# Yiddish Proto-Vowels and German Dialects

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This paper suggests a series of schemas aimed at eliminating the main drawbacks of existing schemas of Yiddish proto-vowels. It attempts to complete the schemas developed by other scholars mainly in two aspects, proposing derivational rules that (1) account for Proto-Western Yiddish and its sub-dialects and (2) explain the relation between the vowels of the German donor language and Yiddish proto-vowels. This analysis shows the impossibility of constructing a schema of a single Proto-Yiddish as a historical reality and thus implies the polygenesis of the system of stressed vowels and diphthongs of Yiddish. Proto-Western Yiddish and Proto-Eastern Yiddish had no common, specifically Jewish ancestor. The comparative analysis of various German dialects and Yiddish proposed here provides the basis for determining the regions (East Franconia and Bohemia, respectively) where the stressed vocalism of the Yiddish dialects likely appeared and the corresponding time period (the 14th–15th centuries).

## 1. Introduction.

It was Max Weinreich who first suggested in 1960 a *kadmen-skheme fun yidishn vokalizm* ('proto-schema of Yiddish vowels'), that is, the Proto-Yiddish system of vowels and diphthongs. In his posthumous magnum opus (Weinreich 1973.2:321–382), every Yiddish (stressed) proto-vowel is designated by two characters: an upper case vowel (A, E, I, O, and U) that roughly characterizes its original quality and a digit indicating one of the following cases:

1 = vowels that were short and remained short
2 = vowels that were long and remained long
3 = vowels that were short and became lengthened in open syllables
4 = nucleus of an original diphthong whose first element was a short vowel
5 = special type of short vowel, existing only for the E-quality.

The analysis of the correspondences between reflexes of the same proto-vowels in various modern Yiddish dialects shows, however, that no difference can be discerned between $E_2$ and $E_3$, $I_2$ and $I_3$, $O_2$ and $O_3$, or

$U_2$ and $U_3$. Weinreich was well aware of this fact, but he kept all these proto-vowels separate—most likely because the whole system looked more symmetrical—preferring not to treat the A-quality apart from others. Initially, the schema consisted of twenty elements: (a) no proto-vowel with digit 5 was postulated except for $E_5$; (b) $A_4$ was lacking; and (c) the digits 1, 2, and 3 were valid for all five qualities. Katz (1987:51) removed from this schema the proto-vowels $E_3$, $I_3$, $O_3$, and $U_3$ as redundant in the presence of $E_2$, $I_2$, $O_2$, and $U_2$, respectively. In the resulting schema of sixteen elements, two, $A_3$ and $E_5$, were treated separately: no other element with the same digit was found. To explain these anomalies in the otherwise symmetrical system, Katz (1993a:50) conjectured that both elements were not present among the actual vowels of Proto-Yiddish but resulted from two splits that occurred during a later period, that of early Yiddish, under the influence of German. During that period, in High German dialects the short vowels were lengthened in open syllables.[1] For Weinreich, at some point during the history of Yiddish this process was responsible for the creation of all proto-vowels with digit 3. For Katz, on the contrary, only two proto-vowels met the conditions of this German phonetic process, namely $A_1$ and $E_1$. In open syllables, the former gave birth to $A_3$ and the latter to $E_5$.

Another change suggested by Katz concerns the attachment of vowels in words from the Hebrew component of Yiddish to various proto-vowels.[2] Weinreich (1973.2:328) postulated that all these vowels were short during the Proto-Yiddish period. Consequently, he linked Hebrew vowels in open syllables to the series of proto-vowels with 3 as the digit. Katz (1987:51) demonstrated the internal incoherence of Weinreich's solution. Indeed, if one takes into account the modern reflexes in Western Yiddish of *qamets* in open syllables, one can see that

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[1] Another way to establish symmetry in Weinreich's schema was proposed by Jacobs (1990:62). His idea, which appears to be more attractive than Katz's, is discussed in section 3.3.

[2] In Yiddish, the vowels in words of Aramaic origin received exactly the same treatment as in those of Hebrew origin. For that reason, one often refers to the Hebrew-Aramaic component of Yiddish (or Semitic, if one uses Katz's terminology). To simplify this term, in this paper I use only Hebrew, which should often be understood as Hebrew-Aramaic. Once specified explicitly, this simplification cannot lead to any misunderstanding.

they belong to the proto-vowel $A_2$, not to $A_3$. Katz suggested using 2 as the second digit for *qamets*, *tsere*, *hireq*, *holem,* and *shureq* in open syllables.

Currently, the schema suggested by Weinreich, with or without Katz's amendments, is universally accepted. It includes two groups of tables. The first one (heuristics) treats proto-vowels as diaphonemes and shows their reflexes in modern Yiddish dialects. The second one (historical linguistics) presents correspondence rules between these proto-vowels and two main source languages of Yiddish, medieval German and Hebrew. Weinreich himself took a very cautious attitude regarding the historical reality of his Proto-Yiddish vowel system. In particular, he rejected the idea of the proto-language and contrasted *kadmen-yiddish* (Proto-Yiddish) with *breyshes-yidish* (Earliest Yiddish); he refused to recognize the former as a real historical entity and treated it as a logical conventional construction.[3] For this reason, he introduced basic tables of correspondences instead of positing rules that would show the derivation between the vowels and the diphthongs of the following linguistic systems: (a) from source languages for Yiddish to Proto-Yiddish and (b) from the latter to modern Yiddish dialects.

This approach of correspondences rather than derivations is particularly visible when one considers the Yiddish proto-vowels and their modern realizations. For that part Weinreich suggests no derivational rules at all. On the one hand, this purely heuristic approach is natural if we take into account his reluctance to accept the idea of the real existence of Proto-Yiddish. On the other hand, it seems to contradict certain basic definitions present in his logical construction. Indeed, his whole schema is based on the concept of short and long vowels, and the changes of length in open syllables. The notions "short/long vowels" and "open/closed syllables" are not purely conventional: they make reference to phonetic reality.[4]

In Yiddish linguistics, Uriel Weinreich (1958:251–254) was the first scholar who suggested reconstruction of the phonetic values of proto-vowels of various Eastern Yiddish dialects and listed the main shifts that lead to modern reflexes. His analysis covered 15 phonemes, which he

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[3] Personal communication, Alexis Manaster Ramer (2006) based on Weinreich 1973.2:325, 397.

[4] Personal communication, Alexis Manaster Ramer (2006).

conventionally numbered 1 to 15. (To account for one specific development in the Yiddish of Courland, he also postulated the possibility of an additional, 16th, proto-vowel.) His pioneering study was published before the theoretical schema of Yiddish proto-vowels was proposed by his father, Max Weinreich. Herzog (1965:161–205) developed the ideas of U. Weinreich, proposing a series of more detailed derivational rules and incorporating M. Weinreich's new concepts. He also suggested a system of designations that represented a compromise of those used by U. and M. Weinreich: Herzog replaced M. Weinreich's letters A, E, I, O, and U by digits 1, 2, 3, 4, and 5, respectively. Consequently, following his conventional designations the proto-vowel 11 is equivalent to Weinreich's $A_1$, 12 is just another formal way to describe Weinreich's $A_2$, etc. Jacobs (1990:62–90) was the third scholar to deal with a similar topic. In schemas he presented, he suggested several amendments to those by Herzog (phonetic values of vowels 12 and 25 in Proto-Yiddish and 42 in Proto-Northeastern Yiddish) and provided numerous additional details concerning shortening and lengthening of stressed vowels in specific environments and various other phonological processes.

The purpose of the present paper is to complete the existing schemas suggesting:

(i)   derivational rules between the vowels of the German donor language and Yiddish proto-vowels;[5]

(ii)  derivational rules for Proto-Western Yiddish and its sub-dialects;[6]

(iii) regions and approximate time period of the inception of Proto-Yiddish stressed vocalism.

This approach allows for the elimination of elements from the Weinreich system that still appear to be conventional (mnemonic/heuristic) "correspondences."

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[5] M. Weinreich mentions Middle High German vowels without giving any precision as to the phonetic value of the descendants of these vowels during the Proto-Yiddish period. Other aforementioned scholars omit any discussion of the German donor language.

[6] For U. Weinreich and Jacobs, these questions were clearly beyond the scope of their studies that were focused on Eastern Yiddish only. Similarly, for Herzog's book on Yiddish in northeastern Poland, Western Yiddish was a marginal topic: he just mentioned it in the general classification of Yiddish dialects (p. 162).

## 2. Main Tables of Correspondences.

As explained above, the schema of proto-vowels proposed by M. Weinreich includes tables of two types. The first one gives the reflexes of proto-vowels in modern Yiddish dialects. Table 1 illustrates this for a sample of three modern dialects of Yiddish:

Northeastern Yiddish (NEY), generally referred to as Lithuanian Yiddish, characteristic in Lithuania, Latvia, Belarus, northern Ukraine and a part of northeastern Poland;[7]

Central Yiddish (CY), generally referred to as Polish Yiddish, which is proper to most of Poland, western Ukraine (formerly Galicia), eastern parts of Hungary and Slovakia;

Southwestern Yiddish (SWY), which once characterized the speech of Jews from southern Germany, Alsace, and Switzerland.

The first two are sub-dialects of Eastern Yiddish (EY), while the last one is part of Western Yiddish (WY).[8]

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[7] "Lithuanian" in "Lithuanian Yiddish" does not refer to the modern state of Lithuania; it is used in its historical sense that goes back to the time of the Grand Duchy of Lithuania, a large country that from the 14th century onward covered in (its modern boundaries) Lithuania itself, all of Belarus, a large part of Ukraine, Northeastern Poland, and parts of Latvia and Russia. For exact geographic boundaries of various dialects mentioned in this paper see LCAAJ.

[8] Data in table 1 are mainly extracted from LCAAJ I and III. In questionable cases, they were also compared with the information present in Herzog 1969, Beranek 1965, and Guggenheim-Grünberg 1973. NEY, CY, and WY are all standard terms used in various works on Yiddish linguistics and philology, but Manaster Ramer (1997) argues that WY is not a valid historical/dialectological unit and proposes the term *non-Eastern Yiddish* to refer to these (in his view disparate) dialects. (One of his main arguments concerning a specific development of $E_4$ in Swiss Yiddish is addressed in section 3.3). In addition, Katz systematically uses the expression *Mideastern Yiddish* instead of CY. Yet, there are no standard designations for various parts of WY. Katz (1987:49, 1993:51–52) suggests the distinction between Northwestern Yiddish (Nether-lands and northern Germany), Midwestern Yiddish (Central Germany), and Southwestern Yiddish (Switzerland, Alsace, southern Germany). The classification suggested in this paper (for details see section 5.2) is close to Katz's; the main (conventional) difference is in the unified treatment of the last two sub-dialects. Katz (1993a:51, 52) also states that in all Yiddish dialects, $O_1$ is [ɔ] and $E_1$ is [ɛ], while in NEY $U_4$ is [ɔj]. Other scholars (Weinreich 1973, Bin-Nun 1973, Birnbaum 1979, LCAAJ) refer to [o], [e], and [oj], respectively. I follow these

| Yiddish proto-vowel (M. Weinreich's and Herzog's designations) | SWY | Eastern Yiddish (EY) | |
|---|---|---|---|
| | | NEY | CY |
| $A_1 = 11$ | a | a | a |
| $A_2 = 12$ | o:, ou: | o | u: |
| $A_3 = 13$ | a: | o | u: |
| $E_1 = 21$ | e | e | e |
| $E_{2,3} = 22, 23$ | ej | ej | aj |
| $E_5 = 25$ | e: | e | ej |
| $I_1 = 31$ | i | i | i |
| $I_{2,3} = 32, 33$ | i: | i | i: |
| $O_1 = 41$ | o | o | o |
| $O_{2,3} = 42, 43$ | ou:, o: | ej | oj |
| $U_1 = 51$ | u | u | i |
| $U_{2,3} = 52, 53$ | u: | u | i: |
| $E_4 = 24$ | a: | ej | aj |
| $I_4 = 34$ | aj | aj | a: |
| $O_4 = 44$ | a: | ej | oj |
| $U_4 = 54$ | ou | oj | ou:, o: |

Table 1. Modern reflexes of Yiddish proto-vowels.

The second type of table under Weinreich's approach presents main rules of correspondences for Yiddish proto-vowels:
- for words from the German component: to the vowels present in the Middle High German (MHG) forms related to these words
- for words from the Hebrew component: to the vowels of their Hebrew etymons.

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authors, as there is no phonemic contrast between their approach and Katz's. His designations are intended to mean that in the dialects that distinguish vocalic quantities (CY, WY), there exist purely phonetic differences between the qualities of certain short vowels and their long counterparts: the former are more open than the latter.

Table 2 presents these general correspondences. If one knows the corresponding word in Middle High German or Hebrew, one can deduce from this table the proto-vowel to which the stressed vowel should be attached. Once one knows this proto-vowel, one can identify the reflex of this vowel in various modern Yiddish dialects using information similar to that presented in table 1. Table 2 includes examples from Standard Yiddish (StY), a standardized language formally created by Yiddish linguists during the 20th century. Its stressed vocalism is mainly based on the modern pronunciation peculiar to NEY: only the reflex for $O_{2,3,4}$ is taken from modern CY. All StY forms are quoted in this paper following the transliteration conventions established by the YIVO Institute for Jewish Research, New York.

The second column is directly taken from the information present in Weinreich 1973. Indirectly, it can also be deduced from Bin-Nun (1973: 185–238), with similar results. The situation with the fourth column is more complex. First, it ignores *patah* in open syllables and *hatef-patah*. For them, it is difficult to decide what correspondences should be really called "main." For *patah*, we have cases where this vowel corresponds to $A_2$ such as *kadokhes* ('ague'; קַדַּחַת), *tokhes* ('buttocks'; תַּחַת) or $A_1$ such as *lakhesh* ('magic speech'; לַחַשׁ), *nakhes* ('pleasure'; נַחַת), *pakhed* ('fear'; פַּחַד). A similar situation can be observed for *hatef-patah*, namely: $A_2$ in *khotse* ('half'; חֲצִי), *kholem* ('dream'; חֲלוֹם), *oder* ('Adar' (a month of Jewish calendar); אֲדָר) and *hodes* ('myrtle', and feminine given name; הֲדַסָּה or הֲדַס); $A_1$ in *khazer* ('swine'; חֲזִיר), *khamer* ('ass'; חֲמוֹר), *khanike* ('Hanukkah'; חֲנֻכָּה) and *khasene* ('wedding'; חֲתֻנָּה). These reflexes deserve a separate discussion that is beyond the scope of the present paper.[9] Second, table 2 ignores *hatef-qamets*: it appears that for this vowel, there are no stressed examples in Yiddish. Third, it should be noted that in several aspects the fourth column deviates from Weinreich's concepts.

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[9] For *patah*, see Jacobs 1990:46, 1993:208–209, Katz 1995:401–402.

| Proto-vowels | MHG vowels | StY; MHG equivalent) | Hebrew vowels | StY; Hebrew etymon) |
|---|---|---|---|---|
| $A_1$ | *a* in closed syllable | *dakh* ('roof'; dach) | *patah* in closed syllable, *qamets gadol* in closed syllable | *almen* ('widower'; אַלְמָן), *ksav* ('writing'; כְּתָב) |
| $A_2$ | *â* | *zomen* ('seed'; sâme) | *qamets gadol* in open syllable | *ponem* ('face'; פָּנִים) |
| $A_3$ | *a* in open syllable | *foter* ('father'; vater) | - | - |
| $E_1$ | *e, ö, ë, ä* and *æ*, all in closed syllable | *bet* ('bed'; bet), *shmerts* ('pain'; smërze) | *tsere* in closed syllable, *segol* in closed syllable, *hatef-segol* | *get* ('divorce'; גֵּט), *khevre* ('association'; חֶבְרָה), *emes* ('truth'; אֱמֶת) |
| $E_2$ | *ê*, *œ* | *geyn* ('to go'; gên), *sheyn* ('beautiful'; schœne) | *tsere* in open syllable | *seyder* ('Passover meal'; סֵדֶר) |
| $E_3$ | *e* and *ö* in open syllable | *reyd* ('speech', rede), *eyl* ('oil'; öle) | - | - |
| $E_5$ | *ë, ä* and *æ* in open syllable | *leder* ('leather'; lëder), *shemen zikh* ('to be ashamed'; schämen sich), *kez* ('cheese'; kæse) | *segol* in open syllable | *gefen* ('vine'; גֶּפֶן) |
| $I_1$ | *i* and *ü* in closed syllable | *biter* ('bitter'; bitter), *din* ('thin'; dünne) | *hireq* in closed syllable | *dibek* ('ghost'; דְּבּוּק) |

| I₂ | *ie* and *üe* | *briv* ('letter'; brief), *grin* ('green'; grüene) | *hireq* in open syllable | *medine* ('province'; מְדִינָה) |
|---|---|---|---|---|
| I₃ | *i* and *ü* in open syll. | *shtivl* ('boot'; stivel) | - | - |
| O₁ | *o* in closed syllable | *horn* ('horn'; horn) | *qamets qatan, holem* in closed syllable | *khokhme* ('wisdom'; חָכְמָה), *of* (fowl; עוֹף) |
| O₂ | *ô* | *royt* ('red'; rôt) | *holem* in open syllable | *soykher* ('merchant'; סוֹחֵר) |
| O₃ | *o* in open syllable | *boygn* ('bow'; boge) | - | - |
| U₁ | *u* in closed syllable | *hunt* ('dog'; hunt) | *shureq/qibbuts* in closed syllable | *mum* ('defect'; מוּם) |
| U₂ | *uo* | *blum* ('flower'; bluome) | *shureq/qibbuts* in open syllable | *shure* ('line'; שׁוּרָה) |
| U₃ | *u* in open syllable | *zun* ('son'; sun) | - | - |
| E₄ | *ei* and *öu* | *kleyn* ('small'; kleine), *freyd* ('joy'; vröude) | - | - |
| I₄ | *î* and *iu* | *vays* ('white'; wîʒ), *baytl* ('purse'; biutel) | - [10] | - |
| O₄ | *ou* | *boym* ('tree'; boum) | - | - |
| U₄ | *û* | *toyb* ('dove'; tûbe) | - | - |

Table 2. Main correspondences between Yiddish proto-vowels
and MHG or Hebrew vowels.

