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Linguistic data solving social psychological questions.
The case for (resh) as a measure of ethnic self-identification

Malcah Yaeger-Dror

In recent years, the study of cultural retention and erosion in multi-ethnic situations has been approached from sociological, social psychological, and linguistic perspectives. Here the claim is made, based on previous studies, that linguistic data are much less (consciously) manipulable than questionnaire responses, and that such data can be usefully marshaled in tandem with other behavioral patterns to better understand patterns of ethnic self-identification, whether retentive of an earlier identity or assimilative. Linguistic data from pop song registers are measured quantitatively, and compared with the singers' purported ethnic self-identification, as well as with the public media's evaluation of the ethnic musical "identity" of the songs themselves. These data are used to evaluate three sociological models: the "assimilationist" model, the "resource competition model," and the social psychological "accommodation" model. Of the three, the accommodation model is found to be most amenable to the analysis of complex results, such as those found in the present data set, where the data reveal that both convergent and divergent tendencies are active simultaneously. The evidence is used to conclude that subconscious pressures on the singers influence their linguistic behavior and their choice of song materials, overruling the singers' consciously expressed (but simplistic) attitudes toward cultural retention and assimilation. The study concludes that linguistic data should be taken into consideration along with more easily gathered questionnaire and behavioral data, to track complex subconscious social psychological motivation, and accurately evaluate conflicting sociological theories.

A query as framework

In what ways can linguistic (that is, actual speech) evidence be of service to the goals of social science research? In fact there are many ways, as the papers in this special issue attest. Each of the researchers...
whose work is presented here has a different approach to collecting linguistic data, making use of different analytical designs and techniques. The present paper, while quite different from the others, uses the research design and analytical tools common to sociolinguists in order to answer social psychological questions.

The specific question which will be proposed here is: Given that members of a society belong to a number of different social subgroups, how can a researcher determine with relative accuracy which of those groups is most important to an individual's self image? In order to discuss this question, it is important to clarify with what subgroups an individual can “choose” to affiliate, as well as how these choices reflect on, or support, the theories.

Those who (like myself) are more comfortable with real life than with theoretical constructs will keep in mind the specific social group whose multiple and (partly) overlapping social identities we want to understand in this paper: We will discuss the social identificatory choices of a small group of Israelis of Middle-Eastern ancestry. The largest group to which they belong that will be relevant to this discussion is the group "Israelis"; that is, a group composed of those residents of Israel, of whatever ancestry, who choose to consider themselves primarily as Israelis. They will be referred to as “Koiné Israelis” (henceforth, KI), since that term implies that the group is a product of a social “melting pot.” Within their Israeli identity, some may (or may not) choose to identify themselves as "Mizraḥi" Israelis (henceforth, MI). They may also choose to identify as MI of a specific national or regional group (e.g., Iraqis, French, Spanish, Moroccans, etc.).

The importance of an individual's affiliative tendencies (for the sociolinguist or social psychologist) is related to two apparently contradictory theories, both of which attempt to explain the sense of affiliation of members of an ethnic group by determining whether ethnic boundaries are strengthened or weakened by social stratification and group mobility. Abstract theories, and evidence from other communities, as well as linguistic evidence from the MI community, were used to study how specific members of the MI community choose to identify themselves with different subgroups in Israeli society, and to determine which general theory is supported by the data. The results of the present study support the claim that linguistic data can be very useful for a social psychological analysis.

A Consensus/Assimilation Model of Cultural Change or Affiliation

The first model, originally proposed by Parsons and Smelser (1956), which Ben-Rafael and Sharot (1991) referred to as the assimilationist model, and which is referred to in other studies as a consensus model (Milroy and Milroy, 1992), proposes that modernization—and its increased integration into the labor market—is necessarily accompanied by a decline in the importance of ethnicity. This importance has been well documented, and is partially revealed by the preference for a “minority” language (e.g., Spanish, French, or Arabic), or the rejection of that language. In contrast, assimilation can be revealed by a preference for the dominant language or dialect (such as standard English or KI Tsabari4 Hebrew), rather than maintenance of minority dialect forms (such as are found in Black or Chicano English, or Mizraḥi dialects of Hebrew (see, e.g., Yaeger-Dror, 1988; 1992a).

Within the linguistic version of the consensus model, the importance of solidarity variables (network, ethnicity, etc) on speech variation have been studied; cultural assimilation has been shown to be directly correlated with the degree of speech convergence. Even the work of historical linguists can often reveal evidence of assimilative convergence. Toon (1978) found that in 8th to 10th century England pronunciation followed the vagaries of political power, with major dialect shifts occurring after a shift in the political power of a given region. Rephrasing in terms of the consensus model, one would say that speakers of all of the regions studied assimilated (or converged) to the dominant linguistic norm. Other things being equal, speakers consciously (or unconsciously) do converge their speech toward that of their dominant-group interlocutors. In recent years, studies have shown that speakers’ convergence can be paralinguistic (rate of speech, loudness, etc.) or tied to a variety of stylistic parameters, only some of which are transparently linguistic in the traditional understanding of that word. More purely linguistic studies using this model have been published by Ammon (1992), Brenzinger (1992), Bortoni-Ricardo (1985), Dorian (1989), Fishman (1989), Gal (1988), Gudykunst and Ting-Toomey (1990), Kulick (1992), Taylor (1992), and the Milroys (e.g., 1980). The consensus approach is most useful for groups which are “resident in homogeneous and territorially well defined neighborhoods . . . [although it] cannot so readily handle socially and
geographically mobile speakers, whose personal network ties are not predominantly dense or multiplex" (Milroy and Milroy, 1992). That warning will be borne in mind, since the individuals whose choices are at issue in this study are mobile members of the MI ethnic group with which they identify.

A Competition/Conflict Model of Cultural Change or Affiliation

The second model maintains that economic development and modernization can bring subordinate group members into more direct competition with members of other groups within a society, thereby strengthening the group's perception of social inequality between the minority and dominant groups and strengthening their sense of ethnic identity. This model has been referred to as the resource competition (Ben-Rafael and Sharot, 1991) or conflict (Milroy and Milroy, 1992) model.

Linguists who ascribe to this model attempt to resolve why speakers will often diverge from the dominant linguistic patterns. In fact, most sociolinguistic analysis is dominated by the conflict model (Guy, 1988; Sankoff, Cedergren and Kemp, 1989; Thibault and Vincent, 1990; Dittmar and Schlobinski, 1988; Leets and Giles, 1993). While most linguistic studies using a conflict model are concerned with social class, conflict can also be related to a group's sense of ethnic separatist solidarity. Divergent inter-ethnic situations have been documented for Belgium and Wales (Giles, Bourhis and Taylor, 1977), Quebec (Bourhis 1984, 1989; Clément and Noels, in press; Fliceid, 1992; King, 1980), Israel (Yaeger-Dror, 1988; Kraemer and Olaitain, 1989), Northern Ireland (Milroy and Milroy, 1992), Britain (Giles and Sassoon, 1983) and the US (Baugh, 1992; Butters, 1987; 1989; Rickford and McNair-Knox, 1993; Fishman, 1990; 1991). In each case, social conflict is associated with a lack of assimilation to (or divergence from) the dominant linguistic norm.

An Accommodation Model of Cultural Change or Affiliation

Neither the conflict nor consensus model stands alone (Woolard, 1985). Milroy and Milroy (1992) demonstrate ways in which recent analyses of consensus models demonstrate that consensual (network) groups are partly tied, or "chained," to larger class-based (that is, conflictual) life-modes in Western society, but they do not attempt to incorporate the two models into one theory.

The double model is complicated by the attempt to deal with ethnicity and class structure simultaneously. Ben-Rafael and Sharot (1991) found that one of their measures of ethnic solidarity increased with improvement in socio-economic status and a decline in the ethnic division of labor, while the other measures decreased. One might infer that further analysis is called for.

Howard Giles's accommodation model specifically incorporates both consensus and conflict as complementary tendencies. Accommodation theory is concerned with determining what motivates an individual to de-accentuate ethnolinguistic characteristics (and converge toward the dominant culture), or to accentuate ethnolinguistic characteristics (and diverge from the dominant patterns). I propose here that a model which permits the measurement of both consensus (convergence) and conflict (divergence), of necessity, will be superior to a cobbled-together model which requires each to be analyzed separately.

The present study assumes that both consensus and conflict models are relevant to an analysis, and that Giles's accommodation model integrates both tendencies; speakers who choose to converge to the dominant norm indicate their wish to join that group, while speakers who diverge from the dominant norm indicate (among other things) their wish to maintain their ethnic group boundaries. After presenting a rationale for the use of linguistic data, and formulating the analysis, this study will attempt to determine how the variables in Giles's model influence actual language behavior (that is, speech). The paper will consider the Mizrahi group members' language variation, in order to unify the perspectives of the different models discussed above, and learn from them. Accordingly, avoidance of a given dialect feature can be referred to as divergence from the linguistic norm of a certain group (and competition with that group), while use of such a dialect feature is referred to as convergence, and reflects assimilation to that cultural group. Although it is possible that we will find that linguistic and other evidence do not reinforce each other, in earlier studies (cited above) the authors determined that linguistic evidence revealed both convergent and divergent accommodative tendencies directly and quantifiably; as a result, Giles's model will be
used as the basis for the study to be presented here. Consequently, some further definitions will be necessary.

Ethnolinguistic Vitality

Giles and Johnson (1987) elaborate a corollary theory, which they refer to as the Ethnolinguistic Vitality (ELIT) theory. Proponents of the conflict model have found that individuals whose socio-economic position is rising are more likely to emphasize their ethnic identity, while Giles, looking at a broad picture, proposes that rising socio-economic status, demographic expansion, and increased access to institutional support systems all reinforce divergent tendencies for members of a group.

