ABSTRACT: It has been thirty years since it was first proposed that medieval French and German, while lacking [s] phones, each had two [s] phones, one with the tongue tip as the primary constrictor, generally transcribed [s], and one with the blade as the primary constrictor, [ʂ]. While the distribution and development of these phones have been extensively studied, much of the study has proceeded in ignorance of the existence and value of contemporary Hebrew records from the Rhineland. Similarly, study of the Old Ashkenazic values of the Hebrew sibilants by Gumperz and others, while aware of the problem of the Old French and OHG/MHG sibilants, overlooks some of the detailed phonetic inferences available for the European languages. This paper is an attempt to synthesize discussion of the European and Hebrew facts into a coherent whole, leading to the conclusion that all of the orthographic distinctions relating to sibilants in biblical Hebrew were in fact maintained throughout the period of Jewish settlement in the Rhineland. Thus, the [ʂ]/[s] contrast in most Ashkenazic Hebrew is a direct descendant of the same contrast in BH, not an innovation to bring the pronunciation into line with the Tiberian vocalization.
0.0 Introduction

It has been claimed that many Jews living in Western Europe during the early Middle Ages did not distinguish /s/ from /ʃ/, either in their ordinary spoken languages or in their liturgical uses of Hebrew. It is the purpose of this paper to examine the evidence leading to such claims and to propose an explanation for all of the facts that have been brought to bear. The ultimate explanation will turn out not to involve a complete loss of the /s/ - /ʃ/ contrast, but something infinitely more complex.

0.1 Terminology

Before the dimensions of the problem are outlined, some definitions are in order. Ashkenaz refers to the area encompassed by northeastern France, southern Germany, Austria, the non-Balkan Eastern European nations, and western Russia, including Lithuania. M. Weinreich's distinction (1980, p. 3) between Ashkenaz I, coterritorial with German, and Ashkenaz II, coterritorial with Slavic languages, is useful. Loter, the Hebrew/Jewish name for Lotharingia, the kingdom of Charlemagne's grandson, Lothar II (855–870), corresponds approximately to the French province of Lorraine and adjacent areas of Germany. By liturgical Hebrew, I mean the language of those compositions in Hebrew and/or Aramaic which played a part in Jewish ritual; a major motivation for the development of Hebrew grammars in the Middle Ages was to ensure correct and authentic readings of these compositions.

For the phonetic discussion, it will be necessary to make several fine distinctions. A sibilant is a fricative sound in which the primary constriction is between the front part of the tongue and the vicinity of the alveolar ridge. Sibilants differ along several dimensions, notably the shape of the constriction, which part of the tongue is involved, where on the roof of the mouth the primary constriction is made, and whether or not any secondary feature, such as rounding, is present. In this paper, the terminology in (1) will be used (based on Fought, 1979, p. 849 and Adams, 1975, p. 282):

(1) $s$—apical-alveolar (slightly retroflex) sibilant
$ʒ$—laminal-alveolar sibilant
$ʃ$—a narrow groove sibilant
$ʃ$—a wide groove sibilant
c—voiceless affricate, with same diacritics as used for 's'
These diacritics can appear in combination: ṣ (English s), ṡ (Spanish s), ṣ (English sh), ṡ.1 Wherever the phonetic descriptions are sufficiently detailed, the symbols used by other writers will be converted to this system. Corresponding voiced sounds will be represented by ‘z’ and ‘j’. Absence of a diacritic either above or below a symbol is to be interpreted in one of two ways. Either the sound in question was unspecified in regard to that feature, or our information is not sufficient to enable determination of how the sound was specified in regard to that feature.

0.2 Biblical Hebrew Sibilants

Biblical Hebrew had the following sibilant phonemes, all of them orthographically distinct: /s s c' z/. /s/ sin and /s/ shin are represented in the biblical text by the same letter; the diacritic dot distinguishing them was first used in the Tiberian vocalization, around 700 A.D. Interchanges of /s/ sin and /s/ samek in late biblical and in post-biblical writings indicate that, at least in mainstream Hebrew, these two phonemes had merged. They are, in fact, pronounced identically in most liturgical Hebrew pronunciation traditions.2 /s/ shin, by far the most common of the sibilants (Beeston 1977, Faber 1981), is the voiceless partner of /z/ (Rosen, 1978, p. 447n). I have elsewhere (Faber 1981, ms) argued for the reconstructions in (2):

