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# Israeli Hebrew and Hungarian Interaction: phonetic/phonological issues

## Interakcja między współczesnym hebrajskim i węgierskim: zagadnienia fonetyczne/fonologiczne

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### ABSTRACT

In spite of their different languages, native speakers of Israeli Hebrew and Hungarian often need to use each other's language for communication. The interaction between these languages is relevant in particular in Israel, where Hebrew is the dominant language, and where there live Jewish new-comers who are native speakers of Hungarian, among the many immigrant languages. Based on our field research, the paper discusses several phonetic-phonological features of spontaneous speech in these two languages. We focus on segmental features of consonants (/χ, h/) and vowels (/a, e/) and on distinctive intonation patterns (yes-no and wh-questions), which are part of the salient markers of the HU speakers' mother tongue when they speak Modern Israeli Hebrew.

### STRESZCZENIE

Mówcy natywni współczesnego języka hebrajskiego i języka węgierskiego dla celów komunikacyjnych często muszą wzajemnie korzystać ze swoich języków. Interakcja między tymi językami jest istotna szczególnie w Izraelu, gdzie hebrajski jest językiem dominującym, a pośród (przeważnie) żydowskich przybyszów licznie reprezentowani są mówcy natywni języka węgierskiego. W oparciu o nasze badania terenowe, niniejsza praca omawia kilka cech fonetyczno-fonologicznych mowy spontanicznej w tych dwóch językach. Skupiamy się na segmentalnych cechach spółgłosek (/x, h/) i samogłosek (/a, e/) oraz na dystynktywnych wzorcach intonacyjnych (w pytaniach o rozstrzygnięcie i uzupełnienie), które stanowią istotne aspekty wyróżniające język ojczysty mówców pochodzenia węgierskiego, gdy posługują się oni współczesnym językiem hebrajskim.

## 1. Introduction

Israel is the Jewish immigrant-absorbing country, and as such it has absorbed Hungarian (HU) speaking people, among others. The formal and dominant language in Israel is Israeli or Modern Hebrew (MH) which developed to its present form during the 20th century after being dormant for almost 2000 years. A large proportion of the Israeli population has therefore to acquire MH, the State language. This situation makes such speakers bilingual (or multilingual) and several languages used in Israel have been studied for a variety of goals (e.g., [1–5]). However, the interaction between

HU and MH has hardly been studied up to now.<sup>1</sup> One of the reasons of this situation is apparently that the number of HU speakers in Israel is rather small (about 65000 speakers at present) and many of its speakers who immigrated in the 1940's–1950's have passed away. In addition, there are few linguists in Israel who know the language, and none of those has revealed interest in this subject so far. We have therefore decided to study some processes that HU undergoes in Israel before it is too late.<sup>2</sup> Before delving into our subject, let us briefly describe relevant features of these languages.

Modern Hebrew is one of a few living Semitic languages as attested by several phonetic and phonological features, among other features. The Hebrew language has, however, undergone many changes along the centuries that passed since Classical (Biblical) Hebrew. Many of these changes occurred during its 'revival' as a mother tongue in the 20th century. The articulation changes have affected mainly the laryngeals, pharyngeals and emphatics (velarized or pharyngealized consonants), but also vowels, syllable structures etc. have changed, compared to Classical Hebrew. The present system combines 'Ashkenazi' i.e., European-type features (mainly Eastern-European languages such as Yiddish, Russian and Polish), with 'Sephardic'/Mizrahi 'Oriental' ones. These two major speech varieties yielded Israeli or Modern Hebrew [8, 9]. The written (normative) version of MH also mixes elements from the various preceding periods.

As to HU, it is an Ugro-Finnish language which has been living and developing since the 10th century in the middle of Europe (in the Hungarian basin). Hungarian (unlike MH) has several geographical dialects which, however, do not differ much from standard HU [10–12]. Written HU is normative and differs in some respects from certain spoken varieties. Contemporary HU also carries mainly lexical residues from German, Turkish and Slavic languages [13].