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[10] In the Hebrew component, the combination *patah* + guttural + *hatef-patah*, once the phonetic value of the former guttural sound was lost, yielded a sound whose reflexes correspond to those of I₄. For a discussion of the phonological features of the combination in question, see Jacobs 1993:199ff and Katz 1993a:56.

It follows Katz's attribution of the digit 2 ("originally long")—instead of 3 ("lengthened in open syllable") suggested by Weinreich—for vowels of the Hebrew component of Yiddish that are present in open syllable. Another difference concerns the treatment of Hebrew vowels in closed syllables. Birnbaum (1922:21–29) is the first author to suggest the shortness of all Hebrew vowels in this context. If one translates his statements into Weinreich's more recent terms, Birnbaum postulates the following proto-vowels for closed syllables: $A_1$ for *qamets* in monosyllabic words and *patah*, $E_1$ for *segol* and *tsere*, $I_1$ for *hireq*, $O_1$ for *qamets* in polysyllabic words, and *holem*, $U_1$ for *shureq* and *qibbuts*. In his last work, Birnbaum (1979:61–65) advocates the idea that in the Hebrew component of Proto-Yiddish, all vowels were short in all positions.[11] As discussed at the beginning of this paper, this opinion is also shared by Weinreich (1973.2:41–44). Nevertheless, Weinreich writes that the opposition open ~ closed syllables induces the opposition long ~ short vowels for *hireq* and *shureq*/*qibbuts* and can also explain a number of modern reflexes of *patah, qamets, segol,* and *tsere*. For closed syllables, he suggests correspondences identical to those present in table 2 with one exception: for *qamets* he refers to $O_1$, while table 2 attaches it to $A_1$. Actually, Weinreich himself provides a large list of forms where *qamets* in a closed syllable corresponds to $A_1$. Among them are *dag* ('fish'; דָּג), *dam* ('blood'; דָּם), *gmar* ('conclusion'; גְּמָר), *khshad* ('suspicion';חֲשָׁד), *khshash* ('apprehension'; חֲשָׁשׁ), *klal* ('public', 'rule'; כְּלָל), *ksav* ('writing'; כְּתָב), *prat* ('detail'; פְּרָט), *m(e)khak* ('shortage'; מְחָק), *nedan* ('dowry'; נָדָן), *pshat* ('meaning'; פְּשָׁט), *shlal* ('a great deal'; שָׁלָל), *skhar* ('reward'; שָׂכָר), *vlad* ('fetus'; וְלָד), *yad* ('pointer'; יָד), and *yam* ('sea'; יָם). Nevertheless, he considered these forms to be exceptional taking them for remnants of archaic pronunciation. Actually, the number of $A_1$ reflexes for *qamets* in closed syllable is significantly larger than the number of $O_1$ reflexes postulated by Weinreich to represent the main rule. Among a few examples of $O_1$ are biblical masculine names *god* ('Gad'; גָּד) and *don* ('Dan'; דָּן). Even in these cases, nevertheless, we are likely to deal with a late renorming of the pronunciation influenced

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[11] The tables of correspondences between Hebrew/MHG vowels and their reflexes in CY suggested in the same book (Birnbaum 1979:59–64, 127–34) mix stressed and unstressed vowels, as well as general rules and exceptions from them.

by Whole Hebrew in which *qamets* in closed syllable is pronounced [o].[12] Indeed, the appellations in question were rarely used in the Middle Ages and the oldest references to the forms with [o] known to us date from the 18th century only.[13] As a result, it seems to be more appropriate to assign *qamets* in closed syllable to $A_1$ rather than to $O_1$.[14]

The approach by Bin-Nun (1973) involves several steps. First, he postulates general correspondences between Hebrew and MHG vowels: (a) long: *qamets gadol* = â; *tsere* = ê; *hireq* with *yod* = ie; *holem* = ô; *shureq* = uo; (b) short: *patah* = a; *segol* = ë; *hireq* without *yod* = i; *qamets qatan* = o; *qibbuts* = u (pp. 267–268).[15] Second, his detailed analysis of the stressed vocalism of the Hebrew component of Yiddish reveals numerous exceptions to these correspondences and generally suggests the exact environments in which these exceptions occur (pp. 270–278). Finally, Bin-Nun explicitly formulates two additional general rules, both of which, according to him, are due to the similar phenomena in early New High German (NHG): (1) the shortening of long vowels in closed syllables that redefined the correspondences to the MHG vowels in another way: *qamets gadol* = a; *tsere* = e; *hireq* with *yod* = i; *holem* = o; *shureq* = u; (2) the lengthening of short vowels in open syllables (pp. 281–282). Bin-Nun's approach was the basis for preparing the fourth column of table 2.[16]

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[12] The concept of Whole Hebrew, as opposed to Merged Hebrew, was introduced by M. Weinreich (1973.2:6). The former corresponds to the Hebrew language used in Jewish religious contexts. It is not only written, but also pronounced, for example during the Torah reading in the synagogue. The latter corresponds to the Hebrew component incorporated into the vernacular language of the Jewish community. In the context of the last centuries of Ashkenazic history, this language was Yiddish. On the phonology of Whole Hebrew see Katz 1993a (in that paper, the author uses the term *Ashkenazic* instead of *Whole Hebrew*).

[13] See the entries "Don" and "God" in Beider 2001.

[14] Katz (1993a:56) also posits $A_1$. As shown above, this idea was partly anticipated already by Birnbaum (1922).

[15] Bin-Nun distinguishes between short and long Hebrew vowels following the principles developed by Qimhi (see their description in section 3.3).

[16] Katz's arguments (discussed in section 3.3) about the pre-Ashkenazic character of the shortening of all Hebrew vowels in closed syllables seem

Table 2 lists main correspondences for which an explanation is suggested in the following sections. These correspondences characterize the phonetics of a large majority of words from the German and Hebrew components of Yiddish. They are not exhaustive, however: a number of exceptions to these rules can be discerned. For example, in a series of forms with *segol* instead of $E_5$ postulated in table 2 we observe the presence of $E_2$: *keyfl* ('multiplication'; כֶּפֶל), *keyver* ('grave'; קֶבֶר), *kheyder* ('room', 'traditional Jewish school'; חֶדֶר), *meylekh* ('king', masculine given name; מֶלֶךְ), *peyger* ('carcass'; פֶּגֶר), *peyrek* ('chapter'; פֶּרֶק), *peysekh* ('Passover', masculine given name; פֶּסַח), *sheyker* ('lie'; שֶׁקֶר), *tsedeykes* ('pious woman'; צַדֶּקֶת), *tseylem* ('cross'; צֶלֶם). We also find forms with:

- $E_2$ instead of $E_1$ for *tsere* in the closed syllable such as *kheyn* ('grace'; חֵן)
- $A_1$ instead of $A_2$ for *qamets* in the formerly open syllable: *khokhmanis* ('wise woman'; חַכְמָנִית), *malakhe* ('angel Malachi'; מַלְאָכִי), *khaver* ('friend'; חָבֵר), *nefashes* ('persons'; נְפָשׁוֹת), and *khasanim* ('bridegrooms'; חֲתָנִים)
- $A_{2,3}$ instead of $A_1$ for *patah* in the formerly closed syllable: CY [mu:nəfʃex] ('either way'; מַה-נַפְשָׁח), [tselu:xəs] ('in spite'; from German prefix and Hebrew לְהַכְעִיס), and [u:mət] ('pulpit'; עַמּוּד)
- $U_1$ instead of $U_2$ for *shureq/qibbuts* in the open syllable: CY [mezizə] ('a small tube containing an inscribed strip of parchment, attached to the doorpost'; מְזוּזָה), [metsidə] ('castle'; מְצוּדָה), [mitəf] ('better'; מוּטָב), [misər] ('moralizing'; מוּסָר), [misəf] ('extension of the morning prayer recited on the Sabbath and on holidays'; מוּסָף), [liləf] ('the palm branch which is carried and waved in the synagogue during the Sukkoth holiday'; לוּלָב), [mexilə] ('spoiled'; מְכוּלָה), and [nisəx] ('version'; נוּסַח).

A large number of exceptions exist for the German component. Among them are EY [tsvontsik] and WY [tsvantsik] ('twenty'; MHG *zweinzec*), CY [tse:n] ('ten'; MHG *zehen*), [pojps] ('pope'; MHG *bâbes*), [nemən] ('to take'; MHG *nëmen*), [lejrər] ('teacher'; MHG *lêrer,*

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correct. Similarly, I agree with Jacobs about the pre-Ashkenazic character of the lengthening of various Hebrew vowels in open syllables (see section 3.3). For table 2, however, the exact origin of the shortening and the lengthening in question is irrelevant: the table deals not with origins, but with correspondences.

*lêrære*), [kejrən] ('sweep'; MHG *keren*). In numerous words from the German component, the stressed vowel does not conform to the correspondences presented in table 2, but in the NHG equivalents of these words, we find exactly the same deviation from the general rules. Some of these cases will be discussed in section 3.2. The explanation of exceptions is beyond the scope of the present paper.[17]

## 3. Pre-Yiddish Stressed Vocalism.
### *3.1. The Term* Proto-Yiddish *as Used in This Paper*.

In linguistic literature, there is no standard definition of the word "Yiddish" when speaking of the language used many centuries ago. One can distinguish two significantly different approaches. The first one sees Yiddish as a fusion language par excellence. In this language, medieval German dialectal features, Semitic, to a lesser degree Romance, and, perhaps, also some Slavic elements fused during the initial period of the Jewish presence on the territories where the non-Jewish population spoke German. Since in historical literature the term "Ashkenazic Jew" is generally understood as referring to a Jew living in a German-speaking province, for the representatives of this school—including, among others, M. and U. Weinreich, Birnbaum, Herzog, Katz, and Jacobs— there is no real distinction between Pre-Yiddish and Pre-Ashkenazic. For them, Yiddish was born about one thousand years ago when Jewish communities started using in their daily life words borrowed from their German Christian neighbors.[18] Scholars who adhere to this point of view

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[17] Almost all examples cited in section 2 are taken from Bin-Nun 1973 and Weinreich 1973.

[18] In this context, two additional considerations should be made explicit. First, it is often believed that during the first centuries of the Jewish presence on German lands (some), Jews spoke (Judeo-)French among them (see Güdemann 1880:114, 273–280). However, the fact that more than ten per cent of feminine given names in 1096 are of German origin (Beider 2001:165) makes plausible the idea that already in the 11th century Jews used German in their daily life (see also Röll 1966). Second, in the group of scholars cited, at least Katz makes a real distinction between Ashkenazic Jews and Yiddish-speaking Jews. He draws attention to the existence of two groups of Ashkenazic Jews referred to as *bney hes* and *bney khes* in medieval Hebrew documents. He considers only the language spoken by *bney khes* to be related to Yiddish (Katz 1993b).

usually state that Yiddish was very selective in borrowing elements from its different components (including the German, that is, by far the largest one). Consequently, the Jewish vernacular idiom was never a "pure" or "correct" German. Max Weinreich (1967, 1973.2:261–320) presents the most detailed theoretical arguments advocating this approach.

According to the alternative approach, Jews in German-speaking provinces used the German dialect of their Christian neighbors in their daily life (if we judge from its grammar, phonetics, and the main part of the lexicon), with the addition of certain words of Semitic, Romance, and hybrid origin specific to Jewish speech. Only when the Jewish dialect becomes different from the local German one can we really speak about (Proto-)Yiddish. One can, for example, speak about Yiddish from the moment that the Jewish vernacular language does not follow some phonetic, grammatical, or semantic shift that takes place in the German dialect of the same geographic area. Alternatively, the innovation can be internal, when some phenomenon that appears in the Jewish language is unknown in surrounding German. The separation of Yiddish from German may also be postulated as the moment when in some German-speaking region we discover, inside the vernacular language used by Jews, a set of traits peculiar to a German dialect from another area where Jews dwelled at an earlier period. This means that the German component of the Jewish vernacular language ceases to be identical to the local German dialect. It should also be made clear that to establish the separation of a Jewish language from German, the non-German lexical or onomastic elements are the least important. Indeed, the introduction of new words or names does not create a new language. In contrast, specifically Jewish phonetic shifts or new grammatical rules, or the use of non-German morphologic elements (for instance, Hebrew endings for making the plural forms) in words with German roots, or any other examples of the fusion character of the Jewish vernacular language, can serve as significantly less arbitrary criteria. The most detailed description of this approach was offered by Nathan Süsskind (1953); additional information can be found in Beider 2004. Jechiel Bin-Nun (1973) adopts a similar approach. If one follows these lines of argument, Yiddish becomes several centuries younger than its "birth date" cal-

Nevertheless, even for Katz, the distinction between Ashkenazic and Yiddish-speaking is space-based and not time-based.

culated under the first approach. Süsskind suggests 1350–1500, and Bin-Nun points to the 13th–14th centuries. For those who adhere to this latter approach, the creation of Yiddish was preceeded by a pre-Yiddish period in the Ashkenazic history.

I do not think that the two approaches presented above are incompatible. To eliminate any ambiguity concerning the conventional use of the same global terms—such as *Yiddish*—according to different definitions used (explicitly or implicitly) by various authors, one could focus on specific aspects of a language, that is, orthography, phonetics, semantics, onomastics, morphology, and the lexicon. One can discuss the questions of the fusion of components and differences (if any) from neighboring German for each aspect separately. For orthography, the situation is clear: by using the Hebrew characters, Jews separated their language from German. A similar situation is found with given names: they have always been different from those used by Christians. If we take the lexicon, one can easily imagine the presence of some Hebrew and Romance words in the Jewish vernacular used in German lands from the earliest times too. These domains are, however, among the least important for a definition of a language. The domains of semantics and morphology are significantly more important. The most detailed semantic and morphological data are collected by Timm (2005), who shows that numerous, specifically Jewish, semantic shifts that occurred in German words can already be found in manuscripts compiled circa 1400. In the same texts, a significant number of German suffixes show a peculiar behavior too: they are not added to the same roots as in German dialects. Documents studied by Timm are biblical translations for whose specific needs these semantic and morphologic peculiarities seem to be developed. It is also during the turn of the 14th–15th centuries that several hybrid elements appear in available sources. Examples are (a) the verbal form *vermassert* (an ancestor of the modern Yiddish verb *farmasern*, 'to betray'), with a Hebrew root and Germanic affixes, (b) the verb *shekhtn* ('to slaughter according to the Jewish ritual'), with a root from the Hebrew component and a typical Germanic ending, (c) expressions combining a Hebrew word with the Yiddish verb *zayn* (compare NHG *sein*, 'to be') (Timm 1987:369). The first known hybrid elements appear in a document from the Cologne area compiled in 1290: (a) several plural forms of German nouns ending in the element -*s,* a pattern that is unlikely to be of German origin and present in modern Yiddish

too (see its detailed discussion in Timm 2005:100–108); (b) the gloss *viren* ויריֿן ('to line, to rule') that is likely to have a (Judeo-) French root and a German ending.[19] The above information shows that at least at the end of the 14th century (and likely even one century before), Yiddish peculiarities existed even in such fundamental domains for a definition of a language as semantics and morphology. Still, even for the periods in question, no information is available that would demonstrate that Jewish speech was not following any shift in the local German dialect. Also, we do not find, until the 15th century, any feature of one German dialect that would be used by Jews in another German dialectal area: several illustrations can be found in Timm 2005:317, 344.

Phonology appears to be one of domains in which the separation between Yiddish and local German dialects, and the fusion phenomena are the most recent.[20] In this paper, I would like to explore a possibility of a purely phonological definition of the term "Proto-Yiddish." During the last centuries, various shifts that occurred in Yiddish dialects clearly applied to words of different origins. For example, when at the turn of the 17th–18th centuries in CY [o:] raised to [u:], it equally concerned words from German, such as [o:təm] ('breath'; MHG *âtem*], and from Hebrew, such as [zo:xər] ('male'; זָכָר).[21] This factor necessarily implies the total fusion—at some moment in history that will conventionally be called in this paper the birth of (Proto-)Yiddish phonology—of the phonemic systems that characterized the pronunciation by Jews of the vernacular words of German and Hebrew origin. This process represented a major element in the creation of a new, specifically Jewish language accelerating the development of its fusion character.

In the discussion below, the following premise applies: before the fusion of the vocalisms of two components yielded the (Proto-)Yiddish

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[19] Though this word was not written by the manuscript's scribe, Asher ben Jacob ha-Levi, several factors imply that it is likely to be due to the hand of someone from his milieu or family (Timm 1977:17, 23). Note that the verb *viren*, with the same meaning, is also present in modern Yiddish (Timm 1987:376, 377).

[20] Timm (1987:412–413) states that before mid-15th century the phonetics of texts written in Hebrew characters and based on German corresponds to that of surrounding German dialects.

[21] For the definition of this time period, see Joffe 1954:120, Beider 2001:117–118.

vocalism, the phonology of the German component was similar to that of the vernacular speech of neighboring Christian Germans. In principle, this idea is not self-evident and should be considered as a working hypothesis. Indeed, formally speaking, one could imagine a scenario in which Jews developed their specific dialect of German even before the fusion of this dialect with the Hebrew component. Its most plausible reason would be the creation of the German component of Proto-Yiddish as a mixture of elements coming, after Jewish migrations, from various German-speaking regions. This theory requires, however, one additional independent hypothesis and is, therefore, less simple (and hence, less plausible) than the idea of the conformity of the vocalism of the German component of the Jewish dialect to the speech of local German Christians before its fusion with that of the Hebrew component. One would need to come up with additional conjectures only if our working hypothesis contradicts some facts, and, for example, no specific medieval German dialect can be found that could be the source of Proto-Yiddish. Section 4.4 deals with this topic.

