunder', *dorst* 'thirst', *drie* 'three', *dringen* 'jostle, press' (cf. *throng*, OE *þrīngan*).

/s/: *zaad* 'seed', *zacht* 'soft', *zee* 'sea', *zien* 'see', *ziel* 'soul', *zo* 'so', *zoet* 'sweet', *zomer* 'summer', *zout* 'salt', *zuid* 'south', *zuur* 'sour', *zwaard* 'sword', *zwemmen* 'swim', *zwerm* 'swarm', *zwijn* 'swine'.

Much borrowed lexis shows voicing as well, especially early Latin loans like *vrucht* 'fruit', *valk* 'falcon', *venkel* 'fennel' < *foeniculum*, *vlam* 'flame'; examples with /z/ are rarer, but we have *zegel* 'seal' < *sigillum*, *zeker* 'sure' < *securus*, *Zaterdag* 'Saturday', and a few others, either Latin or later Romance, like *zot* 'foolish', *zalm* 'salmon'.

The voicing represented in the modern spellings is not retained in all Dutch dialects;⁹ but even in those that do keep it there is extensive contrast with voiceless fricatives, enough so that (as far as I know) any dialect that has initial /v, z/ will also have initial /f, s/. The voiceless fricatives appear mainly in loans of various origins, e.g. *fameus* 'famous', *fijn* 'fine', *foelie* 'foil', *faam* 'fame', *fabel* 'fable', *sabel* 'sabel', *saffier* 'sapphire', *sering* 'lilac, syringa', *suiker* 'sugar', *systeem* 'system'. There are also a number of Germanic items in /f/, mostly loans from other WGmc dialects, such as German (*fakkel* 'torch' < *Fackel*), *fiets* 'bicycle' (probably < Westphalian *flitszepee* < Fr *vélocipède*: cf. Boshoff & Nienaber 1967, s.v.), Frisian (*Fries* 'Frisian', *foeffje* 'trick, excuse', *fuik* 'fish-trap'), and English (*fitten* 'fit'). For /s/ there are a number of the same type, e.g. *G sarren* 'bait, tease', *sintel* 'cinder', Fris *saggelen* 'proceed slowly', *sim*

⁸ There are no native /f/ in Dutch; original /sk/ (the source of native German and English /f/) is /sx/ <sch>. All initial /f/, spelled <sj> (or <ch> in words that have not been respelled), occur in loans, like *sjaal* 'shawl', *chic*, *chocola*, *sjampie* 'champagne', etc.

⁹ Van Loey (1970: §50) notes that voiced fricatives both initially and medially are now 'in 't Hollands-Beschaafd "halfgestem" of vaak zelfs geheel stemloos', which he ascribes to Amsterdam or Frisian influence; he also notes devoicing in Nijmegen. Gussenhoven & Broeders (1976: 41) see devoicing as typical of Friesland, North-Holland and cities along the major rivers, like Nijmegen. In Afrikaans, original /v, z/ devoiced as early as the 19th century, though the /f-v/ opposition has been restored by fricativization of the Dutch approximant reflex of Gmc */w/ (as in *water*, etc.).

'fishing-line', E *sein* 'signal' < *sign*. (See van Loey 1970: §50 for these and other examples.)¹⁰

The early history and spread of the Continental Voicing (as I will now call it) is obscure and troublesome. In particular, the dialect-cluster that now shows it most extensively (Netherlandic) has a later and more uneven attestation than High German, where the results are sporadic for the voicing earliest attested in Netherlandic (/f/), and quickly categorical for /θ/ and /s/.¹¹

First, the oldest corpus that could loosely be called 'Old Netherlandic' shows only sparse signs of voicing (though as we will see later this may not be a problem). This is the tradition usually referred to as Old Low Franconian, which consists mainly of some translations and glosses connected with the Carolingian Lex Salica, and some Psalm translations and glosses. The Lex Salica material is of problematic origin, and may represent a Middle Frankish original and Upper German scribe (so Markey 1976: 182f); the psalm glosses in the main seem to be from Limburg (Markey, 187ff). This material dates from the 9th-10th centuries, and shows a scatter of <u> spellings, e.g. *uan* 'from' (~ *fan*), *uilo* 'many' (cf. OE *fela*), *uol-* 'full', etc.