Our research questions for this study involve, then, this under-studied language interaction between MH and HU in Israel. The subject has both theoretical and practical perspectives: Theoretically and empirically it is interesting to find out what happens when these two languages meet. Practically, one would like to know whether the educational system in Israel can help HU speaking immigrants from Hungary in dealing with their language problems in order to absorb them better in Israel.

In this paper we focus on the phonetic/phonological aspect of the interaction which is important also in bilingualism studies. We first delineate a few phonetic/phonological properties of MH and HU. We then demonstrate some interaction features with examples from our findings in our field research. Our comments about language learning/teaching to immigrants in Israel conclude the paper.

## **2. Modern Hebrew and Hungarian phonologies: a comparison**

The Modern Hebrew alphabet uses 22 phoneme-letters like Classical Hebrew. But phonetically, several speech sounds have been lost or merged and new ones have been added. These processes have yielded in MH a slightly larger number of consonants than in Classical Hebrew and include 'back' consonants such as /ʁ, χ~ħ, h, ʔ/ (see

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<sup>1</sup> The only publications known to me are by Vágo, e.g. [6, 7], concerning a single speaker.

<sup>2</sup> This paper is part of our on-going research project on this subject.

Table 1)<sup>3</sup>. In comparison, the HU normative dialect of Budapest usually enumerates 25 consonantal phonemes (see Table 2). The characteristic phonemes of HU are the dental, post alveolar and palatal affricates and a palatal nasal /ŋ/ [14–16]. In addition, HU has consonantal gemination, unlike MH. The vowel systems of these languages also differ: MH has five vowels /i, e, a, o, u/, while HU has 14 vowels, split into short and long vowels /i, ε, ɔ, o, u, y, ø/ and /i:, e:, a:, o:, u:, y:, ø:/ [15].

There are many additional fine differences between MH and HU phonetics, e.g., Voice Onset Time (VOT) and segmental durations. Moreover, unlike MH, HU has a distinct vowel harmony system which affects its morphological suffixes. The agglutinative nature of HU yields long words with many unstressed suffixes and affects its general sound-scape, which differs from that of MH.

Syllable structure differences between these languages are not large, but their dispersion creates a different sound-scape: MH has (C)CV(C)(C)<sup>4</sup> patterns (CCCVVC in borrowed lexemes from foreign languages also exist). HU has some rare and very short syllables (only V or C) but most of the syllable patterns can be formulated as CV(V)(C)(C). Also in HU, consonant clusters (e.g., CCVC) occur in borrowed words.

**Table 1: Modern Hebrew consonants (after [17]).**

	bilabial lab-dent.		alv. post-alv.		velar		uvular	phar.	glottal
<b>Stops</b>	p	b	t	d	k	g			ʔ
<b>Fricatives</b>		f	v	s	z	ʃ	(ʒ)	(h)	h
<b>Affricates</b>				t͡s	(tʃ)	(dʒ)			
<b>Trills</b>				r			ʁ	ʁ	
<b>Lateral</b>				l					
<b>Nasal</b>		m		n					
<b>Approx.</b>					j				(ʕ)

**Table 2: Hungarian Consonants (after [15]).**

	bilabial		lab-dent.	dental	post-alv.		palatal	velar		glottal
<b>Plosives</b>	p	b		t	d	t͡ʃ	d͡ʒ	k	g	
<b>Fricatives</b>			f	v	s	z	ʃ	ʒ		h
<b>Affricates</b>					t͡s	d͡z	c͡ɟ	ʝ		
<b>Nasals</b>		m			n		ɲ			
<b>Laterals</b>					l					
<b>Trills</b>					r					
<b>Approx.</b>							j			

<sup>3</sup> Notes about segment dispersion in MH: the sounds /ʒ, d͡ʒ, t͡ʃ/ are used in borrowed (foreign) words or instead of /ʃ/ or /tʃ/ in careless speech, and thus are not (yet) real MH phonemes. /h, ʕ/ are pronounced by a limited number of the native speakers of MH, mainly by those from ‘Oriental’ origin (including Israeli Arabs). Other native speakers exchange them with /ʁ, ʔ/ respectively. The phoneme R has two main allophones /ʁ, r:/ /ʔ, h, ʕ/ are sometimes pronounced ‘normatively’ by native speakers, but very often are deleted (zero) or pronounced as /ʔ/. In addition, /p, f/ and /ʁ, k/ are partly allophonic (as residues from Classical Hebrew).