The two following sections deal with the vocalic systems that are likely to have existed in German and Hebrew used by Ashkenazic Jews in pre-Yiddish period. As explained above in this section, the sense of the terms *Pre-Ashkenazic* and *Pre-Yiddish* depends on the approach. For the advocates of the first approach, in the linguistic context the two terms are equivalent. In contrast, the advocates of the second approach distinguish between Pre-Ashkenazic and (Ashkenazic) Pre-Yiddish. In the text below—dealing with the stressed vocalism only—I always follow this distinction.

### 3.2. Pre-Yiddish German.

Several scholars consider the vocalism of the German component of Yiddish to be ultimately related to that of Middle High German (MHG).[22] I see no objection to this position and therefore, for the specific

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[22] This is clearly the opinion of Bin-Nun (1973:185–262) and Timm (1987). Weinreich (1973:2:77–78) agrees only with the general idea that the German component of Yiddish is derived from MHG.

purposes of this paper, it is necessary to present the classical schema of stressed vowels and diphthongs of MHG (see table 3).[23]

| Front diphthongs | Front vowels | Umlaut vowels | Umlaut diphthongs | Back vowels | Back diphthongs |
|---|---|---|---|---|---|
| ie | i; î | ü; iu | üe | u; û | uo |
| ei | e; ê | ö; œ | öu | o; ô | ou |
|  | ë; - |  |  |  |  |
|  |  | ä; æ |  | a; â |  |

Table 3. MHG stressed vocalism.

The following conventions are used in table 3:
- The columns dealing with vowels list a short vowel followed (after a semicolon) by its long equivalent.
- The sign "*-*" is used to indicate that a vowel of such quality/ quantity combination is absent from the system.
- The lower the line, the more open the quality of its vowels is. For example, *ë* designates the [e]-colored short sound that is more open than the one expressed by *e*.

The MHG vocalic system underlies the vocalic systems of all High German dialects, that is, both Upper German and Central German. The

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[23] Table 3 shows the classical reconstruction of MHG stressed vocalism that results from studies by German linguists during the 19th–20th centuries of a bulk of documents that never distinguish between MHG *e* and *ë* and rarely between short and long vowels, that indicate umlaut irregularly, that in many cases are known from later copies, and that often correspond to a specific genre (poetry) that is generally far from the oral tradition. Taking all these factors into account, one could reasonably question the very possibility of making another reconstruction (here: of the stressed vocalism of Proto-Yiddish) taking the classical schema of MHG vowels as if it were a "fact." Still, I think that the attempt makes real sense. First, any new knowledge is always based on some other knowledge that can be considered more reliable. In the absence of any schema that would explain the inception of Yiddish vocalism, the schema for Middle High German can be seen as reliable. Second, if one succeeds in suggesting a system that explains major facts of the history of Yiddish vowels, this would be an additional corroboration for the general validity of the reconstruction of Middle High German.

passage from MHG to NHG is characterized by several phonetic processes that took place in various dialects of High German. Of particular interest for the history of Yiddish are the following ones:[24]

(i)   Raising of MHG *â* from [a:] to [ɔ:]
(ii)  Diphthongization of former MHG long vowels *î* and *û*
(iii) Monophthongization of former MHG diphthongs: *ie* > [i:] and *uo* > [u:]
(iv) Unrounding of formerly rounded front vowels.

All four are clearly applicable to a large majority of words from the German component of modern Yiddish dialects. For several reasons, at least the first three processes should be placed in the pre-history of Yiddish phonology. In all Yiddish dialects, the reflexes corresponding to the MHG *â* have [o] or [u]-qualities. The Yiddish words whose ancestors had *î* or *û* in MHG generally have diphthongs. It is in CY that one finds monophthongs [a:] and [o:], respectively, but their quality is different and, moreover, the historical documents show that both of them are recent enough and result from former diphthongs. One also finds not a single trace of diphthongs corresponding to MHG *ie* and *uo* in both modern Yiddish and historical documents dealing with early stages of that language. In principle, taking into consideration only the facts listed above (which deal exclusively with the German component) does not preclude the possibility that the diphthongization and the monophthongization in question could occur during the early Yiddish period when the German component could still be under the influence of phonetic shifts in the neighboring German Christian dialects. The consideration of the Hebrew component, however, rules out this possibility. One cannot observe in the Hebrew component any trace of the diphthongization of *hireq* or *shureq/qibbuts*, a phenomenon we would expect if the fusion of the vocalisms of the German and Hebrew components took place before the diphthongization of MHG *î* and *û* (compare Bin-Nun 1973:36, 268). On the contrary, the long Yiddish reflexes of *hireq* and *shureq/qibbuts* are identical to those of German vowels descending from MHG diphthongs *ie* and *uo*, respectively, which implies the monophthongization of these diphthongs already during the pre-Yiddish period.

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[24] Questions concerning the time period and the geographic localization of various phonetic shifts in German dialects are discussed in section 4.4.

The situation with rounded vowels is more complex. The consideration of the Hebrew component can neither corroborate, nor refute the absence of rounded vowels in Proto-Yiddish: in Hebrew we find no equivalent for these sounds. In modern times, the only occurrences of rounded vowels in Yiddish correspond to (a) the sound [y], equivalent to that expressed by the German grapheme *ü,* in Yiddish spoken on the Czech lands and in Alsace, and (b) the diphthong [øy] in Courland. Both are more likely to result from an innovation peculiar to these dialects than to represent relics of earliest Yiddish. (See details in section 5.1.) Consequently, the phonology of modern Yiddish does not preclude the possibility that no rounded vowels existed in Proto-Yiddish. Combinations of Hebrew letters that are likely to correspond to front rounded vowels are amply attested, however, in WY sources of the 15th and the first half of the 16th century. All of these correspond to high and middle vowels. (See details in Weinreich 1973.2:121–123, 4:167–168, Timm 1987:174–185, 206–213, and Timm 1996:305.) On the other hand, nothing indicates the roundness of the descendants of MHG ultra-open *ä* and its long equivalent *æ.* At this point, I will take their unrounding as a working hypothesis. Table 3 shows that only for these two vowels no direct unrounded equivalent existed in the chart of MHG vowels and only two possibilities were offered for them:

(i)   merging with MHG vowels *a* and *â,* respectively

(ii) raising to the same quality as MHG *ë.*

Some High German dialects that underwent unrounding chose the first possibility, others realized the second one. (For modern reflexes of MHG *æ,* see Wiesinger 1970, map 11.) The analysis of Yiddish words whose ancestors had MHG vowels *ä* and *æ* shows that in Yiddish the raising took place. It is also possible that during the same period /a/ was also displaced from its back position to the center.

Taking into account these results and applying them to data in table 3, we can present the following schema of German vowels prior to Proto-Yiddish.

| Front | Front rounded | Central | Back |
|-------|---------------|---------|------|
| (i) i; ie | (y) ü; üe | | (u) u; uo |
| (e) e; ê | (ø) ö; œ | | (o) o; ô |
| (ɛ) ë *and* ä; æ | | | (ɔ) - ; â |
| | | (a) a; - | |

Table 4. MHG stressed vowels underlying Proto-Yiddish
(without lengthening).

This table requires several important remarks. First, it ignores diphthongs: I return to these in section 4.2. Second, it is a theoretical construction that serves to illustrate certain ideas. It is quite possible that it does not correspond to any historical reality. Indeed, this table was constructed from the schema of MHG stressed vocalism taking into account only four phonetic shifts: diphthongization of two former mono-phthongs, monophthongization of two former diphthongs, unrounding of ultra-open front vowels, and raising of *â*. This list is, however, not exhaustive. From the history of German we know that numerous initially short vowels were lengthened in open syllables (and some other environ-ments) during the passage from Middle High German to New High German. Table 4 ignores this lengthening, although in principle, it could be older than some of the four phonetic shifts enumerated above. As a result, this table could correspond to some historic reality only if the lengthening occurred after all of them. If, however, one of them was more recent than the lengthening, table 4 does not reflect any synchronic reality. One small but important amendment can, nevertheless, yield a realistic schema: it suffices to add in table 4 the lengthened former short vowels to the column dealing with long vowels. For example, the long [e:] would result not only from former MHG long vowel *ê* (as in table 4), but also from the lengthened descendant of MHG *e*. In contrast, the short [e] would result only from one part of MHG *e*, namely the one that remained short. The lengthening would also create one additional vowel, the long [a:], absent from table 4. Its ancestor was MHG short *a* present in open syllables. The phonetic values of all elements of the resulting schema are presented in table 5.

| Front | Front rounded | Central | Back |
|---|---|---|---|
| (i) short *i;* ie and lengthened *i* | (y) short *ü;* üe and lengthened *ü* | | (u) short *u;* uo and lengthened *u* |
| (e) short *e;* ê and lengthened *e* | (ø) short *ö;* æ and lengthened *ö* | | (o) short *o;* ô and lengthened *o* |
| (ε) short *ë* and *ä;* æ, lengthened *ë* and *ä* | | | (ɔ) - ; â |
| | | (a) short *a;* lengthened *a* | |

Table 5. MHG stressed vowels underlying Proto-Yiddish
(after lengthening).

The analysis of the German component of Yiddish shows that the lengthening in question characterized its development too. Among the examples are StY *trogn* ('to carry', MHG/NHG *tragen*) and *zogn* ('to say', MHG/NHG *sagen*), *eydl* ('noble', MHG/NHG *edel*) and *heyvn* ('yeast', MHG *heven*, NHG *Hefen*), *oybn* ('above', MHG/NHG *oben*) and *voynen* ('to dwell', MHG *wonen*, NHG *wohnen*), CY [lejbər] ('liver', MHG *lëber*, NHG *Leber*) and [fejdər] (*feather*, MHG *vëder*, NHG *Feder*). For that reason, in Weinreich's schema the reflexes of proto-vowels $E_3$, $I_3$, $O_3$, and $U_3$ for short vowels that became lengthened are identical to those of $E_2$, $I_2$, $O_2$, and $U_2$, respectively. The difference exists only in the treatment of $A_2$ and $A_3$. The same kind of difference is found, nevertheless, in various High German dialects. Indeed, the raising from [a:] to [ɔ:] for MHG *â* (to which $A_2$ is related) in a large set of High German words occurred before the lengthening of MHG short *a* (to which $A_3$ is related). This way the lengthened [a:] underwent no raising. In a large set of Yiddish words whose stressed vowel is derived from one of MHG short vowels, one finds the same rules of lengthening or non-lengthening as in High German dialects.[25] In German, the lengthening

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[25] The phonetic contexts where the lengthening in various German dialects occurs are discussed in Moser 1929:74–78. Illustrations for Yiddish following

did not occur before *sch* and *ch* because these letter combinations are derived from early combinations of two consonants, *sk* and *hh*, respectively. In conformity to this rule, in the German component of Yiddish we also do not find traces of lengthened vowels before [ʃ] and [x], see StY *vashn* ('to wash', MHG *waschen*) and *makhn* ('to do', MHG *machen*). In German, one finds numerous cases of non-lengthening before [m] or [t], especially when these consonants are followed by *er* or *el*. Yiddish shows similar developments: *hamer* ('hammer', MHG *hamer*, NHG *Hammer*) and *himl* ('sky', MHG *himel*, NHG *Himmel*). Numerous cases of lengthening are known in both German and Yiddish for closed syllables. Some correspond to specific environments such as [a] before [r] followed by another consonant, mainly [d] or [t], rarely [m] or [n]: compare StY *bord* ('beard', MHG/NHG *bart*), *orem* ('poor', MHG/NHG *arm*), and *gortn* ('garden'; MHG *garte*, NHG *Garten*), all with $A_3$ reflexes.[26] Others appeared in German by analogy with the lengthening in open syllables that took place in inflected forms: compare StY *tog* ('day'; MHG *tac*, NHG *Tag*), *gloz* ('glass', MHG *glas*), *rod* ('wheel'; MHG *rat*, NHG *Rad*), and *hoyf* ('court', MHG *hof*). In monosyllabic words, the vowel generally remained short before [m] or [t]: compare *got* ('God'; MHG *got*, NHG *Gott*), *blat* ('leaf'; MHG *blat*, NHG *Blatt*), *glat* ('smooth'; MHG *glat*, NHG *glatt*), and *frum* ('pious'; MHG *vrum*, NHG *fromm*). Jacobs (1993:204) noted another important factor: we do not find any cases of lengthening by analogy in the Hebrew component. He gives the following example: CY [din] 'law' (and not **[di:n]) vs. [di:nəm], the plural form of the same noun. The above information implies that the lengthening influenced by German was most likely pre-historical to Proto-Yiddish phonology: the German component of Yiddish inherited ready-made lengthened forms from its German donor. As a result, table 5 is a better candidate than table 4 to represent the distribution of vowels of the German component of the Jewish vernacular speech at the end of the pre-Yiddish period.

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the same rules can be found, for example, in Bin-Nun 1973:185, 193–194, 211, 216–217, 233.

[26] In standard NHG, the forms *arm* and *Garten* have short [a]. In dialectal forms, however, the lengthening took place (Moser 1929:76).

### 3.3. Pre-Yiddish Hebrew.

Before Katz, in Yiddish historical linguistics it was mainly assumed that—since Semitic languages were not used in Jewish vernacular speech for centuries—the pronunciation of Hebrew-Aramaic underlying Yiddish essentially corresponded to the system of diacritics used for vocalization (pointing) of available texts.[27] Katz (1985) showed that such an approach is in many aspects unacceptable and suggested that the pronunciation of words from the Hebrew component comes from the oral tradition brought to Europe by the ancestors of Ashkenazic Jews whose colloquial language was Judeo-Aramaic. I do not consider the latter idea to be adequate: between the two extremes—texts and colloquial language—numerous intermediary oral contexts also exist, such as discussions of the religious subjects in the synagogue or various religious schools. Nevertheless, Katz's general emphasis on the non-textual but, rather, oral origin appears to be correct. We know from massive amounts of manuscripts and published material that Hebrew was used for various types of written communication, including letters, court documents, treatises, and books on various topics. The range of topics is particularly evident from the Responsa literature, since the rabbis could, in principle, be asked to express their opinion on any subject, and from the frequent lengthy moral lessons contained in last wills, in which the testators expressed such opinions unbidden.[28] It is inconceivable that people who could write in Hebrew fluently on any and all possible aspects of life could not have been able to pronounce what they were writing. Moreover, one needs to keep in mind that only certain texts were available in pointed form (that is, with diacritical signs for vowels): for example, the Talmud (including the Hebrew language Mishnah) was not ever pointed among traditional Jews, and yet it was read and discussed far more than the Bible. This correlates with the fact that various communities have distinct traditions of the Mishnah reading issued from distinct oral traditions that necessarily existed (see Morag 1971:1121–1122). It is also important to note that the pointing system uses the same graphemes for

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[27] This approach is mainly valid for Bin-Nun (1973) and, to a lesser extent, M. Weinreich. Birnbaum (1979:58–59), by contrast, states explicitly that some words were inherited by word of mouth and not through the medium of literature.

[28] Personal communication, Alexis Manaster Ramer (2006).

two kinds of *qamets* (*gadol* and *qatan*) and *shewa* (*mobile* and *quiescent*), and yet, one observes some important differences in the pronunciation of the members of these pairs.[29] These differences could originate only in oral context. Finally, there are numerous words whose phonetics cannot be deduced directly from the pointing (see exceptions cited in section 2 after table 2) and in many cases should be due to the oral tradition.

In the linguistic literature there is no consensus regarding the derivation of the pronunciation of Hebrew vowels underlying Yiddish. Several scholars such as M. Weinreich and Bin-Nun point to the system known to Hebraists as Tiberian. Table 6 presents its full vowels. The signs in the parentheses correspond to their quality.

| Front | Central | Back |
|---|---|---|
| (i) hireq | | (u) shureq and qibbuts |
| (e) tsere | | (o) holem |
| (ε) segol | | (ɔ) qamets |
| | (a) patah | |

Table 6. Tiberian full vowels.

The classical Tiberian schema treats in the same way two kinds of *qamets*, distinguished in other systems and generally called *qamets gadol* and *qamets qatan*. It also includes four reduced vowels: *mobile shewa* and three *hatef*-vowels: *hatef-patah, hatef-qamets*, and *hatef-segol*. The word accent never falls, however, on any of them, and generally all of them are considered to be ultra-short. Scholars disagree about the quantities of seven full Hebrew vowels. Bin-Nun (1973:279) points out that the schema distinguishes only qualities, not quantities. Weinreich shares this opinion and considers—as already stated in section 1—all seven Tiberian vowels to be short in all positions in the Hebrew pronunciation of early Ashkenazic communities.

Another classical schema—underlying the Sephardic and modern Israeli pronunciation—is (southern) Palestinian. It uses the Tiberian

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[29] As noted by Birnbaum (1979:64), the fact that the grapheme for *shewa* is unique most likely indicates that for scholars who created the Tiberian pointing system there was only one type of *shewa* (namely, *quiescent*).

pointing rules but distinguishes only five different vocalic qualities: in comparison to the Tiberian pronunciation, here (a) both *segol* and *tsere* designate the same sound /e/, (b) both *patah* and *qamets gadol* express /a/, (c) the quality of *qamets qatan* is equivalent to *holem*.

The most well known theory of the quantitative distinctions among Hebrew vowels was developed by the Qimhis, the family of grammarians who dwelled in southern France in the 12th–13th centuries. Following their theoretical conclusions, one distinguishes five short vowels (*patah, segol, hireq, qamets qatan, qibbuts*), their five long equivalents (*qamets*, *tsere*, *hireq* with *yod* ['], *holem, shureq*, respectively), and ultra-short reduced vowels, namely *mobile shewa* and *hatef-* vowels. It should be stressed that there is no proof of the existence of any Jewish community whose pronunciation of Hebrew would conform to the Qimhi schema. Among the major contributors to Yiddish historical linguistics, Katz (1987:51–52) is one of the rare supporters of the idea that the Qimhi schema was not contrived but reflected a phonetic reality. He suggests two following principal traits of the Hebrew pronunciation underlying Proto-Yiddish:

- in open syllables, the ten vowels of the Qimhi schema (five short and five long)
- in closed syllables, only five short vowels resulting from the pre-Ashkenazic shortening of formerly long vowels and their merging with their short counterparts: *qamets* with *patah*, *tsere* with *segol*, and *holem* with *qamets qatan*.