(2) Proto-Semitic Value orthog. Hebrew translit. letter name

| s | υ | s | shin |
| .sax | υ | s | sin |
| çon | υ | s | samek |

1. The narrow-wide groove sibilant distinction is based on Fought’s (1979, p. 849) small-large groove distinction. Ladefoged (1971, p. 48) provides examples from two Dravidian languages (Telugu and Kannada) in which apical-alveolar /s/, apical-(post) alveolar /ʃ/ and apical retroflex /ʃ/ contrast. (In Indian linguistics, the latter is normally transcribed /s/, a symbol not available here.) It should also be noted that some English speakers consistently use [s] instead of [ʃ].

2. In the Samaritan pronunciation tradition, /s/ shin and /s/ sin are not distinguished either in pronunciation or in orthography. These are both distinct from /s/ samek. A similar merger took place in the two Semitic languages most closely related to Hebrew, Phoenician and Ugaritic. It has been claimed (Gumperz 1942, Diem 1974) that the same merger also took place in Hebrew; the later appearance of /s/ sin took place in those words in which Hebrew /s/ shin corresponded to Aramaic /ʃ/. For a refutation of this view, see Steiner (1977) and Blau (1977).

3. Eldar (1978, p. 102) maintains the reverse: /s/ shin was laminal [ʃ] and /s/ samek apical [s]. M. Weinreich (1980, p. 382), for other reasons, accepts a reconstruction like that given in the text.
Hebrew /s/ shin is commonly considered to have been [ס], based on its pronunciation in modern Hebrew reading traditions. However, I know of no conclusive evidence for this pronunciation in Europe prior to the late Middle Ages.\(^4\)

### 0.3 Early Jewish Settlement in Europe

Early Jewish settlement in Europe is shrouded in mystery. It is known that there were Jews in Cologne as early as the third century A.D., and many assume that the earliest Jews in Europe followed the Roman legions, so that wherever there were Romans there were Jews. By about the tenth century, there were Jewish settlements throughout the Rhine-Moselle valleys, with the communities in Metz, Cologne, Mainz, Speyer and Worms achieving particular distinction. These areas provided the seed for Ashkenazic Jewish culture, and the influence of their rabbinical scholarship is still felt today, a millennium later.

Throughout the early centuries of the second millennium, the historical record reflects a gradual shift eastward of the Jewish population in Europe, so that, by the mid-seventeenth century, the demographic and cultural center was clearly in Poland/Ukraine/Lithuania. However, the extent to which the Ashkenaz I (Rhineland) community provided the demographic as well as the cultural core of the burgeoning community in Ashkenaz II is not at all clear (King 1979, King and Faber 1980, Faber and King ms). Most histories of European Jewry assume that the demographic and cultural cores coincided, but evidence of several sorts suggests that this is not, in fact, the case.

The Rhineland Jewish communities were relatively small, and it is likely that many of their members did not survive the tribulations attendant upon the expulsion of the Jews from Normandy and Ile de France around the turn of the fourteenth century, let alone the pogroms accompanying the Crusades (1095–) and the Black Death (1347–1350).\(^5\) Yet there were on the order of half a million Jews in Poland on the eve of the Chmielnicki massacres of 1648 (Dubnow 1904, p. 66n).

Furthermore, Yiddish, an offshoot of Middle High German with a

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4. The equation of Hebrew /s/ shin with Arabic /š/ in early medieval Spain does not necessarily reflect an early pronunciation of Hebrew. Rather, it might be the case that /š/ shin was still apical [s], for which /š/ was the closest acoustical match. Of course, if the distinctive feature had been apical vs. laminal articulation, the aperture shape would not have made a difference.

5. Guerchberg (1948) provides extensive evidence that the Jewish death rate during the Black Death was at least that of the surrounding gentile population. Dinur (1969, p. 30) states that almost all of German Jewry was “wiped out” in the period of the Black Death.
heavy admixture of Hebrew/Aramaic and Slavic linguistic material, has
clearer affinities with Bavarian than with any other German dialect (Bin
Nun 1973, King 1979). Rhine-Franconian and Low Franconian are notable
for their lack of affinity with Yiddish, despite the presence of some Old
French lexical items in Yiddish.