<sup>4</sup> C= consonant, V = vowel.

The effect of the different rules of word stress (i.e., the accented syllable in a word) of these languages is of major importance. The default stress of MH is placed on the last syllable. Word stress can fall also on the penultimate syllable in certain noun patterns (also when the penultimate is the first syllable of the word). In long words (with three syllables or more) the main accent may fall on the first syllable of the word if it is a proper name or borrowed or belongs to a small ‘miscellaneous’ word group [18]. The HU stress system, on the other hand, is simpler: the first syllable of a noun or verb is accented, pronouns and particles are not accented, and long foreign words may involve a secondary accent [16]. Word accent is perhaps the most marked feature of HU speech which, combined with the HU intonation pattern, make the general sound-scape of HU differ from MH.

Studies of MH intonation exist, but are not many. Laufer [19] is the most general study of MH intonation with nine contours of Spoken Hebrew: two ‘small falls’, two ‘big falls’, a rise-fall, two small rises, one big rise, and a fall-rise. These patterns can be used in various syntactic, emotional/attitudinal and semantic contexts (statements, negations, interrogations, commands and requests). Laufer’s analysis is presented phonologically (following O’Connor and Arnold [20]). HU intonation is apparently more researched [21–23, 16]. Fónagy [21] describes five main intonation contours: falling, rising-falling, falling-rising, rising, and descending, which occur in declarative sentences, questions, wishes, options, imperatives, etc. The fact that questions often end with a rise-fall has attracted some attention in this literature. The “descending” contour is also perceptually distinguished by native speakers of HU [21]. Gósy [17] presents numerical data of the pitch (in Hz.) of three sentence types in their beginning, mid-parts and endings (Gósy [16], 193, Table 27 and Fig. 103). Gósy [17], Figure 103, presents also the descending curves of questions (beginning at ~285 Hz.), exclamations (beginning at ~270 Hz.), calls (beginning at ~245 Hz.), and declaratives (beginning at ~200 Hz.). “Complementing” questions have a descending contour, while “decisive” (yes-no) questions first rise and then fall, past the middle [21]. Wishes (with many sub-types) have a generally narrow frequency range. These features have been noted here because they appear to be most important for the characterization of both MH and HU phonetic systems for second or foreign language learning and therefore for the MH speakers of our study.

### 3. Methodology

Our research into HU in Israel is the first field study of this topic. For this study we recorded 12 native speakers of HU.<sup>5</sup> Eleven of them were born in Hungary and immigrated to Israel as adults; one was born in Budapest and immigrated to Israel at age 4. Their ages vary: Nine native speakers are above 80 years old and have been living in Israel for about 50–60 years (having immigrated to Israel shortly after World War II). Two adult female native speakers were in their 30’s and had immigrated to the country less than 10 years previously. All of them belong to the middle- or high-middle class. All the participants have had high-school education and most of them are

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<sup>5</sup> As part of the research we also recorded speakers of the second generation, i.e., children of native speakers of HU, and used the same study method as for the first generation. But here we focus on first generation speakers.

at least university graduates, some having won the MA, PhD or equivalent degrees, and were employed in academic institutes.<sup>6</sup> The foreign languages that our participants knew were mainly German, Russian and Romanian; English is important in Israel but was not important in Hungary until recently (but by now most of our participants also know English). Our participants are thus multilingual, but in our recordings we studied only MH and HU.

Each participant was recorded alone in a quiet environment at home or in the office. They were recorded using a Sony digital tape recorder (ICD-MX20), or by headphones directly to a pc. The digitized recordings (through the program GoldWave [24]) were then analyzed using PRAAT (which was also used to create the Figures below).

