The pure vowels (monophthongs) of Polish Yiddish – spectral characteristics

1. Existing descriptions

Kleine (1998) claims that there is no exhaustive, comprehensive phonetic description of Yiddish (as opposed to phonological descriptions). She cites a number of early-20th-century sources and points out that the only instrumental study was done by Elkischek in 1929. Some elements of modern acoustic analysis can be found essentially only in Kleine's work (1998, 2008). Her papers discuss Standard Yiddish and are largely based on data gathered from speakers based in Argentine. There are no studies of Polish Yiddish.

2. General characteristics

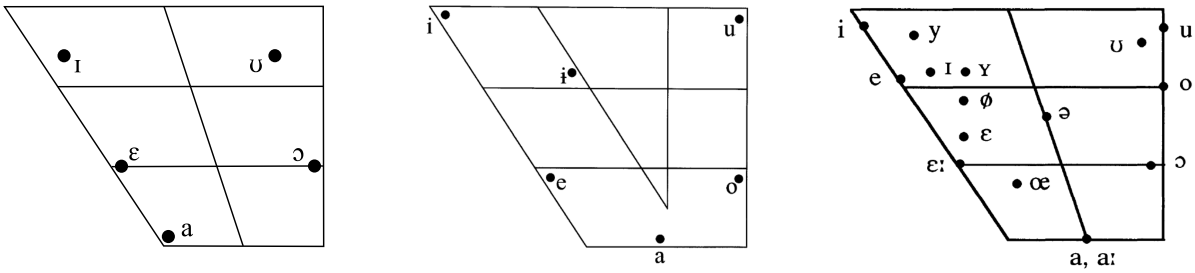

Fig. 1. A vowel quadrilateral for Standard Yiddish (left, based on Kleine 2003); for comparison, Polish (centre, Jassem 2003: 105) and Standard German (right, Kohler 1999: 87).

The Standard Yiddish vowel system is composed of five monophthongs (simple vowels) (/ɪ ɛ a ɔ ʊ/) and three diphthongs (/ɛɪ aɛ ɔɜ/) (Kleine 2003). Five-member vowel systems are widespread among the languages of the world, but are not seen in other Germanic languages. On this basis, it can be suspected that the Yiddish vowel system has resulted from interaction with other languages with vowel systems that are simpler that Germanic systems (e.g. Slavic languages in Poland). (Some authors go as far as to recognize Yiddish as the "fifteenth Slavic language" [Wexler 1991], even though this is not generally accepted.)

The Standard Yiddish vowel system shown in the quadrilateral in Fig. 1 (left) is relatively typical for five-part systems. The locations of the vowels /ɪ/ and /ʊ/ are interesting; according to Kleine (2003), both are not peripheral but somewhat centralized. The use of the symbols /ɪ/ and /ʊ/ is the author's personal choice. Usually, when there is no phonemic contrast between a more and less peripheral vowel (such as that between German /iː/ and /ɪ/, e.g. in *bieten – bitten*), the "simplest" symbol is used, i.e. whichever is closest to the corresponding Roman letter. Here, this would mean /i/ and /u/. This is actually a principle espoused by the International Phonetic Association, and the Polish quadrilateral in Fig. 1 (right) is a typical example of how it is applied. Although worth noting, this is of course a rather secondary typographical issue. In turn, the vowel /a/ is shown as fully front (which happens to align well with the IPA system) rather than central (which would be more typical for systems that only include one open vowel). Acoustic studies make it possible to evaluate the suitability of transcription symbols in a more objective manner. (You can find out more about this from a separate file "Acoustic description of vowels" available from the project's website.)

The problem of duration is more significant, i.e. the role of vowel length in phonemic contrasts (that serve to distinguish words). Polish Yiddish is usually subsumed under Central Yiddish. Most authors (e.g. Geller 2001) claim that duration is allophonic in Central Yiddish (i.e. it is not used for phonemic contrast but is determined by the neighbouring sounds/position within the word). Here, too, acoustic studies can supply more objective data. Unfortunately, the nature of the materials gathered within the *Language Legacy of Poland* project does not allow firm conclusions in this regard; as a result, the description below is limited to spectral qualities. Research into this aspect of Polish Yiddish should be continued in the future.

3. Methods

Two recordings were selected from among the recordings made for the *Language Legacy of Poland* project. Both speakers were women. The Praat software was used to mark all analysable pure vowels in stressed syllables located no closer than two syllables from the end of the intonational phrase. Next, the frequencies of the first two formants were measured at the vowel midpoints. Measurements gathered in this manner, expressed in Hz (without normalization) are plotted below on standard charts showing the relationship between the first and second formant (F1 and F2). The charts are oriented so as to match the standard vowel quadrilateral (system origin at upper right, F1 on the Y axis). Thus, the charts can be interpreted (with some reservations) to show close vowels at the top and open vowels at the bottom; and front vowels on the left with back vowels on the right. You can find an introduction to acoustic description of vowels in a separate file available from the project's website.

