LINGUISTIC EVIDENCE FOR SOCIAL PSYCHOLOGICAL ATTITUDES:
HYPERACCOMMODATION OR (r)^1 BY SINGERS FROM A MIZRAHI BACKGROUND

MALCAH YAEGER-DROR

Introduction

Linguistic background

Like some other countries which were colonized by the British or the French, Israel founded a language academy which is taken seriously by the population. The academy makes strong pronouncements, and even has radio slots to publicize them in prime time. While the radio slots are primarily used to publicize syntactic, lexical or morphological 'rules', all the broadcasters on the government radio and TV networks are officially required to know and use the prescriptive norm for the phonology as well. This norm prescribes five vowels, and the consonant system portrayed in Table 1a.

In fact, however, Israeli Hebrew, like many languages with a language academy, has not one, but two 'norms': the Academy norm (Fellman, 1974; Gold, 1989; Nahir, 1978; Rabin, 1983), which we will refer to as the prescriptive norm, and the vernacular, whose consonant inventory is shown in Table 1b. Blanc (1968) showed that the vernacular dialect of Israeli Hebrew actually is a koiné, formed from 'the lowest common denominator' of all the Israeli dialects of Hebrew spoken earlier in the century. Consequently, this dialect will be referred to as the koiné. The koiné has come to be regarded as the prestigious dialect, and functions as an unofficial 'norm' within the society. Comparing Tables 1a and b, the reader will see that there are three main differences in the consonant inventory: in the koiné, the /h/ has merged with /x/, the /r/ is no longer produced, and the /r/ is not postdental, but uvular. While the Academy 'norm' ostensibly determines radio and TV usage, and to a lesser degree the usage in academic settings, the koiné vernacular actually is adhered to quite rigidly even in most academic and professional situations.

In addition to the two dialects already mentioned, there is a Mizrahi dialect used by speakers whose families came from North Africa or elsewhere in the Arabic-speaking world. The consonant inventory of this dialect matches the one in Table 1a. Since the original speakers of this dialect were poorly educated immigrants, their dialect became stigmatized. In fact, a triglossic situation arose much like that in Modern Arabic (Ibrahim, 1986; Holes, 1990) or Norwegian (Wardaugh, 1986). In all three societies, the prescriptive realization of certain phonological variables is less similar to the koiné forms than to locally stigmatized dialect forms. Paradoxically, by assimilating to the koiné, speakers of the stigmatized vernacular are not only avoiding their stigmatized vernacular, but the academic-prescriptive form as well. As a result, speakers may avoid the use of prescriptive forms because they can be considered to be stigmatized dialect markers.

Comparing Tables 1a and b, three consonants of the prescriptive and Mizrahi inventories

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Table 1a. Consonant inventory of prescriptive Israeli Hebrew

<table>
<thead>
<tr>
<th>Labial</th>
<th>Postdental</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>k</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>d</td>
<td>g</td>
<td>h</td>
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<td>m</td>
<td>n</td>
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<tr>
<td>f</td>
<td>s</td>
<td>(f)</td>
<td>h</td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>z</td>
<td>(g)</td>
<td></td>
<td></td>
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<tr>
<td>ts</td>
<td>(tʃ)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>l, r</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Consonants in parentheses are used primarily in loan words from Arabic, just as in English, /ζ/ is used primarily in words which were originally loan words from French (Nunberg, 1980).

Table 1b. Consonant inventory of the Israeli Hebrew koiné

<table>
<thead>
<tr>
<th>Labial</th>
<th>Postdental</th>
<th>Velar</th>
<th>Uvular</th>
<th>Pharyngeal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>t</td>
<td>k</td>
<td>h</td>
<td></td>
</tr>
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<td>b</td>
<td>d</td>
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<td>f</td>
<td>s</td>
<td>f</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>v</td>
<td>z</td>
<td>(g)</td>
<td></td>
<td></td>
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<tr>
<td>ts</td>
<td>(tʃ)</td>
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<td></td>
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<tr>
<td>l</td>
<td>R</td>
<td></td>
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</tr>
</tbody>
</table>

Consonants in parentheses are used primarily in loan words from Arabic, just as in English, /ζ/ is used primarily in words which were originally loan words from French (Nunberg, 1980).

differ from the koiné. Table 2 presents the phonetic realization of the three acknowledged variables which distinguish between the Mizrahi and koiné consonantal inventories: (r), (h) and (Ť)—which we will refer to here as (γ). The Mizrahi /苕/ (glottal and pharyngeal, respectively) must be omitted, /h/ (pharyngeal voiceless fricative) merged with /x/ (velar voiceless fricative), and the [r] (apical flap or trill) merged with the koiné [R] (uvular fricative or trill). Only the (r) variable will be discussed in detail below.

Table 2. Realization of three phonological variables in three dialects of Native Israeli Hebrew

<table>
<thead>
<tr>
<th>Variable</th>
<th>(r)</th>
<th>(h)</th>
<th>(γ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prescriptive</td>
<td>r</td>
<td>h</td>
<td>γ</td>
</tr>
<tr>
<td>Koiné</td>
<td>R</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Mizrahi</td>
<td>r</td>
<td>h</td>
<td>γ</td>
</tr>
</tbody>
</table>

Many Mizrahi speakers know French as well as Arabic, since their families come from North Africa or other Middle Eastern countries where French is spoken (Ben Raphael, 1982; Heath, 1990). Consequently, Mizrahi group members converging toward the koiné will often use a velar rather than uvular (r), since that is the (r) realization in
their dialect of French. Another surprisingly common realization of (r) among Mizrahi politicians and singers is coarticulated: [rR]. Since, however, their native Hebrew realization is apical, and since, in this paper, our main interest is in whether the speaker intends to converge, any posterior or coarticulated realization of (r) will be considered to be an attempted convergence toward the koiné, whether or not the uvular target is accurately reached. The equally interesting topic of the degree to which speakers actually achieve the uvular target will be dealt with elsewhere.

Review of previous relevant research

Prescriptive norm for (r), as portrayed by prescriptivists. A quote from a speech pathology text book from the 1960s helps to convey the prescriptive attitude connected with choice of (r) realization:

"It would seem reasonable for the immigrant from Europe to adopt the correct pronunciation of specific Semitic sounds from the resident Oriental ['Mizrahi'] Jews. Instead, the reverse occurred. The teacher, representative of a modernizing intelligentsia, was looked upon by his pupil as an authority in every respect, including, of course, pronunciation. Consequently, it was the faulty European Hebrew pronunciation which was taken over, step by step, by the Oriental Jews. We must correct the ugly uvular [r] with its harmful vocal consequences not only among the Occidental, but also among the Oriental Jews, with whom is has become fashionable. (Gumperz and Tell-Bauberger, 1966, p. 513.)"

Thus, while the prescriptive writers considered [r] 'better', according to their own estimate by the mid-sixties most Mizrahi speakers, like koiné speakers, used [R] primarily (if not categorically⁴), at least when interacting with members of the dominant koiné-speaking community.