The first voicing in a text clearly connected with Dutch proper is in a West Flemish version of a Latin *probatio pennae*, from an 11th-century English MS (Schönfeld 1932), containing *vogala* 'birds' (nom pl);¹² there is some onomastic material as well with <u/v> for /f/ (van Loey 1970: §50). The voicing of /s/ is not marked in spelling until well into Middle Dutch, and is not stably indicated even as late as the 14th-15th centuries. The E Flemish *Van den vos Reynaerde*, for instance (MS A, c. 1350-1400; Markey 1976: 12ff) has both <s> and <z>: *so* 'so', *sachte* 'softly', forms of 'say' like *segghen*, *segghe*, *seide*, as well as *zeere* 'sore(ly)', *zorghen* 'sorrows', *verzworen* 'for sworn', *zee*, 'sea' etc. This reminds us of the /f/-problem in non-Kentish ME: was there a generalised voicing differentiated in spelling, or does the orthography mirror the real-time unfolding of the phonological change? (I will give something of an answer in

¹⁰ Van Loey (1970: §50) adduces a wide range of explanations for some of the devoiced (or voiceless) forms, aside from borrowing. Some appear to be merely silly, such as 'psychische intensiteit' in *foei* 'shame', *flets* 'pallid', or perhaps just marginally respectable as in 'phonosymbolism' in *flappen* 'flap, blah', *flikkeren* 'flicker', *sabbelen* 'slaver', *sissen* 'hiss'. The frequent /s/ (though spelled <z>) in *zestig* '60', *zeventig* '70' he derives from an old form with the Ingvaenic prefix *ant-* < *xund/ 'decade', as in OS *antsibunta*, etc. The modern [s] is then presumably a remnant of the voiceless fricative produced by sandhi in the cluster /-ts/; this devoicing has apparently also been analogically extended to the earlier decades, e.g. *veertig*, *vijftig* '40, 50', now often with /f/.

¹¹ All the Continental Old Gmc dialects except perhaps Old Frisian show voicing of /θ/ (more on this below). If OFri <th> as in *thet* 'that', *thiaf* 'thief' does in fact mean [θ], then the change is later, as evidenced in Modern West Frisian *det*, *dief*, etc.

¹² The text says: *Hebban olla vogala nestas hagunnan hinase hi(c) (e)nda thu uu(at) (u)nbida(n) (uu)e nu*, translating 'abent omnes volucres nidos inceptos nisi ego et tu quid expectamus nunc'.

§§ 4-5.) As far as the other fricative, /θ/, is concerned, Middle Dutch is almost wholly consistent in writing it with <d>.

If there is any consensus on the Continental Voicing, it would seem to be that it must have been (a) pretty early, and (b) essentially a Franconian innovation that spread through much of Continental (West) Germanic during the Middle Ages. Some however, especially German scholars, would distinguish the appearances in High German from the others, as an autonomous 'frühalthochdeutsches Spirantenschwächung' (so Braune-Mitzka 1963: § 102a). A later recension of Braune (Braune-Eggers 1975: § 102a) however suggests a Franconian origin (cf. also Samuels 1971: 8 and the discussion in Nielsen 1985: 246ff).

There is a difficulty, though: the attestations in High German for voicing of /f/ and /θ/ are earlier. While the OLF texts show a few <u> for /f/ and only <th, s> for /θ, s/ (though <th> may of course be ambiguous) in the 9th-10th centuries, there is already an indication of /f/-voicing in OHG in the 8th (the *Abrogans*, c. 765, for instance, has <u> in *zuiualt*, *aiualt*: -ualt = 'fold': Braune-Mitzka 1963: § 138, Anm. 1), and there are <d> spellings for /θ/ in the 9th c. Alemannic Benedictine Rule (*dera*, *dese*, *die*, etc., all from an IE deictic base in */t-/), similarly in the *Hildebrandlied* of the 9th c., alternating with <ð>.