4. Results

Speaker HBE is a middle-aged woman. The recording used for the spectrographic analysis contained a fragment of a written story, i.e. read speech. It can be seen that the mean values for the individual vowels are located on the edge of a triangular vowel area. This means that the transcription proposed by Kleine (2003) is not fully appropriate from the point of view of the IPA system; rather, the symbols /i e a o u/ should be used, as the close vowels are not centralized, and /e/ and /o/ are relatively high. In general, the system is typical for a symmetrical five-member system. This can be also seen from the fact that each vowel occupies a relatively large area (which is visible in the chart showing the individual measurements), as is usual in a five-member system. From a dialectological point of view, this speaker demonstrates some Central Yiddish features (e.g. /u/ in *šlufšt*, /i/ in *gekimen*, /a/ in *zane*) along with some Standard features or features that are not seen as characteristic of Central Yiddish (e.g. /ɛ/ in *gebn* etc.). Since this is a question of the phonemic affiliation of individual words, it is not particularly important for the present description.

Speaker HBR is also a middle-aged woman. The recording from which the measurements were taken was her spoken biogram (spontaneous speech). Some English influence is noticeable in this speaker, since she has lived her entire life in the United Kingdom. Here, too, an /i/ transcription for the high front vowel would be more suitable, since the vowel is peripheral. However, the vowels /ɛ/ and /ɔ/ are more open than in speaker HBE; thus the transcription proposed by Kleine (2003) would be easier to adopt here. There were no occurrences of /ʊ/ in the recording. The dialectal characteristics are similar to speaker HBE: there both typical Central Yiddish features (e.g. /i/ in *gekimen*, *hindert*, *gesingen*), and non-Central Yiddish ones (/ɛ/ in *redn*).

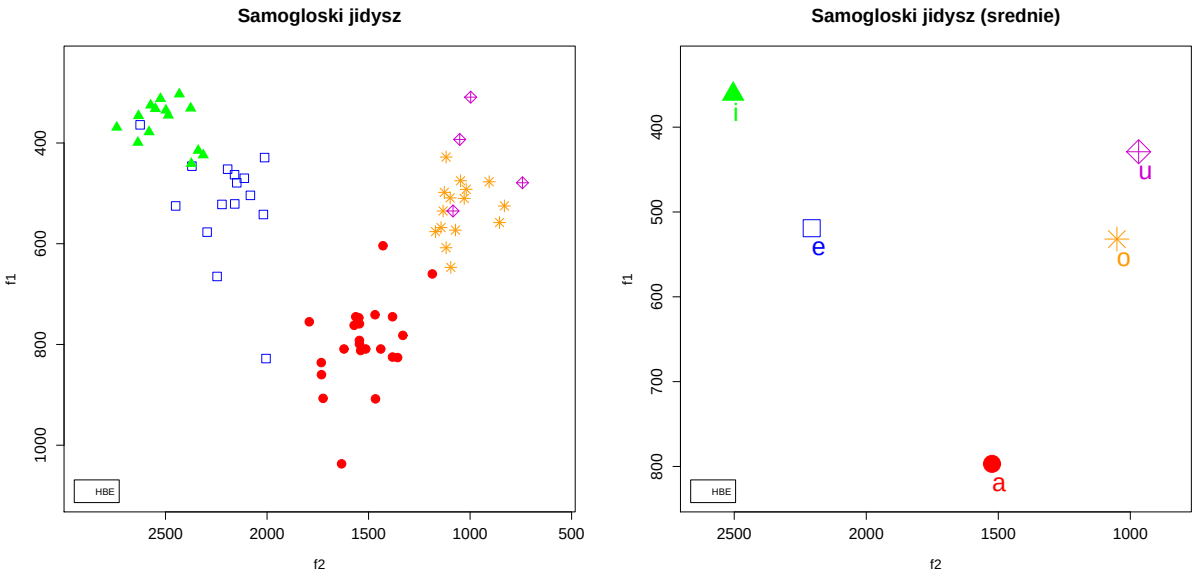

Fig. 2. Yiddish vowels in speaker HBE. Left: individual measurements;
right: means for each vowel.
Transcription conventions: /ɪ/ = i; /ɛ/ = e; /ɔ/ = o; /ʊ/ = u.