These claims have been supported by analysis of data from the MI community (Yaeger-Dror, 1988). In the 1960s, this group was demographically and economically subordinate, and until the 1970s radical convergence toward the dominant norm took place. Even in the late 1970s, the greater the contact between ethnic group members and members of the dominant group, the greater the convergence. More recently, shifting demographics, rising socio-economic status, and increased integration of MI group members as gatekeepers in Israeli institutions have favored increased ethnolinguistic vitality and divergence. Consequently, convergent linguistic tendencies are no longer adhered to as rigidly as 20-30 years ago.

LANGUAGE AS A TOOL FOR THE ANALYSIS OF CONFLICT AND CONSENSUS

This section will attempt to demonstrate more specifically how linguistic techniques can be brought to bear on this theoretical discussion, and will explain why such techniques can be more reliable than other, more commonly used, techniques.

There are two major reasons why a researcher would utilize sociolinguistic, specifically variationist, techniques to analyze accommodative tendencies. In the first place, as already stated, linguistic analysis is theory-neutral and can be implemented to determine which theory is most salient in a given situation. In the second place, as a rule phonological variation is relatively unmonitored (at least consciously) by conversational co-participants, while other means of analyzing a speaker's attitudes (varying from direct questions to oblique questions), being more easily monitored by a speaker, are more consciously manipulable, and to that degree are less accurate.

Language as Theoretically Neutral Data

Ben-Rafael and Sharot (1991) point out that the conflicting models proposed in sociological theory generally use non-overlapping data sets: assimilationist studies have focused primarily on intermarriage as evidence of assimilation, while competition studies have focused on voting patterns, especially support for ethnic parties, or on questionnaires concerning acknowledged perception of discrimination and social distance. Their own study found that self-identification, as well as measures of social and behavioral distance, all supported the consensus model, while only their questions concerning perception of discrimination supported the conflict theory. Both theories appear to agree that there is a correlation between socio-economic status and ethnic solidarity, but the consensus model finds that group members weaken their affiliation as they raise their status, while the competition model maintains that group members in transition to higher status become more concerned with their ethnic solidarity, as they simultaneously increase their organizational access (and their ability to implement their own wishes).

One conclusion which may be drawn is that a new method must be found for determining inter-ethnic attitudes in order to permit analysis of the relative importance of conflict and consensus. I suggest that linguistic data can be assumed to be neutral to the theory (having been used by proponents of both theories), and can perhaps determine which model is more accurate. Thus, there is a methodological "excuse," if you will, for using linguistic data, merely because it is theory-neutral. In addition, Giles's model is already available and uses linguistic data to consider both convergent and divergent tendencies. Consequently, I propose to use Giles's accommodation perspective to facilitate accurate analysis of speakers' unconscious changing attitudes and behaviors.

Questionnaires as an Inaccurate Source of Data

Social psychologists have their own tools (questionnaires), and may find it difficult to understand why they should adopt a more complicated
methodology. Their question is the same as that of many linguists who are also content to rely on questionnaire or “introspective” data (that is, questioning individual intuitions). Many linguistic studies (in dialectology, in syntax, and even in semantics) also use questionnaires of one sort or another.

However, when a sound, or a word, is changing in a dialect or language, people generally do not even know how they pronounce things (Yaeger, 1974), what word they use (Labov, 1972), or why they associate the way they do, so a questionnaire—or even the linguistic equivalent, a word list—gives a researcher data which may not be reliable.

**Question Responses as Manipulable by a Speaker**

Except when a culture is ethnically uniform and quite stable (a situation which has never actually been documented), speakers are wont to be ambivalent about their own attitudes, choice of words, or pronunciation (in comparison with that of other members of their community, or of some out-group with which they would like to affiliate), so to the degree that they can monitor their own speech, as they do when questioned specifically, they often skew the information which they present to the researcher. Labov has made clear that, due to this problem, which he refers to as “the uncertainty principle,” no linguistic variable can be accurately analyzed using questionnaires or monitored speech. The uncertainty principle led Labov to formulate techniques for observation and analysis of unmonitored speech (Labov, 1972; Milroy, 1980), which will be explained and used in this study.

Just as the interviewees are unsure of their speech, they often do not really know how they feel about their own or other ethnic groups. To the degree that they do know, they may not feel comfortable relaying their honest feelings to interviewers whom they do not know and who generally do not belong to their in-group. Even if the visiting academic interviewers appear to belong to their ethnic group, they are unlikely to belong to the interviewees’ socio-economic status, or share other in-group characteristics, so all possible differences between the interviewer and the interviewee would have to be considered relevant to an analysis. In short, the uncertainty principle is even more critical to the execution of social psychological research than to traditional sociolinguistic research (within one’s own in-group), since social psychological questions which are asked are even more socially sensitive than those which are generally raised by linguists. To use one example: compare the linguistic question “Do you pronounce (ayin)?” with the social psychological equivalent “Do you identify yourself as primarily an Israeli/Mizrachi/Moroccan . . . ?” While the first might be a sensitive question at some unconscious level, the second is quite overtly sensitive. Given that we have already determined that the first is unlikely to elicit an objectively truthful response, we will assume that the answer to the latter is not most truthfully presented when asked directly either.

Earlier sociolinguistic and sociological studies have shown that questionnaire responses are unreliable, but both variationist (linguistic) analysts and accommodation (social psychology) analysts have shown that, when appropriately gathered and analyzed, unmonitored speech can be used as an accurate measure of social psychological attitudes, revealing the information speakers do not know on a conscious level and do not necessarily want the interviewer to know. Since unmonitored speech is less subject to ignorance or conscious control than questionnaires, eliminating or calibrating sample bias is much easier with unmonitored speech than with question responses; therefore, speech data will be used here to evaluate the speakers’ attitudes as well as the theories being compared.

In earlier work (Yaeger-Dror, 1988; 1991), I showed that consensual accommodation to the KI “standard” takes place in the singing and speech of Israelis of Mizrahi ancestry. In this paper, I will present evidence that data gathered systematically using these sociolinguistic methods will reveal both convergent and divergent tendencies, and will permit a quantitative analysis of these conflicting tendencies and of their relative importance.

**THE SPEAKERS AND SETTING:**

**RELEVANT INDEPENDENT SOCIAL VARIABLES**

The present corpus consists entirely of data collected from the Israeli radio and TV stations. Popular singers were chosen who are known to be MI members from different ethnic backgrounds. Any speech and songs available were collected and analyzed. The corpus which results is not entirely balanced, nor is the speech style ideal by the criteria usually used, since radio interviews and recorded singing are far from
“unmonitored.”

Nevertheless, evidence will be gleaned from the data to reveal a surprisingly realistic (and ambivalent) picture of the singers’ feelings.

Choice of Speakers

Although, until recently, there was no MI musical presence on the radio in Israel, by 1988 several programs were available for the MI audience, and MI singers who were trying to expand their popularity into the “pop” market were also interviewed on the “Star of the Week” [Koxav Hashabit] program, which has a KI audience.

For the present study, MI singers were chosen whose songs were consistently represented on the “Top Twenty” KI program (Lahit Barosh (LB)), and on the equivalent MI program (Haxi, Haxi (HH)), between 1988-1990. The claims for these programs are equivalent, but the songs and audience are (presumably) different. Singers whose songs only appear on one of these programs are contrasted with those whose works appear on the other, and with those whose recordings appear on both.

The interview data either appeared on the general “pop” Koxav Hashabit (or an equivalent program with a broad general audience), or on a noon-time program (primarily) for an MI audience, appearing daily on Radio Network Alef, called the “Mediterranean Medley” [Meurav Yam Tizoni (MYS)]. During those years, far more men than women were included on these programs (especially on the MI program), so the sample does not include equal numbers of male and female “stars.” The names of the singers appear on Table 1, along with the information showing where the data were collected. The singers are divided into the following subgroups:

- The MI Group — those who are interviewed on ethnic programs, whose cassette songs top the MI “top 20” (HH), but rarely rate on the more general KI program (LB).

- The KI Group — those whose primary audience is more general, and whose pop songs reach the top 20 (LB), but whose work rarely if ever is played on the MI equivalent (HH).

- The MI>KI Group — those whose reputation was formed as MI cassette singers, but who have manipulated their singing style to achieve a broader audience; their songs appear on both programs, and they are interviewed on general pop programs as well as MI programs, such as MYS.

Two control groups from the judgment sample of singers from different ethnic backgrounds, collected for Yaeger-Dror (1991), have been included for comparison:

- European-ancestry KI singers whose songs and interviews rarely appear on the MI programs.

- MI singers whose songs and interviews never appear on a prime time program for a general audience, and whose interviews appear only on Friday [Meurav Yam Shishi (MYS)].

Table 1 shows that the “MI Friday Group” chosen are only heard on the Friday, ethnically and religiously-marked programs, while none of the other singers chosen are heard on the Friday programs. The results for these control speakers can be contrasted with those for the other MI singers analyzed, and will be presented on the tables.

Table 1. MI singers studied, and the programs from which the data were gathered.