The later distribution of <f> and <u/v> gives a picture not unlike that in ME: very early texts show mainly or exclusively <f>, later ones <f~u/v>. The Upper German *Muspilli* (2nd half of the 9th c.), for instance, has 21 <u/v>, and 18 <f> (Braune-Mitzka, *ibid.*). By the end of the 9th century, <u/v> begin to decline, and <f> increases, though orthographic (but not phonological) remnants of voicing remain in modern German (see below).

There are no OHG spellings suggesting voicing of /s/ (Braune-Mitzka 1967: § 168); but this 'spätere Spirantenschwächung' is now phonetically exceptionless in the Standard and in the more northerly dialects.

The voicing of /θ/ and its later hardening to /d/ seem to have begun in the South (Braune-Mitzka 1967: § 167), and moved northwards – at least according to the spelling. It appears earliest in Bavarian texts, with a few <dh> spellings instead of expected <þ, th>, and by the 9th century <d> has largely taken over. The change seems to have proceeded in Franconian during the 9th century, and by the 10th-11th Middle and Low Franconian and Saxon sources have virtually only <d>. In Alemannic (Braune-Mitzka 1967: § 167 Anm. 2) <dh> increases after c. 780, though <th> is still common into the 10th century.

Confused and confusing as this all seems to be, the following claims nevertheless do seem tenable:

- At some point during the early Middle Ages, a general (if in specific locales idiosyncratically restricted) voicing of initial voiceless fricatives took place over much of Continental West Germanic.

- The diffusion centre was probably Franconian, but this is not entirely clear. What is clear however is that there is no trace of the voicing in coastal ('Ingvaenic') Continental WGmc (Frisian, Saxon); and that the most extensive survivals are in Low Franconian territory (Netherlandic).

- The voicing of /θ/ may be independent of, or earlier than, that of /f, s/; it may on another interpretation be the first stage of the general voicing, which was not further implemented in some dialects. That is, /θ/-voicing is attested in Ingvaenic as well as inland dialects, even those that show no trace of /f, s/-voicing (Frisian). Indeed, the only early Gmc dialect that is supposed to show no signs of voicing (and/or later occusivization) is Old English; though whether this is the case for all OE dialects is arguable, and I will return to this below. The current distribution suggests certainly that the reported south-to-north spread of this voicing is an orthographical change only.

- The voicing of /f, s/ appears (orthographically) to be confused and variable during the medieval period, with <u/v> spellings for /f/ early, and <z> for /s/ late in Dutch, and absent in High German. (Though phonologically it must have occurred, since */sV-/ is now [zV-].) The voicing of /f/ seems to have retreated during the late OHG and MHG periods, and now it remains only in spelling, in apparently irrational distinctions, like *Vater*, *ver-*, *vier*, *voll*, *vor* vs. *fahren*, *fallen*, *Feder*, *Fisch*, *fliegen*, *folgen*, *für*, etc. (Apparently /fr-, fl-/ are never represented with <v> in High German spelling.) Modern standard German spelling is thus, as the history of the language suggests should be the case, dialectally 'mixed' – though much more so than English, with its poor showing of *vixen*, *vat* and a couple of others.

Section 3 was about initial fricative voicing in England; what if anything does the foregoing historico-geographical excursus have to tell us about that? Quite a bit, according to one line of argument, which I now pursue. Note first that initial voicing is not a 'natural' or expectable change, by the usual criteria of cross-linguistic generality or frequency and phonetic explicability.¹³ And the

¹³ It has been suggested (Russ 1978: 51, Nielsen 1985: 246) that the lack of a fricative voice contrast in early WGmc (where the distribution is assumed to be roughly like that posited for OE in § 1) in some way contributed to the voicing, but in any case that it makes no difference since there was no contrast; and for /s/ there still isn't except medially in German. But it does seem strange to argue that in foot-initial (strong) position the lack of a phonemic contrast would prompt the establishment of characteristic foot-medial (weak) allophones. I don't see that lack of contrast in any way makes the voicing more explicable. It may be of interest that in at least one (non-Gmc) language I know that has no voice contrast in its obstruents—Finnish—voiced or partly voiced allophones tend to appear only in weak positions in the foot: e.g. [z] for /s/ in *kisa* 'competition', *Liisa* as a fast-speech variant.

less natural a change is, the more likely that two occurrences in genetically related and not all that geographically distant languages are either remnants of an original condition (monogenesis), or diffused. The likelihood of convergence (polygenesis) decreases directly with naturalness, and inversely with genetic/areal closeness.