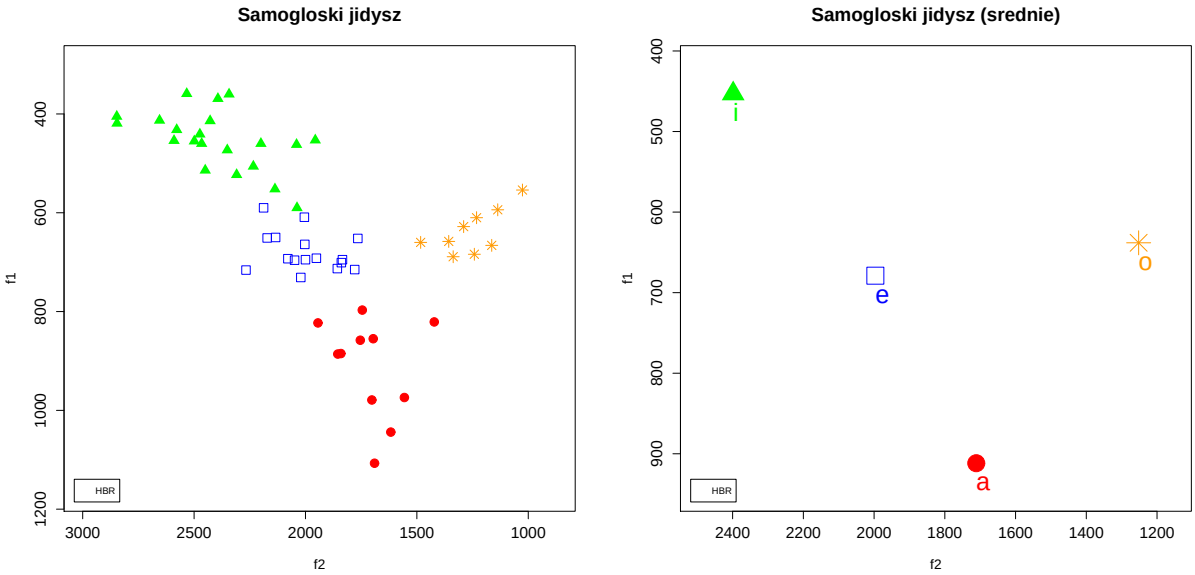

Fig. 2. Yiddish vowels in speaker HBR. Left: individual measurements;
right: means for each vowel.
Transcription conventions: /ɪ/ = i; /ɛ/ = e; /ɔ/ = o.

In both cases, an evident division of the vowels /ɪ a ɔ/ into more peripheral and more centralized subgroupings is lacking. Such subgroupings could be expected if there was a robust contrast between "long" and "short" vowels, since Germanic languages usually implement such contrasts via both actual duration and quality (timbre). This may be a limitation of the present analysis resulting from the limited scope of the material. However, the contrasts may in fact be lacking altogether, or duration

may be exclusively allophonic (determined by phonetic context). Unfortunately, the nature of the materials gathered prevents a more detailed investigation of this problem.

5. Examples

Głoska	Ortografia	Tłumaczenie	Audio
/ɪ/	f**i**s	'feet'	
/ɛ/	**e**sn	'eat'	
/a/	v**a**ser	'water'	
/ɔ/	d**o**kte	'doctor'	
/ʊ/	g**u**ništ	'nothing'	

6. Sources

Geller, Ewa (2001). *Warschauer Jiddisch*. Tübingen: Niemeyer.

Jacobs, Neil G. (2005). *Yiddish: A Linguistic Introduction*. Cambridge University Press.

Jassem, Wiktor (2003). "Polish". *Journal of the International Phonetic Association* 33(1): 103–107.

Kleine, Ane (1998). "Toward a 'Standard Yiddish pronunciation'. An instrumentally aided phonetic analysis". W: *Historical Linguistics 1997. Selected papers from the 13th International Conference on Historical Linguistics, Düsseldorf, 10–17 August 1997*, ed. by M. S. Schmid, J. R. Austin and D. Stein. Amsterdam: John Benjamins. 201–211.

Kleine, Ane (2003). "Standard Yiddish". *Journal of the International Phonetic Association* 33(2): 261–265.

Kleine, Ane (2008). *Phonetik des Jiddischen. Historische Aspekte und akustische Analysen*. (*jidische schtudies* 15.) Hamburg: Buske.

Kohler, Klaus (1999). "German". *Handbook of the International Phonetic Association*. Cambridge: Cambridge University Press. 86–89.

Wexler, Paul (1991). "Yiddish – The fifteenth Slavic language". (*International Journal of the Sociology of Language* 91.)

Prepared by:
Jarosław Weckwerth
Faculty of English
Adam Mickiewicz University in Poznań
wjarek@wa.amu.edu.pl