The interviews included two parts: (1) A conversation with the researcher based on pseudo-fixed questions about the speakers' personal background, e.g., where they grew up in Hungary, when and how they came to Israel, and their attitude to HU and MH. The conversations flowed freely and sometimes touched additional points. The interview had the nature of a friendly conversation and yielded ample examples of spontaneous speech in HU and MH, including code switching (CS). This part lasted not less than about 20 minutes, and at times over an hour. (2) Each speaker was asked to read aloud in HU and in MH the fable of *The North Wind and the Sun* [15, 17]. This text, which is based on one of Aesop's fables, was chosen because it is often used in phonetic studies. The text was presented to the participants in a printout copy in fonts that were somewhat larger than in the book.<sup>7</sup>

#### 4. Findings: Examples

This section presents and discusses a few examples from our recordings. The examples reflect major features of our participants' performance in HU and in MH. The examples focus on the mentioned phonetic areas: (1) consonant confusion between /χ/ and /h/; (2) vowel pronunciation; and (3) intonation patterns. In addition, the examples also reflect some types of code-switching.

- (1) ASG<sup>8</sup>    ɔ-'bank        ha-        ola'mi                                ɔz  
               Det *bank*        Det        *world-Adj* suffix        Copula  
               'the world bank is...'

A MH phrase is embedded in the HU conversation. The definite article and the copula (a demonstrative pronoun) around the MH phrase are in HU. Notice the MH vowel /a/ in the noun and the following adjective,<sup>9</sup> unlike the vowel of the preceding and following HU particles.

<sup>6</sup> Their educational level is important, for graduates of high school and university have had experience with formal studies of foreign languages.

<sup>7</sup> The Hebrew version was 'voweled', i.e. it included the vowel marks, which are not usually shown in MH texts, but are used by learners of MH.

<sup>8</sup> These letters are the speaker's initials.

<sup>9</sup> A noun followed by an adjective is the normal word order in Hebrew and MH.

- (2) ASG     ᵛ 'dʒuwif       bri'geid     –     bri'gada-     bɔ  
           Det Adj       brigade N     –     brigade N     in Postpos  
           ' in the Jewish Brigade – Brigade...'

Here an English phrase occurs in the middle of the HU conversation; the second time the word 'brigade' is repeated it appears in the MH form, i.e., with a different morpho-phonetic structure. Surrounding this phrase are the HU definite article and the final post-position 'in'.

- (3) ASG     ha-mean'yen     ba-da'var,     felefe:gem     sinte:n     məjɔr     sylete:fy  
           Det-Adj       Prep-Det-N     N-             Particle     Hungarian born Adj  
   boundsuffix     Adj  
           'the interesting thing (is), my wife (is) also Hungarian-born.'

This example presents a MH noun phrase (collocation) within the HU speech. Note that the vowel /ᵛ/ is here pronounced in the MH phonetic system in the Hebrew words, but as the HU vowel in the word /məjɔr/ 'Hungarian'. The /r/ is articulated in both MH and HU parts in the same manner: not as a MH uvular phoneme but as a soft HU front (dental trill) one. In some other utterances, the speaker pronounces the /r/ weakly, nearly as a uvular, in partial assimilation to MH.

- (4) ASG     hem       ʃiχʕe'vu       ʔo't-anu  
           Pro     V-past-3.pl.     Prep+Pro-1.pl. (us)  
           'They freed us'

Here a whole sentence in MH is integrated in the HU text; it is not repeated in HU, and the speaker returns to HU in the following utterance. In the context, this MH sentence seems to be explanatory or emphatic, stressing its importance to the researcher.

These few examples present the difference between the articulation of the vowel-letter 'a:' /a/ in MH and its 'parallel' HU /a/. It should be noted that the vowels /a/ and /e/ are most frequent in MH, Bolozky [25]. In HU, however, both of these vowels are 'special cases' because their short and long variants contrast not only in duration but also in articulation manner (short: /ɔ, ε/ vs. long: /a:, e:/). Many native speakers of HU keep their short /ᵛ/ when they speak MH, which immediately sounds foreign to native speakers of MH.<sup>10</sup>

Another frequent articulatory problem for first generation HU speakers is caused by MH /h/ and /ħ/~χ/. The latter two are allophones in MH speech, but /h, ħ, χ/ are still normative phonemes in writing MH and Classical Hebrew. The HU system has neither /ħ/ nor /χ/. When HU-speaking immigrants learn to speak MH they have to acquire this array of new sounds, whose places of articulation are close but not identical to /h/, and are therefore often confused.<sup>11</sup> The following examples demonstrate this issue in two different female speakers:

<sup>10</sup> On the other hand, second generation speakers of HU (who were born in Israel and therefore speak MH as native speakers) often fluctuate between pronouncing /ᵛ/ as /o/ or as /a/.