Further, not only is this rather 'unnatural' change attested both in Continental WGmc and early English; there are even quite interesting similarities in detail. First, the most strongly affected segment is original /θ/, both on the Continent and in England (recall – §3 – that /θ/ is the only category for which any SED areas show only voiced reflexes). Second, there are other low-level similarities in detail: in particular, failure of voicing in certain onset clusters but not in others. That is, while voicing is general in /fr-, fl-/, it fails totally on the Continent and to a very high degree (90%) in England for /sl-, sm-, sn-/. It is on the other hand usual in both England and on the Continent in /sw-/.

Given, then, the relative unnaturalness of the change, the high categoricalness of /θ/-voicing, and the common idiosyncrasy of failure in just certain onset clusters, it would be hard to make a good case for convergence. And given the genetic factor (Continental WGmc except Frisian, none in E, NGmc), and the known dialect-contacts in the early period, the facts we've looked at cry out for a connection: either monogenesis or diffusion (or a little of both).

Now in the abstract (cf. the extended argument in Lass, Fthc. c), the most parsimonious explanation for the kind of orthographic variation we've seen – in medieval texts anyhow – is that 'man schrieb wie man sprach' (Luick 1964: § 27).¹⁴ The unfolding of a spelling change with clear phonological implications mirrors a parallel situation in speech, because medieval (and perhaps more generally 'naive': Lass 1987b) writing is closer to 'transcription' than whatever us modern literates do. Indeed, in Lass (Fthc. c) I used precisely this argument to support the claim that spellings in 8th-9th-century OE materials showed *i*-umlaut phonetically in progress, not the orthographic diffusion of an older completed change. But if, as in this case, parsimony arguments run afoul of other powerful criteria, they lose force. And here the idea of spelling running *pari passu* with change would necessitate a massive convergence over a very long period. In particular, since with one exception¹⁵ the English <v, z> spellings are post-12th-century, the English change would have to be quite independent of the Continental one, and to manifest itself only when the contacts between the Continent and England were in a particularly feeble state

¹⁴ Or 'wie man hörte': cf. Bierbaumer (1988) on evidence for scribes writing from dictation. For the opposite view, that 'man schrieb *nie* wie man sprach', see Stanley (1988).

¹⁵ The spelling *uif* for *fif* 'five', which appears twice in a Wiltshire text from 950 (cf. Fisiak 1984: 5).

(compared say to the 5th-10th centuries). And it is the period of greatest contact when the <v, d/dh> spellings at least are occurring in the Continental traditions, and when English/Franconian contact was quite strong (cf. Nielsen 1985: ch. V).

So the best account of the disparate appearances of voicing evidence in Dutch, High German and English texts would seem to be the less simple but not implausible one: purely orthographic diffusion of an already established (if not 'completed') change, long after its phonetic implementation, but in a variational scenario aping the normal processes of phonological epigenesis. And in fact this view could be supported by a number of well known and generally accepted properties of (especially early) orthographic systems:

- Allophonic variation is less commonly written than phonemic contrast; though sometimes it is, and if so usually variably, over long periods (§ 1).
- Even phonemic contrast isn't necessarily spelled, though it is more often than not; it too may take a long time to establish.
- In any case orthographic systems are typically institutionalised and rigid, and may represent even major and systemically disruptive change only variably and in the long term (if at all).
- A new graphy will most likely develop if a change produces merger or near-merger with a pre-existing and stably represented category.
- In the case of complementary or near-complementary distribution, one symbol is adequate to write all phone(me)s involved, even if one or more may be identical to (some) allophone(s) of some other phoneme(s).

These points converge on the possibility that the messy picture we get in the early Continental WGmc materials, and later in English, may be an orthographic artefact. If we accept the above principles as working hypotheses, there is nothing in the spelling traditions from say the 8th to the 12th centuries (and even beyond) compellingly inconsistent with the following claims:

- I. That the Continental Voicing was very early, say well before the 8th century.
- II. That it was widely diffused in a quite regular – if epigenetically variable – form long before attempts were made to represent it in spelling.
- III. That the corpus of medieval spellings (Continental and English) could be explained as implementations in writing of an already phonologically established change.
- IV. That the modern distributions of voiced initials, both in Dutch and English, could be explained as the results of regionally variable recession of voicing in one or more (lectally determined) articulatory series.