Actual (r) usage as reported in recent sociolinguistic research. While Blanc and other researchers have published phonetic texts in which (r) was realized as [r] by Mizrahi speakers in careful reading style, in his discussion of casual speech Blanc (1968) also claims that [R] has been accepted by speakers from all social backgrounds: although he does not present quantitative evidence for this claim, his claims can be regarded as reliable. We conclude that by the mid-sixties, speakers of Romanian, Russian, and Mediterranean ancestry (including Mizrahi speakers) had all adopted [R] for Hebrew (r).

Sociolinguistic studies published in the 1980s substantiate Blanc's claims. In the late 1970s two sets of sociolinguistic interviews with speakers from this ethnic community were collected and analysed. In a study of a judgement sample of 61 Mizrahi speakers from different towns, Davis (1983) found that in the late seventies nonrural working class Mizrahi speakers had almost categorically adopted [R] in interview style; these Mizrahi speakers converge toward the koiné, preferring [R] in interview style. Results reported by Bentolila (1983) show that rural speakers [living on a homogeneous moshav of settlers from the Atlas Mountains] who had least need to accommodate to the outside koiné community had lower [R] percentages, and even those with most network contacts outside the moshav used [r] more than the nonrural group.⁵ However, even Bentolila's study found most of his speakers who had contacts outside the community used a high percentage of [R].

As previously mentioned, all broadcasters hired by the government networks are theoretically required to use the prescriptive [ = Mizrahi] [r], as well as [h] and [γ], but Yaeger-Dror (1988a) found that in the late 1980s [R] predominated even in news broadcasts for the government stations. The [r] was used most extensively for reading short broadcast news headlines, and news for the deaf or for new immigrants—which are all read, and are slowly and carefully articulated; in these careful styles, [r] use is 98–100%. But the
more extensive (and extemporé) the reporting, the more the koiné norm predominates. The [r] occurs less extensively in the read 3–5 minute news broadcasts, and least extensively in more lengthy news coverage. In fact, [R] is used almost categorically in extensive ‘on location’ news coverage which is only partially read (Yaeger-Dror, 1988a). Only reporters of ‘cultural’ news are likely to use the prescriptive [r] in extended unread discourse.

**Relevant terminology to be employed**

*Style.* Labov (1966, 1972) posited a continuum of linguistic style, from the most self-conscious (read minimal pairs) to the most relaxed (intimate friendly interactions). In this paper, following Labov (1966), ‘style’ will be used to denote phonetic variation which can be ascribed to variation in the degree of **attention paid to speech** by the speaker. For example, the variation in (r) usage across different ‘styles’ of news broadcast—headlines, ‘easy’ Hebrew, 5 or 30 minute broadcasts—is consistent with an understanding that the more careful the speech style, the more attention is directed to pronunciation, and the more [r] predominates.6

*Register.* Evidence also shows that most singers will use [R] in so-called ‘casual’ interview style or spoken dialogue, but [r] in singing. In Yaeger-Dror (1988a), the difference between ‘casual’ interview and apparently prescriptive song style was assumed to be a stylistic difference, similar to the variation between (r) usage in the reading of news headlines and in more extensive coverage. It seemed obvious that a conversational style of speech is less ‘careful’, and need not be identical with singing style. The data were apparently divided according to style, following the precedent of Labov (1972). However, as more data were gathered, it became clear that in this case the style continuum was not a primary determinant of phonological variation. When analysing the songs and interviews of the h singers, it became obvious that some of them may have been more ‘careful’ to avoid [r] in interview style than they needed to be to maintain [r] when singing. Consequently, the difference in the singer’s articulation between an interview and singing is not primarily determined by the relative amount of **attention paid to speech**, but rather by the choice of linguistic **target** for a given setting. Evidence will be presented to demonstrate this claim, and the term ‘register’ will be used to permit us to distinguish between attention-related ‘style’ and target-related ‘register’.

On the Israeli ‘pop’ scene, just as in Western popular music circles, there are different widely recognized popular song genres. Some of these will be discussed in greater detail below. We can assume that these song genres cannot be theoretically distinguished from each other according to the attention the singer pays to pronunciation, since all genres are ‘pop’, and neither external evidence nor self-report data finds one genre to be more ‘careful’ or ‘formal’ than the others; however, linguistically the genres differ systematically. In fact, we will present evidence that different song genres have different dialect targets. The term ‘register’ will also be used to distinguish among the song and speaking genre(s) used by the singers.7

*Audience design.* Bell (1984, 1985) pointed out that a given speaker may use different dialect characteristics for different audiences: Unlike other sociolinguistic researchers who study several speakers’ usage in one or more ‘styles’ or ‘registers’, Bell studied a set of news broadcasters who broadcast in only one apparent ‘register’, directed toward different audiences, defined by the different stations of the New Zealand broadcasting system; he
found that a given broadcaster adapted his articulation to the dialect of the audience expected for a given station. This adaptation he labeled 'audience design'. It was hypothesized that in the present corpus there would be differences among the speaking and song registers gathered which could at least partially be attributed to audience design.

**The present study**

The present corpus consists entirely of different registers of Israeli Hebrew as used by popular singers from different ethnic backgrounds. The following social and linguistic parameters were included.

**Speech registers**

An interview in question-answer format is not the same as acting or doing a monolog to introduce songs to an audience. Unless otherwise specified, speech data displayed below were gathered from recorded interviews ('IV') of singers with interviewers who used [R] most (or all) of the time, on programs intended for the general Israeli population. Other interviews, referred to here as 'Fri. IVs' are retained as a separate register, distinct from the 'IV' register. (Further discussion is found below.)

**Musical registers**

Both Yaeger (1974) and Labov (1989) found that correction in more self-conscious styles is not systematic, so while occasionally more than one style or register of speech is analysed, in recent years sociolinguists have generally chosen to analyse the most unself-conscious style which they can obtain with recorder in hand (Milroy, 1980, 1988). On the other hand, a few recent studies have shown that meaningful sociolinguistic results can be derived from song register data. Trudgill (1983) analysed British pop singers' phonology to determine the phonological 'target' which they emulate when singing. He found that between the sixties and the seventies there was a change in the British 'pop music' linguistic target, demonstrated by a change in the use of specific phonological variables; he also found that 'punk' musicians had a different 'target' than 'pop' musicians. Analysing phonological variation within a given song register, Prince (1987, 1988) also discovered significant phonological variation and change. Although Labov's (1972) theory would imply that on a continuum of speech styles song 'style' is quite self-conscious and careful, both of these researchers concluded that phonological variation within this 'style' reveals both conscious and unconscious influences on articulation.