<sup>11</sup> Such errors are found also in the MH speech of native speakers of Polish, even after decades of living in Israel. E.g. /ʃelaxem/ for /ʃelahem/ 'their m.' Such errors cause misunderstandings when both forms exist in MH, as here where MH /ʃelaxem/ is 'your pl. m.' and /ʃelahem/ is 'their m.pl.'

- (5) VG (f.)      mi-      je-      χo'sif      ha-'kor...  
 instead of:    mi-      je-      ho'sif      ha-'kor...  
 Prep    Particle    V      Det-N  
 'when the cold continued (to)...'
- (6) MM (f.)    χi'dek..    χi'dek    ha-ʔa'dam    et-    big'd-    o    el-    gu'f-    o  
 instead of:    hi'dek..    hi'dek    ha-ʔa'dam    et-    big'd    o    el-    gu'f-    o  
 V      V      Det-N    Prep N    Pro    Prep N    Pro  
 'the man fastened his clothes to his body'

These two examples occurred in the MH version of the Aesop's fable (see Figure 1 presenting Ex. 6 /χi'dek, χi'dek ha-ʔa'dam/).<sup>12</sup> These speakers pronounce the /χ/ and /h/ correctly in many instances, as /h/ in the definite article /ha-/ in Example 5 and 6, but in the first word of both these examples /χ/ > /h/.<sup>13</sup>

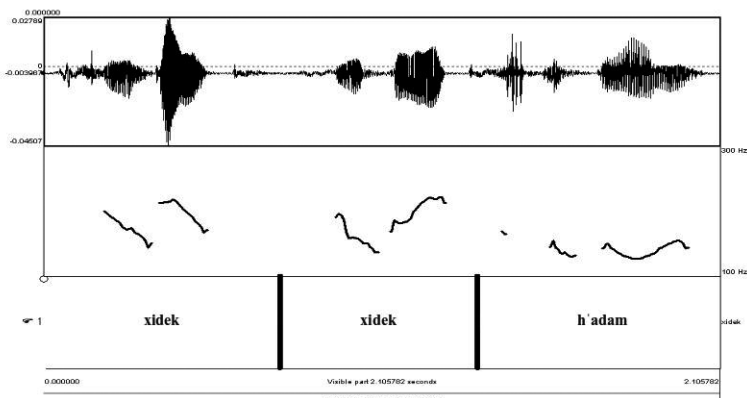


Figure 1: MM (MH) reading aloud /χi'dek, χi'dek ha-ʔa'dam/ 'the man fastened'.

We mentioned in Section 2 differences between MH and HU intonation patterns and the importance of intonation differences between the two languages. The following examples show some such differences in two types of questions in HU and MH spontaneous speech. Figure 2 is a HU wh-question; Figure 3 shows a HU yes-no question. Figure 4 shows a yes-no question in MH. The examples are spoken by first generation participants. Figure 5 is a yes-no question in MH by a second generation speaker.

<sup>12</sup> In the original text the verb is not repeated.

<sup>13</sup> The written shapes (letters) of these phonemes are similar, which makes it more difficult for MH learners to read them. An interesting and rare converse phenomenon is found in only one (so far) second generation f. speaker: When speaking HU she systematically uses /χ/ for /h/ as in the following example, but in her MH speech both /χ/ and /h/ are impeccable (i.e., like any native speaker).

/dæ mindig ke:rt:k e:... χoβ jøjjon visa/

'but (they) always asked him...e... that he should come back'

In this example /χoβ/ 'that' < /hoβ/. We also see here undershooting cases of the last vowel of HU [dæ] 'but' < [dɛ] and /visa/ 'back(ward)' using MH [a]. These are examples of MH interference in HU.

