A set of data collected by researchers at the University of California at Riverside and presented to the Southwest Regional Laboratory (SWRL) is described in this document. The data consist of 14 hours of recorded interviews of 60 Mexican-American children in Riverside in grades 1-3. Comments are directed at the linguistic characteristics of the English spoken by the subjects. Those linguistic features that are distinct from Southwestern English are then noted. Further comments are directed at the quality of the materials and at the relevancy of the materials to present SWRL activity. (Author/JM)
AN ANALYSIS OF THE LINGUISTIC CHARACTERISTICS OF THE ENGLISH FOUND IN A SET OF MEXICAN-AMERICAN CHILD DATA

Rosario Castro-Gingras

ABSTRACT

This document describes a set of data made available to SWRL by University of California, Riverside researchers. The data consist of fourteen hours of recorded interviews of sixty Mexican-American children in Riverside in Grades one, two and three. Comments are directed at the linguistic characteristics of the English spoken by the subjects. Those linguistic features that are distinct from Southwestern English are then noted. Further comments are directed at the quality of the materials and the relevancy of the materials to present Laboratory activity.
AN ANALYSIS OF THE LINGUISTIC CHARACTERISTICS OF THE ENGLISH FOUND IN A SET OF MEXICAN-AMERICAN CHILD DATA

Rosario Castro-Gingrás

The Laboratory recently acquired a set of ten tapes of bilingual data that were recorded in the Highgrove District of Riverside, California. These materials form part of a collection of speech samples gathered for a project directed by Marilyn S. Lucas and Harry Singer of the University of California, Riverside.¹

The data consist of ten dual track monaural 1200 ft. tapes recorded at 7 1/2 i. p. s. The subjects are sixty Mexican-American children in the first, second and third grades from two elementary schools in the Highgrove District. The subjects are distributed as follows in Table 1:

<table>
<thead>
<tr>
<th>SEX</th>
<th>GRADE</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>male</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>male</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>35</td>
</tr>
<tr>
<td>female</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>female</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>female</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>25</td>
</tr>
</tbody>
</table>

Total: 60

TABLE

¹Lucas, Marilyn, S., & Singer, Harry, "Language processing behavior, dialect and oral reading of Mexican-American children." Professors Lucas and Singer have given the Laboratory written permission to use the tapes.
The materials also include speech samples for seven Mexican-American female adults and one five-year-old female related to one of the adults interviewed, in addition to the subjects noted in Table 1.

The interview for each subject (excluding the adults and the five-year-old) consists of two parts. The first part is an oral reading exercise consisting of seven increasingly difficult sections. (See Appendix.) The subject is instructed to read each section. The interviewer allows the subject to continue reading until he begins making a sufficient number of errors to indicate that the specific reading section is beyond his reading ability. Most of the subjects managed to get as far as Section 4; however several subjects were able to finish all seven sections (although with a great many errors in reading). The second part of the interview consists of short conversations between subject and interviewer. Non-reading speech is elicited by use of pictures. The subject is asked to make up a story about one of the animal scenes in a picture, consisting of four animal scenes. Most of the subjects attempt to construct short stories, although for certain of the subjects the tape recording provides only the reading exercise.

Accompanying the set of tapes is a set of data sheets for each subject interviewed. The information on these sheets consists of an identifying code for each subject (who is never identified by name), the sex (but not the age), the grade the subject is in, where the subject was born, where his parents and grandparents were born, sibling order and an "oral communications scale." The "oral communications
scale" is a report of what language (Spanish or English) is used between subject and parents, first language of parents, and what language subject uses with other relatives and with other children (peers). Complete background data are not available for all subjects.

[It appears from the limited background data, that only four subjects can be considered to be completely monolingual in English, i.e., information is provided that states the subject speaks only English at home and does not speak Spanish at all.] Twelve of the subjects speak English that should be considered Anglo-English. No divergence from Anglo-English can be detected. The remaining subjects range from very slight divergence (mostly in the quality of the vowels or slight differences in intonational patterns) to fairly strong interference from Spanish. Most of the subjects appear to speak English with so few differences from Anglo-English that the layman would probably not distinguish these speakers from Anglo-English speakers on first contact.