Like Trudgill and Prince, the present study finds systematic variability inherent in (r) data from different Israeli 'pop' song registers which reveals both conscious and unconscious influences on speech. The paper will present evidence that there are different register 'targets', just as there are in British pop music, and that the singers deviate from their targets in very interesting ways. In Trudgill's study, 'punk' and 'pop' music were sung by different singers, and Trudgill had no way of verifying the degree to which the phonetic distinctions between these two registers reflected the dialect of the singers who preferred each genre, and the degree to which the distinctions were determined by cultural expectations for that register. In the present study, many singers perform more than one of the song registers described, so the data reveal the degree to which it is the music (rather than the musician) that determines the phonetic register employed by the performers. As in Trudgill's and Prince's work, this study will show that some of the variability is conscious, and some unconscious.
Several song genres (that is, registers) were differentiated with the help of local ethnomusicological researchers (Kidron, 1988; Halper, et al. 1988; Regev, 1986), and three of these registers were analyzed. These pop genres are targeted for different audiences within the larger community; consequently, register is determined at least partially by audience design (Bell, 1984, 1985).

(1) ‘Pop’ (referred to in Regev, 1986, as ‘mainstream pop/rock’) conforms to the conventions prevalent for rock or pop music elsewhere. The Israeli audience for this style is not limited, although older members of the upper middle class are less likely to become fans (Benski, 1989).

(2) ‘Club’ (also referred to as ‘underground’ or ‘punk’) music is actually a classification combining three musicologically different registers. One emulates ‘punk’ or ‘heavy metal’ musical style, with more elaborated (or in any case less conventional, or more controversial) lyrics. A second is quieter, using only a singer and his own acoustic instrument, singing ‘personal’ elaborated lyrics. For the moment protest songs are included in this group, although musicologically they are often closer to ‘folk-rock’. These genres are performed primarily in clubs, rather than in large performances, and they are said to appeal mostly to a young koiné-speaking audience, with higher academic achievement (Benski, 1989).

(3) ‘Cassette’ of ‘Mizrahi’ register (Regev, 1986, 347f) is characterized by a use of ‘Mediterranean’ instruments like the oud or the bazouki, improvisation, melismatic-style imitation of the last few notes, and the use of musical modes with augmented seconds, or modes like the phrygian (Halper et al., 1988, p. 7). Often tight, nasal voice features are used, as Lomax (1968 [1978]) found was common in the North African musical area. Lyrics are generally translated from traditional Greek, Turkish or Arab songs. Some Arabic lyrics can be included. While both members of the public and ethnomusicologists generally refer to the lyrics as ‘simplistic’, only a subset of what we have referred to as the ‘club’ songs can be noted for the complexity of the lyrics. Not surprisingly, while occasionally songs from this register are sung by koiné singers, or become popular in the broader community (Regev, 1986), the primary audience for this music is Mizrahi and Israeli Arab (Benski, 1989).

Given a society which is demographically approximately half Mizrahi, more than half of the very popular singers are of Mizrahi descent (Kidron, 1988). However, many of these musicians perform only (or primarily) pop music. The Mizrahi singers who perform primarily in Mizrahi register, and who will be analyzed here as Mizrahi singers, are diverging from the koiné musical ‘pop’ norms, to emphasize their ethnic background. In interviews they often maintain that the divergence is related to their group pride (Kidron, 1988).

The position of ‘cassette’ music on the Israeli music scene can perhaps be compared with the position of the country music in the U.S., as described recently:

> [Country] music is wide open, electronic and commercially successful. Its wailing or driving rhythms ride on slide guitars and nasal voices... Folklorists tell us that an economically and politically deprived segment of the citizenry... finds an outlet for its feelings in folk art, often music. (Shattuck, 1989.)

If you replace ‘guitars’ with ‘ouds’, the perception of the musical style (and of its audience) by the larger society is quite similar. Country music is sung with a distinctive musical style, with Appalachian phonology, by singers who cater to a blue-collar, or rural audience, and who claim to be proud of coming from those same ‘roots’; these singers often have a large following, but are only rarely heard, much less interviewed, on the ‘mainstream’ pop
programs. Cassette music is sung with distinctive style and Mizrahi phonology by singers who cater to a blue-collar and rural, presumably Mizrahi-ethnic audience, and who claim to be proud of their own Near Eastern ‘roots’, who have the largest portion of the local musical audience (Kidron, 1988), but are only rarely heard, much less invited to be interviewed, on the mainstream programs.

Four other music registers have been isolated, but not studied for this paper.10

The three registers under analysis have different audiences (as measured by the programs' claims, the singers’ own claims, and the callers’ conversations, as well as from Benski’s research and from Katz (1976)), and are musically different. Table 3a demonstrates the evidence on which the registers were distinguished. As will be discussed further below, the judgement sample was determined by the music aired on specific programs, and confirmed by the claims made by program notes, the singers’ claims, and Benski’s (1989) determination of the audience; further songs and interviews with the targeted singers were included from other sources. Not surprisingly, in the three registers, the three linguistic variables are realized differently as well. The linguistic distinctions are presented in Table 3b: 'club' register follows the koiné pattern consistently; 'pop' register uses prescriptive [r], but koiné (h) and (γ); 'cassette' register should follow the Mizrahi [ = the prescriptive] linguistic pattern.

One would not expect the use of (h) or (γ) to be categorical even in the cassette style, but given that most koiné-speaking 'pop' singers maintain categorical use of prescriptive [r] in singing register, 'cassette' singers, who use [r] in their vernacular, should have less 'problem' using [r] consistently when singing than the 'pop' musicians do. However, the preliminary analysis revealed that the Mizrahi singers used [r] much more erratically than the koiné singers. These singers appear to be ambivalent about all three variables, as can be witnessed by their performance.11

Table 3a. The separation of the songs into three groups

<table>
<thead>
<tr>
<th>Evidence</th>
<th>Program</th>
<th>Claims: Program</th>
<th>Singer</th>
<th>Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register</td>
<td>Pop</td>
<td>'Top 20'</td>
<td>'Pop'/'soul'</td>
<td>General</td>
</tr>
<tr>
<td></td>
<td>Club</td>
<td>'Top 20'</td>
<td>'Pop'/'club'/'punk'</td>
<td>Middle class (MC)</td>
</tr>
<tr>
<td></td>
<td>Cassette</td>
<td>'Top 20 Mizrahi'</td>
<td>'Mizrahi'/'[ethnic]'</td>
<td>WC Mizrahi</td>
</tr>
</tbody>
</table>

Table 3b. Expected realization of three phonological variables in three different song registers of Native Israeli Hebrew

<table>
<thead>
<tr>
<th>Variable</th>
<th>(r)</th>
<th>(h)</th>
<th>(γ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Register</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pop</td>
<td>r</td>
<td>x</td>
<td>0</td>
</tr>
<tr>
<td>Club</td>
<td>R</td>
<td>x</td>
<td>0</td>
</tr>
<tr>
<td>Cassette</td>
<td>r</td>
<td>h</td>
<td>γ</td>
</tr>
</tbody>
</table>

Audience design

Song registers. Most of the data presented here are from songs or interviews targeted for a specific audience, as displayed in Table 3a. The criterion for a song’s inclusion on
one of the two programs taped is officially almost the same: ‘the (‘pop’/‘Mizrahi’) songs most often requested and played on the third radio network’. Often the same ‘host’ presents both programs. Nevertheless, the two top twenty lists are almost mutually exclusive. The ‘cassette’ hits from ‘Haxi Haxi’ [‘The Very Best’] (HH) only rarely occur on ‘Lahit Barosh’ [‘The Top of the Hits’] (LB), where club and pop songs are featured. Hits presented in both lists are not included in this analysis as primary data, but may be included as supplementary data. It is fairly easy to determine the ethnic audience design of a specific program and the fact that the listeners are from that audience.