The acceptance by Katz of the basic Qimhi schema seems to contradict several important characteristics of the Yiddish vocalism. First, when analyzing modern Yiddish reflexes of words of Hebrew origin one cannot discern any differences in treatment of (a) two kinds of *hireq*, with or without *yod*, and (b) *shureq* and *qibbuts*, which suggests that the nature of the differences between the elements of these two pairs is orthographic rather than phonetic, exactly as in the case of *holem*, with or without *vav* [ו]. Second, the classical schema of ten vowels implies only five different qualities. As a result, by itself it cannot provide any explanation for the arising of the qualitative distinctions between (a) *tsere* and *segol*, (b) *qamets* and *patah*, while these distinctions are observable in Yiddish. To compensate for this, Katz introduces additional hypotheses, absent from the standard Qimhi schema. In the Hebrew in question, the quality of long and shortened *tsere* was

different. The former corresponded to [e:], while the latter (as well as all reflexes of *segol*) corresponded to [ɛ]. According to Katz, similar qualitative differences between long and shortened *qamets* existed as well. The former corresponded to [ɔ:], while the latter (as well as all reflexes of *patah*) corresponded to [a]. Katz's global schema of Hebrew vowels underlying Yiddish is presented in table 7.[30]

| Front | Central | Back |
|---|---|---|
| (i) $I_1$ *hireq;* $I_2$ *hireq* with *yod* | | (u) $U_1$ *qibbuts*; *shureq* |
| (e) -; $E_2$ *tsere* in open syllables | | (o) $O_1$ *holem* in closed syllable; $O_2$ *holem* in open syllable |
| (ɛ) $E_{1,5}$ *tsere* in closed syllable  and *segol*; - | | (ɔ) - ; $A_2$ *qamets* in open syllables |
| | (a) $A_{1,3}$ *qamets* in closed syllables and *patah*; - | |

Table 7. Katz's schema of Pre-Ashkenazic Hebrew vowels.

Table 7 uses the same conventions as table 3, but in addition to qualities and quantities of various Hebrew letters, every existing phoneme is preceded by the designation of the Yiddish proto-vowel (from Weinreich's schema) to which it corresponds.

According to Katz (1993a:50), during the period of Pre-Yiddish phonology short vowels in open syllables underwent lengthening under

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[30] Katz himself presents a table with qualities and quantities for various Yiddish proto-vowels without giving the exact correspondences between the proto-vowels and the Hebrew vowels. Correspondences presented in table 7 mainly come from Katz's text: several of them he discussed explicitly; others (namely, $I_1$, $I_2$, $U_1$, and $U_2$) are given here based on Katz's acceptance of Qimhi's schema.

the influence of the similar process in German. [31] As can be seen from table 7, only two vowels were really concerned: *segol* ($E_5$) and *patah* ($A_3$). Several aspects of Katz's approach are questionable. First, Katz combines Tiberian seven qualities with Qimhi's schema proposed for Sephardic-like pronunciation with only five qualities. Second, it is asymmetrical in several places. Third, the difference between the qualities of the same letters in open and closed syllables (for *tsere* and *qamets*) seems to be *ad hoc*. Finally, it is difficult to find any example that would conform to his assignment of *patah* in open syllable to $A_3$: as discussed in section 2, we find only $A_1$ and $A_2$ reflexes.

Jacobs (1990:46–48, 1993:203–204) shares Katz's idea about the Pre-Ashkenazic character of shortening in closed syllables and its independence from a similar process in German. Indeed, one can observe that in the Hebrew component, a single consonant is generally enough to close a syllable, while in the German component two consonants are needed. For example, we have CY [sod] ('secret', Hebrew סוֹד), not \*\*[so:d]; but [brojt] ('bread', MHG *brôt*), not \*\*[brot]. In contrast to Katz, Jacobs (a) makes no use of Qimhi's schema and (b) suggests that in Hebrew, the vowel lengthening in open syllables could also be Pre-Ashkenazic and independent of a similar process in German. He considers the example of StY *tokhes* ('buttocks', תַּחַת). If in this noun the lengthening of *patah* were of German origin we would normally obtain \*\*[a:] in WY, while the Alsatian Yiddish form of this word has [o:]. In other terms, we would have $A_3$ and not $A_2$. Table 8 summarizes Jacobs' views.[32]

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[31] The term *Pre-Yiddish* is used here in the sense introduced in section 3.1; for Katz, this period is already *Yiddish*.

[32] Jacobs does not present the table in this way. He copies the schema for Yiddish proto-vowels from Herzog 1965 and adjusts the reflexes of $A_2$ and $E_5$, proposing for them [å:] or [ɔ:] and [æ:] or [ɛ:], respectively. He gives no explicit correspondences between the Hebrew vowels and Yiddish proto-vowels: these correspondencs can, nevertheless, be constructed using his ideas. Jacobs considers only one example for *patah* in open syllable: *tokhes*. Its stressed vowel corresponds to $A_2$, while $A_1$ postulated in table 8 for some other examples of *patah* in open syllable is not mentioned by Jacobs himself.

| Front | Central | Back |
|---|---|---|
| (i) $I_1$ *hireq* in closed syllable; $I_2$ *hireq* in open syllable | | (u) $U_1$ *qibbuts*/*shureq* in closed syllable; $U_2$ *qibbuts*/*shureq* in open syllable |
| (e) $E_1$ *tsere* and *segol* in closed syllable; $E_2$ *tsere* in open syllable | | (o) $O_1$ *holem* in closed syllable; $O_2$ *holem* in open syllable |
| (ε) - ; $E_5$ *segol* in open syllable | | (ɔ) - ; $A_2$ *qamets* and some *patah* in open syllable |
| | (a) $A_1$ *patah* and *qamets* in closed syllable and some *patah* in open syllable; - | |

Table 8. Jacobs' schema of Pre-Ashkenazic Hebrew vowels.

Jacobs' arguments seem correct. The symmetry of the obtained schema makes it particularly attractive. I would like to introduce only one amendment to it. Jacobs posits that this schema was valid at the end of the Pre-Ashkenazic period.[33] He explicitly states that it became valid before the lengthening in the German component. As suggested in this paper, the phonologies of the German and Hebrew components were (at least partially) autonomous until their fusion during what is called here the Proto-Yiddish period. I would like to posit that Jacobs' schema was valid immediately before this fusion took place, that is, several centuries later in comparison to Jacobs' considerations. Was it valid already at the end of the Pre-Ashkenazic period? For the topics covered in this paper—dealing with Yiddish immediately before and after its phonology became really separated from German—this question is of secondary interest: its detailed discussion is beyond our scope. One should, nevertheless, be

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[33] Actually, Jacobs calls it *Proto-Yiddish*, that is, valid at the end of Pre-Yiddish period. As discussed in section 3.1, however, for him—as for other advocates of the approach placing the inception of Yiddish to the initial period of the Jewish presence in German lands—following the terminology used in this paper, this means valid at the end of Pre-Ashkenazic period.

reminded of M. Weinreich's idea about the development of a new normative system with seven qualities from the previous one with only five qualities (with *tsere* and *qamets* equivalent to *segol* and *patah*, respectively), that seems to take place during the Ashkenazic history.[34] This idea would provide an explanation for the $E_2$-forms (instead of $E_5$) for a number of words with *segol* and for the $A_2$-forms (instead of $A_1$) for words with *patah* or *hatef-patah* whose examples were given in section 2. Indeed, these words could be commonly used in the vernacular language already before the renorming took place and for this reason they could escape the renorming.[35] The consideration of *qamets qatan* can serve as another argument in favor of the validity of the system with only five qualities during the early Ashkenazic history. This vowel is short and present only in closed syllables. Various classical schemas of Hebrew treat its quality in different ways. On the one hand, in the Tiberian schema it is indistinguishable from *qamets gadol*. On the other hand, in the Palestinian schema (and the Qimhi principles established for it) it has the same quality as *holem*. The last rule is valid for the Hebrew component of Yiddish: *qamets qatan* always corresponds to $O_1$ (with short [o] in all dialects), independently of the dialect. Among the examples are StY *khokhme* ('wisdom', חָכְמָה) and *korbm* ('sacrifice', קָרְבָּן).

## 4. Proto-Yiddish Stressed Vocalism.
### 4.1. Proto-Yiddish Monophthongs.
The previous two sections discussed the stressed monophthongs of German and Hebrew at the end of the Pre-Yiddish period. If we compare tables 5 (Pre-Yiddish German) and 8 (Pre-Yiddish Hebrew), we can observe the similarity of their structures. These schemas have seven (Tiberian) qualities in common. Moreover, neither has a short equivalent for [ɔː]. These shared fundamental phonological features could be important elements for allowing (or even provoking) the fusion of the German and Hebrew pronunciation. The vocalic system of the German component (covering by far the largest part of the vernacular language)

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[34] Weinreich (1973.1:31–32) proposed the idea of the *Babylonian Renaissance*, that is, the adaptation of Tiberian norms by Ashkenazic Jews during the 13th century, considering scholars from Babylonia to be responsible for this process.

[35] Personal communication, Alexis Manaster Ramer (2006).

is likely to represent the basis during the fusion. In this situation, the fact that the vocalism of the Hebrew component did not contain a single phoneme unknown in the German component was also important. If we (a) combine tables 5 and 8, (b) take into account the special development of *qamets qatan* (described at the end of the previous section), and (c) add the [e]-reflex for *hatef-segol* forms, we obtain table 9.[36]

| Front | Front rounded | Central | Back |
|---|---|---|---|
| (i) short *i, hireq* in closed syllable*; ie* and lengthened *i, hireq* in open syllable | (y) short *ü; üie* and lengthened *ü* | | (u) short *u, shureq/qibbuts* in closed syllable; *uo*, lengthened *u* and *shureq/qibbuts* in open syllable |
| (e) short *e, tsere* in closed syllable, *segol* in closed syllable, *hatef-segol; ê* and lengthened *e, tsere* in open syllable | (ø) short *ö; œ* and lengthened *ö* | | (o) short *o, holem* and *qamets qatan* in closed syllable; *ô*, lengthened *o* and *holem* in open syllable |
| (ɛ) short *ë* and *ä; œ*, lengthened *ë* and *ä, segol* in open syllable | | | (ɔ) - ; *â* and *qamets gadol* in open syllable |
| | | (a) short *a, patah* and *qamets gadol* in closed syllable*;* lengthened *a* | |

Table 9. P-Y vowels (expressed via their MHG and Hebrew ancestors).

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[36] Nothing special can be said about *hatef-qamets* because it appears that there are no old stressed examples in Yiddish. Deliberately ignored are the $A_2$ parts of *hatef-patah* and *patah* in open syllables (see their discussion in section 2).

The information in table 9 can be presented in another way, using the conventional designations of Yiddish proto-vowels. For this, it suffices to compare tables 9 and 2. The results of this comparison appear in table 10.

| Front | Front rounded | Central | Back |
|---|---|---|---|
| (i) part of $I_1$; part of $I_2$ | (y) part of $I_1$; part of $I_2$ | | (u) $U_1$; $U_2$ |
| (e) part of $E_1$; part of $E_2$ | (ø) part of $E_1$; part of $E_2$ | | (o) $O_1$; $O_2$ |
| (ε) part of $E_1$; $E_5$ | | | (ɔ) - ; $A_2$ |
| | | (a) $A_1$; $A_3$ | |

Table 10. Proto-Yiddish vowels (using conventional designations).

### 4.2. *Proto-Yiddish Diphthongs*.

To facilitate the discussion, I first combine in table 11 (see above) the information from tables 1 and 2 that concern Yiddish proto-diphthongs $E_4$, $I_4$, $O_4$, and $U_4$. The last two lines correspond to the original mono-phthongs that became diphthongized during the history of Yiddish in dialects of EY and also have the diphthongal reflexes in the dialects of WY.

In this table, only the third and the last columns are original, the others are directly taken from tables 1 and 2. Instead of treating SWY, this table refers to "basic WY." This substitution is based on the assumption that the reflexes of SWY reveal the most ancient features of WY, generally speaking. (I return to the discussion of this assumption in section 5.2.) From the history of the development of NEY and CY we know that several reflexes result from the relatively recent shifts in EY. In table 11 they appear in parentheses: for these cases, the reflexes from another dialect of EY, without parentheses, are older and more closely related to Proto-Yiddish vocalism.[37] That consideration allowed con-structing the last column.

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[37] Herzog's suggestion (1965:163) to consider [øy] as the Proto-EY value of $O_4$ does not seem attractive (see details in section 6).

| Yiddish proto-vowels | MHG equivalents | Shifts in German dialects | "Basic WY" | NEY | CY | "Basic EY" |
|---|---|---|---|---|---|---|
| E$_4$ | ei | (1) > e: <br><br>(2) > aj > a: > oj, oa | **a:** | ej | (aj) | **ej** |
| | öu | (1) > œ:, e: <br><br>(2) > äy, ay > (aj) > a: > oj, oa | | | | |
| O$_4$ | ou | (1) > o: <br><br>(2) > au, ao > a: | **a:** | (ej) | oj | **oj** |
| I$_4$ | î | > ej > εj > aj > æ | **aj** | aj | (a:) | **aj** |
| | iu | (1) > øy > œy > ay > aj > æ <br><br>(2) > ej > εj > aj > æ | | | | |
| U$_4$ | û | > ou > au, ao > a: | **ou** | oj | ou, (o:) | **ou** |
| E$_2$ | ê | e: > ej, ea | ej | ej | (aj) | ej |
| O$_2$ | ô | o: > ou, oa | o:, ou: | (ej) | oj | oj |

Table 11. Diphthongs.

The comparison of reflexes of the proto-vowel U$_4$ in various EY dialects implies that in old EY its realization was either [ou] or [oj]. However, the last possibility is ruled out since in this case there would have to be a merge of U$_4$ and O$_4$ that never took place. For that reason, only [ou] is kept in the last column of table 11 (see also Weinreich 1958). The third column shows the phonetic shifts that occurred in (non-Jewish) dialects of German during the late MHG and NHG periods for the vowels/diphthongs whose MHG ancestors were those enumerated in the second column. This information was obtained from classical works

on the vocalism of Middle High German, early New High German, and that of modern dialects: Moser 1929:148–52, 158–59, 167–82; Paul 1982:54–55, 131; Wiesinger 1970, maps 1, 3, 7, 8, 15–17. The reflexes whose analysis is particularly important for the construction of the schema of Proto-Yiddish diphthongs appear in bold. To follow the main idea developed in section 3.1—before the fusion of Hebrew and German components took place to yield (Proto-)Yiddish, the vocalism of the German component was similar to that of the vernacular speech of neighboring Christian Germans—the reflexes in bold should be explained using the data from the third column.

Table 11 shows that the phonetic value of the proto-vowel $I_4$ could be any element of the chain of shifts that took place in various German dialects: $î > $ [ej] $> $ [aj] $> $ [æ]. As was discussed above, the first of these shifts, $î > $ [ej], necessarily occurred in the pre-history of Yiddish phonology. Since proto-vowels $E_4$ and $I_4$ never merged in any Yiddish dialect, when this shift took place in the local German dialect the descendant of MHG *ei* could not have still corresponded to its initial value of [ej]. Data in table 11 imply only one of two possibilities:

[e:]: This development characterizes East Central dialects of German.

[aj] or its derivation [a:]: Both these reflexes were peculiar to Upper German and West Central dialects of German.[38]

On the one hand, the [ej] realization of proto-vowel $E_4$ in EY is clearly related to the first of the above possibilities. The fact that in EY vowel $E_4$ merged with the vowel $E_2$ (derived from MHG *ê*) corroborates this statement. On the other hand, the WY [a:] for proto-vowel $E_4$ is necessarily related to the second one.

These conclusions are important for drawing two separate schemas: one for EY and another for WY. First, we proceed to that of Proto-EY. In the East Central German dialects, the former MHG diphthongs *ei* and *ou* underwent monophthongization to [e:] and [o:] during the same period (see details in section 4.4). As was shown above, [e:] characterizes Proto-EY vowel $E_4$. Consequently, we should postulate [o:] for the Proto-EY

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[38] The geographic distribution of various German dialectal reflexes is discussed in more detail in section 4.4. The reflex [oa], also cited in table 11, is too recent to be taken into account in our discussion.

vowel $O_4$.[39] No specific constraint can be formulated for possible reflexes of Proto-EY vowels $I_4$ and $U_4$, apart from the fact that both should already be diphthongs. As can be seen in table 11, they could be either ([ej] and [ou]), or ([aj] and [au]), respectively. No data available to us force us to postulate the existence of front rounded vowels in Proto-EY. As a result, the reflexes of the descendants of both MHG *öu* and *ei* can be treated together as the proto-diphthong $E_4$, while both MHG *iu* and *î* can be considered as a single $I_4$.

Table 12 summarizes these results. (In this and the following tables, the phonetic values are followed—in the parentheses—by the indication of the corresponding Yiddish proto-vowel. For example, "e:($E_4$)" should be read as the "[e:]-reflex of the proto-vowel $E_4$.")

| e:($E_4$) | o:($O_4$) |
|---|---|
| ej($I_4$) or aj($I_4$) | ou($U_4$) or au($U_4$) |

Table 12. Proto-EY values of $E_4$, $I_4$, $O_4$, and $U_4$.