This has as a consequence that the model undecidability in the evolution of voicing variation sketched out in § 3, display (13) has another dimension. Given two forms A, B, with 'original /f/', where A now has [v] and B has [f], there are four basic scenarios instead of two. I give the two originals below as I, II and the new ones as III, IV:

(17) Scenario I: Original [f], Voicing in A, B, Fading in B

A B > [A B > A B > A B] > A B
f f f~v f~v v v v~f v f

Scenario II: Original [f], Voicing in A Only

A B [A B A B A B] A B
f f f~v f v f v f v f

Scenario III: Original [v] in A, B; Variable Fading in B

A B > [A B > A B > A B] > A B
v v v v~f v f v f v f

Scenario IV: Original [v] Only in A, [f] in B; No Change

A B > [A B > A B > A B] > A B
v f v f v f v f v f

The results (say in the West Country) are compatible with all four sequences (the 'invisible' processes are in [] as earlier). The geographical range over Germania, however, along with the textual and modern dialect evidence, argues for III or IV more strongly than I or II. (Though which is undecidable.)

Note by the way that in III and IV 'original' [f, v] now means the state of play at some post-separation, pre-migration point in the evolution of WGmc: let's say after Ingvaenic as a dialect-cluster had (something of) an identity, probably as late as the time – whenever exactly that was – when Franconian, Upper German, Frisian, etc. would be identifiable as groups with their own special features. That is, I'm not suggesting [v, z] as outputs of Grimm's Law: among other things it's clear from the development of rhotacism in WGmc that at some post-Grimm's Law stage foot-initial [s] must have been distinct from [z] in weak syllables.

If this view is supportable, what are its implications for Old English? The most obvious would be that there's a case for initial voicing to have been brought over – either in the very first migrations in the 5th century or during the following period of migration and contact – from the Continent to England. If we connect this with the post-OE dialect picture sketched in § 3, we might claim that voicing was, at some very early point, a feature of at least some OE dialects: most likely those that occupied the terrain in which the remnants of voicing now occur.

Now I am not merely reinventing the wheel; I am perfectly aware that much the same proposal was made thirty-five years ago by W. H. Bennett (1955), at

least for the South of England. Bennett's argument, however, is based on a much less detailed picture of the dialect distribution, and involves a rather over-simple picture of the dialectal makeup of the original settlement (see the critical discussion in Nielsen 1985: ch. V). Still, Bennett was a pioneer, and the picture I have tried to present, using different arguments, more and different evidence, and ultimately involving a much greater part of the OE corpus, is in the end inspired by his paper.