Mizrahi songs, were sung by Mizrahi singers, recorded from programs whose titles and advertising reveal they are intended for a Mizrahi audience. Certain interview programs taped are also clearly labeled to highlight their targeting of an ethnic audience [e.g. ‘Mediterranean Medley’, ‘The Mediterranean Sea’, ‘Eastern Get-together’, etc.]. As already mentioned, callers on these programs generally appear to be from the target audience. They often reveal their background in their speech, and (on the Mizrahi programs) in other ways as well.

Punk and pop songs are targeted for the koine audience (Benski, 1989); they were sung by koine singers, and were recorded from programs whose titles and advertising reveal they are intended for the ‘general’ Israeli audience ['Pop', 'Party Time', 'Night Owl', 'Star of the Week', etc.], whose dialect we have designated as the kione.

In addition to singing for different ethnic audiences, in a small country professional singers often perform before young audiences. The programs for this audience are clearly recognizable, both because they occur during the hours devoted to Educational TV, and because the program titles are clear: ‘Sesame Street’, ‘Hop a Hey’, ‘Children’s Song Festival’, etc. Preliminary evidence (Yaeger-Dror, 1988a) suggested that pop songs for youth audiences would favor [R]. In addition, teen-aged and pre-teen singers do not consistently use [r] in pop songs. However, while higher [R] percentages are used by pop singers in songs before youth audiences, ‘punk’ or ‘protest’ singers may switch to a (more appropriate?) ‘pop’ register for pre/teen audiences, and alter their (r) usage accordingly; consequently, recordings for different adult audiences will be clearly distinguished, and recordings for children will not be presented on the figures here.

**Interview registers.** On programs designed for the general audience, the interviewers are koine speakers, and the audience is assumed to be a general audience. The interviewers on the programs designed for the Mizrahi audience are generally well known Mizrahi singers, and the audience is assumed to be Mizrahi. However, even the Mizrahi singers themselves, when performing as interviewers of other Mizrahi singers, on programs designed for a Mizrahi audience, use [R] almost categorically, as will be seen from the figures. In fact, although both song and interview data from different programs were carefully isolated to permit the study of audience design, the figures will show that audience design is more useful as a determiner of song articulation than as a determiner of interview articulation.

On the other hand, the interviews held on Friday Mizrahi programs demonstrate that other factors do influence (r) production.

**Sociolinguistic change in real time**

Recent evidence shows that (h), (γ) and (r) use have changed radically in the last twenty years (Yaeger-Dror, 1988a). In order to minimize the number of factors discussed, unless
otherwise stipulated, data for the current study were limited to songs and interviews gathered between 1985 and 1990.

Data collection

Thus, a judgement sample of speakers from different ethnic backgrounds was collected. The sample is comprised of singers whose songs were consistently represented on the ‘Top Twenty’ koiné program (LB), and on the equivalent Mizrahi, or Mediterranean, music program (HH) between 1985 and 1990. During these years, far more men than women were included on these programs (especially on the Mizrahi program), so the sample does not include equal numbers of male and female ‘stars’. Once the sample of singers was determined, interview data were collected from as many singers as possible from each ethnic background, along with songs from as many of the song registers as possible for each singer. For any singer whose songs had been presented on these programs, any interviews which could be collected were also analysed using Labov’s (1966) techniques. Subsequently, when the importance of register was discovered, some additional songs (which had not made the top twenty, but which featured a singer already included by virtue of inclusion in the sample for other songs) were included to supplement the data for a different register of music.

Data categorization

Initially the data were analysed to reveal a four way split: (r) usage was divided between two registers (song and interview) as used by the members of the two ‘ethnic’ communities (Mizrahi and koiné). Given that many singers record more than one genre (here defined as register), and that the audience for a given musical register or interview program is generally segregated (as discussed above), the present study initially distinguishes three song ‘registers’ (pop, club, cassette) and three interview situations (koiné and Mizrahi, defined by audience design, and the Friday interviews distinguished from the Mizrahi interviews by their theme) as used by members of the community. The figures below present the percent realization of the apical—Mizrahi or prescriptive—variant; the lower the percentage of [r], the higher the percentage of other variants—velar, uvular, retroflex or coarticulated.

Koiné dialect singers (r) use. Singers were chosen from those who appeared frequently on the LB program. Individual songs sung by these singers were determined to belong to a specific register according to the criteria described above. Figure 1 shows the (r) usage for pop song (hollow circle), club song (filled circle), and interview (hollow square) registers for singers from koiné background. Figure 1 shows that for koiné singers, pop song register is sung consistently with [r], while in ‘club’ register, and interview register, [R] is used categorically.

Yaeger-Dror (1988a) assumed that (r) choice was determined by each singer for song register, since each singer appeared to use only one realization of (r). Only later it became clear that the unacknowledged convention for club register is different from that for other pop singing. Not only is each register sung almost categorically with the appropriate (r), but a given singer, or singing group, will vary (r) in different registers. Evidence from earlier studies (Trudgill, 1972) suggests the hypothesis that female singers would be more likely to favor the prescriptive [r], but no significant gender-related factor has been isolated so far.

Mizrahi singers (r) use. Singers were chosen from those who appeared frequently on the HH program. Individual songs sung by these singers were determined to belong to a specific
register according to the criteria described above. Figure 2 presents the data for Mizraḥi singers whose songs are aired on HH. The Mizraḥi cassette song target (stars) and pop target (open circles) for the Mizraḥi singers whose data were analysed is [r], while for most of them the interview target (open square) is [R].
While there are several programs with Mizrahi singers as MCs interviewing other singers (barred squares), only the singers interviewed on Fridays appear to have a different interview 'target' (filled squares). Figure 2 shows that Mizrahi singers do not differentiate between the registers as categorically as the koiné singers do. The rest of this paper will be devoted to an explanation of the factors which appear to influence the Mizrahi singers' choice of (r) realization.

Figure 1 shows that while the koiné singers use [r] in song, they revert to categorical [R] during interviews. Figure 2 shows that the Mizrahi singers' (r) are much more variable. Thus, by definition, [R] is a marker of speaking register for koiné singers, but a variable indicator within spoken register/s for Mizrahi singers. The majority of the percentages for interview register plotted on Fig. 2 were collected from interviews with [R] pronouncing interviewers. The highest [r] percentages were collected from Friday interviews on an ethnic program, where the interviewer is a religious Mizrahi [r]-using singer; not only the interviewer on the Friday program uses the marked dialect, but while programs during the week have general themes (the music, sports, politics, etc.) the program theme on Friday is ethnic religious observance, and consequently, interviews are much more ethnically marked than interviews on other days when the theme of the program is more general. The interview setting, the interviewer's own dialect, and the more marked ethnic content of the topic and audience all contribute to the results. Unfortunately, while there are multiple interviews with the same singer (on a koiné program, and on a mid-week ethnic program), no mid-week of koiné program interview with a singer who appears on Friday has been collected.