Now we return to WY. As shown above, in the area where Proto-WY arose, MHG *ei* (proto-vowel $E_4$) necessarily went through the [aj]-stage. From table 11 it can be seen that at the same time period the most plausible realization of the proto-diphthong $I_4$ was [ej]. If it were [aj], it would have merged with $E_4$, while no merging between $I_4$ and $E_4$ occurred in WY. Table 11 also shows that among various candidates for the reflex of Proto-WY $U_4$ (namely [ou], [au], [ao], and [a:]) the first one is the most plausible. This statement can be corroborated by several arguments. First, [ou] represents the modern reflex for $U_4$. Second, we know that $U_4$ and $O_2$ partly merged in WY. Since $O_2$ comes from MHG *ô*, the merging with any [a]-colored sound would be unlikely. The comparison of modern WY reflexes of proto-vowel $O_4$ with the potential candidates for its proto-value shows that in the German dialects from which Proto-WY is derived, the MHG *ou* (the ancestor of proto-vowel $O_4$) necessarily came through the [au] or [ao] realization. Later, this made possible the merging between $E_4$ and $O_4$ in WY.

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[39] The idea that EY descendants of MHG *ou* and *ei* went through [o:] and [e:] stages, respectively, is also present in Birnbaum 1979:72.

In certain early WY sources, the diphthongs whose ancestors were MHG *î* and *iu* are written in a different way and the spelling of the second one (either *vav* + *yod*, or *vav* + double *yod*) implies the rounded character of its first vowel. (The most detailed discussion of MHG *iu* and *öu* in WY sources can be found in Timm 1987:206–207.) From the history of German dialects, we know that in the areas where unrounding did not occur, when MHG *î* became [ej] MHG *iu* became [øy]. Therefore, the latter diphthong is the most plausible candidate for the reflex of MHG *iu* in Proto-WY. The situation with MHG *öu* is less clear. The sources from the 16th century use the same spelling—double *vav*—for both MHG *öu* and *ei*. This does not necessarily mean that the WY descendants of these two MHG diphthongs were pronounced identically: note that the same spelling was also used for MHG *î* whose phonetic realization was different. Taking into account the information present for MHG *öu* in the third column of table 11 and the fact, discussed above, that the most plausible Proto-WY reflex of MHG *ei* is [aj], we must conclude that the MHG *öu* was pronounced in Proto-WY either [ay] (where [y] is an open high front rounded vowel) if the unrounding was not valid yet, or [aj]. Table 13 summarizes these ideas.

| Ending in [j] | Ending in [y] | Ending in [u] |
|---|---|---|
| ej(part of $I_4$) | øy(part of $I_4$) | ou($U_4$) |
| aj(part of $E_4$) | ay(part of $E_4$) | au($O_4$) or, less likely, ao($O_4$) |

Table 13. Proto-WY diphthongs.

In addition to the arguments provided above there is a supplementary factor speaking in favor of our conclusions. The phonetic developments of former MHG long monophthongs *î* and *û* have many parallels. For both, the diphthongization started in the same Bavarian dialect area during the same time period (12th century), and during the following four centuries it was gradually spreading to other areas almost simultaneously for both phonemes. Their first discernable diphthongal stages were [ej] and [ou]. As can be seen from tables 12 and 13, this situation characterizes in our schema the phonetic value of corresponding proto-vowels, $I_4$ and $U_4$, for Proto-WY and for one of the possible realization sets of Proto-EY. As can be seen in table 11, in the next stage

both received the [a]-coloring. We find both of these reflexes as another possible set of values for Proto-EY (table 12).

Simplicity and symmetry are other positive features of these schemas. Both of them include only reflexes that are not ad hoc theoretical constructions invented in the frame of Yiddish linguistics to support my theory but were actually found in some dialects of German spoken by the Christian population. The WY schema also includes two diphthongs with [j] as the second element and two diphthongs with [u] as the second element. Two of its diphthongs start with the most open (central) vowel [a], while the two others start with front [e] and back [o], symmetrical elements of the classical phonetic triangle. Symmetry also characterizes the EY schema, with its two long monophthongs and two diphthongs.

Each schema suggested in tables 12 and 13 is synchronic, that is, the various phonemes present correspond to the same time period. Yet, since they have been reconstructed independently of each other they could, in principle, correspond to different periods. In this situation, the important question is: could one of them be the ancestor of the other? In the frame of our approach, the answer is negative. This can be easily demonstrated taking into account the reflexes of proto-vowel $E_4$: in Proto-WY it is [aj], while in Proto-EY the same proto-vowel never came through the [a]-colored stage. Consequently, the development of Proto-WY and Proto-EY diphthongs clearly took place in different geographic regions and, as a result, no general Proto-Yiddish phonetic system ever existed. Only Proto-EY and Proto-WY could represent historical realities. To corroborate the hypothesis of their real existence one needs to identify the region and the time period when their creation could occur. Section 4.4 covers this topic.

### 4.3. *Proto-Yiddish*.

On the one hand, the analysis of diphthongs in the previous section shows the necessity of presenting two independent schemas: one for Proto-EY and another for Proto-WY. On the other hand, the chart of short and long vowels in table 10 is common for both main sub-divisions of Yiddish. Still, an adaptation concerning the short [ɛ] is needed for both. In some stage of the development of EY and WY, merging of short [ɛ] and [e] took place. We do not know the exact chronology of this event: it could already be valid at the period for which table 8 was

drawn. For EY, table 10 requires two additional adjustments. First, we do not have a single piece of evidence for the existence of front rounded vowels in EY. As a result, it is quite likely that in Proto-EY, both [y] and [ø] qualities were already merged with [i] and [e], respectively. This implies the fusion of the first two columns of table 10. Second, since in modern EY dialects no difference can be discerned between $A_2$ and $A_3$, the existence of $A_3$ in the system of Proto-EY cannot be taken for granted: it is possible that at the end of the Pre-Yiddish period, in the area where the Proto-EY was born, MHG *a* that lengthened in open syllables had already raised to [ɔ:] merging with the reflexes of MHG *â*. The result of the combination of table 12 and the amended table 10 appears in table 14. The question mark near ε($E_1$) means that this vowel could be absent from the presented system of stressed vowels since it could have already shifted to e($E_1$). Its absence would make the whole schema more symmetrical. Since the exact quality of $A_3$ is unclear, this proto-vowel appears twice in table 14, in both cases with the question mark: only one of these placements could actually be valid.

| Front vowels | Diphthong ending in [j] | Back and central vowels | Diphthong ending in [u] |
|---|---|---|---|
| i($I_1$); i:($I_2$) | | u($U_1$); u:($U_2$) | |
| e($E_1$); e:($E_2$,$E_4$) ⇒ | | o($O_1$); o:($O_2$,$O_4$) ⇒ | |
| ε($E_1$)?; ε:($E_5$) | | -; ɔ:($A_2$, $A_3$?) | |
| | aj($I_4$) or ej($I_4$) | a($A_1$); a:($A_3$)? | au($U_4$) or ou($U_4$) |

Table 14. Proto-EY vocalism.

    Table 15 presents a global schema for Proto-WY. It was obtained after combining table 13 and the amended table 10 (taking into account the possibility of the early merging of short [e] and [ε]).

| Front vowels | Diphthongs ending in [j] or [y] | Back and central vowels | Diphthongs ending in [u] |
|---|---|---|---|
| i($I_1$); i:($I_2$) y($I_1$); y:($I_2$) | | u($U_1$); u:($U_2$) | |
| e($E_1$); e:($E_2$) $\Rightarrow$ ø($E_1$); ø:($E_2$) | ej($I_4$) øy($I_4$) | o($O_1$); o:($O_2$) $\Rightarrow$ | ou($U_4$) |
| ε($E_1$)?; ε:($E_5$) | $\Downarrow$ | -; ɔ:($A_2$) | |
| | aj($E_4$) $\Rightarrow$ ay ($E_4$) | a($A_1$); a:($A_3$) | $\Leftarrow$ au($O_4$) |

Table 15. Proto-WY vocalism.

In both these schemas, the arrows show the tendencies of phonetic shifts that lead from Proto-Yiddish to Middle Yiddish (see the discussion below).

The next stages of the phonetic development of EY were:

- e:($E_2$, $E_4$) > [ej]
- o:($O_2$, $O_4$) > [oj]
- a:($A_3$) > [ɔ:] (if it was not already changed before).

Additionally, if there was au($U_4$) in the previous stage, then this diphthong was to shift to ou($U_4$). Since all these four shifts concerned only unrelated vowels, it is difficult to tell anything about their relative chronology. If Proto-EY had ej($I_4$) in the previous stage, then the shift ej($I_4$) > aj($I_4$) would have taken place too. It would necessarily predate the shift e:($E_2$, $E_4$) > [ej] since otherwise the latter shift would have affected both $E_2$ and $E_4$.

For Proto-WY the next stages were:

- unroundings [y] > [i], [y:] > [i:], [ø] > [e], [ø:] > [e:], [øy] > [ej], [ay] > [aj]
- au($O_4$) or ao($O_4$) > [a:]
- aj($E_4$) > [a:][40]

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[40] Timm (1987:197) shows that the monophthongization to [a:] is later for $E_4$ than for $O_4$. The former shift was not yet completed in the 16th century and is hardly visible in *Bovo-bukh* by Elye Bokher. Timm (1996:312–313) also provides an analysis testifying that in *Paris un' Viena*, another book by the same author or his student, $E_4$ is normally [aj] (but for isolated rhymes with $A_1$ or $A_3$), while $O_4$ is already [a:].

- ej($I_4$) > [aj] because [aj] was no longer present after the previous stage
- e:($E_2$) > [ej] because the place of this diphthong became vacant after the previous stage

In part of WY, o:($O_2$) > [ou] and therefore $O_2$ merged with $U_4$.

In the list above, all processes except for the first and the last ones are given in chronological order. The last process and the first three unroundings of the first process are totally independent from other processes and, therefore, we can say nothing about their relative chronology. In contrast, the unroundings [øy] > [ej] and [ø:] > [e:] should predate the shifts ej($I_4$) > [aj] and e:($E_2$) > [ej], respectively. The situation is most complex with the proto-diphthong [ay]. In most of WY sub-dialects it yielded [a:]. Consequently, there was either the unrounding of its second element [ay] > [aj] before the monophthongization of aj($E_4$) > [a:] or the direct shift from [ay] to [a:], without the intermediate [aj] stage. In Swiss Yiddish, however, it never became [a:] but was realized as [aj] and merged with the reflexes of $I_4$ (Guggenheim-Grünberg 1965:152). This means that in this area, the unrounding [ay] > [aj] is likely to take place after the monophthongization aj($E_4$) > [a:].[41]

The final steps, common to both Proto-EY and Proto-WY, could be:
- Merge into a single phoneme of *ε* and *e*. In the areas where former [e:] was already diphthongized at that time, the merging occurred only for short vowels (if it was not already valid for them before).
- Merge into a single phoneme of *ɔ* and *o*. Since no short [ɔ] was found in both schemas, actually no short proto-vowels merged here; the merging concerned only the long proto-vowels. In the area of WY where neither $O_2$ nor $A_2$ became diphthongized, these two proto-vowels merged to [o:].

The above results are summarized in tables 16 and 17. Note that in that stage, WY was already split into several sub-dialects.

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[41] This conjecture resolves a problem raised in Manaster Ramer 1997:213–214.

| Diphthongs | Front vowels | Back and central vowels | Diphthongs |
|---|---|---|---|
| | $i(I_1)$; $i{:}(I_2)$ | $u(U_1)$; $u{:}(U_2)$ | |
| $ej(E_{2,4})$ | $e(E_1)$; $e{:}(E_5)$ | $o(O_1)$; $o{:}(A_{2,3})$ | $oj(O_{2,4})$ |
| $aj(I_4)$ | | $a(A_1)$; - | $ou(U_4)$ |

Table 16. Middle EY.

| Diphthongs | Front vowels | Back and central vowels | Diphthongs |
|---|---|---|---|
| | $i(I_1)$; $i{:}(I_2)$ | $u(U_1)$; $u{:}(U_2)$ | |
| $ej(E_2)$ | $e(E_1)$; $e{:}(E_5)$ | $o(O_1)$; $o{:}(A_2)$ | $ou(O_2, U_4)$ |
| $aj(I_4)$ | | $a(A_1)$; $a{:}(A_3, E_4, O_4)$ | |

Table 17a. Middle WY1.

| Diphthongs | Front vowels | Back and central vowels | Diphthongs |
|---|---|---|---|
| | $i(I_1)$; $i{:}(I_2)$ | $u(U_1)$; $u{:}(U_2)$ | |
| $ej(E_2)$ | $e(E_1)$; $e{:}(E_5)$ | $o(O_1)$; $o{:}(A_2, O_2)$ | $ou(U_4)$ |
| $aj(I_4)$ | | $a(A_1)$; $a{:}(A_3, E_4, O_4)$ | |

Table 17b. Middle WY2.

Tables 17a and 17b can explain the stressed vowels in most sub-dialects of modern WY. Yet, they ignore the Swiss Yiddish [aj] for the descendants of MHG *öu* that was discussed above. The adaptation to a schema appropriate for Swiss Yiddish is simple: $aj(I_4)$ should be replaced with $aj(I_4$, MHG *öu*). A sub-dialect of WY in which the poem *Paris un' Viena* was written in northern Italy during the first half of the 16th century also shows vocalic features that cannot be explained by these tables. Indeed, as shown by Timm & Gehlen (1996:313), that poem contains 35 unequivocal rhymes of $E_4$ with $I_4$; most likely, both were pronounced [aj]. In general, for the author of this poem, the vocalic chart could be that of table 17b (because of the merging of $A_2$ and $O_2$) with one amendment: merging of $E_4$ not with $A_3$ ([a:]) but with $I_4$ ([aj]).

The peculiarities found in modern Switzerland and 16th-century Italy can also be interpreted in another way, without making ad hoc

adaptations of the tables. Indeed, as shown in the next section, the genesis of Proto-WY stressed vocalism is likely to correspond to one specific region of Germany. It was relatively late: at that moment, Ashkenazic communities existed already in other regions of West and Central Europe. Gradually, this system became dominant over a large territory, due to migrations and other, much more subjective reasons. As a result, at some point this new system became prestigious and introduced a new pronunciation norm (see Manaster Ramer 1997:210–212, partly based on views by Beranek and M. Weinreich). The above "anomalies," in principle, could be related in some way to older vocalic systems.

### 4.4. Where and When did Proto-Yiddish Vocalism Arise.

The schemas in the previous section were drawn based on the following hypothesis: at the time when and in the areas where the merging of German and Hebrew components took place yielding Proto-WY and Proto-EY, the vocalism of the German components was similar to that of neighboring German (Christian) dialects. In this section, I identify the most plausible Christian donor dialects. For both Proto-WY and Proto-EY, these German dialects should be characterized by the following features:

- raising of MHG *â* to [ɔ:]
- diphthongization of MHG *î* and *û*
- monophthongization of MHG *ie* and *uo*
- lengthening in open syllables realized already or still in progress
- tendency to diphthongize MHG *ê* and *ô*.

Some features are specific to Proto-EY:

- no front rounded vowels
- [e:]-reflex of MHG *ei*; [o:]-reflex of MHG *ou*
- raising of lengthened MHG *a* to [ɔ:].

The following features of the Christian donor are specific to WY:

- existence of front rounded vowels
- [a]-colored reflexes of MHG *ei* and *ou*
- [ej]-reflex of MHG *î*; the reflex of MHG *û* close to [ou].

In principle, some of the above features—and, more precisely, the diphthongization of *ê* and *ô* as well as the raising of lengthened MHG *a*—could be due to internal Yiddish development, without any German analogue.

Main High German dialects are usually classified as follows:
- West Central German dialects: Ripuarian, Moselle Franconian, Hessian, the dialect of Rhine Palatinate
- East Central German dialects: Thuringian, Upper Saxon, Lusatian, Bohemian, Silesian
- East Franconian. This Upper German dialect reveals some features of Central German
- Bavarian [eastern Upper German dialects]: North Bavarian, Central Bavarian, South Bavarian
- Alemannic [western Upper German dialects]: Swabian, Low Alemannic, High Alemannic.

Classical works on the historical development of German phonetics in various High German dialects show the following chronologies for different phonetic phenomena enumerated in the previous section:[42]

(i) The unrounding of former rounded vowels in Bavarian dialects can be discerned already in the 12th century. During the next two centuries, it spread to the whole area of High German except for Ripuarian, East Franconian, and High Alemannic.

(ii) The raising of MHG *â* initially took place in Bavarian, during the 12th century. During the next century, this shift reached Low Alemannic, Bohemian, East Franconian, and later other parts of Central German too. It was in Bavarian that MHG *a* shifted to [ɔ] or even to [o] during the 14th century.

(iii) The diphthongization of MHG *î* and *û* appeared before the end of the 13th century in Bavarian. During the next centuries, it spread northward and westward reaching Bohemia and the south of East Franconian during the first half of the 14th century, the north of East Franconian and Silesian during the second half of the same century, Swabian in the second half of the 15th century, and the dialect of Rhine Palatinate at the turn of 15th–16th centuries. In Hessian and Moselle Franconian, the diphthongization occurred only during the 16th century. In Ripuarian, High and Low Alemannic it never took place.

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[42] The data below are taken directly from Moser 1929 and Paul 1982. For modern times, the maps from Wiesinger 1970 were used. All the chronologies cited are approximate; they were established by German philologists based on the phonetic analysis of written sources (mainly, poetry).

(iv) The monophthongization of MHG *ie* and *uo* had started in Central German already in the MHG period. It also occurred in the eastern part of East Franconian, while diphthongs were kept in Alemannic, Bavarian and the western part of East Franconian.

(v) The lengthening of stressed vowels in open syllables is known in Central German dialects from the end of the 12th century. During the next two centuries, it reached such Upper German dialects as North Swabian, Low Alemannic, Bavarian, and East Franconian. No lengthening occurred in South Swabian and High Alemannic.

