"The Acquisition of Quiche (Mayan)"

Clifton Pye

*Current Anthropology* (1979), 20:459-60.
The Acquisition of Quiché (Mayan) 1

Between January 1977 and May 1978 I recorded and transcribed the utterances of seven Quiché Mayan children living in the predominately Indian town of Zunil in the western highlands of Guatemala (90% Indian according to the 1973 Guatemalan census). I made a longitudinal study of three children (one boy, two girls) over a period of a year. These children ranged in age from two years to three years when I began working with them. I visited them in their homes for a one-hour play session every other week. In addition to these longitudinal subjects I visited four other children and recorded four hours of their speech to insure the generality of the study.

Due to the enormous amount of data I have only completely analyzed the record of one child. However, very broadly the picture of grammatical acquisition that Brown (1973) outlined for English holds for Quiché as well. My subject Al Chaay began with utterances consisting almost entirely of adjectives, nouns, and verb roots. Over a period of nine months she added more and more grammatical morphemes such as aspect, person markers, and articles to her speech and used them more and more consistently. Brown used mean length of utterance (MLU) as a measure of over all language development. MLU is the mean number of morphemes in a child's utterances. Figure 1 gives Al Chaay's development in terms of MLU, comparing it to the development of the three children in Brown's study (1973:55). Figure 1 shows that the course of language development

---

1 I am grateful to the Organization of American States and to the Wenner-Gren Foundation for supporting this research.
Figure 1. MLU and chronological age for Brown's (1973:55) subjects and Al Chaay
is much the same in Quiché as it is in English.

The similarity in the acquisition of Quiché and English seems to hold at the more basic level of the individual grammatical morphemes. Brown (1973:274) found that his three subjects learned fourteen grammatical morphemes in approximately the same order. Below I give the mean order of acquisition of the morphemes in Brown's study and the order in which Al Chaay learned a set of semantically comparable grammatical morphemes in Quiché. (The numbers for the English morphemes give their rank acquisition order among the fourteen morphemes that Brown studied.)

<table>
<thead>
<tr>
<th>English</th>
<th>Quiché</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3. in</td>
<td>1-2. Existential copula</td>
</tr>
<tr>
<td>on</td>
<td>pa 'in, on'</td>
</tr>
<tr>
<td>6. Possessive</td>
<td>3. Possessive</td>
</tr>
<tr>
<td>7. Uncontractible copula</td>
<td>4. Third person regular</td>
</tr>
<tr>
<td>9. Past regular</td>
<td>5. Past regular</td>
</tr>
<tr>
<td>10. Third person regular</td>
<td></td>
</tr>
</tbody>
</table>

The Quiché morphemes are, of course, only approximately semantically equivalent to the English morphemes. The Quiché copula in particular is distinct from the English copula both in meaning and in the fact that the Quiché copula is stressed. Such a degree of similarity in acquisition order despite the tremendous differences in the formal properties of English and Quiché morphemes is especially surprising.

There are other parallels between Al Chaay and children learning
English. In Quiché all NP's are marked for person. The person markers for subjects and objects are prefixed to the verb root (A stands for absolutive, $E_Y$ for ergative with vowel root, and $E_G$ for ergative with consonant root; 1, 2, 3, 4 for person).

(1a) k-in-e-k in asp-A1-go-term I
(1b) kinek 'I go'

(2a) k-at-inw-il-oh at in asp-A2-$E_Y$-see-term you I
(2b) katinwiloh 'I see you'

Person markers for possessor NP's and objects of prepositions are prefixed to the possessed NP's and the prepositions respectively:

(3a) qa-nan uj $E_G$ mother we
(3b) qanan 'our mother'

(4a) q-uk' uj $E_Y$ with we
(4b) quk' 'with us'

A later rule of pronoun drop then deletes all non-emphatic personal pronouns. (Craig 1977 discusses a similar set of person marking rules for the Mayan language Jacaltec.)

Al Chaay approached this learning problem by first using the independent personal pronouns to mark person on verbs, possessives, and prepositions:

(5a) Ch: tij at eat you
(5b) k-a-tij-ch asp-E,2-eat-term you eat
(6a) Ch: paj uj face we
(6b) qa-palaj $E_G$ face you eat
(7a) Ch: uj mal we because of
(7b) qu-umal $E_Y$-because of our face

Al Chaay was thus using an old rule for expressing person in new environments where the independent personal pronouns were no longer appropriate.
Of course the main reason for studying language acquisition in a non-Indo-European language is that the role of syntax, semantics, and phonology will be highlighted in a manner different from English. In this way the relative influence of syntax, semantics, and phonology will become apparent and we can begin to speculate meaningfully about the ability children bring to the problem of learning any human language.

Quiché almost seems to have been designed to exhibit the role of perceptual saliency in language acquisition. Its system of stress is extremely regular compared with that of English. The main word stress in Quiché always falls on the last syllable. This system of stress placement interacts in a complex way with the perceptual saliency of the person markers discussed above (/ marks a syllable boundary and ' marks the syllable receiving the main word stress).

\[(8) \; w-\acute{u}k' \quad \text{E}_{Vi}-with \quad \text{E}_{Vi2}-with \quad \text{E}_{Vi3}-with \quad x-\acute{u}k' \quad \text{with me} \quad \text{with you} \quad \text{with him/her} \]

\[(10) \quad a-/\acute{n}an \quad \text{E}_{G1}-mother \quad \text{E}_{G2}-mother \quad \text{E}_{G3}-mother \quad \text{my mother} \quad \text{your mother} \quad \text{his/her mother} \]

In (8) and (10) the person marker combines with the word to produce a single stressed syllable. In (11), (12), and (13) the person marker has the form of an unstressed syllable attached in front of the word. In (9) the person marker is split by the syllable boundary; the latter part of the person marker combines with the word to form a stressed syllable while the initial part of the person marker forms a separate, initial, unstressed syllable. There is no simple correspondence between the person marker sets and perceptual saliency.
Stress and syllable boundary seem to be the main factors governing the perceptual saliency of the person markers. On this basis the person markers can be ordered according to their perceptual saliency as follows:

<table>
<thead>
<tr>
<th>Verbs</th>
<th>Nouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most salient</td>
<td>E_v1, E_v3, E_v4</td>
</tr>
<tr>
<td></td>
<td>E_c1, E_c2, E_c3, E_c4</td>
</tr>
<tr>
<td>Least salient</td>
<td>E_v1, E_v2</td>
</tr>
<tr>
<td></td>
<td>E_v2</td>
</tr>
</tbody>
</table>

The Al Chaay data confirms the hypothesis that perceptual saliency determines person marker acquisition orders. Al Chaay learned to use the person markers in the order predicted by their perceptual saliency. I am currently analyzing the data from the other children in my study in order to see how they acquired the person markers.

Clifton Pye
Department of Anthropology
University of Pittsburgh
Pittsburgh, PA 15260
References Cited