<table>
<thead>
<tr>
<th>Singer, MI group</th>
<th>Identity</th>
<th>Song Register</th>
<th>Speech Register</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Young, MI group</td>
<td>Niassim Garame</td>
<td>MI</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Moshe Giat</td>
<td>MI</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Older, MI group</td>
<td>Shimi Tavori</td>
<td>MI</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Avihu Medina</td>
<td>MI</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Geula Cohen</td>
<td>MI</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Young, “late blooming” KI group</td>
<td>Mosi Banai</td>
<td>I</td>
<td>x</td>
<td>(x)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Singer, KI control group</th>
<th>Identity</th>
<th>Song Register</th>
<th>Speech Register</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>European-ancestry KI</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>
### Table 1 (cont'd)

<table>
<thead>
<tr>
<th>Singer</th>
<th>Identity</th>
<th>Song Register</th>
<th>Speech Register</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>LBb</td>
<td>HHc</td>
</tr>
<tr>
<td>Older, “late blooming” KI group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoram Gaon</td>
<td>I</td>
<td>x</td>
<td>(x)</td>
</tr>
<tr>
<td>Boaz Shar'abi</td>
<td>I/Yem</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>MI&lt;KI group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haim Moshe</td>
<td>MI/Mrc</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Margalit Tsan'ani</td>
<td>MI</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Rivka Zohar</td>
<td>?</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>CONTROL GROUPS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI “Friday” group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joe Amar</td>
<td>Mrc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Itsik Kala</td>
<td>Kurd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KI group</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corinne Alai</td>
<td>I (Tun)</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Gali Atari</td>
<td>I</td>
<td>x</td>
<td>(x)</td>
</tr>
<tr>
<td>Avi Toledano</td>
<td>I</td>
<td>x</td>
<td>(x)</td>
</tr>
<tr>
<td>Yizhar Cohen</td>
<td>I</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>European-ancestry</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>KI singers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rami Kleinstein</td>
<td>—</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Reuven Levi</td>
<td>—</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Sarai Tsuriel</td>
<td>—</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

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### The Registers

#### Speaking

While most sociolinguistic analyses are based on the most unselfconscious, interactive speech available, dialect convergence and divergence has been found helpful in interpreting not only the speech of radio announcers (Bell, 1984; 1991a,b; 1992; Brunel, 1970; Coupland, 1985; Kumar, 1975; Lipski, 1985; Selting, 1985; 1992; Yaeger-Dror, 1988), travel agents (Hindle, 1980; Coupland, 1984), and second language learners (e.g., Zuengler, 1991), but also of lawyers, judges, and defendants (Linell, 1991; Aronson, Jönsson and Linell, 1987), and the interaction of patients and doctors (Ferrara, 1991; Street, 1991). Unless otherwise specified, speech data displayed below were gathered from recorded interviews (IV) of a given singer on programs intended for the general (KI) Israeli population, or the secular MI population. Other interviews, referred to here as “Friday IV’s,” are retained as a separate register, distinct from the IV register.

There is a large difference between a “Friday interview” and any other interview. While lashon shabbat [talk (appropriate for the) Sabbath] can be theoretically acknowledged as a variable for Sabbath observers, there is no theoretical reason why interviews on Friday should have a distinctive accommodative accent. After concluding that the Friday interviews were, in fact, systematically different, I did find that there were specific factors which distinguished these interviews—and interviewees—from the others.

- **Topic.** The interviews on Friday are primarily limited to religious topics (e.g., the Bible portion of the week, religious observance), while those during the week are limited to neutral secular topics (e.g., soccer, the latest tour, the latest record). Religion in Israel is mostly observed in ethnically-segregated groups (Ben-Rafael and Sharot, 1991), while other topics are more likely to be discussed in ethnically integrated groups.

- **Sense of religious identification.** The interviews on Fridays are with those singers whose sense of ethnic identity is more closely tied to their religious identity, while those during the week are generally with those who would characterize themselves as non-religious (hiloni) Jews.\(^9\)

---

\( a \) Self-identification: Yem=Yemenite; Tun=Tunisian; Mrc=Moroccan; I=Israeli.

\( b \) Lahit Barosh; c Hazi Hazi; d Koxav Hashabat; e Meurav Yam Tixoni; or other prime time music and interview programs of the same category.
Sense of ethnic identification. The observant singers (those interviewed on Friday) generally acknowledge their affiliation with a narrower group (e.g., Kurdi, rather than MI), and their discussion reveals that their social network is denser and more multiplex than that of the secular singers. Note that most radio interviewers and journalists ask a singer relatively straightforwardly how they would characterize themselves. The answers range from “Israeli” or “pop” to “MI,” to “Kurdi” or some other specific designation, and responses reported in Friday magazine (or teen magazine) interviews are consistent with those given to the radio interviewer. Singers’ avowed ethnic self-identification is found in the second column of Table 1. Note the question mark beside Rivka Zohar, whose self-identification is rather fluid, and the MI rating beside the names of Haiim Moshe and Boaz Shar’abi, who claim to be narrowly self-identified, while actively developing a broader following with the help of KI songwriters and musical arrangers. Remember that the singers are divided into groups, not according to their own self-identification, but according to their chosen audience, as witnessed by their “Top 20” popularity.

Social network. While it is not always simple to decode a singer’s social network, it is obvious that the Friday IV singers describe themselves as having more multiplex networks—singing and working with siblings, living with or near parents in the neighborhood where they grew up, limiting themselves to engagements within their own ethnic (often family-related) community—while the singers who receive the most general media coverage are usually found to have the least multiplex network. Since there is such a high correlation among these factors, it is difficult to determine which of the variables is most important. The statistical coding was therefore set up as if the interview day were the critical variable, although it seems obvious that the combination of the factors present on a given interview day is influencing speech.

Singing

Recent studies have shown that meaningful sociolinguistic results can be derived from songs (Trudgill, 1983; Prince, 1987; Yaeger-Dror, 1988; 1991). On the Israeli “pop” scene, just as in Western popular music circles, there are different, widely recognized popular song genres (or registers). Several song genres were differentiated with the help of local ethnomusicological researchers (Kidron, 1988; p.c.; Halper, Kidron and Seroussi, 1988; Regev, 1986), and data from three of these registers were analyzed. In a previous study (Yaeger-Dror, 1991), I found that different song genres have different dialect targets. These pop genres are targeted for different audiences within the larger community; consequently, singing registers as defined are highly correlated with audience design which will be discussed further below. The singing registers which will be used for this analysis include:

• 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 quite general, although older members of the upper middle class are less likely to become fans (Bensi, 1989).

• Club (also referred to as “underground” or “punk”) music is actually a classification combining three musically different registers. One emulates the “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 musically they are often closer to “folk-rock.” These genres are quite different, but have in common both the fact that they are performed primarily in clubs, rather than in large performances, and that they are said to appeal mostly to a young koiné-speaking audience, with higher academic achievement (Bensi, 1989).

• Cassette or Mizrahi register (Regev, 1986:347; Kidron, 1988) is characterized by the use of “Mediterranean” instruments, improvisation, melismatic-style imitation of the last few notes, and the use of musical modes with augmented seconds, or modes like the Phrygian (Halper, Seroussi and Kidron, 1988:7). 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
played on weekdays to a primarily secular [hiloni] audience, while the latter has a much more restricted audience, both ethnically and religiously. Similarly, Benski’s evidence (1989) shows that the audience for cassette music is restricted to blue collar MI ethnics, the club music audience is restricted to white collar KI listeners, and pop music has the most general audience. Consequently, for the most part, song register and audience design appear to be so highly correlated that only one needs to be included as a variable.

TOOLS FOR THE ANALYSIS

The Linguistic Variable

Labov (1972) has shown not only that linguistic variables are less monitored, but that phonological variables occur much more frequently than other variables, and are more easily recorded and analyzed. The first step in a sociolinguistic analysis is to determine what sounds within a dialect are pronounced one way by speakers of one subgroup, and another way by singers of another group, and to analyze the variation for that sound.

Yaeger-Dror (1988; 1991) found that there are three such variables (shown on Table 2) that are likely to be relevant to analysis of group members’ ethnic identification in the Israeli situation. In theory, each of the three is pronounced one way in the Israeli dialect, which Blanc (1968) first termed the “koiné” (KI), and another way in the dialect which I have called Mizrahi Hebrew (MI); however, today, none of these can be assumed to be a “marker” of one ethnic group.

<table>
<thead>
<tr>
<th>Linguistic Variable/Realization</th>
<th>Koiné KI</th>
<th>Mizrahi MI</th>
</tr>
</thead>
<tbody>
<tr>
<td>(cher)</td>
<td>[x]</td>
<td>[b]</td>
</tr>
<tr>
<td>(ayin)</td>
<td>[g]</td>
<td>[c]</td>
</tr>
<tr>
<td>(resh)</td>
<td>[r]</td>
<td>[r]</td>
</tr>
</tbody>
</table>
• *(het)*\(^{13}\) can either be pronounced [h] pharyngeally (in MI) or [x] velarly (KI).
• *(ayin)* is either [ʕ] pharyngeal (MI) or [Ø] lost altogether (KI), and
• *(resh)* is either [r] dental, like in Spanish (MI), or [R] uvular (KI), as shown on Figure 1.

Not surprisingly, the three linguistic variables are realized differently in the three popular music registers, as can be seen on Table 3. The club register follows the koiné pattern consistently; the pop register uses [r], but the koiné *(het)* and *(ayin)*; and, the cassette register should follow the Mizrahi linguistic pattern.

<table>
<thead>
<tr>
<th>Register Variable</th>
<th>Pop</th>
<th>Club</th>
<th>Cassette</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(het)</em></td>
<td>[x]</td>
<td>[x]</td>
<td>[h]-[x]</td>
</tr>
<tr>
<td><em>(ayin)</em></td>
<td>Ø</td>
<td>Ø</td>
<td>[ʕ]-Ø</td>
</tr>
<tr>
<td><em>(resh)</em></td>
<td>[r]</td>
<td>[R]</td>
<td>[r]-[R]</td>
</tr>
<tr>
<td>Audience</td>
<td>general</td>
<td>KI,MC</td>
<td>MI,WC</td>
</tr>
</tbody>
</table>

Analysis of the three variables can reveal assimilative convergence by MI speakers. Distinctions maintained in MI have been merged (or lost) in the dominant KI. In KI Hebrew phonology, there is a merger between *zaf* and *(het)*, and between *alef* and *(ayin)*. An MI speaker who wishes to assimilate to (or converge toward) KI, can use [x] for *(het)*, [Ø] for *(ayin)*, and [R] for *(resh)*. To the degree that s/he wishes to maintain a Mizrahi ethnic identity, s/he can maintain [h] for *(het)*, [ʕ] for *(ayin)*, and [r] for *(resh)*. Theoretically, the linguist can then measure the ratio of KI or MI pronunciation, and determine the degree to which the Mizrahi speaker has assimilated to the dominant dialect.