(vi) MHG *ei* shifted to [e:] in the western part of East Franconian during the 12th century. In the next century, the same shift took place in East Central German, while Alemannic retained [ej] until the end of 14th century. However, in Bavarian, during the 12th–13th centuries, MHG *ei* yielded [aj] that rapidly turned to [a:]. The last realization characterized the eastern and southern parts of East Franconian already in the mid-13th century.

(vii) MHG *ou* became [o:] in Ripuarian and Moselle Franconian already during the MHG period. In East Central German, the same shift occurred during the 13th century. In Bavarian, MHG *ou* turned to [au] during the 12th–13th centuries; later it shifted to [a:]. In East Franconian, Hessian, and the dialect of the Rhine Palatinate, the last realization has been observed since the 14th century.

(viii) MHG *ê* became a diphthong in Swabian (14th century), North Bavarian, and East Franconian.

(ix) MHG *ô* was diphthongized in North Bavarian (12th century), part of Central Bavarian, West Swabian, East Franconian, the dialect of Rhine Palatinate, southern part of Hessian, and parts of Silesia.

Taking into account the information presented in the previous section, from that list of potential donors we should first exclude Alemannic and West Central German dialects on the basis of the diphthongization of MHG *î* and *û* criterion. In these areas, the diphthongization occurred either rather recently or never took place. This exclusion is strict because the diphthongization plays a structural role in Proto-Yiddish phonology. The remaining parts of High German are all compatible with the lengthening and raising of MHG *â* criteria. Bavarian and western East Franconian should be excluded on the basis of the monophthongization of MHG *ie* and the *uo* criterion. As a result, only the eastern part of East Franconian and East Central German still remain

on our list. According to the diphthongization criterion, the first one could be a donor only since the 14th century. Initially, here we can expect MHG *î* > [ej] and MHG *û* > [ou]. At the same time and in the same area, the reflexes of MHG *ei* and *ou* were both [a]-colored, this feature not being valid for East Central German. East Franconian also had the tendency to diphthongize both MHG *ê* and *ô* and possessed front rounded vowels. Consequently, during the 14th century only the eastern part of this dialect shows all features needed for Proto-WY.

Consider now East Central German. The diphthongization criterion immediately defines the 14th century as the earliest time period when the dialects of this group could contribute to Proto-Yiddish. At that time, local reflexes of MHG *ei* and *ou* were [e:] and [o:], respectively, while no front rounded vowels existed anymore. We also know about the raising of lengthened MHG *a* to [ɔ:] in these dialects (see detailed analysis and the bibliography in Weinreich 1973.4:156). As a result, they show all major characteristics required for the Christian dialect that underlies Proto-EY. For demographic reasons, among various East Central German dialects Bohemian and Silesian deserve particular attention: in the Middle Ages, in all other areas the Jewish population was small. Several factors make Bohemian the best candidate. First, we know that even in recent times, in parts of Bohemia the descendants of MHG *ei* and *ou* were [ej] and [ou], respectively: these reflexes are very close to those postulated above for early EY (compare reflexes in North-central Bohemia in Wiesinger 1970, maps 15, 16). Second, Bohemian was the East Central colonial dialect of German in which the influence of Bavarian (and more specifically, North and Central Bavarian) was particularly strong. For this reason, several Bavarian features were found in Bohemia too. For example, it could be the case for the diphthong-ization of MHG *ô* and *ê*, well known for North Bavarian. (The studies of medieval German do not mention these features for Bohemian, though they do not state their absence either.) Consequently, during the 14th century, the Bohemian dialect is likely to possess all the features needed to be the potential donor for Proto-EY.

Some other factors provide additional corroboration for the above conclusions:

(i) In both East Franconian and Bohemian, the apocope of the final unstressed vowel took place in the 14th century. This phenomenon first

arose in the 13th century in Bavarian. Note that it never reached most of the Silesian territory.

(ii) East Central German dialects (excluding large parts of Silesian) show exactly the same distribution of consonants [p] and [f] as EY, that is, initial [f] and [p] in gemination and word finally (compare *Fund, Appel,* and *Kop* to their EY cognates *fund, epl,* and *kop*).[43] East Franconian has [pf] in all these positions (*Pfund, Apfel, Kopf*) exactly as in the southeastern part of SWY, while in the Rhineland (the northwestern part of SWY; see Beranek 1965, maps 28, 29) one finds [p], exactly as in the surrounding Rhine Palatinate and Hessian dialects.

(iii) In the late Middle Ages, the prefix *der-* was commonly used in East Franconian, East Central German, and Bavarian instead of *er-* peculiar to other German dialects (and modern German). The prefix *der-* characterizes both WY and EY (see Timm 1987:325).

(iv) A document compiled in Frankfurt in 1392 by a rabbi named Meir shows phonetic features that are more typical of East Franconian than of the dialects spoken by German Christians in Frankfurt or Erfurt (the native town of the rabbi; see Guggenheim-Grünberg 1956:242–243).

(v) Historical and onomastic data show the demographic importance of Bohemia/Moravia for the medieval settlement of the area of EY (see

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[43] This argument was central in the theory by Gerzon (1902) about the derivation of EY from East Central German. Weinreich (1973.2:105–108) was a strong opponent of this theory. In addition to correctly stating that Gerzon's evidence was insufficient for such a global idea, Weinreich proposed paying particular attention to four linguistic features of East Central German that distance it from Yiddish: (i) the absence of apocope, (ii) no *-b-* in the correspondents of standard German *Löwe* 'lion', *ewig* 'eternal', *Schwalbe* 'swallow', while in EY we find *leyb, eybik, shvalb*; (iii) the main diminutive is *-chen* (contrary to Yiddish *-l*), and (iv) the presence of preterite. All these arguments do not seem valid. As discussed above, in the Bohemian sub-dialect of East Central German, apocope was present and the main diminutive suffix was the same as in Yiddish. The medieval references to German Christians called Leb in Bohemia (Beider 2001: 358) refute Weinreich's second argument. Finally, even if I were unable to find any information about the preterite in Bohemian German, the absence of a specific grammatical feature in modern EY does not necessarily mean that the same feature was absent during the proto-period: indeed, the analysis by Chang (2001:61) shows the existence of relics of preterite in Poland at the turn of the 16th–17th centuries.

Beider 2001:208–213, 2004:229–233). In the history of Jewish communities in West Germany, those from East Franconian territory (such as Würzburg, Rothenburg, Bamberg) played an important role mainly before the Black Death (mid-14th century), while Nürnberg, in the area intermediary between East Franconian and North Bavarian, was of particular importance until 1499.

Both Weinreich (1973.2:109) and Birnbaum (1979:72–75) point out that Yiddish represents a synthesis of elements originating in Upper German and Central German dialects. Positing East Franconian and Bohemian dialects as basic for the phonology of various Yiddish dialects provides an alternative explanation. Both these German dialects possess a mix of features that are generally considered idiosyncrasies of Upper German or Central German. As a result, an important part of the synthesis in question could be realized not in Yiddish itself (as Weinreich and Birnbaum thought), but already in the two donor German dialects in question.

So far, I have established the earliest possible period during which the Proto-WY and Proto-EY phonology could have been created, namely, the 14th century. It is also important to evaluate the latest possible dates for the same processes. This can be done by analyzing the chronology of the references to forms that attest to some processes that took place after the proto-period. For *qamets* in the open syllable, one finds examples with the letter *o* during the 14th century, while during the 15th century this reflex is likely to be completely stabilized and is unlikely to be the graphic representation of the sound [ɔ]. In the mid-16th century, a mention of the diphthong [ej] for the proto-vowel $E_2$ is present in sources of the Grand Duchy Lithuania (see Beider 2001:121). In WY, $O_4$ is [a:] already at the end of the 15th century, while the monophthongization of $E_4$ was stabilized only during the 16th century (see note 40). Documents from Austria from the 15th century mention given names in which $E_2$ is already realized as a diphthong (see Beider 2001:121–122). These data imply that the schemas in tables 16 and 17 could be valid for the 16th century. On the other hand, the phonology of Proto-WY and Proto-EY appeared clearly before the 16th century and most likely during the 14th century or the first half of the 15th century. This would be the approximate validity period for the schemas in tables 14 and 15.

## 5. Derivation of Modern Dialects.

In section 4.3, the vocalic systems of what I refer to as *Middle Yiddish* were discussed. This section shows the derivation of the phonetics of modern Yiddish dialects from the systems proposed earlier in this paper. For the dialects of EY, the initial schema corresponds to that of table 16.[44] WY starts with the schemas in tables 17a,b.

### 5.1. Sub-dialects of Eastern Yiddish.

Very few additional developments occurred in Northeastern Yiddish (NEY). The first changes concerned the diphthongs with [o] as their first element. The merged proto-vowels $O_2$ and $O_4$ shifted from [oj] to [øy]. (It is unclear whether Courland German was of any influence here; see also an explanation suggested in Jacobs 1990:65.) This diphthong, whose first element is a front rounded vowel, survived in Courland. In western Lithuania (Samogitia), it gave rise to [eu].[45] In the remaining part of NEY area it turned to [ej]. The oldest onomastic evidence of a form with [ej] dates back to the beginning of the 18th century (Beider 2001:124). On the other hand, once the place of [oj] became vacant, outside of Courland and Samogitia it was taken by $U_4$, whose previous reflex was [ou]. The second change, the most dramatic one, was the loss of the vowel length causing mergers of all long and short vowels that had the same quality: it affected the whole area except for Courland. The resulting vowel chart of NEY (outside of Courland) includes the following elements:

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[44] The main part of the information of section 5.1 appears in this paper only (a) to present the possibility of the derivation of modern EY dialects from the theoretical schemas of section 4.3 and (b) to give a general picture of the stressed vocalism of these dialects. A much more detailed description of processes that led to modern EY dialects appears in Herzog (1965:159–233; 1969) and Jacobs (1990:59–90).

[45] The information about Courland and Samogitia is based on Weinreich 1958:251. It seems to be valid for the turn of the 19th–20th centuries. During the decades that followed, these systems were replaced by a more general NEY type. As a result, very few peculiarities of these two regions can be found in LCAAJ I, where the information is based on oral testimonies collected after World War II (see maps 30, 32, 37).

- monophthongs: i($I_{1,2}$); u($U_{1,2}$); e($E_{1,5}$); o($A_{2,3}$, $O_1$); a($A_1$)
- diphthongs: ej($E_{2,4}$, $O_{2,4}$ [mainly]); eu($O_{2,4}$) [Samogitia]; aj($I_4$); oj($U_4$) [mainly]; ou($U_4$) [Samogitia].

In Courland, one finds:

- short monophthongs: i($I_1$); u($U_1$); e($E_1$); o($O_1$); a($A_1$)
- long monophthongs: i($I_2$); u($U_2$); e($E_5$); o($A_{2,3}$)
- diphthongs: ej($E_{2,4}$); øy($O_{2,4}$); aj($I_4$); au($U_4$).

Central Yiddish (CY) underwent entirely different changes. On a global scale, one can identify two independent series of shifts, both of which had dramatic consequences. The first one started with the fronting [u] > [i]. This qualitative shift applied to both short and long vowels. In the next stage, the merged proto-vowels $A_2$ and $A_3$—whose previous reflex was [o:]—were raised and took the now vacant place of [u:]. This was partly followed by the monophthongization of [ou] to [o:] for the proto-vowel $U_4$, filling the place that became vacant.

The second series was initiated by the monophthongization [aj] > [a:] for the proto-vowel $I_4$. Its reason is clear: before that shift, there was no [a:] in CY making the vocalic system incomplete. As a consequence of this monophthongization, [ej] was lowered to [aj] taking the place that became vacant. The resulting vacant position of [ej] was later taken by $E_5$ that underwent diphthongization. It was only in one specific region of eastern Poland, the one near the border with Ukraine, that the same proto-vowel shifted from [e:] to [i:]. The resulting vowel chart of CY includes the following elements:

- short monophthongs: i($I_1$, $U_1$); e($E_1$); a($A_1$); o($O_1$)
- long monophthongs: i:($I_2$, $U_2$, $E_5$ [regionally]); a:($I_4$); o:($U_4$) [partly]; u:($A_{2,3}$)
- diphthongs: ej($E_5$) [mainly], aj($E_{2,4}$); oj($O_{2,4}$); ou($U_4$) [partly].

Southeastern Yiddish (SEY, mainly spoken in Ukraine) and CY have the same ancestor. In linguistic literature, it is usually referred to as Proto-Southern Yiddish. From it, SEY inherited the fronting [u] > [i], the raising [o:] > [u:], the monophthongization [aj] > [a:] (only in the southern part), and the changes of [e:] either to [ej] (in the majority of regions) or to [i:] (only in the northern Ukraine) (see details in Weinreich 1958). All these shifts occurred after the Lublin Union (1569), when the territories populated mainly by Ukrainian Orthodox peasants were given to Polish Catholic nobles. As known from numerous historical sources, often these nobles encouraged Jews to become intermediaries between them and

the peasants as managers of their lands and houses. This privileged position attracted numerous Polish Jews who migrated eastward, to Ukraine. After the Cossacks' wars of mid-17th century, migrations were more often oriented from Ukraine westward. For this reason, from the mid-16th century and until the partitions of Poland during the last third of the 18th century, numerous linguistic processes were the same for CY and SEY (see Herzog 1969:68–69). The diphthong [ou] for $U_4$, inherited from Proto-Southern Yiddish, gave rise in SEY to three regional variants: [ou], [oj], and [u] (see Herzog 1969:74). On the other hand, modern SEY shares one important feature with NEY too: at some point in its history, SEY lost the distinction between long and short vowels. This loss in SEY is, however, more recent than in NEY. For several reasons, it did not cause any merging. On the one hand, some of the potential mergings were prevented by shifts that already occurred in Proto-Southern Yiddish. On the other hand, the phonemic difference between [i:] and [i] present in Proto-Southern Yiddish (and kept in CY) was mantaned in SEY on the level of qualitative difference: before [i:] lost its length, its short equivalent shifted from front [i] to near-front [ɪ]: compare /zin/ 'sons' and /zɪn/ 'sun'. Note that /ɪ/ (Cyrillic letter и) and /i/ (letter *i*) are two different phonemes in Ukrainian. The regional raising [a] > [o] is unique to SEY. It affected only the sub-dialect spoken in Podolia, Bessarabia, and northern Romania (Moldavia).[46]

The resulting vowel chart of SEY includes the following elements:

- monophthongs: ɪ($I_1$, $U_1$); e($E_1$); i($I_2$, $U_2$, $E_5$ [northern part]); a($A_1$ [northern part], $I_4$ [southern part]); o($A_1$ [southern part], $O_1$); u($A_{2,3}$, $U_4$ [regionally])
- diphthongs: ej($E_{2,4}$, $E_5$ [southern part]); oj($O_{2,4}$, $U_4$ [regionally]); ou($U_4$) [regionally]; aj($I_4$) [northern part].

## 5.2. *Sub-dialects of Western Yiddish*.

As discussed in section 2, the term *Southwestern Yiddish* (SWY) characterizes the speech of Jews from Southern Germany (Rhineland, Franconia, Bavaria), Alsace, and Switzerland. Its modern reflexes can be

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[46] The shift did not occur before [r], [x], [ng], and [nk] (Weinreich 1973.2:331). It clearly preceeded the monophthongization [aj] > [a] because otherwise, the resulting [a] would have been raised to [o], the phenomenon that is not observed.

drawn from table 17b, with the early merging of $A_2$ and $O_2$. Several developments characterize this dialect. First, except for the northern part of this region (namely, the territories north to Main river), the vowel resulting from the merging in question became diphthongized to [ou] and therefore merged with $U_4$ too.[47] Second, in SWY we find three reflexes of the proto-vowel $E_2$: the diphthong [ej] valid for all regions, [ɛj] common to Alsace, and [e:], the initial value of this proto-vowel, in the Rhineland. This does not necessarily mean that during the period between Proto-WY and Middle WY—contrary to the data in table 17b—the diphthongization of $E_2$ was only partial. It is more plausible that the reflex [e:] is not the relic of the oldest realization of $E_2$ but rather an innovation resulting from the regional

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[47] On the diphthongization of $A_2$ in SWY, see Beranek 1965 (maps 68 and 70), Guggenheim-Grünberg 1973 (maps 17, 18, 20), Timm 1987:115–119, Timm 1996:316 (with corrections to Beranek), and Zuckerman 1969:48–49. Moser (1929:146) noted that the development [a:] > [o:] > [ou] for MHG *â* is known in German dialects of Nürnberg and North Bavaria, as well as in parts of Hessian. Note that all of these dialects are coterritorial with SWY and could be, therefore, the sources for its phonetic shift. Several diphthongized forms are also found in EY: see CY [oj] instead of [u] for *qamets* in open syllable (that is, with $O_2$ instead of $A_2$) in *oysher* ('rich man', עָשִׁיר), *heftoyre/haftoyre* ('a lesson from the Prophets read in the synagogue', הַפְטָרָה), *hoyrek* ('killed person', הָרוּג), given name *Shoyel* (Saul, שָׁאוּל). Bin-Nun (1973:272) suggests that all these examples are hypercorrected forms due to early confusion between *holem* and *qamets*. This idea is consistent with the results obtained by Eldar (1978:43–45): in the medieval Hebrew manuscript from the Bavarian-Austrian area he found four instances in which *holem* was used instead of *qamets*; he suggested that this pointed to an early stage in the rounding of *qamets*. In principle, the diphthong in *oysher* can also be explained as coming from עוֹשֶׁר ('wealth'), one of many examples of a Hebrew abstract noun becoming a concrete noun or adjective describing someone having the property in question (personal communication, Alexis Manaster Ramer, 2006). Note also that the choice of the editors of LCAAJ III of the word *khatan* חָתָן ('bridegroom') for the illustration of typical reflexes of $A_2$ in WY (map 1) does not seem to be appropriate. In a large area of WY during the Proto-Yiddish period, the vowel in the word in question was not $A_2$ but an [e]-colored vowel, which was due to the specific phonetic development in the environment of *heth*. For this reason, one finds the spellings: חֶתָן and חֶתֶן in the WY documents from the 16th century and *chesan* in Latin characters documents of the same area dating from the mid-18th century (Timm 1987:342).

monophthongization of [ej]. The reflex [ɛj] is surely an innovation. The third process concerns the proto-vowel $I_1$. In Alsace, it was lowered from [i] to [ɪ], following the dialectal development of the local German dialect that has [e] in this position.[48] In the same region, one also finds the [ʊ]-reflex for the proto-vowel $U_1$ and the fronting from [u:] to [y:] for the proto-vowel $U_2$ (see Zuckerman 1969:43–45). In Württemberg we sometimes find the shift [e:] > [i:] for $E_5$ (see Beranek 1965:32–33, map 14). Finally, in Swiss Yiddish, as discussed at the end of section 4.3, not all $E_4$ are realized as [a:] because those whose ancestor was MHG *öu* gave rise to [aj].