There are two major problems that come up in the analysis of child language data that seeks to isolate dialect-determined features. The first has to do with determining concomitant maturation features. A six- and seven-year-old child is still in the process of acquiring his language. What appears at first blush to be a divergence from Southwestern English\(^1\) may merely be divergence between child and adult language. An example of this is the raising of the low vowels to what seems to be mid vocalic height. At the same time, the vowel in a word like putt is

\(^1\)For discussion of Criterion Southwestern English, see Castro-Gingrás, 1972.
raised to high vocalic position. Several of the subjects pronounced \textit{pot} with the vowel height fairly close to the vowel in Southwestern English \textit{cut}. Among many adult speakers of Anglo-English, there has been a historical shift upwards of nonrounded, back vowels. That is, where some Anglo-English speakers have \([a]\) and \([\theta]\), other Anglo-English speakers have \([\theta]\), and \([i]\)\(^{2}\). Whether the raising of the nonrounded, back vowels among the subjects represents a dialect feature or whether many young children raise low and mid vowels to a higher position (but learn to lower them by the time they are adolescents) remains to be determined. There is insufficient information at this time that can be used to determine whether the vocalic raising noted above should be better attributed to development or dialect. The second problem has to do with determining concomitant socio-cultural features. For this set of data characteristics of the speech of Anglo-American children of the same socio-economic subpopulations appear to be relevant since a divergence from Southwestern English in the speech of lower socioeconomic status Mexican-American may well be shared by Anglo-American children of similar SES (in the same geographical location). For example, some of the subjects seem to have neutralized the phonemic difference between \(/iy/\) and \(/i/\) before \(/l/\), that is, the difference between \textit{feel} and \textit{fill}. This neutralization might be predicted from a contrastive analysis of English and Spanish since Spanish has but one phonemic unit (\(/i/\)) in the

\(^{2}\text{Southwestern English seems to be undergoing a shift in the lax vowel series. In comparing English spoken in the Southwest with English spoken in Eastern United States, the lax vowels seem to be higher for many Southwesterners than for Easterners. However, not all Southwesterners have undergone this vowel shift. More research is needed before it can be determined whether there is, indeed, a vowel shift occurring.}
phonological space where English has two (/iy/ and /i/). However, Labov (unpublished) has noted that in many places in the Southwest, native Anglo-English speakers have merged the lax-tense distinction before /l/, as part of a similar sound change that occurred earlier in English. In most dialects of American English, the lax-tense vocalic distinction has been lost before /r/. That is tense-lax vowel pairs like /uw/ and /u/ are neutralized before /r/; there is no longer a possible contrast between the vowels in boot and good before /r/. In fact, Southwestern Criterion English only has /i/, /e/, /o/, /a/, /o/, and /u/ occurring before /r/. It seems that the same historical rule that neutralized the tense-lax distinction before /r/ has now been extended to include /l/. This is a natural change, since the rule:

\[
\begin{array}{c}
V \\
+\text{tense}
\end{array} \rightarrow [-\text{tense}] / \text{continuant} \quad +\text{vocalic} \\
\end{array}
\]

is less general than the rule that would neutralize the tense-lax distinction before both /l/ and /r/ (both of these segments are liquids):

\[
\begin{array}{c}
V \\
+\text{tense}
\end{array} \rightarrow [-\text{tense}] / \text{continuant} \quad +\text{vocalic}
\]

Consequently, the merger of pairs such as feel-fill, fool-full, etc., is a direct result of the generalization of a rule internal to English. At present, this rule change in English appears to be limited to non-
standard varieties of English (although the merger before /r/ is part of the standard variety). It cannot be determined from present data if the vocalic merger represented by feel–fill that is observed in the data represents interference from Spanish, if it represents a divergence from Southwestern English shared by non-Mexican-Americans in the Riverside area of similar SES, or both.

The linguistic features that are distinct from those specified for Criterion Southwestern English in Gingrás (1972) are noted below. Since the greater part of the interviews involved reading, comments will focus mostly on phonological divergence. Few morphological and syntactic divergences appear in the data. Those that do are noted below.