*(ayin)*. Bentolila (1984; personal communication) found that even for the eldest generation for whom Hebrew is not the native language, variation in *(ayin)* is quite closely related to language use in the country of origin [i.e., in the speakers’ (or their parents’) native Arabic dialect]; thus, determining the degree of influence that the sociolinguistic factors (ethnolinguistic vitality and accommodation) have on *(ayin)* variations is impossible until a study has been made of each speaker’s use of *(ayin)* in his/her (or his/her parents’) least-monitored style of Arabic. Early in the present study, analysis of *(ayin)* showed apparently unsystematic results, reflecting our lack of access to appropriate information on use of *(ayin)* in the countries of origin of the parents of the singers; therefore, the analysis of *(ayin)* will not be part of this study.

*(het)*. Bentolila (personal communication) found that variation in *(het)* is related to style or register. If the speaker is using Mizrahi phonology, the pronunciation will be almost categorically\(^{14}\) [h], while if the speaker is accommodating to KI phonology, it will be [x], so *(het)* would be an indicator of audience design and might be less useful as an indicator of ethnolinguistic self-identification.

*(resh)*. By the mid-1960s, most Mizrahi and KI speakers, used [R] primarily (if not categorically), at least when interacting with members of the dominant koiné-speaking community (Gumperz and Tell-Bauberger, 1966; Blanc, 1968). In the late 1970s, two sets of sociolinguistic interviews with speakers from this ethnic community were collected and analyzed. In a study of a judgment sample of 61 Mizrahi speakers from different towns, Davis (1983; 1984) found that in the late 1970s non-rural working class Mizrahi speakers had almost categorically adopted [R] in a casual “unmonitored” interview style, while Bentolila (1984) found 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 non-rural group. However, even Bentolila’s study found that most of his speakers who had contacts outside the community used a high percentage of [R]. Yaeger-Dror (1988) found that in the late 1980s, while [R] predominated in speech used by Israeli radio announcers and singers, [r] was used as the norm for pop singing. This indicates that *(resh)*, like *(het)* may be considered a marker of register, since KI singers appear to differentiate between [r] and [R] consistently; nevertheless, I found that for MI singers
the variable is still useful as a measure of ethnolinguistic identity. I conclude that the sociolinguistic variable which best lends itself to an analysis of social psychological "ethnolinguistic" affiliation is (resh). Consequently, in this study, we will look primarily at the last of these variables.

Hyperaccommodation

Labov (1966b) identified many types of linguistic variation which can be usefully monitored by a researcher interested in social conflict or consensus. Labov (1966a) demonstrated the theoretical importance of a concept he referred to as hypercorrection. When speakers attempt to emulate another dialect whose rules they do not (or no longer) understand, they apply a rule in a way that a native speaker of the dialect will not. In English, a speaker who has learned in school to say, "He and I (rather than 'him and me') know what we are doing," can then over-generalize the rule to say, "Tell he and I..." [rather than 'him and me']. This is referred to as hypercorrection.

Hypercorrection is also possible for phonological variation. Speakers of the so-called "r-less" dialects of English will hypercorrect by inserting an "r" where one is not required. While "the runner-r-is..." is perfectly rule-governed (since an "r" actually terminates the first word), "the idea-r-is" is quite common among so-called "r-less" dialect speakers, and follows the hypercorrection rule that all word-final lax vowels can be assumed to be r-like before a vowel in the dominant (American) dialect. It is fair to say that hypercorrection of a variable like "r" is one of the clearest diagnostics for assimilation toward a given subgroup in a society, since it reveals a speaker's wish to accommodate to that group.

Following this pattern, hypercorrection will also be useful in the analysis of MI singers' choice of ethnic identity. I have presented evidence (Yaeger-Dror, 1988; 1991) that in their attempt to accommodate their dialect to KI, many Mizraḥi singers replaced their dental [r] with a uvular [R] when singing a pop song. Since even koiné speakers perform pop music with [r], Mizraḥi singers are seen as over-correcting (hypercorrecting) toward the socially dominant KI norm. The case has been made (Yaeger-Dror, 1991) that such behavior reveals the singers' willingness to assimilate more impoverishing than would flawlessly accommodative behavior.

There is also a contrasting tendency to accommodate to a non-dominant dialect—even a stigmatized dialect. In such a case, the attempt at accommodative behavior could be seen as hyperaccommodative, rather than hypercorrective (Yaeger-Dror, 1992a,b). For example, a person who wishes to retain a distinction shown on Table 1, but who no longer maintains the distinction in his/her phonology, may hyperaccommodate in the direction of the "lost" Mizraḥi (ḥet) or (ayin); that is, (ḥet) and xaf will both be pronounced [h] part of the time, and both (ayin) and alef may sometimes be pronounced pharyngeally. Note that the English examples, and the use of [R] where inappropriate, reveal hyperaccommodation/accommodation to a dominant norm, while the last Israeli examples reveal divergence from the dominant norm, and convergence toward an ethnic norm.

Hyperaccommodation of the Israeli Variables

(ayin) and (ḥet)

In the 1970s, most of the singers who were attempting to emulate (or break into) the pop medium, avoided (ayin) almost categorically in the song register. By the late 1980s, the singers for whom comparative data are available16 used (ayin) more consistently (although far from categorically) when singing, and avoided it only in broadcast interviews. Hyperaccommodation to MI—in which an (ayin) is inserted where it does not occur—clearly can be traced to an ethnically divergent tendency in a given interactional situation. As a rule, this type of hyperaccommodation is so sporadic as to preclude useful statistical analysis (Janda and Auger, 1992). Although preliminary examination of the singing of some of the MI singers has shown hyperaccommodation of xaf to [h], and of alef to [ʕ], to occur more frequently than expected, this paper will limit itself entirely to the analysis of (resh) variations.

(resh)

One would not expect the use of (ḥet) or (ayin) to be categorical, but for these singers (resh) should be. In terms of articulatory difficulty, it is as difficult for Rami Kleinstein to shift from his native [R] and maintain categorical [r] in pop, as it is for Natasha's friend Arkadi Duchin, a Russian immigrant with native [r], to use [R] categorically in club songs. In terms of linguistic facility, the easiest articulatory job is that of the MI
singer who can maintain [r] in singing.

Given that most koiné-speaking pop singers use [R] when speaking, but [r] when singing, cassette singers, who use [r] for speaking, should have less problem using [r] consistently when singing than the pop musicians do. Since MI singers used [r] much more erratically than KI singers, the complex hyperaccommodative mixed-message which results motivated the present study.

Using this principle, the present study will demonstrate that, for many of the singers whose (resh) usage will be analyzed, there is clear evidence that the singer is ambivalent, and would like to assimilate to the dominant KI group of listeners while still retaining ethnolinguistic proof of his/her identity as an MI group member.

Conscious and Subconscious Change

A linguistic variable which has been identified can be monitored by the researcher; this evidence can be used to quantifiably measure accommodative behavior toward the dominant outgroup, or toward the ingroup. Techniques have also been developed to analyze whether this accommodation to the other group is conscious or not. In sociolinguistics, an unconscious change is generally referred to as “change from below [a speaker’s level of awareness],” while conscious change is referred to as “change from above [a speaker’s level of awareness];” the latter is conscious accommodation to some other dialect, and only begins when a speaker is old enough to choose consciously between his own and other dialects.

This dichotomy of awareness is especially informative for research in language attitudes. Some of the variables considered as potentially influencing the use of (resh) were chosen because they might reveal whether the choice of [r] or [R] is conscious (from above), or unconscious (from below).

Linguistic evidence can be used as a diagnostic of the social psychological perspective for the singers analyzed, and potentially for the group of which they are members. Although it has generally been accepted that hypercorrection is a change from above, in the present case linguistic evidence demonstrates that the less attention paid to speech, the greater the use of [R], and the greater the hyperaccommodative use of [R], a coarticulated variant which will be discussed below. This implies that subconscious sociolinguistic pressures on members of the minority community overrule their consciously expressed attitudes (Yaeger-Dror, 1993).

A Mathematical Model for the Analysis of Linguistic Data

One disadvantage of using linguistic data is that ordinary statistical methods are not always applicable. Carrying out a study using questionnaires, it is possible to ensure that all statistical cells are filled with an equal amount of data, so that the statistics can be perfectly trustworthy. In an analysis using speech data, such a simple statistical analysis is impossible. Some speakers talk more than others. Some speak more emphatically. In the present study, there were two genres (or “registers”) of speech analyzed: radio interviews between the singer and a media interviewer, and singing. For some singers we had many songs and only a very short interview. For other singers we had a long interview. Yet we would not wish to discard important data merely because we wanted to balance the statistical cells. There is also a high level of interaction among the variables. Luckily, there is a well-tested set of quantitative analytical tools which have been developed by David Sankoff and William Labov to correct for the imbalance among the cells (Sankoff, 1988; Rand and Sankoff, 1991; Sankoff and Rousseau, 1989; 1991; Britain, 1992); these are available on microcomputer, as the VARBRUL, GOLDVARB, or MACVARB programs. They permit us to systematically examine the relationship between language variation and other social variables, both how social parameters influence sound change and how sound change reveals a community’s attitudes toward different social groups within the society.