The resulting vowel chart of SWY includes the following elements:

- short monophthongs: i($I_1$) [outside of Alsace]; ɪ($I_1$) [Alsace]; e($E_1$); a($A_1$); o($O_1$), ʊ($U_1$ [Alsace]), u($U_1$) [outside of Alsace]
- long monophthongs: i:($I_2$, $E_5$ [regionally]); e:($E_5$ [mainly], $E_2$ [regionally]); a:($A_3$, $E_4$ [mainly], $O_4$); o:($A_2$ [regionally], $O_2$ [regionally]); u:($U_2$ [mainly]); y:($U_2$ [in Alsace])
- diphthongs: ej($E_2$) [mainly]; ɛj($E_2$) [Alsace]; aj($I_4$, part of $E_4$ [Switzerland]); ou($U_4$, $A_2$ [mainly], $O_2$ [mainly]).

The Northwestern Yiddish (NWY), spoken in the Netherlands and the northern part of West Germany, is closely related to SWY in some aspects. For example, in the Netherlands we find several Alsatian peculiarities: e($I_1$) as well as the existence of two kinds of short [o], the open one for $O_1$ and the close one for $U_1$.[49] Several developments are specific to NWY. The first peculiarity consists in the [ɛj]-reflex of the proto-vowel $I_4$ instead of the [aj] found in both Middle WY and Middle EY (see tables 16 and 17). Phonetically, the NWY diphthong ɛj($I_4$) is situated between [ej] (the reflex of the same proto-diphthong that existed during the Proto-WY period, see table 15) and [aj]. As a result, one could suppose that, unlike other dialects, NWY retains the value of the intermediate stage of the phonetic shift from [ej] to [aj]. This is,

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[48] The [ɪ]-reflex is given in Zuckerman 1969:42. Beranek (1965:88–89, map 42) refers to the [e]-reflex here, identical to the local Alsatian Christian dialect.

[49] The fact that for the Netherlands, Beem (1959:25), in effect, refers to [ɔ] and [o], while for Alsatian Yiddish, Zuckerman suggests [o] and [ʊ], respectively, is of no phonemic importance: in both cases, we have a contrast between two rounded back vowels, whose articulation is mid-open/mid-close. Beranek (1965:112–113, map 64) makes no distinction between these two kinds of /o/, for either Alsace or the Netherlands.

however, rather unlikely. First, during the passage from Proto-Yiddish to Middle Yiddish, the Ashkenazic population in the region in question was small and it is implausible that the modern reflex could correspond to some archaic form unknown in other dialects. Second, in the Netherlands the [ɛj]-reflex is also found in the Hebrew combination *patah + ayin + hatef-patah*, whose reflexes were merged with those of $I_4$ in the German component (see Beranek 1965:18–21, maps 7, 8). This merger is pan-Yiddish, and since Proto-EY had already had aj($I_4$) it must have taken place during the period when the proto-diphthong $I_4$ had already been realized as [aj] in both WY and EY. These factors imply that the modern NWY reflex [ɛj] is an innovation, most likely, related to the fact that there is no contrast [ej] ~ [aj] in Dutch, where only the diphthong [ɛj] is found.[50] For the same reason, the NWY reflex of $E_2$ is [ɛj] and not [ej], though, as noted above, this feature is also found in Alsatian Yiddish and, therefore, it could be of southern origin.

The second peculiarity of NWY in comparison to other WY dialects concerns the proto-vowel $A_3$: it merged with the proto-vowel $A_2$. The last development is typical of the Czech sub-dialect of WY (see below) and of the whole EY. This fact implies that NWY could be a dialect resulting from a mixture of features of several other dialects, from both WY and EY. This hypothesis is supported by historical evidence. During the last centuries, the two most populous Ashkenazic communities of the area in question were Hamburg and Amsterdam. Both emerged as a result of recent migrations from various other Jewish communities including not only Frankfurt (typical WY community) but also Prague.

Unlike in SWY, in NWY we do not observe the merging of $A_2$ and $O_2/U_4$. As a result, here NWY follows the schema in table 17a. We have, nevertheless, some indication that the vowel chart of Dutch Yiddish may have been different in the past. Indeed, as noted by Beem (1959:16), if the modern form of Hebrew כָּשֵׁר is [ko:ʃər], the archaic one was [kouʃər], exactly as in SWY.[51] As a result, it is possible that in its early stages, NWY followed the same development path as SWY, while the

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[50] Personal communication, Alexis Manaster Ramer (2006). In Dutch, this diphthong is spelled either *ij* as in *tijd* 'time' or *ei* as in *ei* 'egg'.

[51] Note also that this older variant has been borrowed into Dutch as *kousjer*. Today's Dutch word *koosjer* results from a recent renorming. This paragraph is due to personal communication with Alexis Manaster Ramer (2006).

reflexes of $A_2$ changed from [ou] to [o:] later, due to the influence of immigrants from Central and Eastern Europe and, in the case of words from the Hebrew component, following the Whole Hebrew rules. Beem (1959:17–18) states that in modern Dutch Yiddish, in the diphthong corresponding to $O_2/U_4$ the first vowel is open and, therefore, it is more appropriate to use the sign [ɔu] instead of [ou]. In North Germany, as noted by Weinberg (1969) and Beranek (1965), the diphthong corresponding to $O_2$ is sometimes realized as [au]. In this case it is unclear whether we are dealing with an innovation due to the influence of German that has no [ou] or with a diphthong whose actual phonetic value is somewhere between [ou] and [au], that is, [ɔu], exactly as in the Netherlands.

The vowel chart of NWY includes the following elements:
- short monophthongs: i($I_1$) [North Germany]; e($I_1$ [Netherlands], $E_1$); a($A_1$); ɔ($O_1$); o($U_1$ [Netherlands]), u($U_1$ [North Germany])
- long monophthongs: i:($I_2$); e:($E_5$); a:($E_4$, $O_4$); o:($A_{2,3}$); u:($U_2$)
- diphthongs: εj($E_2$, $I_4$); ɔu($O_2$, $U_4$).

The Yiddish dialects spoken in Central Europe (Bohemia-Moravia, West Hungary, and East Germany) are in some aspects transitional between WY and EY. In principle, their vocalism can be derived in its entirety from that of Proto-WY too. On the one hand, unlike in Proto-EY, in these dialects one does not observe any merging of $E_2$ and $E_4$ as well as $O_2$ and $O_4$. On the other hand, the merging of $A_2$ and $A_3$, though typical of EY, does not contradict the schema of Proto-WY either (see table 15): it suffices to assume that the raising of *a:*($A_3$) took place before the monophthongization of *aj*($E_4$) and *au*($O_4$) to [a:]. Once merged, the proto-vowels $A_2$ and $A_3$ went through the [o:] stage and in Czech lands partly raised to [u:]; that is, they followed a development path typical of CY.

Another peculiarity, valid for the whole area except East Germany, consists in fronting to [y] that affected short [u], long [u:], and the second element of the diphthong [ou]. This process is related to the Central Yiddish fronting from [u] to [i]. As in SWY, we find regional (central Bohemian) reflex [i:] for $E_5$. In East Germany we also find [aj]-reflexes for $E_2$, exactly as in CY. The resulting vowel chart of these dialects includes the following elements:

- short monophthongs: i($I_1$); y($U_1$ [mainly]); e($E_1$); a($A_1$); o($O_1$); u($U_1$ [East Germany])
- long monophthongs: i:($E_5$ [central Bohemia], $I_2$); y:($U_2$ [mainly]); e:($E_5$ [mainly]); a:($E_4$, $O_4$); o:($A_{2,\,3}$) [mainly]; u:($A_{2,3}$ [partly in Bohemia-Moravia], $U_2$ [East Germany])
- diphthongs: ej($E_2$ [mainly]); aj($I_4$; $E_2$ [partly in East Germany]); au($U_4$), oy($O_2$ [mainly], ou($O_2$) [East Germany].

The fact that the stressed vocalism of Yiddish spoken in Czech lands can, in principle, be derived from that of Middle WY does not contradict the idea that Bohemia may be the cradle for Proto-EY. In the scenario suggested in this paper, this implies that due to the migrational waves from the west, in Bohemia the EY dialect was gradually replaced by WY. The local merging of $A_2$ and $A_3$ could be one of the traces of the Proto-EY substratum. It was, however, before the WY stressed vocalism was brought to Bohemia that migrants from this area came to Eastern Europe spreading EY features. This purely hypothetical statement can be corroborated by the results of the philological analysis of Yiddish documents written before mid-17th century in Prague that show close links between local Yiddish and (modern) EY. The [a:]-reflex for $E_4$ and $O_4$ that normally serves as the formal criterion for the differentiation between WY and EY was almost unknown in Prague before mid-17th century.[52] Timm (1987:98, 113) compiled two detailed statistical tables concerning the spelling used to express the stressed vowels that corresponded to MHG *â* in open syllable, *o* in closed syllable, and *a* in both positions. In both of them, one can observe an evident separation between the zones "west" (covering West Germany and North Italy) and "east" (including Prague and Poland). In the first zone, MHG *a* has no sign independently of the syllable, while the letter *vav* (ו) corresponds to MHG *â* and *o*. In the second zone, MHG *a* is regularly expressed via the letter *alef* (א) in open syllables, and—depending on the author—its orthographic representation in closed syllables can be either *alef* or

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[52] Timm (1987:185–189, 194–198) found [a:] in Prague texts from the turn of the 16th–17th centuries only in a few words related to MHG *ou* and one related to MHG *ei*. The spelling using Hebrew letters does not allow the identification of their pronunciation without ambiguity. Neuberg (2000:69, 78) found only one example of [a:] for MHG *ei* and a few instances of [a:] for MHG *ou* in a text from 1649.

nothing. *Alef* is used for both MHG *â* in open syllables and MHG *o* in closed syllables. In Prague Yiddish sources from the end of the 16th century and the first half of the 17th century one finds numerous other phonological features typical of EY.[53] According to numerous (mainly lexical) isoglosses separating WY from EY, Bohemia should be treated together with EY rather than with WY; see Manaster Ramer 1997:209–210 and maps 23, 29, 30, 36, 39, 46, 47, 63–67, 69, 74, 75, 77–80, 89–91, 101 in Beranek 1965.

### 5.3. *Changes Before [r] and [x].*

The vowel charts presented for modern Yiddish dialects in two previous sections are incomplete because they do not take into account special development of various vowels before [r] and [x]. In this environment, the short vowels that descend from the proto-vowels $I_1$, $E_1$, and $U_1$ shifted, in certain regions, to more open vowels [e], [a], and [o], respectively. The detailed description of this phenomenon is offered by M. Weinreich (1973.2:362–373). The most detailed maps established for EY show that two shifts, [i] > [e] and [e] > [a], characterize SEY and all of CY except for its northeastern part (see LCAAJ I.58–59, maps 9–10): compare, for

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[53] Timm (1987) explicitly assigns Prague to WY. However, in the large list of phonological peculiarities (pp. 476–481) she found in three sources from Prague dating from 1597, 1619, and 1620, one cannot find elements that would be valid for WY and not valid for EY, with the exception of a few [a:]-forms for MHG *ou* or *ei*. On the other hand, the following typical EY features can be found in her book: (a) singular forms of the Yiddish equivalent for the NHG verb *werden* (compare StY infinitive *vern*) always have *e* and never *i* (p. 159); (b) forms *ton* ('to do', MHG *tuon*, NHG *tun*), *entveren* ('to answer', StY *entfern*), *nisht* ('not', NHG *nichts*), *kegen* ('against', NHG *gegen*, StY *kegn*) (pp. 174, 264, 327, 478, 479); (c) epenthesis of [t] between [n] and [ʃ] (or [s]) in the past participle form *gevuntshen* ('to wish'; StY *gevuntshn*, NHG *gewünscht*) (p. 326), compare StY *vuntsh* ('wish', NHG *Wunsch*), *bentshn* ('to bless', of Romance origin), *mentsh* ('man', NHG *Mensch*) and *fentster* ('window', NHG *Fenster*); (d) loss of [n] in *lebedig* ('alive'; StY *lebedik*, MHG *lebendec*, NHG *lebendig*) and *zibetsig* ('seventy'; StY *zibetsik*, MHG *sibenzec*, NHG *siebzig*) (p. 328). In a text compiled in Prague in 1649 we find such forms typical of EY as *barg* ('mountain', NHG *Berg*) and *harts* ('heart', NHG *Herz*), in which one observes the Central German lowering of [e] to [a] before a combination [r] plus a consonant (Neuberg 2000:80).

example, CY [herʃ] ('stag', NEY [hirʃ]), [lext] ('light, candle', NEY [lixt]) and [fartsik] ('forty', NEY [fertsik]). We also find some examples in WY: the word [tirxə] ('trouble'; טְרְחָה) has a variant [terxə]. On the other hand, the shift [u] > [o] is found in the EY area for CY only, as in [korts] ('short', NEY [kurts]). In WY, we find [u] > [ɔ] before [r] and [x] in Alsace (Zuckerman 1969:43). In the same area, $A_1$ has an allophonic variant [a:] in the same environment (Zuckerman 1969:47). The lengthening of [a] before [r] in CY mentioned in Bin-Nun 1973:186 and Weinreich 1973.2:330–331 could be due to the same phenomenon.

The history of lowering is complex. The existence of pan-Yiddish forms with $O_1$ before [r] in words whose MHG and modern German cognates have [u]—such as StY *vortsl* 'root', *vorem* 'worm', *gorgl* 'throat', and *dorsht* 'thirst'—implies that their [o]-variant was most likely borrowed during the Pre-Yiddish period from some regional German dialects. For example, Weinreich (1973.2:137) found that the lowering [er] > [ar] was peculiar to the Central German dialects, especially those spoken in Franconia. In MHG dictionaries, along with standard forms *wurzel* and *wurm* we find the variant forms *worzel* and *worm*, with *worm* explicitly characterized as Central German. In other cases, the lowering necessarily took place during the Yiddish history because it affects the words from both the German and the Hebrew components and is specific to Jews. The earliest examples of the shift [i] > [e] before [r] and [x] in the Hebrew component are of medieval origin. Their existence was observed in prayer books from the Rhineland: Eldar (1978:46–48) notes the use of *segol* instead of *hireq*. The form *kharpe* ('shame', חֶרְפָּה), with [ar] < [er], is found in both EY and WY. Yet, some of the processes in question are relatively recent. For example, in SEY and the northeastern-most strip of CY, the proto-vowel $U_1$ before [r] and [x] gave rise neither to [o] (as in all other parts of CY) nor to [u] (as in NEY), but to [e], compare [kerts] ('short', NEY [kurts]). The only plausible explanation involves the following chain shift: [u] > [i] > [e]. This means that the lowering [i] > [e] took place after the fronting [u] > [i], the process that occurred after the separation of NEY and Southern Yiddish (the ancestor of both CY and SEY).

In the same environment, specific phonetic development is less common for long vowel or diphthongs. Still, we find that in Alsace [o:]—developed from $A_2$—has an allophonic variant [å:] (Zuckerman 1969:47). In the northern part of SEY, $E_4$ before [x] gave rise not to the usual [ej]

but to [e]. As a result, we find forms such as [vex] and [tsexn] instead of StY *veykh* ('soft', MHG *weich*) and *tseykhn* ('sign', MHG *zeichen*), respectively. In the same area, some words whose stressed vowel corresponds to $O_2$ or $O_4$ also contain the [e]-reflex. For example, [ex] is cognate to two StY words: *hoykh* ('high', MHG *hôch*) and *oykh* ('also', MHG *ouch*). In these cases, we can be sure that this result was obtained via the intermediary stage of [ej], the NEY reflex of both $O_2$ and $O_4$ (Weinreich 1973.2:331).

## 6. Comparison with Other Theories.

As described at the beginning of this paper, the only derivational schemas available in the linguistic literature for various Yiddish dialects are those initially suggested by U. Weinreich (1958), significantly developed by Herzog (1965), and later amended by Jacobs (1990). If one compares tables suggested earlier in this paper to those proposed in the studies in question, one can observe the following, quite understandable, regularity: the older the period covered, the bigger the difference. Indeed, for modern EY dialects the results are evidently the same: they are based on factual materials and do not represent a theoretical historical reconstruction.

For the period conventionally designated here as Middle EY (table 16) and referred to as Proto-EY by Herzog (1965:163), there are only two differences and both of them concern the diphthongal reflexes of (1) $O_{2,4}$ and (2) $U_4$. For the first one, Herzog suggests [øy], while table 16 uses [oj]. Herzog admits that to have assumed [oj] rather than [øy] would have simplified the subsequent development significantly; but he adds that it would have required positing a more recent sub-regional fronting-rounding [oj] > [øy] in NEY, an unlikely sound change in the absence of a distinctive front rounding elsewhere in the vowel system. The above argument is respectable though it can also be turned against Herzog. Indeed, if one accepts his general idea, one would need to explain the shift [ou] > [øy] during a previous period, before EY split to NEY and Proto-Southern Yiddish. This fronting-rounding would be problematic for exactly the same reason: the absence of fronting-rounding elsewhere in the vowel system. Moreover, note that for CY, we actually do not have a single hint of the existence of the diphthong [øy] in any time period, while the acceptance of Herzog's theoretical construction implies that this diphthong would appear in the vowel system of the ancestor of CY

and later disappear. As a result, a diphthong whose nucleus would not be a rounded vowel appears to be much simpler.