The subjects are informally divided into four groups. The grouping roughly reflects the degree of divergence from Southwestern English. The four groups are (1) those subjects whose speech is indistinct from that of monolingual Anglo-Americans; (2) those whose speech has slight divergences from Criterion Southwestern English, yet which are probably not detectable by the average layman on first contact; (3) those subjects whose speech has moderate divergences and would be noted by most laymen; (4) those whose speech is clearly accented showing Spanish interference, and who seem to be in the process of learning English. While it is not entirely prudent to make predictions of future linguistic behavior, it seems safe to predict that the subjects in group 1 and 2 will use some variety of Anglo-English as adults; subjects in group 3 may well wind up speaking a form of Mexican-American English;
group 4 will likewise probably also acquire a form of Mexican-American English. The number of subjects in each group are the following:

<table>
<thead>
<tr>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>23</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>

If the data represented an unbiased sample of the speech of Mexican-American children in Riverside, then it would seem that Mexican-Americans of this locality are undergoing rapid linguistic assimilation. Over half (35) of the subjects speak varieties of English that are fairly close to Anglo-English. Since syntactic data are so limited, the above groupings represent divergence along phonological lines only. It should also be noted that many of the subjects showed greater divergence when attempting to construct a story than when reading the passages.

Linguistic features are noted as diverging from Southwestern English only if they are shared among 6 or more subjects.

I. Phonological Divergence

A. Intonation.

What probably separates most of the subjects in Group 2 from Group 1 are differences in intonational patterns. Three patterns stand out as frequent divergences:
1. Instead of the typical English 231t statement pattern, what appears to be 232t occurs. That is the sentence *The monkeys were reading* is pronounced as:

```
\[\text{The monkeys were reading} \]
```

instead of the more typically English

```
\[\text{The monkeys were reading} \]
```

The terminal contour does not drop low enough to signal completion to a speaker of Anglo-English.

2. Wh questions are given rising instead of falling intonation. That is:

```
\[\text{What's his name?} \]
```

instead of the usual English pattern:

```
\[\text{What's his name?} \]
```

(The rising pattern does occur in Standard English, but with a difference in meaning from the falling pattern.)

3. Within a simple sentence, two intonation peaks occur instead of one peak (where contrastive stress is not being used):

```
\[\text{This drove the dog nearly mad.} \]
```

The usual intonation pattern would be:

```
\[\text{This drove the dog nearly mad.} \]
```
B. Consonants.

1. Aspiration.

All subjects in Groups 1 and 2 produced the expected amount of aspiration. Two subjects in Group 3 and all five in Group 4 either did not aspirate fully (when aspiration is specified in Criterion Southwestern English) or else were inconsistent. One of the more frequent divergences occurred in relation to the aspiration and devoicing of liquids and glides after an initial voiceless stop. The word place was pronounced as [pleɪs]. Many subjects in Group 3 and all in Group 4 seemed to be lacking the liquid-glide devoicing rule.

2. Many subjects in Groups 3 and 4 deleted /t/ before a following consonant. In fact, the deletion of stops before following consonants was rather frequent among subjects in Groups 3 and 4. This resulted in the following kinds of divergences:

   He ha(d) no tail at all.
   The do(g)s face was black.
   The do(g) di(d) no(t) li(ke) the rat on his place.
   He cou(ld) no(t) sto(p) smiling.
   Le(t) me gi(ve) you a goo(d) tip.

(Deleted consonants are shown within parentheses.)

3. Glottal Stop.

Among most Anglo-English speakers, the substitution of a glottal stop for a voiceless stop (in particular, /t/)
1.1 in certain phonological environments is considered a characteristic of nonstandard speech, although glottal stop substitution occurs among all speakers of Anglo-English. Among subjects in Groups 1 and 2 the glottal stop substitution occurred. The glottal stop virtually did not occur at all among subjects in Group 3 and not at all among those in Group 4. This seems to suggest that glottal substitution, although lacking in prestige status among Anglo-English speakers, may be a distinctive characteristic of Anglo-English, and its lack may signal a characteristic of Local Hispanicized English.

4. Voiced Stops.

Subjects in Groups 1 and 2 consistently produce the voiced stops with full closure. Subjects in Group 3 occasionally soften the voiced stops in intervocalic position while subjects in Group 4 rather frequently do so. Specifically, this results in /b/, /d/, and /g/ being realized as fricative variants. For example, the /d/ in had is produced as [ð] in the sentence The boy had a dog; /b/ in bad is realized as [β] as in the sentence It was a bad rat; the /g/ in began results in [ɣ] as in He began to peek at the dog. The softening of intervocalic /g/ results in accented speech; the softening of intervocalic /b/ and /d/ results in phonemic merger which can ultimately result in communication difficulties.
5. Fricatives.