Figures 1 and 2 show that just as there is a cluster of koiné singers who do not use [r] even in song register, there is a cluster of Mizrahi singers who do not use [R] even in interviews. In both cases the non-conformists retain their own dialect rather than accommodating to the societal norms for a given register. This lack of conformity is not very surprising (Giles et al., 1977; Giles and Johnson, 1987), and may be related to an individual singer's ability to vary his dialect, since Trudgill (1983) found that different singers had different abilities to adapt to a dialect not their own.

In contrast, this paper is concerned with a more surprising phenomenon. Figure 1 shows that the koiné singers have accepted [r] as appropriate for 'pop' song register, and use it categorically in that register, although it is not included in their vernacular consonant inventory. Figure 2 shows that most Mizrahi singers do not use [r] categorically in pop or even in cassette song registers. Given that [r] is the native pronunciation for these speakers, and is used by their audience, and that even koiné speakers, whose native pronunciation is [R], perform pop register with [r], why is it that even Mizrahi singers who use [r] in the interview style use it less consistently in pop song registers than the koiné singers do? To draw a hypothetical parallel, if British speakers with a prestigious dialect (say, with intervocalic 't' consistently being pronounced as [t]) were to consistently use a stigmatized pronunciation (say, [ʔ] in such words as butter in a given stylized register, but speakers with a stigmatized dialect (who always use [ʔ] in such words as butter were to emulate the prestigious dialect primarily in the one register where such emulation is not called for, we would be surprised, and we would hypothesize that these speakers were hypercorrecting. In this case as well, the emulation of [R] in the one register where no koiné singer would use [R] is quite surprising. This strange inappropriate convergence we will tentatively refer to as hypercorrecting toward the koiné.

Theoretically, the Mizrahi singers should use [r] more in cassette songs (targeted for a
Mizrahi audience) than they do in pop songs (targeted for a more general audience). Theoretically, they should use \([r]\) more in the interviews targeted for a Mizrahi audience than they do in interviews which are targeted for a more general audience. Why is it that the data do not reveal any such tendency?

Note also that the Mizrahi singers shown on the left of Fig. 2, who only perform in pop register, and maintain \([r]\) consistently in that register, are those who have never performed cassette music. They are, as it were, the 'Uncle Toms' of the Mizrahi community. (See Yaeger-Dror, 1988a, and references cited there for a discussion of the politicization of social identity in the Mizrahi community.)

Two groups of singers are presented on the far right of Fig. 2: those who are completely assimilated, and have always performed koiné songs, but who now (in the wake of a Mizrahi music craze which has swept Europe) are cutting a token Mizrahi track, and those who perform only ethnic music, and are interviewed on Friday. The first group performs like the 'Uncle Tom' singers, while the religious ethnics conform to their \([r]\)ful dialect.

It is the non-assimilationist 'separatist' singers in the middle of Fig. 2 whose results are surprising. Those who choose to perform primarily in the non-convergent cassette musical register (but whose cultural interests are like the koiné community's) are most likely to diverge from categorical \([r]\) in song register! To draw a hypothetical politicized parallel, if analysis of Black Panther activists' English had revealed more convergence to the dominant white dialect norm than found in the speech of 'Uncle Tom' politicians, we would be exceedingly surprised. If analysis of Parti Québécois separatist French Canadian politicians' speech revealed more convergence toward prescriptive French phonology (or into English!) than the speech of their non-separatist colleagues, we would be surprised. Figure 2 shows that the strongest 'Levantine'/ 'Mediterranean' influence on musical style, and the most insistent emphasis on 'ethnic pride' in lyrics and interviews, belong to the singers who converge to the koiné speech norm—\([R]\)—in pop song register, although even koiné singers do not do so!

Why is it that just those singers who consciously diverge from koiné musical patterns, and proclaim themselves as ethnic separatists (as it were), converge toward the koiné \([R]\) exactly in the linguistic environment where neither the assimilated singers, nor the koiné singers do so? As linguists we are unequipped to answer these questions, but there are answers to linguistic questions which can perhaps shed light on them.

Two questions immediately present themselves:

(1) Is there any linguistic conditioning of the \([r]\) variation among these singers?

(2) Is there any linguistic criterion to determine if Mizrahi singers are hypercorrecting consciously?

We will try to answer each of these two questions in turn.

Possible environmental conditioning of \([r]\) use by Mizrahi singers

Linguists are well aware that the articulatory position of a consonant can influence the position of a neighboring variable consonant. Recent work on Quebec French (where there is sociolinguistic variation between \([r]\) and \([R]\)) has shown that environmental vowel and consonant positions do indeed influence the color of a neighboring variable (r) (Tousignant and Sankoff, 1989; Hume, 1987). Since (r) occurs in the environment of both front and
back consonants in Hebrew, it is reasonable to assume (like in Quebec French), a neighboring back consonant would favor [R] over [r], while a neighboring front consonant will favor [r]. Table 4a presents examples of words in each of several phonological environments, including the two we expect to be significantly different. Phonotactically, most (r) in Israeli Hebrew are intervocalic ("/V-V"); some occur in the environment of front consonants (where "/B" represents both labial and apical consonantal environments), and others occur in the environment of back consonants (where "/G" represents all velar, glottal, uvular and pharyngeal consonants). Given that phonotactically (r) can occur at the beginning or end of a word, sometimes (r) will occur near a pause ("/.P/").

Figure 3 presents the percent-[r] usage for the singers who use [r] variably in the different environments distinguished in Table 4. In a given column, each star represents the percentage used by a given Mizrahi singer in that environment. Comparing the intervocalic environments with the environments which include a consonant, it is clear that while a neighboring consonant does influence the (r) realization of these cassette singers, the influence is not related to articulatory factors. In intervocalic position, in the singing registers studied, [r] appears to be almost categorically postdental whatever the vowel position; however, any immediately adjacent consonant appears to favor [R].

Figure 3 shows that (r) with a neighboring anterior consonant ("/B") are not invariably postdental [r], nor are (r) in the environment of posterior consonants ("/G") more likely to become uvular than (r) near front consonants. A variable rule analysis confirmed that the articulatory position of a neighboring consonant does not influence the position of the (r). Both intervocalic environments favor [r] equally, and both consonantal environments favor application of the rule shifting [r] to [R] equally, whether the analysis is run on each speaker, or on pooled data. We must conclude that the [r] to [R] shift is not influenced by articulatory conditions.

Word and phrase position conditioning on (r)

The preliminary analysis, for which examples are presented in Table 4a, categorized (r) near a pause separately. Closer perusal of the data revealed that in this singing register prepausal (r) were most likely to shift to [R], and that even if they were not prepausal,
word-final (r) were more likely to shift than (r) in other environments. On the other hand, word-initial (r) were less likely to shift, even if they were preceded by a pause. The coding system was corrected to conform with this understanding, and examples are presented in Table 4b.