Jacobs (1990:64–65) suggests additional arguments against [øy] posited by Herzog for Proto-EY. However, he posits [ou] rather than [oj] as in table 16. The direct shift from [ou] to [øy] is impossible and Jacobs himself speaks about the chain [ou] > [oj] > [øj] > [øy]. In other words, for NEY his schema also needs the [oj]-stage. For Proto-Southern Yiddish, Jacobs (1990:70) refers to a shift from [ou] to [oj] for $O_{2,4}$. The idea that the same shift from [ou] to [oj] occurred independently in NEY and Southern Yiddish appears to be more complex (and hence less plausible) than the conjecture that [oj] was already present in the ancestor of both dialects (whose vowel chart is presented in table 16). For similar reasons, the [ou]-reflex for $U_4$ (as in table 16) seems to be preferable to the [au]-reflex suggested by Herzog (and accepted by Jacobs). As discussed in section 5.1, in both Southern Yiddish and the main part of NEY, the reflexes of $U_4$ went through the [ou]-stage.[54] Consequently, if we accept Herzog's idea we would need to postulate the same shift from [au] to [ou] that took place in NEY and Southern Yiddish independently of one another.[55]

The biggest differences between the two approaches exist with respect to the Proto-Yiddish stage, for which Herzog adopts his schema from Weinreich 1960. As a result:

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[54] CY has [ou] and [o:] derived from it; SEY has [ou], [oj] and [u]; NEY has [oj], [ou] and [au]. The last reflex—found in Courland only—is more likely to be an innovation due to the influence of the speech of local German-speaking Christian population than a representation of the [au]-reflex peculiar to Proto-EY whose vowel chart is given in table 14.

[55] The reflexes [au] and [ou] suggested by Jacobs for Proto-EY $U_4$ and $O_{2,4}$, respectively, have one important advantage, namely, they make the schema of proto-diphthongs of EY symmetrical: *ej-aj-au-ou* (the nucleus is twice the low vowel [a] and twice a mid vowel, [e] or [o]; the glide is twice the front [j] and twice the back [u]). In contrast, the schema in table 16 is asymmetrical: *ej-aj-oj-ou*. However, in light of the subsequent development of both NEY (rounding of [oj]) and CY (loss of short [u] and long [o:]), symmetry does not appear to be a fundamental feature. For this reason, the simplicity of derivational chains seems to place table 16 in a favorable position in comparison with Jacobs' approach.

(i) Herzog does not propose any phonetic value for $E_5$ that would be compatible with its later development. The sound [æ:] or [ɛ:] suggested by Jacobs (1990:62, 73) and resuggested in this paper as [ɛ:] appears to be a better solution.

(ii) Herzog suggests the same phonetic value of [a:] for both $A_2$ and $A_3$, which is incompatible with distinct development of these proto-vowels in WY. In this paper, I propose to solve this problem by suggesting the sound [ɔ:] for $A_2$. Jacobs (1990:62, 73) also suggests either [å:] or [ɔ:] for $A_2$. However, WY is beyond the scope of his analysis (this is true for Herzog too) and as a result, he does not distinguish between $A_3$ and $A_2$.

(iii) Both Herzog and Jacobs posit [uu] and [ij] for $U_4$ and $I_4$, respectively. It is unclear how these reflexes were different from [u:] of $U_2$ and [i:] for $I_2$, respectively. This paper suggests [ou] (or [au]) for $U_4$ and [ej] (or [aj]) for $E_4$ (see table 14).

(iv) Herzog and Jacobs refer to proto-diphthongs common for WY and EY. The discussion in section 4.2 shows that at least the reflexes of $O_4$ and $E_4$ are likely to be distinct in WY and EY. Under the approach adopted in this paper, their reflexes—[ou] for $O_4$ and [ej] for $E_4$ following Herzog—are valid for WY only (see table 15), while in EY, the reflexes of these proto-vowels are more likely to be [o:] and [e:], respectively (see table 14).

(v) Perhaps, the most important difference between the two approaches concerns the dimensions of time and place. Herzog and Jacobs never approach these topics when they speak about Proto-Yiddish. Yet, some of their phonetic constructions—such as [uu] for $U_4$ and [ij] for $I_4$—are likely to point to the period of MHG because they make one think of MHG *û* and *î*, respectively. The diphthongs in question are limited to the German component. However, we do not find any mention of [uu] or [ij] in the history of German dialects. This can mean either that in Herzog and Jacobs's opinion, Jews created these sounds themselves or that their approach to the phonology of *Proto-Yiddish* was in terms of correspondences rather than derivation. The present paper suggests an approximate time period and regions in which Proto-WY and Proto-EY stressed vocalisms could have originated. For both Yiddish dialects, it suggests not correspondences to the elements in MHG schema, but a derivation from the phonology of local German dialects.

The comparison with Bin-Nun 1973 provides different results. Bin-Nun does not present any synthetic table or schema, neither synchronic (vowel systems at various periods) nor diachronic (derivational rules between these systems). One can, nevertheless, extract from his text (pp. 185–233) the list of all vowels and diphthongs that, according to his concepts, were present in Proto-Yiddish. This list is identical in many aspects to the data in tables 14 and 15. If one omits

    (i)    the differences in conventional designations for various sounds,

    (ii)   the fact that Bin-Nun often does not distinguish explicitly between general rules and exceptions,

    (iii)  the presence of two alternative variants suggested in table 12 for the reflexes of certain Proto-EY diphthongs, while Bin-Nun postulates only one among these possibilities,

the only major difference would be the absence in Bin-Nun's analysis of any distinction between $A_2$ and $A_3$, fundamental at least for WY. In all other aspects, Bin-Nun's results are similar to those proposed in this paper, including the necessity—due to the analysis of diphthongs using arguments close to those presented here—of constructing independent schemas for the phonology of Proto-EY and Proto-WY and the impossibility of assigning to both of them a single Jewish ancestor. Bin-Nun also faced the question of where these two systems of proto-vowels could appear and he designated larger areas than those proposed in this paper. He states (p. 229) that according to the reflexes of MHG *û* and *ou*, WY is related to Bavarian (understood as including Northwestern Bohemian and East Franconian, both heavily influenced by Bavarian), while CY is mainly related to East Central German. He states further (p. 209) that according to the reflexes of the equivalents of MHG *ei* and *î*, WY is related to Bavarian, while EY—to East Central German. Bin-Nun defined the period of the existence of these two Yiddish proto-dialects as the 14th–16th centuries (p. 62). As for the derivation of the phonology of modern dialects from Proto-Yiddish, he just pointed to main tendencies, without providing any comprehensive list of phonetic shifts that did occur.

Another attempt to establish the areas of the origins of WY and EY is due to Blosen (1986). He based his analysis on the consideration of the geographic distribution of several phonetic features (monophthongization of MHG *ie* and *uo*, diphthongization of MHG *î* and *û*, unrounding, [a:]-reflex in WY for MHG *ei*, the consonants [p], [f], or the affricate [pf] in

various word environments) and one morphological element (diminutive suffix). Despite the similarity of Blosen's approach to that applied in this paper, he came to rather different conclusions: for him, WY appeared in the Hessian area, while EY is related to Silesian colonial German. Nevertheless, some elements of his analysis seem problematic. Blosen anachronistically relies upon modern isoglosses and excludes the factor of time from his analysis. As a result, he does not take Bohemian into consideration for EY. For WY, not taking into account the fact that in Hessian the diphthongization of MHG *î* and *û* occurred rather late, he first comes to two potential sources—Hessian and East Franconian—and then chooses the former on an extra-linguistic basis, simply because of the importance of the Frankfurt and neighboring Rhenish communities for Jewish history.

## 7. Conclusion.

Contrary to what fashionable philosophers of science claim, I believe that scholarship is largely cumulative, and that one tends to under-estimate the extent to which even "revolutionary" discoveries and shifts in "paradigm" are rooted in the theories and practices of the scholars who came before. The general ideas of Kuhn or Quine are certainly correct, but the role of these authors' discoveries is often greatly exaggerated. Surely, the development of linguistics, like that of any intellectual domain, is not linear; certain important results may not be used for decades, but on a large chronological scale, the progress—based on ideas of previous researchers—becomes more and more visible.[56] The story of the reconstruction of the Proto-Yiddish sound system is a perfect example. The most important ideas presented in this paper are to a great extent due to the work of my predecessors, primarily M. and U. Weinreich, Herzog, Katz, Jacobs, and Bin-Nun. M. Weinreich created the first theoretical schema of Yiddish proto-vowels, suggested large lists of exceptions to basic rules, and offered the most detailed description of various aspects of Yiddish. U. Weinreich and Herzog provided the first derivational schemas for modern Eastern Yiddish dialects and played an important role in collecting and systematizing the materials for LCAAJ. Katz's contribution to Yiddish historical linguistics—focused on the Hebrew component—is also fundamental. He corrects a number of errors

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[56] Personal communication, Alexis Manaster Ramer (2006).

in Weinreich's schema of proto-vowels and introduces the idea that in closed syllables, Hebrew vowels became short already in Pre-Ashkenazic period. Jacobs completes this theory with an important hypothesis about the Pre-Ashkenazic character of the lengthening of Hebrew vowels in open syllables. He also makes several amendments to Herzog's schemas that appear attractive.

Bin-Nun proposes the exact phonetic values for proto-vowels, compiles comprehensive lists of words whose phonetics shows some peculiarity, and attempts to explain its origin. His analysis of the links between Yiddish and various German dialects is exemplary and it yields schemas of stressed vowels of Proto-WY and Proto-EY that in a number of aspects are similar to those suggested in this paper. Bin-Nun's explanations of the reflexes of several Hebrew vowels are superior to those of M. Weinreich and they were used in this paper. This is particularly true for *qamets* in closed syllables and *segol* in open syllables (in Weinreich's terms: $A_1$ and $E_5$, respectively). His exemplary study of Yiddish was prepared—under his original name Fischer—in Nazi Germany in the mid-1930s. Its first, historical, part was published as a thesis at Heidelberg University in 1936. The second part, with the detailed phonetic analysis, was completed as a manuscript before World War II and was not published until 1973. For various reasons, his work never received the attention it really deserves, while it appears, in my opinion, to be the best analysis of phonetic aspects of Yiddish ever written.

This paper introduces a theory of the origins of the stressed vocalism of Yiddish. It implies the existence of a pre-Yiddish period of several centuries during which the phonetics of the German component of the vernacular speech of Ashkenazic Jews closely followed that of the neighboring Christian population. It was during the 14th century and/or the first half of the 15th century that in two neighboring regions, East Franconia and Bohemia, the phonetics of the Hebrew component merged with that of the German component to create the phonetics of Proto-Western Yiddish and Proto-Eastern Yiddish, respectively. Although these systems of stressed vocalism were close, some important differences existed in their treatment of diphthongs.

The problematic aspect of currently accepted conventional designations for the Yiddish proto-vowels is M. Weinreich's consideration of what he referred to as $E_5$ and (to a lesser extent) $A_3$. In order to remove

this drawback, I would like to suggest new designations. Any new proposal of this kind should, in my opinion, obey the following constraints:

- avoid any confusion by not using the same designations as the existing schema unless the meaning in both schemas is the same
- reflect the actual hypothesized phonetic value during the Proto-Yiddish period (for this reason, M. Weinreich's approach using letters appears to be preferable to those with numbers, introduced by Herzog and U. Weinreich)[57]
- be simple enough to allow for easy memorization.

In the last column in table 18, I have tried to meet all of the above conditions.

| Conventional Designations | | Mixed Designations | Phonetic Designations | | |
|---|---|---|---|---|---|
| U. Weinreich 1958:225–226 | Herzog 1965:161 | M. Weinreich 1973.2:321–382 | Bin-Nun 1973:185–238 | Jacobs 1990:62, 73 | Suggested |
| 3, 4 | 11 | $A_1$ | a | a | a |
| - | 13 | $A_3$ | - | - | a: |
| 10 | 12 | $A_2$ | ǫ̂ | å: or ɔ: | ɔ: |
| 5 | 41 | $O_1$ | o | o | o |
| 14 | 42 | $O_{2,3}$ | ô$^u$ | o: | o: |
| 6 | 51 | $U_1$ | u | u | u |
| 11 | 52 | $U_{2,3}$ | û | u: | u: |
| 8 | 25 | $E_5$ | ę̂ | æ: or ɛ: | ɛ: |
| 2 | 21 | $E_1$ | e | e | e |
| 9 | 22 | $E_{2,3}$ | ê$^i$ | e: | e: |
| 1 | 31 | $I_1$ | i | i | i |
| 7 | 32 | $I_{2,3}$ | î | i: | i: |

Table 18. Designations for Yiddish proto-vowels.

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[57] Personal communication, Alexis Manaster Ramer (2006).

As can be seen in the above table, there is no substantial difference between the suggested designations and those used by Bin-Nun and Jacobs. Neither of these scholars mentions, however, any equivalent for M. Weinreich's $A_3$. As discussed in section 4.3, this proto-vowel could actually be absent from Proto-EY and limited to Proto-WY.[58]

Table 18 is incomplete. First, it does not cover all the proto-monophthongs of Proto-WY: the front rounded vowels [y], [y:], [ø], and [ø:] are lacking because they are absent from M. Weinreich's system. As a result, it would be appropriate to introduce these four additional proto-vowels, applicable for WY only. Second, this table does not include any diphthongs. This was done on purpose. As was shown in this paper, although the diphthongs in Proto-WY and Proto-EY developed from the same MHG ancestors they are likely to have different phonetic values. As a result, it would be inappropriate to include them in the schema of pan-Yiddish proto-vowels: the designations introduced for them by Weinreich describe heuristic diaphonemes, useful to find correspondences in various dialects even if within Yiddish their ancestors were different. Moreover, even the number of diphthongs is not the same. On the one hand, the classical M. Weinreich schema includes four of them: $E_4$, $I_4$, $O_4$, and $U_4$.[59] On the other hand, table 12 mentions only two diphthongs in Proto-EY: [aj] or [ej]; [au] or [ou]. They have the same MHG ancestors as Weinreich's $E_4$ and $U_4$, respectively. Table 13 mentions six diphthongs in Proto-WY: [au] for $O_4$; [ou] for $U_4$; [ej] and [øy] for $I_4$; [aj] and [ay] for $E_4$. In these conditions, the introduction of specific designations common to EY and WY, even the mnemonic ones, would only be misleading, and it seems to be more appropriate to abandon any mention of Weinreich's series with the subscript 4.

In this paper, the term "Proto-Yiddish" was used to designate the phonology of a Jewish language in which the total fusion of the phonetic systems of the vernacular words of German and Hebrew origin was achieved. According to this conventional definition, one needs to refer to two different systems of proto-vowels—those of Proto-WY and Proto-

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[58] Jacobs considers EY only. For this reason, he does not need to discuss $A_3$. It should also be added that Jacobs himself does not suggest any changes in designations of Yiddish proto-vowels: he always uses those introduced by Herzog.

[59] Uriel Weinreich (1958:225–226) uses the designations 9 (also used for $E_2$), 12/13, 14 (also used for $O_2$), and 15, respectively.

EY—that had no common Jewish ancestor. However, this conclusion does not preclude the possibility that important parts of WY and EY could have common origins. Indeed, the present paper deals only with the stressed vocalism of Yiddish dialects. As discussed in section 3.1, the phonology represents the domain in which the separation from the neighboring German dialects and the fusion of the German and Hebrew components seem to be the most recent. At the moment of this fusion, numerous specifically Jewish semantic, morphological, and lexical elements already existed in the vernacular speech. EY and WY share a large number of non-phonological features. Many of them cannot be explained via borrowing between the two dialects but necessarily imply the common roots of both (see Manaster Ramer 1997, Timm 1987:360ff). Future research—in particular, a more detailed analysis of the exceptions in the German and Hebrew components, consonantal issues, morphological, syntactic, and lexical peculiarities—should shed more light on that part of Yiddish history.

If one accepts the arguments suggested in this paper, one can try to identify reasons for why the two systems of proto-vowels that appeared in East Franconia and Bohemia only during the 14th–15th centuries could become the sources for the vocalism of all modern Yiddish dialects spoken at the beginning of the 20th century across a very large area, from Alsace to eastern Ukraine. Indeed, at the inception of the two proto-systems conjectured here, Ashkenazic Jews were living in various other areas, where the phonetics of their language was most likely similar to the phonetics of the language spoken by neighboring Christians. Therefore, their language was phonetically distinct from the language of East Franconian and Bohemian Germans. Gradually, however, all other systems disappeared, ceding their place to the two systems in question. Most likely, for WY the stressed vocalism used in the speech of migrants from East Franconian communities (Würzburg, Bamberg, Rothenburg, etc.) and Nürnberg (from an area where the Christian population uses a dialect intermediary between East Franconian and North Bavarian) at some point became prestigious and introduced a new pronunciation norm. The Proto-EY stressed vocalism, once created in Bohemia, gradually spread eastward. Its propagation could be partly due to numerous Jewish migrants from Czech lands. The vocalic features of the speech of German colonists in Silesia and in Polish towns (where numerous Christians spoke a dialect close to Silesian before the 16th

century) could be another factor of great importance. Indeed, as discussed in this paper, numerous vocalic features of Silesian German are similar to those of Bohemian German.[60] Consequently, the vocalic features acquired in Bohemia could be strengthened in these eastern territories and receive further development. Considerations suggested here are obviously no more than rather general conjectures and much more detailed research is needed to describe the processes of the spread of the vowel systems of WY and EY more adequately.

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[60] See section 4.4, where only two phonological features of Silesian German are mentioned that do not conform to EY (both outside of the domain of the stressed vocalism): the absence of apocope and the distribution of consonants [p] and [f].

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