Recent studies have used these quantitative techniques to study such things as the relative importance of social class and social network (Fliksid, 1992), or the importance of ethnicity (Poplack and Tagliamonte, 1991; Rickford and McNair-Knox, 1992; Fliksid, 1992) or regional identity (Di Paolo, 1992) to a speaker’s self-image.

The mathematical model was set up to permit the statistics to weigh the relative importance of both social and linguistic factors on the choice of (resh) for each singer. Based on the analysis, I hypothesized which of the social variables is most relevant to the differences which are evident
among the singers.

**THE INDEPENDENT LINGUISTIC VARIABLE**

No linguistic study is complete unless it takes into consideration linguistic factors which might influence the pronunciation of a dependent variable. These variables are included as factor groups (independent variables) in the statistical analysis.

**The Phonetic/Phonological Environment**

Given that (resh) can and does vary in articulatory position, and given that most studies of such variation can be traced at least partly to the articulatory position of preceding and succeeding elements in the discourse, the articulatory position of these elements is included in the information available to the statistical analysis.

As a result, in the statistical analysis, if there is a contiguous consonant in the rear of the mouth (gimel, kaf, qof, xof . . . ), this is considered a posterior-consonantal (G) environment. If there is a contiguous labial or alveolar consonant (pe, bet, vet, tet, dalet . . . ), this is considered an anterior-consonantal environment (B). Table 4 presents some examples. The former should in theory favor the posterior realization [R], while the latter should favor the anterior realization [r]. An intervocalic (V) or prepausal (P) (resh) should be neutral to this influence. Unfortunately, linguistic theory proved to be less useful in this analysis than had been expected. A preliminary analysis using the expanded set of phonological choices for each singer showed that the proximity of a posterior consonant is no different in influence from the proximity of an anterior consonant for any of the speakers; nor are posterior vowels (o, u) more likely to be near an [R] than anterior vowels (e, i).

Subsequently, environments were combined to contrast the presence of any consonant in the environment (k) as versus intervocalic position (v) or prepausal position (P). Based on the evidence of earlier cognitive, psychological studies, we must conclude that even for a phonological environment, the relevant variable is cognitive salience. Prepausal (resh) are always least salient; (resh) contiguous to any consonant forms a cluster, and the weak member of the cluster (the (resh)) is less salient; and intervocalic (resh) is most salient (Yaeger-Dror, 1993). Statistical analysis showed that contrary to evidence from studies of (r) variation in other communities, articulatory proximity is not a significant influence, while environmental salience is.

**Table 4. Relevant phonological environments for (resh) variation**

<table>
<thead>
<tr>
<th>Environment:</th>
<th>+Salient</th>
<th>Intervocalic</th>
<th>In cluster</th>
<th>-Salient</th>
<th>Prepause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>/B</td>
<td>/G</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Examples:</td>
<td>jirim</td>
<td>jirei</td>
<td>harbe</td>
<td>merkaz</td>
<td>kvar#</td>
</tr>
<tr>
<td></td>
<td>iria</td>
<td>bari</td>
<td>yisrael</td>
<td>bakrav</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ir#im</td>
<td>hu#roe</td>
<td>or#va-</td>
<td>or#katan</td>
<td></td>
</tr>
</tbody>
</table>

Attention-Related Linguistic Factors, and Their Significance

The list of factor groups which were considered in VARBRUL (GOLDVARB 2.0) runs for the data, and examples of codings for the stress- or attention-related parameters, are provided in Tables 5a and b, respectively. The analysis simultaneously considered phonological environment, all attention-related factors, and all apparent sociologically-related factors (determined by past sociolinguistic experience, and intuitions for these data). Just as analysis of phonetic environment as relative cognitive salience appears to be statistically provable, the same is the case for the analysis of sentence position and emphatic stress (Yaeger-Dror, 1993). When used as a factor in a multivariate analysis, the cognitive salience was found to be inversely correlated with hyperaccommodation in all cases.
Table 5a. Factor groups for the linguistic and social variables proposed for the VARBRUL runs. Cognitively salient factors are to the left, and the code for a factor is in brackets. Linguistic and cognitive salience have been shown to be related to whether variation is more likely to occur consciously or not.

<table>
<thead>
<tr>
<th>Factor Groups</th>
<th>Variables in the Group [code/s]</th>
<th>+Salient</th>
<th>-Salient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articulation:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phonological environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>merged group</td>
<td>intervocalic [V] near consonant [K] prepause [P]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention paid to speech:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word class</td>
<td>open class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress-related</td>
<td>Focus [f] Neutral [z] Syntactic boundary [q]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(merged)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Word position</td>
<td>Nonfinal [bo] Final [e]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on stanza</td>
<td>Stanza [+ ] Chorus [- ]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Another variable</td>
<td>(resh), (het), (ayin)[+] None [-]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in same word</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociolinguistic:</td>
<td>monolog[T] reading[R] song...[k,m] IV[I]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Register/style</td>
<td>KI-adult MI-adult MI-peer kids</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audience design</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FACTORS NOT RELATED TO SALIENCE

| Sociological:           |                                                  |          |          |
|Began career            | 1950s 1960s 1970s 1980s                         |          |          |
|Year of song            | 1970s 1980s                                     |          |          |
|Sex of singer           | Male Female                                     |          |          |

Table 5b. Examples of relevant attention-related environments, and their codes

<table>
<thead>
<tr>
<th>Environment:</th>
<th>focus</th>
<th>naçsr</th>
<th>beyaxad.</th>
<th>pre-break</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td>Olé, Olé</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gloss:</td>
<td></td>
<td></td>
<td>together</td>
<td></td>
</tr>
<tr>
<td>coding:</td>
<td>f</td>
<td>f</td>
<td>Q</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environment:</th>
<th>closed</th>
<th>focus</th>
<th>neutral</th>
<th>pre-break</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td>al</td>
<td>sfat</td>
<td>Yam</td>
<td>Kineret</td>
</tr>
<tr>
<td>Gloss:</td>
<td>on</td>
<td>shore-of</td>
<td>Sea-of</td>
<td>Galilee</td>
</tr>
<tr>
<td>coding:</td>
<td>c</td>
<td>f</td>
<td>z</td>
<td></td>
</tr>
</tbody>
</table>

ANALYSIS

For each singer chosen, (at least) 100 tokens of (resh) in a given register were listened to. These tokens were coded for the independent variables which were defined above: phonological environment, register, and attention-related variables (focus, position within the word and within the breath group, presence or absence of another sensitive variable—(resh), (ayin), or (het)—within the word). Wherever possible, older songs were also included (in which case the relative age of the song was coded), to determine whether singers had changed their pronunciation. The (resh) were coded according to the definition to be found below, and the coded data were analyzed using the multivariate VARBRUL technique pioneered by Sankoff.

Categorization of the Dependent Variable (resh)

Three values of the dependent variable (shown on Figure 1) were isolated and coded:
Uvular "r" is the pronunciation used in some European languages, and is the most common KI pronunciation, whether trilled or pronounced as a fricative.

Velar "r," the European French pronunciation, is not only different from the uvular "r," but is perceived by most Israelis as different. Although studies have shown that second language (or second dialect) ability is correlated with a language learner's motivation, it is also proven that certain sounds (among them, "r"-like sounds which are not within the learner's native phonetic repertoire) are quite difficult for the language learner. For lack of better evidence, the paper will assume that a singer who uses velar "r" cannot use uvular "r," and that, therefore, the use of velar (resh) is more likely to reflect language learning ability rather than motivation to accommodate. The distinction is thus irrelevant to this study. Consequently, velar and uvular "r"s were not coded separately in this analysis, and all posterior "r"s were coded as [R].

Postdental "r" [r], is the pronunciation generally used in Spanish, and is supposed to be used in formal presentations on Israeli radio and TV networks. Tables 2 and 3 show that it is also the pronunciation used in both MI and cassette songs. Table 3 shows that it was also the pronunciation used almost categorically in the pop singing register in Israeli Hebrew during the 1980s.

The third pronunciation that occurred in these songs and interviews is coarticulated [rR]. Coarticulated means that both pronunciations are simultaneous. In this case, the tongue tip and the uvula are generally both trilling at the same time. To the linguist, the most noticeable fact about an [rR] pronunciation is that it does not occur in any of the world's languages as the recorded pronunciation. This is consistent with the fact that languages do not generally go out of their way to do things the hard way, and most phoneticians and typologists would agree that the "r" pronunciation is more problematic in any case, and that therefore, coarticulating—practicing the "r" sound in two parts of your mouth at once—is doubly problematic.

The only possible explanation for this pattern which occurs to me is the one taught in Psychology 101. If rat A wants to get a food pellet, he learns a specific behavior which will achieve that end. We can call that "approach behavior." If, on the other hand, he wants to avoid being zapped with electricity, he will use "avoidance behavior." If he wants the pellet, but the only way to get it is to do something which will get him zapped with electricity, he will use "approach-avoidance behavior." (If memory serves, that means he does a little bit of nothing, and gets neither pellet nor jolt, unless he's been starved ahead of time.) On the other hand, if our rat can get pellets on one side of the cage and water on the other, he'll use what we will call "approach-approach behavior"; that is, he'll try to do both, pretty much simultaneously. Please note that while it is very difficult to be on two sides of a cage simultaneously, the human tongue is quite capable of trilling at the tip while the back of the tongue is being trilled on by the uvula (see Fig. 1).
Now, let us carefully distinguish our singers (and politicians like Geula Cohen and David Levy) from the poor psychologist-abused rat A. Nevertheless, the comparison is instructive. The singers, or at least some of them, appear to want to use both the [r] and the [R]; that is, to return to the theoretical discussion earlier, they wish to accommodate to, or affiliate with, both their MI [r]-using listeners, and their KI [R]-using listeners. That could be accomplished by doing some of each, (resh) being a fairly common sound in Hebrew. A singer who is comfortable with his own dual goal will use both [r] and [R] appropriately: when singing pop or cassette songs, or when talking to a primarily MI audience, he will use [r], but when being interviewed on a program with a KI audience, or singing in a smoky nightclub or recording a punky selection, he will use [R]. I will make the case that a singer who wants to affiliate with the larger audience, but wants to simultaneously demonstrate his ethnolinguistic bona fides, is more likely to insert some [R] when singing or some [r] when being interviewed for a KI audience. I will also claim that the singer who uses both pronunciations simultaneously is the most concerned with this dual goal. “Inappropriate” choice of (resh) variants can be used as quantifiable evidence of ethnolinguistic insecurity, while coarticulated [rR] provides even stronger evidence.