Figure 3 shows that word and phrase boundaries favor [R] even more than a neighboring consonant does. For those singers whose (r) varies, word-final (’/-#’) and phrase-final (’/- # #’) positions are more likely to favor [R] realization—with phrase-final tokens most likely to shift to [R]. A variable rule analysis confirmed the significance of these relative percentages. That is, an environmental consonant slightly favors the shift to [R] for these singers, but following word boundary favors it more, and following phrase boundary most. Note that there is no clear articulatory reason why this should be the case. In fact, while Hume (1987) found that word-final position favors [R] in Canadian French, Tousignant and Sankoff (1989) found that when Montreal French [R] data are divided into velar and uvular (r), word-initial position appears to favor uvular over apical realization, while word-final position favors velar (r) over apical. This evidence provides a new dilemma. If word and phrase final position favor [R] for these singers, but articulatory causes are discounted, what reason can be attributed to the influence?

![Phonological Environment](image)

**Fig. 3.** Phonological influence on (r) realization for Mizrahi singers' song register.

**Attention paid to speech as cognitive salience**

We have seen that the (r)'s position relative to a word or phrase boundary influences its realization more than the articulatory influence of the immediate environment does. In fact, the evidence permits the interpretation that cognitive salience, or attention paid to speech (as initially proposed by Labov (1966) for 'style' variation), may be an underlying factor which influences the (r) realization. If this can be shown to be the case, it would not only lead to a more complete understanding of the dialect, but it could help clarify the social attitude toward a given realization of a variable. It is possible to interpret Fig. 3 as evidence for the hypothesis that the relevant factor influencing (r) position is cognitive salience.
**Cognitive salience and lexical class**

Data presented in Prince (1987) bear on this discussion. Analysing data from a speaker who was consciously trying to retain her minority dialect, Prince suggested that the 'open class' words, being more syntactically and semantically important, are also more cognitively 'salient', while the 'closed class' words are less cognitively salient.

Prince proposed that the more cognitively salient the word, the more conscious-potentially hypercorrective—changes are likely to take place, while the less salient the word, the more unconscious factors are at work. Her proposal can be understood in terms of the dichotomy between 'change from above' and 'change from below' (Labov, 1966). In effect, Prince proposed that 'salient' (+ salient) words will more readily permit the shift of a specific variable when influenced by a change from above (a conscious change), while 'non-salient' (− salient) words are more likely to shift to a newer realization during a change from below (an unconscious change).

Prince's analytical results show that for sociolinguistically sensitive variables, those in 'closed' class words were more likely to shift toward the dominant norm than those in 'open' class words. She drew the conclusion that while the change appeared to be hypercorrective (that is, from a low prestige minority lect to the higher prestige prescriptive lect), it was apparently a change from below, because the hypercorrective shift occurs in the words which have less cognitive salience. Table 5 presents her hypothesis expanded and adapted to the present data situation.

<table>
<thead>
<tr>
<th>– Salient</th>
<th>+ Salient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less conscious change</td>
<td>More conscious change</td>
</tr>
<tr>
<td>a.k.a. ‘change from below’</td>
<td>a.k.a. ‘change from above’</td>
</tr>
<tr>
<td><strong>Style/register: Relaxed</strong></td>
<td><strong>Formal</strong></td>
</tr>
<tr>
<td><strong>Lexical Class: Closed</strong></td>
<td><strong>Open</strong></td>
</tr>
<tr>
<td>(e.g. ‘the, and, my . . .’)</td>
<td>(e.g. ‘song, sing, strong’)</td>
</tr>
<tr>
<td>(asher) ‘that’ would not shift</td>
<td>[conscious change]</td>
</tr>
<tr>
<td>(asher) ‘that’ would shift</td>
<td>[unconscious change]</td>
</tr>
<tr>
<td>(γ al) ‘on’ would not shift</td>
<td>[conscious change]</td>
</tr>
<tr>
<td>(γ al) ‘on’ would shift</td>
<td>[unconscious change]</td>
</tr>
<tr>
<td><strong>Intonation: Non-prominent intonation</strong></td>
<td><strong>Prominent intonation</strong></td>
</tr>
<tr>
<td>‘firu’ wouldn’t shift</td>
<td>[conscious change]</td>
</tr>
<tr>
<td>‘firu’ would shift</td>
<td>[unconscious change]</td>
</tr>
<tr>
<td><strong>Cognitive: Non-salience</strong></td>
<td><strong>Salience</strong></td>
</tr>
<tr>
<td>Frequent words vs Infrequent words</td>
<td></td>
</tr>
<tr>
<td>End of words vs Beginning of words</td>
<td></td>
</tr>
<tr>
<td>End of lines vs Beginning of lines</td>
<td></td>
</tr>
<tr>
<td>Words in the chorus vs Words in the verse</td>
<td></td>
</tr>
<tr>
<td>Only ‘indicator’ in word vs Other ‘indicators’ in the word</td>
<td></td>
</tr>
</tbody>
</table>

Following her hypothesis, singing ‘Rain in Spain’, Liza Dolittle is more likely to correct toward the ‘proper’ pronunciation of English which she is emulating in ‘rain’ and ‘Spain’ than in ‘their’. An unconscious language shift would work conversely. If we can determine that the Mizrahi singers are most likely to introduce [R] in linguistic positions which are cognitively more + salient, then hypercorrection occurs where more attention is being paid to speech, and the change is probably conscious, as shown in Table 5. On the other hand,
if we can determine that $[R]$ is more likely to occur in salient positions, the shift is probably unconscious, and referring to it as hypercorrection is inappropriate. We will refer to this type of change as ‘hyperaccommodation’.22

Cognitive salience and word frequency

While Prince’s phrasing is different, her position conforms to Naro and Lemle’s (1976), and to Phillips’ (1984) discussion of language change. Phoneticians and cognitive scientists have shown that even if they are open class, more frequent words are more redundant (Lindblom, 1990), and are therefore shorter and more reduced (Umeda, 1975; Klatt, 1975; Fowler, 1988; Fowler & Housum, 1987). Phillips (1984) showed that in lexical diffusion of a sound change very frequent words will change first if the change is unconscious, but rare and learned words or morphemes will switch first if the change is a conscious adaptation. Note that Prince’s categories represent the extreme case: closed class words are not only more frequent than open class words, but they have less (or no) semantic importance.

If, in fact, the relevant parameter for change in this environment is relative cognitive salience rather than articulatory environment, as originally assumed for Fig. 3, then other evidence should be available to supplement the evidence presented above. For example:

**Hypothesis I.** More frequent words are more easily perceived than other words (Lindblom, 1990) and (along with redundant words) are shortened (Umeda, 1975), and will shift first if the change is unconscious, even if they are not closed class. Evidence for this hypothesis is difficult to gather from the (r) corpus, but will be accessible in the analysis of (h) and (γ).