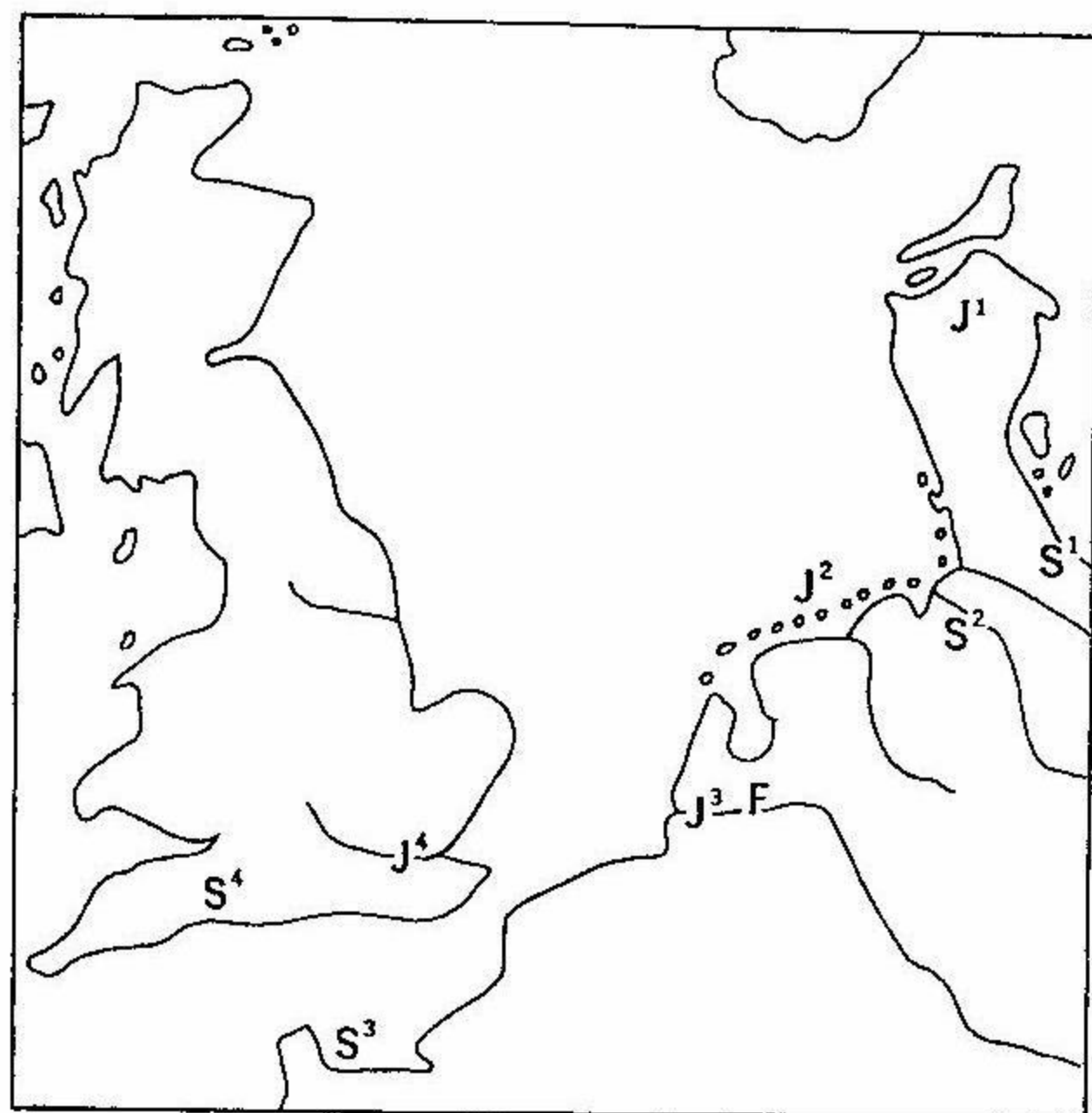
One of Bennett's main problems is the claim (following the early-drawn isophones) that the English voicing was purely southern. If this were so, if in fact there were a strict division between what Bennett calls the 'Juto-Frisian-Saxon' origins of the OE dialects of the SW and SE, and those dialects of Anglian provenance, his story could remain. He suggests that in the early phases of the Germanic invasion (...),

each tribal group entered that part of the island ... closest and most readily accessible, the Juto-Frisians from the lower Rhine ... occupying the nearby Kentish area, the Saxons of the *Litus Saxonicum* settling the opposing districts south and west of the Thames, and the Angles migrating westward to the corresponding northern and midland sections ...

Bennett even provides a nice map illustrating this contiguity: (see Map 4). Unfortunately, a great deal of the later voicing evidence (especially in ME) comes from parts of England that could not have been West Saxon or Kentish, but must have been Anglian: e.g. the *Ancrene Wisse*, Katherine Group, etc. from West Mercian territory, and the onomastic materials collected by Kristensson. We must therefore assume either that the voicing diffused northward from West Saxon territory at some rather late point (after the recession of Mercian cultural hegemony, and during the West Saxon ascendancy say from the 9th century: cf. Toon (1983) for a putative early diffusion in the opposite direction). Or that the one-locus-one-tribe account that Bennett proposes (following Bede) is oversimple. I suggest that the latter is the case (Nielsen 1985: ch. V has good discussion and bibliography, and considers archaeological as well as linguistic evidence).