This analysis is concerned with the quantifiable evidence of systematic patterns in the use of these three pronunciations. Initially, for a given singer, the data were analyzed to reveal a four-way split: (resh) usage was divided between two registers (song and interview) as used by the members of the two ethnic communities (MI and KI). 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 (KI and MI, defined by audience design, and the Friday interviews, which are distinguished from the MI interviews by their theme and, presumably, their audience) as used by members of the MI community. The results were analyzed statistically wherever possible. Since the data for the control groups were categorical, VARBRUL runs were unnecessary for these speakers.

Evidence was garnered from each tape collected. As mentioned earlier, each token of (resh) was listened to, and coded for articulatory position and for each of the independent variables. These coded tokens were then typed into a data file, which was then run through the statistical program package. Each of the three realizations of the (resh) will be considered in turn.

Singers’ [r] Use—Larger Study

Before discussing the statistical analysis, a larger perspective is provided by Figure 2 (from Yaeger-Dror, 1991), which is based on data for the use of [r] by almost sixty MI singers.

The singers defined in that earlier study as Mizraḥi singers include all singers of Mizraḥi ancestry. Those shown on the left of Figure 2 (e.g., Gali Atari, Corinne Alal, Avi Toledano, Ofra and Ravit Yosefi) only perform in pop register, maintain [r] consistently in that register, and do not perform cassette music. Since their work only appears on KI programs, they are defined in this study as KI singers, of MI ancestry. (See Ben-Rafael and Sharot, 1991, as well as Yaeger-Dror, 1988, and references cited in those studies for a discussion of the politicization of social identity in the Mizraḥi community.)
KI Singers

(r) in 2 registers

% [r]

0 10 20 30

KI song register
KI IV register

Figure 2b

Singers who sing only cassette music (e.g., Meir Amram, Ruby Ḥen, Dklin, Eli Idan) and who were interviewed on the ethnic program “Meurav Yam Tizoni” are shown between 40 and 45. These are singers defined in this study as MI singers.

Those singers who are included here as controls (Joe Amar, Itsik Kala, Benny Elbaz) are found between 48-50. They sing only cassette and liturgical music, and were interviewed only on the Friday ethnic program. They therefore appear on Table 1 as “MI Friday Group.” In fact, they may be regarded as conforming to the audience design for the Friday programs. These control Mizraḥi singers do not use [R] even in interviews; they retain [r] rather than accommodating to the societal norms for a given register. The interview setting, the fact that the interviewer also uses [r], and the more marked ethnic and religious content of the topic and audience, all contribute to the results.

Those in the middle, between 10-40, were chosen for further analysis because it was hoped that the results would reveal why their use of (resh) is so variable.

There are three groups of singers whose results fall in the mid-range and these coincide with the groups determined earlier according to the singers’ audiences.

- **The “MI group.”** Those who perform primarily in the non-convergent cassette musical register, but who have primarily secular interests (e.g., Nissim Garame, Eli Luzon, Moshe Giat).

- **The “KI group.”** Those singers who are self-conscious of their ethnic background, and are trying to break into pop music without having ever entered the cassette market (e.g., Meir Banai). Included in this group were Boaz Shar'abi and Yoram Gaon. Note that there is a difference between those who are integrated into the mainstream (the KI control group) and those who are not. The difference between the two groups should be studied further.

- **The “MI>KI group.”** Those whose place is assured in the MI pantheon, who are trying to break into the larger, more general musical market (e.g., Ḥaim Moshe, Margalit Tsan’ami, Rivka Zohar), or who have already done so (e.g., Ofra Ḥaza).

Note that while women who belong to the KI group (Gali Atari, the Yosef sisters, Rita) do not appear to be ambivalent, many men in the KI group (Yoram Gaon, Boaz Shar’abi, Meir Banai) do. However, a much larger sample would be needed to prove that gender is a significant factor.

While the Yaeger-Dror (1988) study found that ethnically European ancestry KI singers (e.g., Rami Kleinstein) proved that those who sing pop music distinguished between registers categorically, Figure 2 shows that the percentage of [r] used in cassette songs (stars) and pop songs (open circles) is actually quite variable. If percentages for [r] in cassette songs were higher (than percentages in pop songs), this would at least reflect the relative importance of audience design to the pronunciation of (resh). However, Figure 2 shows that percentages for pop music can be higher than for cassette songs, although there is no significant difference between (resh) realization in pop and cassette songs for any of the MI>KI cassette singers.
From the singers used for Figure 2, two of the Friday IV group (Joe Amar, Itai Kala) and two assimilated singers (Gali Atari, Yizhar Cohen) were chosen for controls, while nine of those in this mid-range were chosen for statistical analysis. The data from their interviews and songs were coded using the coding system previously described.

**Multivariate Analysis of [r] in Singing and in Interviews**

We attempted to answer two questions: 1) Are there consistent differences among the three groups of singers who use (resh) variably? 2) Does their use of (resh) help clarify their sense of ethnonlinguistic pride or ambivalence; and if so, why do singers who consciously diverge from koiné musical patterns, while proclaiming themselves as ethnic “separatists,” also converge toward the koiné [R] exactly in the linguistic environment where neither the assimilated singers (like Gali Atari), nor the European-ancestry koiné singers (like Rami Kleinstein) do?

Table 6a presents percentages of [r], [R], and [rR] in song and interview for each of the singers; Table 6b shows which independent variable groups enter the regressions for each singer, (e.g., “Register” enters the analysis for all of the singers except Haim Moshe); and, Table 6c shows the factor weights in different situations for the singers included in the regressions. If a singer favors [r] more than other singers, the statistical weight is greater than 0.5 (Sankoff, 1988); while the factor weight is less than 0.5 for those singers who use [r] less than the others. For cases where the results for a given variable were categorically distinguished, statistical analyses were unnecessary. Note that not all singers’ interviews were analyzed statistically, so the factor weights for interview register should be interpreted accordingly. For the control singers, [r] is categorical in pop or cassette singing, and (except for the MI Friday group) [R] is categorical in interviews and club music; while for those interviewed on the ethno-religious program, [r] is also categorical in the interview style. Note that the control KI singers all follow this pattern whether they are of European ancestry (and have to learn how to use [r] in song), or whether they are of Mizrahi ancestry.

The contrast between the control groups and the singers in the analyzed sample is quite surprising. Note that while the control singers use [a] consistently when singing, these singers, whose native-[r] is reinforced by the singing conventions, use [r] in song only between one-third and two-thirds of the time!

While the KI control groups never use [r] in interviews, those male singers who choose to demonstrate their attachment to their “roots” use [r] more than half the time, even in publicly broadcast interviews. Nor are the percentages skewed by whether the audience is presumed to be secular-MI, or general-KI. (Note that Haim Moshe was interviewed on pop programs, as were Rivka Zohar and Yoram Gaon, while the interviews for Nissim Garame, Boaz Shar’abi, and Margalit Tsan’ani were all on MYT.)

Two additional interviewees were analyzed from programs for the general audience: Avihu Medina and Geula Cohen, both of whom also used high [r] percentages, despite the fact that both audience design and the more general rules for conversational style would favor the use of [R]. We conclude that ethnic self-identification predisposes some singers to accommodate to the KI norm, and others to avoid doing so.

Statistical analysis of the pooled speakers reveals three groups:

- **Those MI group singers** who have a strong sense of ethnic identity have the greatest tendency to use [r]: factor weights are over 0.5 for sung data, and over 50% in interview data.

- **KI group singers** who have already built their singing reputation in the KI market favor [r] the least: factor weights below 0.5 in song, and less than 5% in interview data.

- **Male MI>KI singers** who have the most ambivalent position appear to have a nearly neutral weighting in sung data, and do not differentiate meaningfully between their sung and interview data.