Note the intonation difference between Figure 2 and Figure 3, in addition to their different interrogative particles and syntactic structures. Note also the fall at the end of the questions in Figure 3 and Figure 4, in comparison with the end-rise in Figure 5. Concerning Figure 2, please note also that the final rise marks an unfinished phrase which begins a new question without pausing at the end of the previous question. The examples conform to descriptions of these patterns in the HU and MH literature.

### 5. Discussion: Phonetics in MH learning in Israel and HU

The Israeli Ministry of Education devotes considerable attention and resources to MH teaching [26, 4, 27]. But even after attending the special MH classes (/ul'pan/ pl. /ulpa'nim/ in MH), new-comers usually do not reach a level of proficiency that would enable them more than quite basic oral communication and some reading and writing

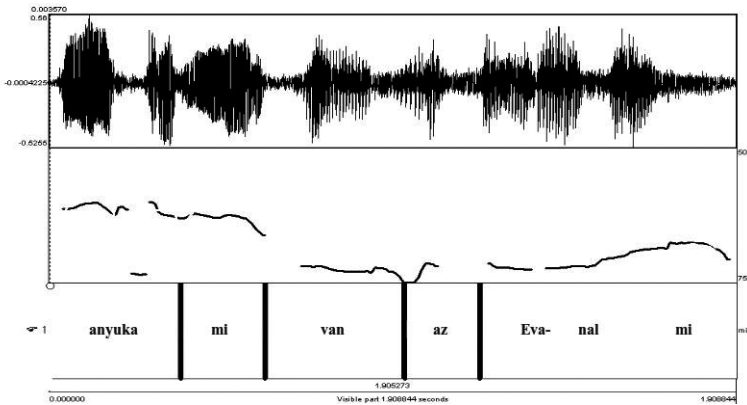


Figure 2: ES (HU) /'כַּנּוּקָה 'מי וְכֵן אַז 'e:va:nal, 'mi...?/ 'Mommy, what is the matter with Eva, (what...)?'

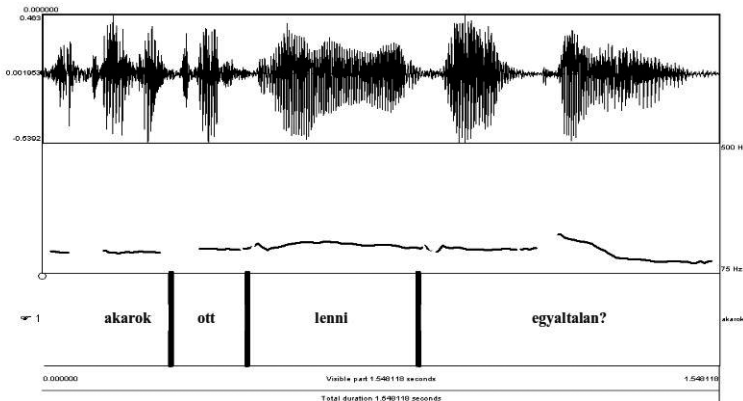


Figure 3: ASG (HU) /'כַּרֹּק 'ott 'lenni 'egyaltan?/ '(Do) I want there to be at all?'



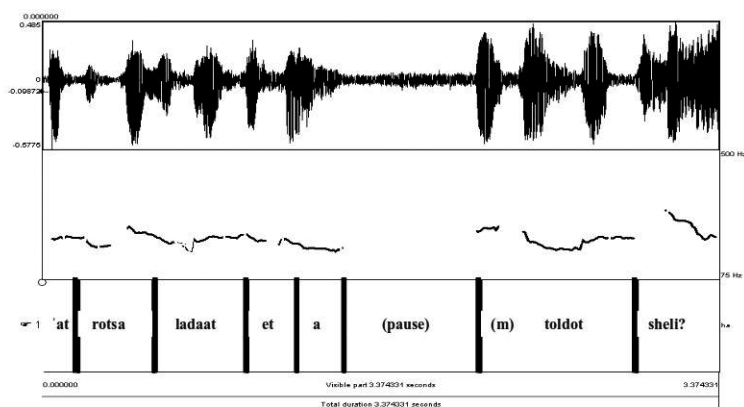


Figure 4: AD (MH) /'at rotsa la-da'at (m) et a-toldot feli?/  
'do you want to know the (pause...m...) my history?'