Also by the tenth century, there were Jewish communities of some
repute in Regensberg and Prague. M. Weinreich speculates that at least
some of the Jews of this area migrated from Thessaloniki up the Danube
and through Austria and Hungary into Bohemia; others crossed the Bal-
kans, travelled by sea up the Adriatic coast, and crossed the Alps at
Carinthia, proceeding from there to the Danube (1980, p. 83). However,
he later contradicts this (1980, p. 333), suggesting that Jewish Regensberg
was settled by traders from Mainz around the end of the tenth century.
While Regensberg was undoubtedly a way station on trade routes from
the Rhineland to the Slavic east, its position on the Danube suggests that
Jews following Roman legions would have settled there early on.6

There is little additional evidence for Jewish settlement in Bavaria/
Bohemia at this early date. The twelfth-century traveller Benjamin of
Tudela, for example, writes of nonobservant Jews somewhere in the wilds
of Walachia, but his reports are based on hearsay.7 The presence of a
thriving Jewish community farther south in Yugoslavia is known from the
excavation of an elaborate fourth-century synagogue in Stobi (Wiseman
1973). It should be emphasized that lack of a strong historical and ar-
chaeological record is not evidence for lack of Jewish settlement. Ex tacito
arguments are always risky, and the risk inherent in resorting to them
increases as the quality of the record decreases.

1.0 Statement of the Problem

Three sorts of evidence have been brought to bear upon the question
of how many voiceless sibilants were distinguished in liturgical Hebrew
in early Medieval Europe. First of all, we have contemporary orthoepy.

6. Bach (1949, p. 50) equates the Roman advances along the Rhine and the Danube.
Some Latin influence on OHG radiated from the south, although it was less strong than the
influence from the Rhineland. According to Tschirch (1966, p. 112), the southern influence
on OHG was earlier.

7. “Here are the confines of Walachia, the inhabitants of which are called Vlachi. They
are ‘as nimble as deer’ and descend from the mountains into the plains of Greece, committing
robberies and making booty. Nobody ventures to make war upon them, and they do not
profess the Christian faith. Their names are of Jewish origin and some even say that they
have been Jews, which nation they call brethren. Whenever they meet an Israelite, they rob
but never kill him, as they do the Greeks. They profess no religious creed.” Asher (1840, p.
48) notes that the Walachians themselves claim descent from Romans.
The growth of Hebrew grammar was intimately related to the development of ritual norms, which included norms for liturgical pronunciation. Such works often refer to stereotyped pronunciations of Jews in other areas. While these works are valuable in that they indicate that variation existed, they are often less than helpful in determining exactly what the variation was.

The thirteenth-century grammarian Yekutiel of Prague, for example, refers to Ashkenazim who do not differentiate sin from shin (cited in Eldar, 1978, p. 101). Eldar (1978) and Gumperz (1942) interpret this statement to mean that early Ashkenazic Hebrew did not differentiate /s/ shin from /s/ samek. However, /s/ shin and /s/ sin refer only to the pronunciation of the graph υ. So, Yekutiel’s statement has no bearing at all on the pronunciation of /s/ samek, but rather suggests that in some Ashkenazic dialects, /s/ sin had merged with /s/ shin, rather than with /s/ samek.

The late twelfth-century Spanish grammarian Rabbi David Kimchi, in his commentary on Judges 12:6 (the Shibboleth incident) says the following: “The Ephraimites used to pronounce /s/ shin as /s/ sin, as they were lisping. Perhaps they were influenced in this by the climate of their country, as are the French [Jews], who are not able to pronounce shin, but sound it like soft taw” (cited by Garbell, 1954, p. 666). The simplest interpretation of this statement is that the French pronunciation of /s/ shin sounded like, but was not identical to, the acoustically similar Spanish pronunciation of postvocalic /t/, most likely [θ] (Garbell, 1954, p. 672); Spanish /s/ shin was like Arabic /š/ (also called shin) and Spanish orthographic x (Garbell, 1954, p. 666).