<table>
<thead>
<tr>
<th>Singer</th>
<th>Percent [r]</th>
<th>Percent [R]</th>
<th>Percent [rR]</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MI Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissim Garame</td>
<td>67</td>
<td>56</td>
<td>2</td>
</tr>
<tr>
<td>Shimi Tavori</td>
<td>67</td>
<td>—</td>
<td>2</td>
</tr>
<tr>
<td><strong>KI Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meir Banai</td>
<td>72</td>
<td>3</td>
<td>17</td>
</tr>
<tr>
<td>Yoram Gaon</td>
<td>55</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Boaz Shar’abi</td>
<td>30</td>
<td>0</td>
<td>43</td>
</tr>
</tbody>
</table>
### Table 6a (contd)

<table>
<thead>
<tr>
<th>Singer</th>
<th>Percent [r] In S</th>
<th>Percent [R] In S</th>
<th>Percent [rR] In S</th>
<th>Percent [R] In S</th>
<th>Percent [rR] In S</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MI&gt;KI Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haim Moshe</td>
<td>62</td>
<td>63</td>
<td>0</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td>Margalit Tsan'ani</td>
<td>86</td>
<td>0.5</td>
<td>0</td>
<td>99</td>
<td>14</td>
</tr>
<tr>
<td>Rivka Zohar</td>
<td>70</td>
<td>4</td>
<td>0</td>
<td>94</td>
<td>26</td>
</tr>
<tr>
<td><strong>CONTROL GROUPS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avihu Medina</td>
<td>81</td>
<td>13</td>
<td>8</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Geula Cohen</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>KI Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gali Atari</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Yizhar Cohen</td>
<td>100</td>
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<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Avi Toledoano</td>
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<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>MI Friday singers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joe Amar</td>
<td>100</td>
<td>99.6</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
</tr>
<tr>
<td>Itsik Kala</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>MI Singers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ofni Cohen</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>KI Singers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rami Kleinstein</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reuven Lavi</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sarai Tzuriel</td>
<td>100</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
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</table>

### Table 6b (contd)

<table>
<thead>
<tr>
<th>KI Group</th>
<th>Meir Banai</th>
<th>x</th>
<th>x</th>
<th>x</th>
<th>(x)</th>
<th>x</th>
<th>(x)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yoram Gaon</td>
<td>x</td>
<td></td>
<td></td>
<td>(x)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Boaz Shar'abi</td>
<td></td>
<td>[x]</td>
<td>[x]</td>
<td></td>
<td>[x]</td>
<td></td>
</tr>
</tbody>
</table>

**For cases where the results for a given variable were categorically distinguished, statistical analyses were unnecessary.**

### Table 6c. Factor weights for the singers' different realizations of (resh)

<table>
<thead>
<tr>
<th>Singer</th>
<th>Factor wt. [r] In Song</th>
<th>Factor wt. [R] In Song</th>
<th>Factor wt. [rR] In Song</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MI Group</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissim Garame</td>
<td>.591</td>
<td>.390</td>
<td>.12</td>
</tr>
<tr>
<td>Shimi Tavori</td>
<td>.541</td>
<td>.55</td>
<td>.449</td>
</tr>
<tr>
<td>Avihu Medina</td>
<td>.707</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geula Cohen</td>
<td>.498</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 6b. Significant variables included in the VARBRUL runs. (Those significant only for [R] runs are in parentheses; those only significant in [rR] runs, in brackets.)

<table>
<thead>
<tr>
<th>Singer</th>
<th>Variables included in the statistics</th>
<th>Phonology</th>
<th>Focus</th>
<th>Position</th>
<th>± (het., syin)</th>
<th>Register</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MI Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissim Garame</td>
<td>[x]</td>
<td>Word</td>
<td>x</td>
<td>(x)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Shimi Tavori</td>
<td>x</td>
<td>Word</td>
<td>(x)</td>
<td>(x)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

### Table 6b. Significant variables included in the VARBRUL runs. (Those significant only for [R] runs are in parentheses; those only significant in [rR] runs, in brackets.)

<table>
<thead>
<tr>
<th>Singer</th>
<th>Variables included in the statistics</th>
<th>Phonology</th>
<th>Focus</th>
<th>Position</th>
<th>± (het., syin)</th>
<th>Register</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MI Group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nissim Garame</td>
<td>[x]</td>
<td>Word</td>
<td>x</td>
<td>(x)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Shimi Tavori</td>
<td>x</td>
<td>Word</td>
<td>(x)</td>
<td>(x)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
Weighing all the evidence from the multivariate analysis of [r] used in songs, we conclude that all the singers consciously attempt to maintain [r] while singing, but many fail in the least salient environments. More detailed linguistic analysis will appear elsewhere, but it is clear that cognitive salience is important. Overwhelmingly, the salient factors favor [r] while the non-salient factors favor [R] (Yaeger-Dror, 1993). The accommodative convergence is therefore not conscious, and singers would be unlikely to know the extent to which they converge.

Analysis of the interviews showed that only those who chose to maintain an ethnic (MI) presentation of self (Goffman, 1967), or “ethnic footing” (Goffman, 1981), use [r] in interviews; but in terms of the salience of the environment, the same pattern holds for the distribution of [r] in interviews as was found in song. Even more surprising was the fact that those singers who chose this ethnic “footing” use [r] only marginally more consistently in song (where it is prescribed) than in interview (where it is proscribed). On the other hand, those singers who have no ethnic image to uphold overwhelmingly use [R] in interviews. These results are consistent with Assimilation/Accommodation theory, and with ELIT modification of that theory.

Multivariate Analysis of [R] in Singing and Interviews

The analysis for [R] appears to support this conclusion, since the only favoring environment for [R] is in clusters (0.643), at the end of a word (0.643), and unstressed (0.669) or the end of a syntactic unit (0.639), with the most disfavoring environment being under focal stress (0.279). Thus—in both interviews and songs—for most of these singers, accommodation to the dominant group (i.e., the KI listener) only occurs as an unconscious “change from below.” To confirm this impression, it is necessary to analyze the results for [R].

The result of the [R] study again demonstrates that different speakers can have significantly different ways of relating to (resh). Statistical analysis of the pooled speakers reveals two groups.

- **KI group** singers who have already built their singing reputation in the KI market have the highest factor weights for [R] in songs. Most of them use [R] categorically in interviews.
- Both MI and MI>KI singers have lower tendencies to use [R] in song or interviews.

These findings are consistent with CAT (Accommodation theory) and the Assimilation theory of sociologists. Singers who have built their reputation in the KI market are significantly more likely to use [R] in song or interview than those who have built their reputation in the cassette market; the latter group shows almost no tendency to use [R] when singing, but both in song and interview, [R] is used primarily in unstressed, cognitively non-salient environments.

**Singers’ [rR] Use**

As explained earlier, [rR] does not occur in any of the world languages, and is a very unlikely pronunciation. To know that one singer uses [rR] at all is significant; to determine that the entire group of singers uses [rR]—although sporadically—is amazing. The social-psychological explanation offered above should also be borne in mind. Our initial assumption is that the greater the desire to please both ethnic-MI and general-KI audiences, the higher the [rR] percentages will be. The control Friday IV Group has no need to accommodate to the KI audience, and therefore uses neither [R] nor [rR]. The comfortable KI singer accommodates flawlessly to the register norm [r]. However, use of [rR] can be regarded as support for both the Accommodation/Assimilation model and the ELIT model, since the singers simultaneously accommodate and vocalize their ethnolinguistic identity. Consistent with this expectation men who wish to accommodate to both audiences use [rR], not sporadically, but systematically one-third of the time, while women, and most KI singers use [rR] a bit less than one-third of the time.

Looking at Table 6a, we find that comparing across speakers, the overall percentage of [rR] is higher than the percentage of [R], and the consistency among the singers is much greater.

- The **KI group** (1), who were most likely to use [R], have relatively less tendency to use [rR], having the lowest factor weights for [rR] in sung data, and no [rR] in interviews.
- Both the **MI & MI>KI groups** (2 & 3) are relatively likely to demonstrate dual ethnic loyalty. In the **MI>KI group**, who have
broken into the popular market but still retain their MI audience, women are relatively less prone to use [rR] than men, and only the MI group and Haim Moshe reveal their ambivalence by using [rR] in interviews.

Note, again, that it is the innovation of [R] rather than the retention of [r] which is surprising; so, for all these singers, the data support the integration of CAT (Assimilation theory) and ELIT, but do not support the Resource Competition theory.

The most surprising result is that Yoram Gaon has such a strong tendency to use the coarticulated variant (0.812), while Margalit Tsan'ani has relatively little tendency to use it (0.268). The former can be considered an isolated case of (very qualified) support for the Resource Competition theory, while the latter may well be conditioned by the well-known sociolinguistic “rule” that women follow the prescriptive norm more consistently than men (Trudgill, 1983; Labov, 1972).

There does not appear to be much support for the Resource Competition model. Support for this model would be provided by evidence of high factor weights for [r] or for [rR] for singers who have high seniority in the KI music business. Only one singer’s results appear to be consistent with this model. Yoram Gaon presents himself to the media as self-confidently koiné, and only very infrequently chooses to sing a song which could be considered cassette register. Consequently, like Gali Atari or Avi Toledano, he “should” (according to the Accommodation/Assimilation theory) use [r] categorically when singing. He does not use [r] categorically when singing, however, nor does he use [R] (as do other members of this group), nor [rR] less than a third of the time like the other singers who are cultivating a KI audience. He uses a much higher percentage of [rR] than those who cultivate both audiences simultaneously. In light of the Resource Competition model, one might hypothesize that his long-term involvement with the pop music scene may have something to do with his preference. However, the image of Gaon altering his pronunciation from a subconscious sense of deprivation (relative to whom?) does not strike me as intuitively reasonable. Consequently, while superficially Yoram Gaon’s (resh) usage appears to support this theory, on closer analysis none of the evidence can be construed as supporting the Resource Competition theory.

DISCUSSION

The intent of this paper was to demonstrate that speech (including speech, in fairly narrow situations, and singing) can reflect the speaker’s attitude—toward his own and other ethnic groups within a society—an his desire to converge toward an outgroup (by using [R]), or to diverge from it and maintain his ethnic identity (by using [r] in interview register). It was suggested that speech data are especially useful to a sociological study, not only because they supply a large volume of data but because these data are relatively more reliable because they are acquired under relatively less self-conscious situations than other data sources. A sample-specific phonetic analysis of Israeli data has been used to prove that such analysis is not only feasible, but relatively simple and straightforward.

The paper also presented various social psychological theories, which have been proposed for the analysis of ethnic attitudes and which are believed to conflict with each other. It was obvious that the Assimilation theory is matched, in the social psychology of language, by Howard Giles’s Accommodation theory. It became apparent that the Resource Competition theory of social psychology in many ways parallels Giles’s Ethnolinguistic Vitality theory (ELIT). In this study, I have found that Giles’s Accommodation theory (CAT) and Ethnolinguistic Vitality theory (ELIT) are both supported by the data from Israeli singers’ use of (resh). Israeli singers whose entire audience is pop have the greatest tendency to use the KI [R] in song; those with an MI cassette audience are most likely to use [r] in interviews; and, those with dual loyalty are most likely to use [rR]. Multivariate analysis reveals that the accommodative use of an inappropriate pronunciation is not a conscious choice, but (as Giles assumes) an unconscious display of the singers’ social psychological preferences.