Salience and word position

Most new information in a word has already been conveyed before the end of the word. In fact, in many languages word-final elements (whether vowels, consonants or clusters) are reduced or lost without noticeable loss of comprehensibility, while word-initial sounds are more likely to be ‘protected’ by added elements (as happened, for example, in Spanish, where initial s-clusters were ‘protected’ by prefixing ‘e’, but word-final consonants and even syllable-final consonants are lost in many dialects (Poplack, 1980). Even in languages with suffix morphemes, the ends of words are more likely to be reduced than the beginning: synchronic evidence is easy to find: in English (Guy, 1980, 1990, to appear; Labov, 1970) and French (Kemp et al., 1980), final consonant clusters are eliminated, while word-initial clusters are not. This is consistent with evidence that even with a heavy ‘functional load’ on word ends, word final elements are often lost because they supply less new information than the beginning of words, and are generally more redundant, especially within a conversational context (Anderson, 1988).

Cognitive scientists have shown that listeners also pay less attention to the ends of words than to the beginnings. Assuming that speakers are not that different from listeners, and using the data showing the loss of word-final information, we conclude that ends of words are psychologically less salient. If this is the case, the reduced $[r]$ percentages at word boundaries (in Fig. 3) are related to cognitive non-salience rather than articulatory position.

**Hypothesis II.** We conclude that being psychologically less salient, any significant shift of (r) at ends of words is actually unconscious.
Salience and phrasal position

Phoneticians and cognitive scientists also maintain that a word with prominent pitch and extended duration is assumed to have greater cognitive salience, for the speaker, and hopefully for the hearer. If the speaker is more conscious of words under sentential focus, it would stand to reason that [r] will shift more readily if the change is conscious, and less readily if the change is unconscious.

The converse argument holds for phrase or sentence final information. It is true that in all languages studied so far final words of phrasal groups are lengthened (Klatt, 1975, 1976; Lehiste, 1970; Yaeger and Bourdeau, 1978; Beckman and Edwards, 1988, 1990; Edwards and Beckman, 1988). However, both acoustic and articulatory evidence shows phrase-final lengthening to be correlated with pitch and amplitude lowering, which reduce acoustic salience in these positions, and articulatory evidence shows that lengthening in these positions is caused by a slowing-down mechanism quite different from the lengthening imposed by the realization of semantic stress (Beckman and Edwards, 1988, 1990; Edwards and Beckman, 1988). While phrase-final syllables are longer, they are less acoustically salient because amplitude and pitch are reduced, and less cognitively salient because less new information is added by them.

Following this train of reasoning to its logical conclusion relative to the data presented in Fig. 3, the preference for [R] in phrase-final position (even more than in word-final position) must be unconscious.

Hypothesis III. We conclude that being psychologically less salient, any significant shift of (r) at ends of sentences is actually unconscious. The fact that coarticulated [rR] is common for the Mizrahi singers, specifically in word or phrase-final position, reinforces the impression that (r) realization varies with attention paid to speech, and that phrase-final position is likely to be less ‘focal’ than other sentence positions.

Although the articulatory environment of the (r) does not influence (r) color, the acoustic (and assumed cognitive) salience of the (r) appears to have a critical influence on the (r) position. Although the prescriptive realization is [r], and ‘appropriate’ realization for this register is [r], the singers are not consistently converging on that prescriptive pronunciation. Since the singers’ native [r] pronunciation is different from the [R] of the segment of the audience they are trying to accommodate (or converge) toward, apparently they are converging toward the koiné vernacular unconsciously, in spite of their own training. Quantitative evidence for this hypothesis can be found in Fig. 3.

Further corroboration of this hypothesis can be gathered from an extended analysis of a single singer: one of the singers in the corpus, BS, was also a popular singer fifteen years ago. His (r) pattern for 1973 and for 1988 is presented in Fig. 4. Two facts can be determined from the figure. First, it is clear that while Fig. 3 found word and phrase-final patterns to be similar, for at least some singers, word-final position is less salient, but the weakness is offset by musical-phrase final lengthening. Second, we see that BS’s pattern in 1973 was almost the opposite of his recent pattern. It was clear from the 1973 recording that BS was trying (with only partial success) to converge toward the koiné spoken norm—he used predominantly velar [R] in pop register—whereas his recent recordings converge more toward [r] in the ‘pop’ register.

His conscious target has shifted over recent years. As a young singer, his pop singing
target was [R], but as a seasoned pop singer, with years of performance behind him, he knows that [r] is acceptable target for the register he is using. In each case, his convergence to his chosen (r) target is least successful at word boundaries. We would project that since he had less conscious control of his phonology at word boundaries, the shift must be unconscious.

Thus, for this sociolinguistic variable, attention paid to speech is more influential than articulatory or acoustic environment. The position of a neighboring consonant appears to have no significant influence on the position of (r), but position within the word and phrase does significantly influence (r).

If, as we propose, (r) varies with cognitive salience, this can be confirmed by looking at other parameters related to cognitive salience. For example:

_Hypothesis IV_. Any listener to pop music knows that there are verses, with some new information, and there are repetitions of a chorus, which, after the first repetition, provide no new information. In fact, at least in Israeli pop music, the chorus may be repeated more than once in between verses. Given that often the words themselves are simpler and less informative than words in the actual verses, and given that words from the chorus provide no ‘new’ information because they are repeated so many times, it is reasonable to hypothesize that words from the chorus are less salient than words in the verse, and that a sensitive variable might change either more or less rapidly in the chorus. Results for data bearing on this hypothesis are so far inconclusive, although some singers are more likely to shift in the chorus, and no speakers shift to [R] more consistently in the verses.

_Hypothesis V_. It is possible that words which contain more than one socially sensitive
variable would be more carefully monitored by speakers than those which only contain one such variable. Here again, while this would be an interesting hypothesis, the results are not yet conclusive.

Conclusions

For this analysis, the quantitative data, in conjunction with the social psychological evidence, demonstrate that the Mizrahi singers’ high percentage of [R] at word and phrase boundaries is unconscious, and hyperaccommodative, rather than consciously hypercorrective in the generally accepted sense. This conclusion in turn permits us to say that, in general, the pull toward the dominant norm is very strong for Mizrahi speakers: in this case, even stronger than the generally acknowledged understanding that song register will use [r], and even stronger than their expressed wish to diverge toward their Mizrahi norm, and their preference for a marked ethnic song style.

The results confirm that cognitive salience is not only a significant influence on sociolinguistic variation, but in addition helps to clarify the motives for such variation. The results also confirm the degree to which dominant linguistic models can become important to those who are not members of the dominant group even (perhaps especially) when they are consciously diverging from the use of the dominant dialect.

In the course of the present analysis it became clear that style and register should be consistently distinguished in any multisituational corpus, and that multistyle and multiregister corpora reveal important linguistic and sociolinguistic patterns which are obscured by or absent from a simpler corpus.

Inevitably, our increased awareness of the gradualness/non-abruptness of linguistic change leads us to attempt to determine what conditions favor or retard language change. In the present corpus both linguistic and sociological conditions influence (r) position, and neither set of conditions can be interpreted without the perspective provided by the other set. It is very likely that we all should pay more attention to the possibility of such interactions.