/θ/ is produced as [s] by subjects in Group 4, although [t] also appears occasionally. Failure to produce /θ/ as an interdental fricative is limited to subjects in Group 4, although the same failure also occurs occasionally among subjects in Group 3. /ʃ/ is realized as a palatal groove fricative by subjects in Groups 1 and 2. Subjects in Group 3 realize /ʃ/ as either a fricative or an affricate. Group 4 subjects have a higher frequency realization of the affricate than do members in Group 3. /v/ is realized as a labiodental fricative by Groups 1 and 2; Groups 3 and 4 frequently realize it as bilabial fricative. However, in initial position and following a nasal consonant, /v/ is generally realized as [b] by all members of Groups 3 and 4, and occasionally by members of Group 2. The /b/ in the sentence, It was a bad rat, and the /v/ in, This drove the dog nearly mad, are both realized as [β] by all members of Groups 3 and 4. /ð/ is frequently realized as a dental stop by members of Groups 3 and 4; Group 2 subjects only rarely make this substitution. /z/ is produced as [s] by all members of Group 4, and rarely by members of Group 3. Groups 1 and 2 realize /z/ as a fully voiced segment. /ʒ/ does not occur in the data.
6. **Affricates.**

/ɛ/ is softened to [ʃ] by members of Group 4, occasionally by Group 3 subjects, while Groups 1 and 2 produced /ç/ as an affricate. /j/ is softened to [ʒ] in only one case (a member of Group 3).

7. **Devoicing phenomena.**

Voiced consonants are realized as voiced segments by all members of Group 1, occasionally Group 2 subjects devoice these segments in prepausal position (particularly the fricatives); Groups 3 and 4 rather frequently devoice final position, as in the sentences, It was a bad rat and I don't know where he lives, where was is realized as [s], and lives with final [fs].

8. **Nasals.**

Prevocalic nasal contrasts do not represent any divergence. Preconsonantal nasals show a strong tendency to assimilate to the point of articulation of the following consonant among all speakers of Groups 2, 3, and 4. It should be pointed out that Anglo-English speakers also assimilate preconsonantal nasals in rather rapid speech. In prepausal position, there is a strong tendency to merge /n/ and /ŋ/ among Group 3 and 4 subjects.

9. **Glides.**

These segments do not seem to constitute a source of divergence.
10. Liquids.

/l/ is vocalized (i.e., produced without the lateral articulation) in preconsonantal and prepausal positions by most members of Groups 2 and 3; Group 4 occasionally shows this characteristic; Group 1 also frequently vocalizes /l/. The frequency and distribution of the lateral vocalization phenomenon has not been established for Anglo-English speakers in the Southern California area, although it seems to be widely diffused. /l/ is devoiced after a voiceless stop in Criterion Southwestern English. Groups 1, and 2 generally devoice /l/. Most members of Group 3 also devoice /l/. Group 4 only rarely, instead realizing /l/ as a fully voice segment, as in the word please. /r/ is realized as a retroflex liquid by all members of Groups 1, 2, and 3. Some members of Group 4 occasionally have a vibrant realization. The devoicing of /r/ after voiceless stops is usually realized by all members of Groups 1, 2, and 3. Some members of Groups 3 and 4 occasionally produce a fully voiced realization of /r/, as in tree.

11. /h/ is usually realized as a voiceless, glottal glide by all members of Groups 1, 2, and 3. Some subjects in Group 4 occasionally realize /h/ as a velar fricative.

12. Consonantal clusters.

In initial position, the only cluster that appears to result in divergence (apart from those C+Liquid clusters
noted above) is $s/+C$ clusters. Groups 1 and 2 realize these clusters without an epenthetic vowel. Groups 3 and 4 generally add the epenthetic vowel /e/ to these clusters, resulting in the following:

- **stop** [estap]
- **smile** [esmael]
- **stuck** [estsk]

Final clusters tend to be simplified by deleting final dental stops. Since very few examples of final consonant clusters occur in the data, not much more can be said about this phenomenon at this time.