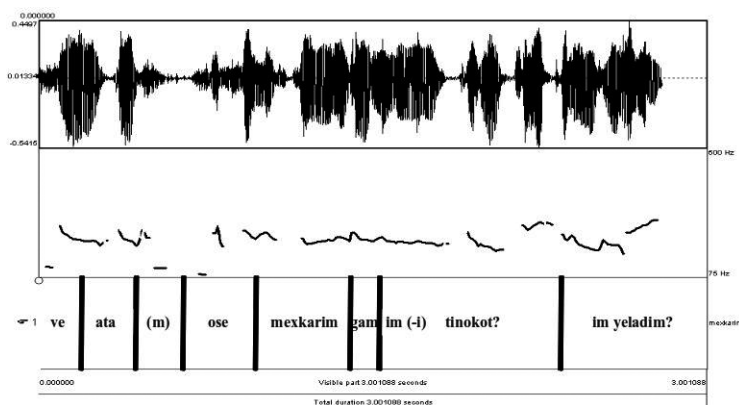


Figure 5: JKR (MH) /a'ta m... ʔo'se gam meḵka'rim im-tino'kot?/ im-yelaʔdim?  
'Do you do also researches with babies? With children?'

skills [28, 29]. Acoustic or general phonetic aspects of new-comers' speech have been little studied (though see Rosenhouse [30]), and are apparently considered very little (if at all) in these classes. Yet people 'on the street' are aware of foreign accents (i.e., phonetic features) compared to those of native speakers.<sup>14</sup> Maybe this little attention to phonetics is related to the dense /ul'pan/ curricula which intend to teach new-comers not only MH but also as much as possible about life and culture in Israel. Thus, much attention is paid to the 'deep' (un-voweled) MH reading/writing system, which is more complicated than 'shallow' alphabets of some European languages [31, 32]. Moreover, Classical Hebrew traditions are mixed with natural, new phonetic developments in MH. Thus, several spoken consonants and vowels (including the adopted foreign ones)

<sup>14</sup> This awareness, also found among children, is at times expressed in (derogatory) rhymes and jokes.

conflict with the alphabet norms. As to MH intonation, as far as we know, no attention is paid to it in the /ul'pan/ classes.<sup>15</sup>

Among our participants, four speakers had studied some Hebrew as children still in Hungary. Two of them said that they could not use it when they arrived at the country (“not even to ask for a glass of water,” according to MM). The other speakers, ASG and AE, had a higher level of Hebrew proficiency. AE also had good writing skills, which secured for him professional employment already on his first week in Israel. Some of our participants studied in the /ul'pan/ when they were new-comers. Those who did not study MH in the /ul'pan/ for various reasons, mainly due to the need to provide for their living, eventually acquired MH (including reading and writing) at a level that enabled them to ‘get by’ or ‘manage’ and probably more. It is noticeable that those participants who acquired MH at the /ul'pan/ or at some other schooling framework (e.g., the university) have higher literacy skills than those who did not: These higher skills are manifest in their use of grammar and lexicon in speech and their text reading.

In contrast with grammar and vocabulary, the phonetic skills of the participants do not directly correspond to their formal language learning background, to the duration of their life in Israel, or to the age of beginning MH acquisition. This variability has been noted already in the literature concerning many immigrant communities. It has been pointed out that phonetics (and phonology in general) is an important part of foreign language acquisition (cf. [33–35, 30], since its acquisition involves the coding, assimilation and remembering of phonetic material, apparently by applying the working memory (Dörnyei [33], Chapter 3). But individual differences also play a role in the speakers’ phonetics (cf. [33, 35]).