Given this, it is reasonable to suggest that initial voicing (whatever its source) was a feature of at least all Old English dialects lying within the range delimited by the most extreme isophones in Map 3: that is, all of Kentish, all of West Saxon, and a good chunk of West Mercian (to use the rather crude dialect-names we're still stuck with: see Hogg 1988 for some sophisticated discussion). The areas that show no trace of the voicing lie essentially east and north of this boundary, i.e. East Mercian and Northumbrian territory.

This is quite consistent with the evidence from later times, which as we have seen suggests recession of voicing from the North and West. That is the gradual shift of cultural dominance to the SEML, proceeding over the ME period and beyond, could well have had as one of its effects the diffusion of initial devoicing, as a kind of 'anti-provincialism'. The input areas for the later standard – the EML and later the SEML – had no trace of the voicing.



- J¹ = Jutes in Jutland (Bede, Old English Chronicle)
 J² = Jutes in Friesland (Beowulf 1072, 1088, 1141, 1145)
 J³ = Jutes at the lower Rhine (whence the lower Rhenish culture of Jutish settlements in Britain)
 J⁴ = Jutes in Southeastern England
 S¹ = Saxons between the Elbe and the Baltic coast (Claudius Ptolemaeus)
 S² = Saxons in the vicinity of present-day Niedersachsen
 S³ = Saxons on the Litus Saxonicum
 S⁴ = Saxons in Southwestern England
 F = Lower Franks (Low Franconians)

Map 4. Supposed Continental/English alignments (Bennett 1955)

But what of the OE (WS) orthographic evidence, in particular the famous <f> in *Fergilius*, *fers* (cf. §1)? If the rest of my little story holds water, this is entirely consistent with initial voicing *ab initio*, by virtue of precisely the same principle that allows the standard interpretation of OE <f>. If a medial [v] could be written <f>, there's no reason at all why an initial one couldn't (as indeed Bennett seems to have been the first to suggest). In that case, the 10th-century *uif* for *fif* (see note 15) is exactly the same sort of thing as *hliuade*, *begrauene*, etc. (§1): a Latinising spelling for a well-established allophony.

5. Toward a new Old English?

I suggest then that Bennett's cautious remark (1955: 71) that if the early settlers already had initial voicing, 'the conventional formula for determining the initial allophones of West Saxon and Kentish /f s þ/ would have to be revised' can be taken up, in a much stronger form, more or less as follows:

- I. The basic (allowing for some variation) 'canonical' allophony given in §1 (1, 2) does not hold for any West Saxon, Kentish, or West Mercian variety of Old English.
- II. Rather, fricatives are (generally) voiced except in obstruent clusters and finally.
- III. Given the rest of the evidence, the likelihood is that II held categorically for /θ/, and was probably the majority allophonic control on /f, s/. If it affected /f/ at all, this was late, as /f/ is a late development of /sk/, and not part of the Continental input system.

This means that –given the geographical layout– the only areas showing the 'standard' allophony in OE would have been those east and north of the voicing isophones: that is, East Mercian and Northumbrian. Therefore we could read the word *fliuſum* 'fleece' (dat pl) in line 3 of the Leiden Riddle with an initial [f] as in ModE *fleece*, but not *flysum* in line 3 of its WS counterpart (Exeter Book, f. 109a), which must be read with [v]; similarly Leiden *ðret* 'thread' can be read with initial [θ], but Exeter *bræd* must have [ð] (riddle, 6). And so on. The same general prohibition on reading initial fricatives as voiceless would, if we follow this line, hold for such texts as the whole Alfredian corpus, probably all of the OE Chronicle up to the second continuation, the WS Gospels, all the poems in the Exeter Book and Vercelli Book, Ælfric's Colloquy, Heptateuch and all the homilies, all of Wulfstan, *Beowulf*, the *Appolonius*, *Judith*, the *Vespasian Psalter* ... you name it. One would be quite safe with voiceless initials in the early Northumbrian versions of Cædmon's

Hymn, Bede's Death Song, the Lindisfarne Gospels, the runic *Dream of the Rood* (but not the Vercelli text), and so on.

