RESTRUCTURING OF PHONETIC RULES
IN MODERN HEBREW

MAURICE J. CHAYEN

In order to ascertain what the pronunciation of Modern Hebrew is, I have, over the past three or four years, recorded some 150 university sudents in informal discussion, analyzed their pronunciation and described it in a monograph called *The Phonetics of Modern Hebrew* (Chayen 1972). This was necessary since contestants in the present controversy about what Modern Hebrew is, or ought to be, have based their arguments, not only on speculation as to the pronunciation of the language in the past, but also on purely impressionistic notions of how Hebrew is now being spoken by their children and pupils around them. Nor have Israeli phoneticians in their published works addressed themselves directly to the task: Chaim Blanc has recorded and transcribed the speech of only three or four Israeli speakers, while Shlomo Morag has been concerned mainly with the disappearing dialect of older-generation Jews, immigrants from Iraq and the Yemen.

My own 150 speakers, with a few exceptions, have all been educated in Israel from kindergarten to university. Yet, though they were born in 21 different countries and though their parents speak a wide variety of languages at home, the analysis of the speech of these 150 students presents a homogeneity which suggests that there exists in Israel today what one might almost call a Standard Hebrew, which I have called 'Colloquial Educated Israeli Hebrew' (in this paper, for brevity's sake, 'Modern Hebrew').

Modern Hebrew is of interest to the linguist in that it exemplifies the universal process of phonetic simplification with a concomitant simplification in the morpheme structure of the language.

The vowel system of Modern Hebrew is the most 'natural' five-vowel system: a single low vowel /a/, two non-low front vowels, /i/ and /e/, and two non-low back vowels, /u/ and /o/. In addition there is a consonant cluster breaking *shwa* of varying qualities. Classical Hebrew boasted a bewildering profusion of vowels, both long and short, with high and mid-high, mid-low and low tongue positions for both front and back vowels. School children, today, are required to perform exercises in which, given a word, they must classify the vowels as very long, long, short, very short, and they perform admirably by following phonological precepts laid down for them by

their teachers — but when I saw my daughter doing such an exercise at home, she admitted that of course this is a lot of 'bloff' (borrowed 'Hebrew' word), and in her speech she makes no such distinctions.

This simplification or restructuring of the vowel system is the most radical of the changes produced by the modern language. Phonetic change in consonants concerns pharyngeals, laryngeals, gemination and spirantization of obstruents.

Pharyngeal consonants, *'ayin* and *ḥet*, were recorded only in three or four students who had already had two or three years of secondary school in Arabic speaking countries before immigrating to Israel. All others, even though born in Arabic-speaking countries and of parents who speak Arabic, produced not a single pharyngeal in all the recordings. The *'ayin* is replaced by a glottal stop, e.g., [ʕavarti] → [ʔavarti] 'I moved', while the pharyngeal *ḥet* is replaced by a velar spirant [x] e.g., [laḥaš] → [laxaš] 'he whispered'. As to laryngeals, there is a tendency to drop *aitches*, the aspirate [h] frequently becoming [ʔ], and there is a further tendency to drop the glottal stop, so that [ʔu ʔalax] from [hu halax] 'he went' is liable to end up as [u alax]. Nor is the distinction likely to be maintained between Hebrew for 'we are freezing' [ʔanu kofʔim] and 'we are monkeys' [ʔanu kofim]. Both become [anu kofim] once the glottals are removed. Rules for loss of pharyngeals and laryngeals may be stated briefly as follows:

    (1) $ḥ \rightarrow x$

    (2) $ʕ \rightarrow ʔ$

    (3) $h \rightarrow ʔ$ sometimes

    (4) $ʔ \rightarrow ø$ sometimes

    where 'sometimes' indicates free variation and where rules (2) and (3) must be ordered before (4).

Gemination is no longer a feature of the language, thus for example [dib:er] → [diber] 'he spoke'.

It is worth mentioning that although the disappearance of features is a fact in the phonetic description, reflexes of these no longer existant features (vowel length, gemination, etc.) persist in the modern language, and phonological description is facilitated by assuming their existance in underlying representations.

The spirantization alternation known to this day as the BGDKPT rule concerned the whole of the natural class of obstruents, and specified contexts in which these consonants were to be pronounced as plosives or as fricatives. In Modern Hebrew the class of obstruents which undergo this rule is restricted to labials and the voiceless velar. We might thus call the rule 'the BPK rule'. Moreover a conflict seems to be going on between maintaining constant the lexical form of roots on the one hand and submitting them to the natural phonetic process of the language, the BPK rule, on the other. This lexical (or conceptual) vs. phonetic conflict seems to be moving in favour of lexical determination (called by Venneman 'Humboldt's Universal'). Examples: [bəberševa] 'in Beersheba' maintains its plosive [b] even when no longer in

initial position, when the BPK rule would require spirantization [bəyerševa]. Similarly [ləpetaxtikva] 'to Petach-Tikvah' rather than [ləfetaxtikva], and [bəkita] 'in a class' rather than [bəxita].

In the case of word stress, there is, in the peculiar instance of proper names, a strong tendency to complicate rather than to simplify the rules. Stress is shifted back from final position, characteristic of Hebrew, to penultimate. It seems to be the rule to stress penultimately names of persons in common daily use and some place names. Thus in referring to one another Israelis will stress penultimately ['jicxak] 'Isaac', ['rivka] 'Rebecca', [šo'šana] 'Rose'. Yet in reading the Bible, or referring to Biblical characters or common nouns, they will stress the final syllable in each case [jic'xak], [riv'ka], [šoša'na] 'rose'. This complication in stress assignment would have to be captured in the rules by creating some feature such as '± biblical'. Then this part of the rule would read:

$$V \rightarrow [+ \text{stress}] \left\{ \begin{array}{l} \underline{\quad} CVC_0 \,\# \\[2em] \underline{\quad\quad} C_0 \,\# \end{array} \right\} \begin{bmatrix} \text{Proper Noun} \\ \text{-biblical} \end{bmatrix}$$

There are, of course, varieties of Hebrew spoken today in which the feature losses and rule restructuring I have described have not taken place. I would claim that these varieties are dialects marking country of origin, or else that features and rules have been maintained 'on principle' because the speaker thinks it the proper thing to do.

Hebrew University
Jerusalem

DISCUSSION

GAGE (Washington)
Just what did you say about the status of *schwa*? I assume it is not an underlying element but introduced in surface forms. It then must be introduced, I suppose, before some of the changes you mentioned e.g., [h] to [x] to take care of an example like [ʔaxarón].

CHAYEN
That Hebrew has a consonant cluster breaking *shwa*. It carries no functional load. In the phonology it must be introduced after the deletion of pharyngeals and laryngeals. /aharón/ is not really an example of *shwa*, but of a V_2 normally deleted before stressed vowel, but maintained after pharyngeal. Some speakers will delete V_2 even in this position or weaken it to *shwa*.

ROTHMAN (Gainesville, Fla.)
Did you say that there was no longer a differentiation between long and short vowels — even in proper names?

CHAYEN
Yes, I did.