AS and EF, the two women-participants who have been in Israel for the shorter period, indeed sound to us more ‘foreign’ than those who immigrated to Israel in the mid-20th century. But AS and EF also speak HU domestically, which would delay their full adaptation to MH, compared to the other participants who also use MH at home. The oldest lady, who speaks HU at home, but came at about the same period as those who do not speak HU at home, has a more noticeable foreign accent than ASG or AE and the other participants with MH domestic use, for example, and its ‘degree of foreignness’ is more similar to that of AS and EF. This finding is in line with the literature (cf. [35], in particular) which considers experience as a strong factor in foreign language acquisition. This aspect of the study needs, however, to be further explored with more speakers.

An interesting point concerning our participants is that most of them used MH not only for official speech and written communication, but also at home. Therefore, in several cases, their children do not know any HU at all. However, even those speakers who hardly use HU in their daily lives speak MH with at least noticeable HU intonation or prosodic features, if not with HU segmental features as noted here. Individual phonetic variability in language learners’ new languages is well known in bilingualism research, e.g. [36–38]. In the case of our HU participants, using MH at home is based on ideological reasons such as Zionism on the one hand and rejection of Hungary and HU due to the horrors of World War II, on the other hand. These factors are added to well-

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<sup>15</sup> Apparently, students are supposed to follow the teacher’s phonetic model (and acquire it tacitly).

known immigrants' motivations such as social absorption or career enhancement in the new country [39–42].

In the HU-MH interaction prosody and intonation are important elements. As it is well known, speech-rhythm and intonation are among the first linguistic elements acquired by infants [43–45]. As intonation is such a basic language component, mother tongue patterns are seldom attrited or exchanged with the immigrants' new language. This yields the 'errors' perceived by native-speakers [46, 35, 47]. In our case, MH has nine basic tunes [19], while HU has five tunes [23]. In the MH speech of our HU participants we find various levels of adaptation of MH intonation patterns (not discussed here). MH intonation and its variability in non-native speakers are thus still awaiting further research.

## 6. Conclusion

Many different informal non-native phonetic forms of MH speech exist in Israel as a result of the numerous immigrants' mother tongues. The HU speakers' MH phonetic 'version' is part of the Israeli sound-scape. MH phonology/phonetics is normally acquired in Israel by new-comers, including those who speak HU. Based on our data we conclude that our participants have learnt most of the phonological segments of MH but not all its phonetics. Having lived in the country for at least a decade, and usually more, these participants speak MH relatively fluently. A major difference exists between those who speak and those who do not speak HU domestically. This difference affects not only their phonetic skills but also all the other linguistic domains. Although phonetic errors can cause a real problem to L2 language learners when the errors interfere with intelligibility (Kohler [48]), this is not the case in our recordings and examples; yet see Footnote 10.

Most of our participants did not speak HU at home due to ideological reasons rather than pragmatic ones. However, those participants who came rather recently (about 10 years ago) did not care much for this ideological perspective and spoke HU at home. Another sub-group of speakers was found: these came as early as the first sub-group, decades ago, but did not acquire MH formally and (therefore, perhaps) spoke HU at home. This situation could be related to socio-economic and cultural reasons, rather than to ideology. This phenomenon is found in Israel also in other new-comers who retain their (other) mother tongues (cf. e.g., [3]). This attitude change to MH vs. foreign mother tongues use in Israel has strengthened in Israel since about the 1980's. This development reflects a more liberal attitude to foreign languages and cultures in comparison with the 'one country – one language' attitude in the 20th century, even before the establishment of the State of Israel [4]. The phonetic effects of this process should be further studied and compared with similar processes in other countries.

In spite of the HU speakers' MH skills, they may feel self-conscious due to language errors in MH, not the least due to phonetic errors. Based on our studies up to now the main markers of their HU mother tongue, when speaking MH, are word stress and intonation patterns, and a few phonemes. Apparently, this is what a participant, ES, meant when she said laughing that "in both Hungarian and in Hebrew I speak Hungarian."

## Dedication

This paper is cordially dedicated to Professor Wiktor Jassem on his 90th birthday with great appreciation of his contributions to phonetics and language learning and special thanks for his contributed reviews to *The Phonetician* over the years.

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