This is not merely a pedantic fantasy; it has implications for the way we construe 'the history of English' the way we read the bulk of OE and much more of ME than we might have thought. And even more so, for lexicography, if we want to do it really precisely. Even though of course we all know that WS is not 'ancestral' to modern standard English, we do treat it in our etymologies as if it were; probably the majority of the OE etyma cited in dictionaries are (because of the provenance of the greater part of the textual corpus) of WS origin. But if my argument is valid, no WS form beginning with <f, þ/ð, s> can be taken as 'ancestral' –phonologically– to any modern non-West Country form. Therefore 'OE *fæt*' is (if OE=WS) in fact the etymon of ModE *vat*, because the WS graph-sequence <fæt> means [væt], not *[fæt]. Similarly, WS *fot* is not ancestral to 'ModE foot', except in the sense that 'foot' means say Cornish [vyt], not [fot]. It is however ancestral in a more accurate way to a form like *uot* in a ME text from the Southwest or SWML.

I haven't done a count, but I suspect that the majority of OE etyma for words in initial voiceless fricatives are not attested in E Mercian or Northumbrian; hence the etyma are-strictly speaking– not attested at all, but reconstructed. They are not however marked as such. Hence, if say *foot* is in question, and we take an etymon like 'OE *fōt*' as meaning something like [fo:t], we should probably write 'OE **fōt*' or 'OE *[fo:t]' (since by my argument 'OE /fo:t/' could mean either [vo:t] or [fo:t] depending on dialect). Contrariwise, for *vat*, *vixen*, the etyma are attested: they happen to be spelled <fæt, fyxen>, but they mean [væt, vyksen].

In the light of my epigraph, one could say that if we took this proposal seriously, it would be a case of 'Mere anarchy is loosed upon the world'. Maybe it would, and the work involved in implementing such a proposal, if anybody would even be tempted to do it, would be counterproductive and in the end not of any great use except to specialists who ought to be aware of the problem anyhow. I do maintain however that the proposal is worth making, because until the arguments I've produced here can be fairly decisively refuted, no conscientious historian can get away with not being worried about the problem, or at least the undecidability of the issue. And I think there's a case for making at least our brighter students aware of the problem, not just relying on the conventional wisdom. It is a fact that 'ModE' in the usual sense simply has no 'OE' ancestor, and we might be telling very large fibs the way we normally talk. Uncomfortable it may be, but if this paper produces a deluge of recrimination and cries of 'loony', the issues are still worth making public. The worst that might be said is that I'm a conscientious nutcase.

APPENDIX

Some early onomastic evidence for voicing

The material cited here is extracted from notes for work in progress kindly supplied to me by Jacek Fisiak, who thus increases my indebtedness.

There are two interesting points suggested by this material: (a) that voicing, at least of /f/, is according to onomastic evidence attested earlier than textual evidence suggests, and quite far to the north of the earliest textual material; and (b) that the pattern of recession suggested by the SED lexical material is borne out by comparison of the medieval and modern names for a number of places.

Professor Fisiak's material shows <v> – spellings for (expected and/or modern) <f> in counties ranging from Shropshire in the NW and Devon in the SW to Surrey, Kent and Essex in the SE, and including Worcestershire, Herefordshire, Gloucestershire, Oxfordshire, Berkshire, Buckinghamshire, Hertfordshire and Middlesex. The more northerly examples are a century earlier than Kristensson's (e.g. *de Vuerlawe* Sa, 1221, mod. FARLOW, *Vespinton* Wo 1255, mod. PHEPSON). The earliest examples of all from the 11th century: *Tueverde* ~ *Tuiforde* Bk 1086, mod. TWYFORD. Other early examples include *Holeuestne* Wo c. 1086, *Holevast* 1182, mod. HOLDFAST; *Abbeweld* Bk c. 1240, mod. ABFIELD, *Votescray(e)* Kt 1242, mod. *Foots Cray*, *Vinbir* Mx 1231, mod. FINSBURY.

Detailed evaluation of this material must await completion of Professor Fisiak's work; for my purposes here what counts is evidence from as early as the 11th century for voicing in areas where it is poorly attested, and well before the first texts that show it. It may not be out of line to suggest that this material – even if fragmentary – will support the general claim for early and widespread voicing that I develop in this paper.

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