Two additional types of evidence are often brought to bear upon the question of how many sibilants early medieval Hebrew had. These are the transliterations of Hebrew in European languages and of European words in Hebrew, and the existence into the twentieth century of Lithuanian dialects of Yiddish in which /š/ and /s/ are represented by a single sibilant phoneme. As is the case with the commentaries, mutual transcription evidence is consistent with the claim that liturgical Hebrew in medieval Europe had a single sibilant phoneme. However, neither type of evidence precludes Hebrew’s having had an additional sibilant that was articulatorily distinct from anything found in any European language.

8. Gumperz (1953), containing early examples of Hebrew transcribed in Latin letters by speakers of Romance languages, was not available to me while I was doing the research summarized in this paper. None of his examples, as far as I can tell, contradicts the general claim advanced below: even if the ms. studied by Gumperz can be interpreted as supporting the claim that all three sibilants had merged, the evidence of other mss. makes it impossible to treat this alleged merger as a general trait of early Ashkenazic Hebrew.
2.0 Transcription Evidence from Loter

Jews living in northeastern France around the tenth century spoke a variety of Old French that is referred to in histories of Yiddish (e.g. M. Weinreich 1980) as (Western) Loez. Loez, like neighboring varieties of Old French, had one sibilant phoneme, apical /s/, from Latin *s (Joos 1952, Fought 1979). In addition, palatalization of Latin *k before /e/ and /i/ led to laminal /ç/. This palatalization took place in Late Latin, and is to be distinguished from the seventh century Francian palatalization of *k to /č/ before /a/. The existence of the word שולאן ‘Sabbath stew’ (<*CALENTEM, M. Weinreich, 1980, p. 400) in Yiddish may point to a specifically Francian affiliation for Loez. In any case, this item entered Yiddish before the thirteenth century deaffrication of /č/, which is reflected in Western Yiddish sleelet/siolet, but not in the Eastern Yiddish forms from Ashkenaz II.

Birnbaum (1971), a magnum opus on Hebrew paleography, includes a photograph of one page in a manuscript in which homographic Hebrew words are distinguished by means of their differing Loez translations (Bodleian MS Or. 135 fol 232v; Birnbaum, p. 324). The manuscript can be attributed to pre-thirteenth century France on paleographic grounds. The identification of Hebrew letters with Loez (OF) sounds in the glosses points unambiguously to a phonemic system containing /ç/, laminal /ʒ/, and a single sibilant corresponding to OF apical /s/ and written with the Hebrew /š/ shin (minus the diacritic). /ç/ is written with the Hebrew тsade, also an affricate, and /ʒ/ with the letter qof modified by a diacritic: צ. The following remarks about Loez are necessarily speculative, given the limited size of the corpus available to me; I have no reason to believe that a materially larger corpus would necessitate revision.

The plural -s is rendered shin (3a), except where it is directly adjacent to /t/ in nouns (3b) and participles (3c).

(3) a. q'wrs 'bodies' [kors] OF cor10
    qncs 'fortunes' [çącəs]11 OF chance
    mtyns 'mornings' [matıs] OF matin

9. This diacritic, identical in form and placement with the “modern” hăček, identifies palatal consonants. In the photograph I examined, it occurs only with q, but Banitt's (1961) copies show it appearing with n in sehôr 'lord'.
10. I follow here the spelling of the Larousse Dictionnaire de l'ancien français. OF items are given in citation form (singular, infinitive, etc.).
11. In contradistinction to OF/MF, where the loss of preconsonantal /n/ cannot be placed with certainty before the mid-sixteenth century (Pope, 1952, p. 170), preconsonantal n in Loez appears to be merely an orthographic sign of nasalization of the preceding vowel. This is demonstrated by spellings like tmst 'for OF tempeste 'plague'. In the transcriptions, quality changes associated with vowel nasalization are not taken into account.
b. 'nfnc 'children' [ɛfẫɡ] OF enfant
c. prlnc 'speaking' [па̃лά̃қ] OF parler
q'wqnc 'burning' [кокẫɡ] OF coquer\footnote{12}

In one instance c occurs unexpectedly in final position, as in (4), perhaps indicating that the deaffrication of /ş/ and /ć/ had begun.

(4) 'wc 'bone' [õç] OF os

/ş/, /ć/ and /s/ contrast intervocally as in (5).