13. Vowels

Group 1 subjects produce vocalic allophones in much the way described in the Inventory of Criterion Southwestern English, except that /æ/ and /e/ get merged (in particular, before liquids). /a/ and /ə/ also seem to be merged in many cases. /u/ occurred too infrequently to warrant comment. /iy/ appears to be realized most frequently as [i]. In general, Group 2 speakers produce the diphthongs with non-divergent vocalic nuclei, but the off-glide tends to be higher than what is specified in the Inventory. Group 3 frequently show all the divergences of Group 2, plus the following: /iy/ and /i/ are frequently merged. Group 4 subjects show further merging in the vowel system: /ey/ and /e/ are frequently
merged. The most frequent vocalic contrasts made are summarized in Table II (shown as possible phonemic contrasts):

<table>
<thead>
<tr>
<th>MOST ANGLO</th>
<th>LEAST ANGLO</th>
</tr>
</thead>
<tbody>
<tr>
<td>iy</td>
<td>uw</td>
</tr>
<tr>
<td>i</td>
<td>u</td>
</tr>
<tr>
<td>ey</td>
<td>ow</td>
</tr>
<tr>
<td>e</td>
<td>ay</td>
</tr>
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<td>ey</td>
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<td>aw</td>
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</tr>
<tr>
<td>ay</td>
<td>a</td>
</tr>
<tr>
<td>ay</td>
<td>a</td>
</tr>
</tbody>
</table>

TABLE II

As the chart shows, there occurs a simplification of the English vowel system as one goes from the most Anglicized forms of English.

14. Vowel length.
Groups 1 and 2 lengthen vowel, as specified in the Inventory of Criterion Southwestern English. Group 3 frequently levels out vocalic length, while Group 4 subjects generally does not seem to have the vowel lengthening rules.

15. Vowel reduction.
Group 1 and 2 subjects reduced unstressed vowels. Occasionally Group 3 subjects and generally Group 4 subjects do not reduce unstressed vowels.
II. MORPHOLOGICAL AND SYNTACTIC DIVERGENCE

While all subjects interviewed read the reading passages, not all of the subjects constructed stories based on the CAT pictures and thus had little opportunity to exhibit syntactic divergence. Groups 1 and 2 subjects did not produce any syntactic divergences. Some subjects in Group 3 and most in Group 4 did exhibit the following divergences:

1. *They don't got no wheel no more.
2. *The monkey play everyday in his house.
3. *The monkey smile then.
4. *I have two mouse.
5. *You no have crayons?
6. *I no read that book.
7. *I don't read it yet.
8. *What you want?
9. *I left it in the house of my mother.
10. *I don't know it. (In answer to the question: Do you know Frankie?)

Sentence 1 deviates in at least two ways. The use of got for have (although this is acceptable in informal Anglo-English styles) and double negation. Any should have appeared at least once in this sentence (They don't have a wheel anymore). Sentence 2 deviates in two ways: (1) the tense marker /-s/ is missing from the verb, and the temporal adverb is placed before the locative (a more acceptable version of this sentence would be: The monkey plays in his house everyday. Sentence 3 shows the deletion of the
past tense, which may be due to phonological rule which deletes final dentals. Sentence 4 shows that the irregular plural of mouse is not known (mice). Sentence 5 shows the lack of the empty tense carrier, and an infrequent interrogative formation (which ought to be considered as divergent in this context). The more common construction would be: Don't you have (any) crayons? Sentence 6 shows the lack of the empty tense carrier: I didn't read that book. Sentence 7 shows the use of the present tense instead of the expected present perfect (I haven't read it yet). Sentence 8 shows the lack of the empty tense carrier: What do you want? Sentence 9 uses a paraphrastic construction instead of the genitive possessive. While the paraphrastic construction of + N does occur in English, it generally is not used with +human nouns. Sentence 10 shows a merger of the pronominal third person system.

Of the 60 taped interviews, 8 had too much background noise to allow analysis of the phonological characteristics of the speech of these subjects. The remainder of the tapes were of acceptable quality for phonological analysis. Other limitations of the tapes have been noted previously.

The relevance of the Riverside materials was discussed in Gingrás, 1971.
APPENDIX

Samples of the oral reading exercises used in the elicitation of speech samples in the Riverside Bilingual Child Data.

level 1. The boy had a dog.
The dog's face was black.
The dog's body was brown.
He had no tail at all.

level 2. Once the dog saw a rat.
It was a bad rat.

level 3. After the rat got into his hole, he began to peek at the dog.
This drove the dog nearly mad.

level 4. This talk only made the rat smile.
He could not stop smiling.
He stuck out his chin and cried: "you are as dull as a donkey."

level 5. These remarks made the dog furious.
He was so angry he could hardly control himself.

level 6. The rat, a little frightened and very angry, screamed his reply: "What sublime conceit! What magnificent boastfulness!"

level 7. The rat continued to scream in derision: "Ignoble beast, you are destined to pursue the disgusting existence of a vassal and if you aggravate my sensibilities further your survival will be presently jeopardized."
REFERENCES

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