In the same vein, although all sociolinguists give lip service to the fact that language use varies with 'style', which (in turn) is determined by the degree of attention a speaker gives to his speech, we only rarely implement this incite in our data collection and analysis. The present results show that even within a given style, intonation and syntax can be implemented to distinguish among degrees of attention which are then found to influence language variation. I suggest that the same factor which influences variation in the self-conscious styles tapped here can be usefully incorporated into larger analyses where language change is traced.

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NOTES

1 We follow the sociolinguistic convention of using square brackets to represent phonetic details, and slashes to represent stable phonological units, but parentheses to indicate an unstable phonological unit, referred to as a sociolinguistic variable (Wardaugh, 1986).
2 See also the discussion of koine development in other languages, in Ferguson (1959b), Greenberg (1986) and Trudgill (1986).
3 Another set of dialects, spoken primarily by politically separatist ultra-religious group members, could rightly be referred to as the ‘Ashkenazi’, or ‘European’, dialects, but since Ashkenazi dialects are never used for popular music, they will not be discussed.
4 ‘Categorically’, following variationist parlance, can be defined as uniquely.
5 The importance of a speaker’s social network has been discussed in detail in Milroy (1980, 1988).
6 Yaeger-Dror (1988a) found that while most news broadcasters varied (r) systematically in different styles, they did not vary (h) or (y), but categorically maintained the koine realizations—[x] for (h), and [0] (or [ʔ]) for (y), respectively. Note: prescriptivists maintain that intervocalic (γ) is realized as [ʔ] by koine speakers.
7 It is clear that neither the style continuum developed by Labov (1966), nor the distinction between planned and unplanned discourse developed by Ochs (1979; Milroy and Milroy, 1985) obviate the need for a ‘register’ designation.
8 Note that this classification was included because music and audience design are so distinctive for this style; only later re-reading of Trudgill (1983) showed the musicological and linguistic parallel between British ‘punk’ and Israeli ‘punk’ genres.
9 Interviewers often maintain that a singer is popular in Egypt and other Arab countries, as witnessed by the singer’s engagements, but no systematic study of the audience in Arab countries has been published.
10 (a) Comic (satiric) songs, (b) Eastern European ‘Gypsy’ songs, (c) liturgical songs, and (d) ‘erets yisrael’ songs are all systematically excluded from the present analysis. (The first has no unified musical style. In fact, these songs may satirize one of the other musical styles. (b) Just as Mediterranean music forms one popular song genre, another is Eastern European, or ‘gypsy’ music. The instrumentation often is heavy on the strings, includes balalaika or mandolin, and omits (or is light on) the electronic instruments and percussion. Although theoretically the audience for ‘gypsy’ and European liturgical music would be East European, the cassette music charts do not substantiate this theory: the genres are favored by Mediterranean singers and audiences. (c) Judging from the different music charts, Central European liturgical music often becomes popular in the ‘cassette’ market, but North African liturgical music does not become popular on the pop market. (d) In a country where even academics have ‘singalong’ parties of ‘erets yisrael’ (“land of Israel”) songs (Regev, 1986), this style appears to have the most general audience of all, but will not be included here.
11 Discussion of the singers’ use of (h) and (γ) is in preparation.
12 Professional pre-teen and early-teenaged singers will not attempt to ‘correct’ toward (h) when singing, but in the 1980s the army song troupes (aged 18–22) use [r] almost categorically.
13 Note that ‘ethnic’ is not a choice between two marked ethnic groups, but between a marked ethnic group (Mizrah) and a post-‘melting pot’ unmarked dialect used by speakers of all ethnic backgrounds.
14 Retroflex (r) occurs only rarely in these registers, and not at all in this corpus.
15 Data, or a résumé of data collected, are available on request. For each of the interviews with koine singers, the first hundred (r) were analysed; if 50 or more (r) tokens occurred in the first song analysed, no further songs were collected. Thus, for most of the singers, interview data are based on the first hundred (r) tokens in an interview, and song data are based on fifty to seventy-five tokens; for singers who vary between ‘club’ and ‘pop’ style, fifty to one hundred tokens of each song style are analysed separately.
16 Not only I have statements from some singers showing their recognition of the ‘rule’ that singers ‘should’ use [r], but it is clear that new members of army singing troupes are trained to use [r], and I have had students whose job ‘in the real world’ is to train singers and actors to use [r], since ‘[r] is proper [tikni] Hebrew’ and ‘[r] projects better’.
17 Thus, for example, Rami Kleinstein—a pop singer, musician and song writer, who until recently retained categorical [r] in his own ‘pop’ songs—recorded a clubby number in 1989 (complete with smokey background and himself alone at the piano) with almost categorical [R]. Si Heman—who is reported to be shifting her intended audience from a ‘club’ audience to a broader ‘pop’ audience (Goldberg, 1988)—varies between the two registers, and the two realizations of (r). Reuven Lavi formerly sang with an army pop group, where he maintained 100% [r]; in late 1989 a ‘club’ solo of his (complete with smokey background and himself at the piano) went up the charts with categorical [R], and a ‘pop’ solo with categorical [r]. The army song troupes also vary their use of (r) radically: [r] is categorical in ‘pop’ and ‘erets yisrael’ songs, but [R] is much more common in satirical songs.

The other hand, the interaction between musical register and audience is further complicated when the intended audience is pre/teen: Rami Fortis sings punk songs for adult programs but pop songs for a pre/teenage audience: In the former style he uses 0% [r], in the latter 95% [r].
18 Lists of singers, and their interviews are available on request. Given that more variation occurs in these songs and interviews, if (r) arc variable, at least 150 (r) are analysed from the transcribed interviews, and between 100 and 200 tokens from a given song register.
These terms were first used in Labov (1966); a 'marker' is used all the time by all the speakers of a given group, while an 'indicator' varies according to some specific criterion or criteria. See also Trudgill (1974) and Chambers and Trudgill (1980).

Auger and Janda (1991, ms) present data from a nationalist/separatist Quebec singer, who inserts hypercorrected English into his songs to achieve a specific effect. However, motivation for this hypercorrective usage is much more individualized, and cannot be classified as the general pattern described here.

For description of this statistical technique, see Sankoff (1988a, b). Discussion of the results of the varbrul analysis of these data is in preparation.

In a recent discussion of this phenomenon within the U.S. Black middle class community, Baugh (1988) has coined the term 'hypocorrecting'. Given that 'hypocorrecting' implies not-correcting-enough toward a specific target, while 'hyperaccommodating' implies that a given variable is used more often in the speech under analysis than in the native target dialect, I believe 'hyperaccommodation' to be more apt for the data of both middle class Black speakers and Mizrahi singers.

In addition, in singing registers phrase final lengthening is generally elaborated with musical conventions. This is most apparent to the 'Western' trained ear during analysis of cassette music, or other Middle Eastern musical registers, where extensive improvisational curlicues, called 'silsulim' (Halper et al., 1988) are added to the vocal line.

REFERENCES


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