(5) a. f'ws' 'tomb' [fosa] OF fosse
pnsy's 'thoughts' [pễseos] OF penser
gryyss 'fat (pl)' [gré̃sos] OF gras
b. ćĩnt 'following' [çãçat] OF chacier
blynwn 'blessing' [baņiņun] OF benicon
mwnsyys 'hills' [muņeys] OF moncels
c. brnqs 'branches' [braņ̃as] OF branche
frnčyz' 'joy' [frańiżɑ] OF franchise

There are no instances of initial /ş/ in the sample, but /s/ (6a) and /ć/ (6b) are attested.

(6) a. swn 'his (sg)' [sun] OF son
sys 'his (pl)' [sis] OF ses
swyylnt 'disgusting' [sweỹl̃at] OF soiller
b. ćncs 'fortunes' [çaņ̃os] OF chance
ćĩnt 'following' [çaņ̃at] OF chacier

The examples presented here could easily be multiplied by additional forms extracted from articles that have appeared in the Revue des Études Juives from Darmesteter (1907) to Banitt (1961).\footnote{13}

\footnote{12} Larousse derives the OF forms cuire, cuisse from *cocere, a vulgar Latin variant of coquere. Nonpalatalization of the second /k/ in k'wnc reflects the classical Latin form.

\footnote{13} The forms presented by Darmesteter are (Western) Loez glosses within the eleventh century biblical commentaries of Rashi, the renowned scholar of Troyes. Because of Rashi's influence, his commentaries have been copied and recopied. Most of these copies were made by people who were presumably unfamiliar with Loez or Loez spelling conventions. Darmesteter collated the forms from many different manuscripts, and his transliterations show great inconsistency in the distinction between q and ći; it is difficult to determine whether this variation reflects orthographic variation alone or a merger of /ć/ and /k/.
While there are some aspects of the Loez spelling system, outside the scope of this paper, which suggest a conscious attempt to parallel OF spelling patterns, the representation of Loez consonants probably reflects quite accurately the phonetic values of liturgical Hebrew in Loez territory. It is, therefore, significant that Loez apical /s/ is consistently represented by Hebrew /s/ shin.

It can be demonstrated that apical [s] was not the original value of /s/ shin. St. Jerome, writing in the fourth century about the Hebrew of Tiberias, describes Hebrew /s/ shin as being similar to Latin s, but with some additional characteristic. Given that Latin s, the ancestor of OF apical /s/ and Spanish apical /s/, probably shared the apical articulation, Hebrew /s/ shin could not have been simply apical [s]. Apical [s] would be a plausible reconstruction, although it is by no means certain. However, any Hebrew apical sibilant would have been identified with OF apical /s/, regardless of its acoustic quality, and, in fact, the OF value was likely substituted for the Hebrew without disturbing the phonemic system. Kimchi's description of French /s/ shin in terms of Spanish soft taw suggests that this had in fact happened by the twelfth century.

The fact that the Hebrew /s/ samek, representing laminal /ʒ/, is not used at all in Loez words suggests to some, notably Gumperz (1942) and Eldar (1978), that /s/ shin and /s/-/s/ sin-samek had merged in the liturgical Hebrew of Loter. But OF, and presumably Loez as well, did not have phonemic laminal /ʒ/, but only apical /s/; so Hebrew samek would not have been needed for an accurate representation of Loez.

Examination of the treatment of names of Romance origin in Yiddish, illustrated in (7). In these names, Latin *s is represented by Yiddish /ʃ/, and Latin *k by Yiddish /c/ (M. Weinreich, 1980, pp. 399–403).

(7) Shneur Favish Toltse
   *SENIOREM *VIVUS *DULCIS

14. Most of these have to do with the representation of the vowel phonemes. Notable is the use of k (aleph /k/) to represent final -e.
15. Neither was Hebrew /s/ samek apical /s/. Jerome describes it as being similar to but not identical with Latin s, a description that is consistent with laminal /ʒ/. Thanks are due Lew Sussman for his help in interpreting the Latin citation in Barr (1967, p. 15).
There are, in addition, some names of Hebrew etymology, illustrated in (8), which (presumably due to their frequency) were treated in early Yiddish like those names of German/Romance stock. Initial Hebrew /ʃ/ shin (apical [ʃ]) became voiced, as did German apical /ʃ/. Similarly, initial Hebrew laminal /ʃ/ was identified with German laminal /ç/.