We see that those whose ethnic heritage is psychologically salient are most likely to use [r] in interview situations and those who have chosen to sing for both MI and KI audiences are more likely to attempt to converge toward both groups by using [r], although native KI singers themselves maintain categorical [r] in pop songs. I conclude that this type of analysis is useful, even in this very limiting situation, and would be more useful if the analysis were carried out more systematically. I propose that casual taped interviews with members of a community can reveal much more about their social psychological attitudes than questionnaires or other more formal research techniques.

The paper also proposed to demonstrate that Giles’s Accommodation
Theory, with the help of Labov's analytical techniques, clarifies that both resource competition and assimilation models are jointly relevant to a community's choices. The linguistic analytical methods are less falsifiable and more reliable than questionnaires used by themselves, and the linguistic data permit the relative importance of conflict and consensus to be analyzed. An ideal study would permit two interviews (with different interviewers, one KI and one (apparently) from the MI speaker's ingroup) for each interviewee, and would save specific ethnic questions for the end of the interview. The results of the linguistic analysis would be more reliable than the results of earlier studies.

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NOTES

1. The term "koiné" was borrowed from the Greek term koiné, meaning "common," which was coined to refer to the lingua franca variety of Greek that provided the lowest common denominator of features from several dialects in the Hellenistic period. This dialect eventually became standardized as the official language of the Macedonian Empire (Siegel, 1993:5). The term was first used to refer to the Israeli Hebrew vernacular in an article by Haim Blanc (1968), since this vernacular is (in fact) common to speakers from all different language backgrounds, retaining the phonetic and syntactic patterns most common to all of the Hebrew dialects spoken in Israel. While it has not become the legal Language Academy "Standard," Blanc found that it was the de facto standard in common use. For present purposes, referring to this dialect (and its speakers) as koiné has the added advantage of drawing an overt parallel between speakers' choice of ethnic identity and the dialect that they adopt. See Blanc, 1968, for a further discussion of this concept.

2. Note that both sociological and linguistic analyses support the theory that there is a meta-group, whose members refer to themselves as "Israelis," and whose dialect is referred to as the "Koiné." Some members of the community then choose affiliation with a subsidiary ethnic group. Ben-Rafael and Sharot's analysis further qualifies that membership in the meta-group is generally affiliated with the local secular (non-religious) culture (Ben-Rafael and Sharot, 1991). Their conclusions are doubly relevant, since the distinction between religious and secular individuals becomes important in the present analysis as well.

3. Within the group which researches language choice, the dominant or "legitimated" group is contrasted with a "minority" group, which (as in this case) may not actually be demographically a minority. For the balance of this paper, the KI group, and its language, will be referred to as the dominant group, following common sociolinguistic parlance, based on Bourdieu (1974), and more recently, Thibault (1983).

4. "TSabari" is the term that members of the local culture use to refer to those who are nativeborn and assimilated into the general (koiné) culture. "Mizraḥi," literally "Eastern," is the term chosen by sociologists (Yaeger-Dror, 1988), as well as members of the local culture, to refer to those who retain an ethnic identity shaped by Jewish cultures of North Africa, or other Arabic-speaking areas. Given that the native Tsabari ethnic identity is open to all, a Mizraḥi ethnic identity is chosen by those who retain it.

5. Note that Ben-Rafael and Sharot (1991) found that only a small subset of the data from upwardly mobile Moroccans in their study appeared to support the conflict model, and that almost all of the singers can be considered upwardly mobile as well. In this paper, I will not try to demonstrate that all of the answers can be handled by the small sample I have used, but rather that linguistic data can and should be used more systematically to answer the questions which are being posed, and that a thorough study is warranted to determine the degree to which one theory is more appropriate than the other.

6. ... except as an ethnomusicianological oddity, discussed in professorial tones over Radio Network Alef, or the classical music station.

7. A politically correct commentary should point out that the different audience involved is reflected in a program's time slot: Lahit Barosh appears in prime time on Sunday night TV, while Hazi Hazi appeared as a Friday midmorning program on the radio—and even then, on the station which is generally devoted to "easy listening" and token anthropology (Radio Network Alef), rather than on one of the pop stations. This time slot does not reflect evidence that more than half of the music sold belongs in this latter category (Kidron, 1988).

8. Interviews on the Arabic network were also available.

9. Ben-Rafael and Sharot (1991) have also pointed out that religious
identification can heighten the individual’s sense of ethnic identification. Based on their own study, they point out that ethnically based political parties are successful primarily among religious members of an ethnic group, and that ethnic assimilation is favored by what they term “secularization”; secular “mobiles” then join the koiné group, while the religious retain their ethnic identity. Their quantitative analysis found that religious observance is a stronger determiner of ethnic self-identification than class or social network.

10. Radio interviewers, unlike social scientists, use innovative ways to achieve an ethnic answer when none is immediately forthcoming. For example, when Meir Banai was asked, he responded that he is a “soul” [nesha] singer. The interviewer then made several attempts to elicit an ethnic response, none of which succeeded, until he asked what the singer thought of North Tel-Aviv, and followed that up with a snarky “you know, as opposed to South Tel-Aviv?” This finally received a response, which revealed that Meir Banai resents any implication that he might have any ethnic identity at all. Not all responses were so flamboyant.

11. This “bundling” of factors obtains in other real-world settings, as well as in the present corpus.

12. 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, comparable to the Benaki (1989) study, has been published.

13. In sociolinguistic studies, phonetic details are enclosed in square brackets, while phonological variables are enclosed in parentheses. For simplicity, all phonological units discussed here will be written out using non-technical, alphabetic terminology— alef, bet—and will be enclosed in parentheses when they are technically considered variable.

14. “Categorically,” following variationist parliance, can be defined as “uniquely.”

15. . . . except Haim Moshe.

16. Speech being easier to hear than singing, the Israeli reader can be directed to listen to the next possible Geula Cohen or David Levy political speech before a general audience. Even the phonetically very naive listener will easily distinguish that, although many of the /r/’s sound relatively normal, there is a large group which sound very strange. Having once heard this hybrid /r/,” the interested reader can attempt to pronounce a “normal” KI (resh) simultaneously with an “Argentinean” (resh), and hopefully, after a few tries, will discover a pronunciation which sounds like David Levy’s. The non-Israeli nonlinguist will have to do his own fancy tongue work to determine what [rR] sounds like, and is directed to Ladefoged’s (1991) COURSE IN PHONETICS, for assistance.

Notice also, that—consistent with our evidence that religious speakers converge less to the dominant culture—David Levy, Geula Cohen, and other non religious politicians have high percentages of [rR], while the religious politicians [e.g., from the SHAS Party] do not.

17. Note that “ethnic” is not a choice between two marked ethnic groups, but between a marked “umbrella” ethnic group [Mizrachi] and a post-“melting pot” unmarked dialect used by speakers of all ethnic backgrounds.

18. One outstanding example, because a family member provides a “control,” is Gali Atari. While being interviewed on a KI program, no questions were raised about her background; while being interviewed on Meurav Yam Tizoni, she made pointed ethnic jokes to highlight her ethnic solidarity with the audience, but discussed her career within a larger non-ethnic context. Her use of (resh) was consistently “appropriate”: i.e., [r] in songs, and [R] in interviews. Although her sister, Shosh Atari, co-hosts Meurav Yam Tizoni with Margalit Tzanani, and hosts a pop program on Radio Network Gimel, her (resh) use is very mixed and her discussion of ethnic topics appears more ambivalent.

19. Note that while the choice of song material may be in the hands of a singer, the choice of audience is not. Garare apparently felt that being Melex Hakasetot [King of the Cassettes] was less prestigious than appearing on TV before a more general audience—even as a game show host.

20. Of course, Meir Banai can be compared with his cousin, who sings club/protest songs, and who—for all his apparent self-confidence—erratically shifts between velar-/r/” and [r]. Such an analysis would take us beyond the bounds of the present study.

21. Thanks are due to the editor, who originally pointed out this fact to me.

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THE SOCIAL CONTEXT OF SECOND LANGUAGE LEARNING IN ISRAELI SCHOOLS

ROBERTA KRAEMER AND ELITE OLSHTAIN

The choice to learn Arabic or French as a second foreign language in schools is influenced by a number of variables that relate to social context (families, schools, status of language in society) and individual factors (student's abilities, attitudes, and motivations). While the needs of the students might be seen to clearly favor the study of Arabic, French was considered more attractive to many students because of its perceived higher international status and the fact that it was not associated with Arabic culture. The text box students of Arabic were found to underscore this perception by being convinced that Arabic was the language of Arabs and their culture and by ignoring the very rich Judeo-Arabic culture—which includes a large body of literature that is the heritage of a large part of Israel's Jewish population. Suggestions to improve interest in Arabic include making it a required course in elementary and high school levels and changing attitudes within the schools and the wider community by emphasizing the Jewish cultural and literary aspects of the Arabic language.

INTRODUCTION

Social psychological theories of second language learning share emphasis on the importance of the social context for language learning (e.g., Clément, 1986; Gardner, 1985; Giles and Byrne, 1982; Schun 1978; 1986; Spolsky, 1989).

Spolsky (1989) maintains that social context influences language learning in two important ways: by fostering attitudes toward language, its speakers, and the learning situation; and, by affecting provision of language learning situations and opportunities (p. 151). Social context refers both to the home and the larger community and be reflected in the latter case by language policies—including provi

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