(8) zanv| smu’el
    zalman slomo
    zav| sa’ul
    zim| sim’on
    corlin° sóço
    cimha simço

2.1 Sabesdiker Losn

The most convincing case for early dialects of Hebrew with a single voiceless sibilant is based on the fact that, until recently in this century, some Lithuanian dialects of North Eastern Yiddish had only a single voiceless sibilant. U. Weinreich (1952) describes this phenomenon of sabesdiker losn, so-called because of the stereotyped pronunciation of the ordinary Yiddish shabbesdiker loshn ‘Sabbath speech’. Bin Nun (1973, p. 366) describes the single sibilant as intermediate between the contrasting /s/ and /ʃ/ found in other dialects of Yiddish. /s/ is described (p. 401) as being a laminal alveolar, i.e. [ʃ], and /ʃ/ as being an unrounded apical alveolar, i.e. [ʃ]. The intermediate sibilant, then, would be apical [ʃ].

As to the origin of the phenomenon, Gumperz (1974, p. 111) claims that it is a relic of the noncontrast in early Ashkenazic Hebrew. However, this claim is crucially grounded on the assumptions that the contrast had, in fact, been lost in Loter and that Loter provided the demographic core for Lithuanian Jewry. Since the first is the claim under examination in this paper and the second is by no means uncontroversial (see sec. 0.3), Gumperz’ claim cannot be sustained; neither can it be refuted.

16. The -in is a Romance diminutive suffix. Common Hebrew component words in Western Yiddish in which sin and samek appear as c reflect the same process. Examples of this are ceix’ ‘sense’ (cf. séxel) and cuk’a ‘booth’ (cf. sukkå) (M. Weinreich, 1980, p. 383). Most of the Hebrew component of Yiddish was restandardized after the development of German /ʃ/: shin became associated with Yiddish /ʃ/ and sin/samek with /ʃ/. The common words cited in this note and the names cited in the text are relics supporting the interpretation of Hebrew sin/samek as [ʃ], a sound not found in OF and early MHG.
Bin Nun, on the other hand, treats the NEY phenomenon as a retention from early MHG (1973, p. 367). MHG /s/ (\(<^*\)s) was lost around the thirteenth century. Before 1050, initial *sk had changed to /š/ (Kranz­mayer, 1956, p. 98). Later changes involved the deaffrication of postvocalic /š ʒ/, the merger of this geminate laminal /š/ with apical /s/, and the development of /š/ from apical /š/ in initial consonant clusters; in Yiddish the intervocalic apical /šš/ changed to /š/ rather than to laminal /š/ (Bin Nun, 1973, p. 364). Bin Nun’s claim is that the changes from an apical /š/-laminal /š/ contrast to a /š/-/š/ contrast took place in different orders in different areas, such that, in at least one, they merged (p. 367).

While there is nothing prima facie implausible about Bin Nun’s account, it does not take into account another set of relevant facts, those dealing with Polish mazurzenie, loss of sibilant-shibilant contrasts. In much of Mazovia, Little Poland and Silesia, contrasts between /s z c/ and /š ž č/ are neutralized; the contrasts are maintained in other dialects of Polish. Stieber (1968, pp. 67–8) demonstrates that mazurzenie entered Polish in the twelfth or thirteenth century. U. Weinreich (1963, p. 354) hypothesizes that the Yiddish sabesdiker losn arose in Poland in the late thirteenth century, under the influence of Polish mazurzenie. The earliest migrants from Poland into Lithuania and Byelorussia brought with them a Yiddish without these sibilant contrasts, while later migrants into Poland had the /š/-/š/ contrast. This approach is flawed by Weinreich’s unwillingness to project the sibilant noncontrast in Yiddish further back than thirteenth century Poland. If, however, we follow Bin Nun and assume that the MHG sibilant system developed differently in different dialects, there is no problem. The earliest Jews in Poland would have spoken a dialect of Yiddish/MHG in which either the NHG system had not yet developed or the reflexes of the MHG sibilants developed differently than in NHG. The development of mazurzenie in Polish would have retarded what might otherwise have been perfectly normal developments in Yiddish. Most migrants from German to Polish territory after the fourteenth century would have been speaking dialects of Yiddish in which /š/ and /š/ were already well established as distinct phonemes. Thus, the established

17. The value apical /š/ for German *s is established by reference to treatment of OF items in MHG and vice versa (Joos 1952, Fought 1979). Kranz­mayer (1956, pp. 92ff) does not discuss the articulatory nature of MHG /š/ but refers to it as a “strange intermediate sound” (sonderbaren Zwischenlaut) which is consistent with the value apical /š/.

18. According to one of the individuals present at the oral presentation of this paper, a three-way contrast of [š], [ʒ], and [ž] is maintained in the Sieben Gemeinden of southern Austria, a Bavarian speech area. If so, this would support Bin Nun’s variation-based account.
systems of Polish dialects with only a single voiceless sibilant would not have been as likely to influence them.\textsuperscript{19}

It is clearly impossible to trace out specific migration paths and rates at such a far remove. But it is important to note that the Silesia-Little Poland-Mazovia swath of modern Poland more or less connects Bohemia with Lithuania. That migrations along at least part of this swath began early is indicated by a document cited in Dinur (1965-, p. 44), which refers to the tribulations suffered by some Jews who were leaving Bohemia for Poland and Pannonia (Hungary) in 1098. Dubnow (1968, p. 41) relates this migration from Bohemia to the first Crusade. These citations do not indicate where in Poland the migrants settled, but, since Silesia borders on Bohemia, it is likely that many refugees ended up there. Documentary evidence for early Jewish settlement in Poland is sparse. Apart from a colony of Jewish merchants in Przemyśl (SE Poland) in the eleventh century (Gieysztor, et al., 1968, p. 73), the first notices are of communities in Wrocław in the late twelfth century (Weinryb, 1976, p. 24) and Cracow in 1304 (Baron, 1965, p. 32).

As for Lithuania, the earliest Jewish settlers were Karaites from Crimea, perhaps as early as 1218 (Mann, 1972, p. 556). The Karaite charter allowing settlement in Troki was a model for that allowing other Jews, presumably from Poland, to settle in neighboring Vilna in the fourteenth-fifteenth centuries. These limited data pose no barrier to acceptance of the view presented earlier: the earliest Jewish immigrants to Poland from Germany brought with them a Yiddish in which the sibilant system was not that of later MHG and Yiddish. Realignment of this system was forestalled under the influence of Polish \textit{mazurzenie}; all voiceless sibilants merged. This single-sibilant system was imported into Lithuania with these migrants, where it was maintained into this century. Meanwhile, later immigrants to Poland from Germany brought with them a stable system of \textit{/s/} and \textit{/s/} in contrast, which was not subject to the influence of \textit{mazurzenie}. It is not necessary to assume for this scenario any pronun-

\textsuperscript{19} Neil Jacobs informs me that, at least until the seventeenth century, \textit{mazurzenie} was a stereotypical feature of Jewish Polish, even in areas in which the \textit{/s c z/ - /\&/} contrast was maintained by non-Jews. This fact suggests that it took some time for the Yiddish in which \textit{/s/} and \textit{/\&/} contrasted to become standardized in Poland. I do not know the extent to which this delayed standardization was ultimately affected by the arrival in Eastern Europe of Sefardic refugees following the expulsion of Jews from Spain by Ferdinand and Isabella in 1492.

That the present state of affairs in Eastern Yiddish resulted from restandardization rather than regular sound change is demonstrated by the presence of scattered forms with the etymologically incorrect sibilant in the forms collected by the Yiddish Dialect Atlas.
ciation tradition of liturgical Hebrew in which all three voiceless sibilants had merged except that of sabesdiker losn speakers. Speakers of dialects of Yiddish in which the /š/ - /s/ contrast never evolved would naturally have utilized their single sibilant for their Hebrew as well; the phonological rules that brought about the merger in the one would also have applied to the other. There is thus no unambiguous evidence whatsoever that any pronunciation tradition of liturgical Hebrew earlier than the thirteenth century had only a single voiceless sibilant.

3.0 Conclusion

The conclusion reached above that liturgical Hebrew in Europe always maintained the contrast between /s/ shin and /š/-/s/ sin-samek is a satisfying one, as it frees us from the analytical burden of explaining just how the contrast was reintroduced so that in all non-Lithuanian Ashkenazic pronunciation traditions /š/ shin and /š/-/s/ sin-samek contrast in accord with etymological expectations. In other words, if the contrast was in fact lost, how is it that all reflexes of PS apical *š are realized /š/, while all reflexes of PS lateral *z sin and dorsal *č samek are realized /s/? The usual answer to this puzzle ties the reemergence of the contrast to the spread of the Tiberian vocalization system in Europe.20 The Tiberian system, with its diacritic distinguishing /š/ shin from /š/ sin, provided the phonemic contrast; MHG, with its /š/ (<*sk) provided the phonetic realization (Eldar, 1978, p. 101).

It is difficult to believe that a spelling reform, no matter how strict, could restore the etymologically expected pronunciation in all particulars, especially when other aspects of the new spelling had no apparent impact on the pronunciation of liturgical Hebrew. In the Ashkenazic tradition, only four stop phonemes undergo postvocalic spirantization; /g/ does not and /d/ no longer does, despite the fact that the spirant-stop alternation is marked for them in the same way that it is marked for /t/, /b/, /p/ and /k/, with a central dot for the stop alternant. Despite the fact that the same diacritic occurs with /d/ and /g/, there is no variation in the pronunciation of these letters. While German/Yiddish [z] is of limited distribution, it nevertheless would have been available as a post-vocalic alternate of /d/, parallel to [š] as the post-vocalic alternate of /t/, had there been any concerted pressure to bring the pronunciation of liturgical Hebrew into line with the Tiberian orthography. That there was no such

20. The Tiberian system and those teachers who spread it are also held accountable for the seven-vowel system of Ashkenazic Hebrew, which replaced a "simpler" five vowel system, like that used in Spain. The latter is preserved in the pronunciation of modern Hebrew.
pressure in the case of post-vocalic /d/ and /g/ casts doubt upon similar explanations proposed for the putative reintroduction of /s/ shin as /ʃ/.

It should also be noted that while there are scattered examples of "etymologically incorrect" sibilants in merged Hebrew items in the files of the Yiddish Dialect Atlas (Charles Nydor, personal communication), they are insignificant in comparison with the large number of items in all Yiddish dialects which reflect a five-vowel system for liturgical Hebrew current prior to the adoption of the Tiberian system. A long list of these words, including yam 'sea' and dag 'fish' is presented in M. Weinreich (1980, pp. 356ff). Thus, it is clear that even the pressure that must have been involved in mandating the Tiberian vocalization system was insufficient consistently to change Hebrew words embedded in Yiddish. These retentions make the lack of widespread sibilant interchanges even more a sign that, in most dialects, the contrast had never been lost.

An adherent of the position that the sibilants had merged in the Hebrew of Ashkenaz I could also account for the reintroduction of the /s/ shin— /ʃ/-/s/ sin-samekh contrast by appealing to the influence of some other group of Jews in which the contrast was never lost. The best candidate would be an autochthonous Slavic-speaking Jewish population in Bohemia and the northern Balkans. Jakobson and Halle (1964) present evidence for an Old Czech (= Canaanic)-speaking community in Prague prior to the eastward migrations from Ashkenaz I. Furthermore, words of Old Czech etymology dominate the semantic field of ritual slaughtering and butchering in Yiddish (M. Weinreich, 1980, pp. 543-5). While it is clear that Jewish communities in this region contributed extensively to Yiddish, it would be foolhardy to attribute to them a decisive role in modifying liturgical Hebrew. This is especially the case given the presentation in this paper of a large body of evidence that there is in fact nothing to explain.

So, what have we learned? The original apical /s/ of Hebrew became, in Loez territory, apical /ʃ/, acoustically extremely close to [θ]. This value is reflected in the equation of OF apical /ʃ/ with Hebrew /s/ shin in transcriptions and in the adaptation of Romance names in Yiddish and Hebrew. When OF and MHG /ʃ/ changed, liturgical Hebrew was not subject to the changes. The phonemic distinction between /ʃ/ shin and /ʃ/-/ʃ/ sin-samek was maintained, albeit in different phonetic garb. The lesson, which, despite its obviousness, bears repeating, is that it is dangerous to base phonetic conclusions on a phonemic analysis which is not, in turn, well grounded in phonetic facts. While the symbol "s" is used in descriptions of many languages, we cannot assume acoustic or articulatory similarity or identity of the sounds transcribed with it.
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