AN ACCOUNT OF SPEECH DEVELOPMENT OF A THAI CHILD: FROM BABBLING TO SPEECH¹

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This paper is part of a research report on "The phonetic and phonological development of a Thai baby: from early communicative interaction to speech" (Tuaycharoen, 1977). The study aims to present a picture of how the speech of a Thai child (aged 3 to 18 mths.) emerges from early vocalizations, and when and in what way language specific features appear. Thus, some answers are offered to questions which most investigators on babbling are asking, for instance:

- Do children produce an astonishing quantity and diversity of sounds, or do they produce a restricted range of sounds?
- Is babbling systematic or random?
- Is babbling a gradual continuous transition to speech or is it a discontinuous process?
- Are the patterns of babbling universal, and if so, when and how do language specific features emerge?

As Thai is a tone language where pitch is functionally contrastive at the lexical level, the question as to how 'tone' emerges from early vocalizations is also investigated. The following questions are also considered in this study:

- How does pitch come to be used functionally at the lexical level?
- What is the sequence of the acquisition of tones?

The description is centrally concerned with phonetic and phonological development. The psychological process and theories of language acquisition are not the main concern here. However, as a rationale, the writer has held the interactionist view of language acquisition, and the following assumptions are made. Firstly, language acquisition is closely related to cognitive development, and it takes place through the child's interaction with others in relation to the environment; secondly, the child creates a system of his own, and his system gradually changes as his cognitive development progresses.

The material in this study was collected in a natural home situation by tape-recording. During the period of 3-12 months, the recordings were made daily; from 12-18 months, the recordings were done twice a week. The time for each recording was not restricted, and varied between five minutes and half an hour. There were a few gaps in recording, e.g. when the family went on a holiday, when the child was ill, or when the machine broke down.

All members of the family speak Bangkok Thai to each other and to the child. The child's parents speak only the standard Bangkok Thai of their generation. The child's grandmother speaks the Surathani dialect as well as Bangkok Thai. In her Bangkok Thai, there is some slight interference in some consonants from the Surathani dialect. However, the tones and vowel qualities are those of Bangkok Thai. In addition to the members of the family, there was a lady-cleaner who occasionally helped with the child. The cleaner speaks Bangkok Thai to the child and to the family, but with some interference from features of her dialect, the Lampang dialect. Thus, the only language the child was exposed to was Bangkok Thai, but with the addition of two other dialect accents.

The child's vocalizations were recorded by whichever member of the family was available, i.e. his parents and his grandmother. The adults always gave the date and time, and commented on the situation; sometimes the situations and contexts were clear from their conversation. During the period of 8-11 months, the writer stayed with the family and did the recording herself. Additional linguistic activities which took place when the recorder was not available was noted down in phonetic transcription. The writer also kept a detailed account of the child's general development during that period.

The data were transcribed by using the IPA symbols, as they are generally accessible to linguists. The transcription was intended to be as narrow as possible, so IPA diacritics were also used to give greater detail. In addition, a number of symbols and diacritics were made up to represent what cannot be symbolized within the IPA system. It has to be noted that the values of the symbols used in this analysis do not have precisely the same qualities as when used to represent the sounds of adult speech because of the child's vocalizations being unclear and imprecise and being produced from a much smaller vocal tract.

The vocalizations during the age of 3 to 18 months are divided into ten stages on the basis of phonetic changes, i.e. there is progress in the acquisition of phonetic features in each stage. The ten stages are described under the following headings: Early Babbling (Stages I and II), Later Babbling (Stages III and IV), the Proto-language (Stages V and VI), One-word Utterances (Stages VII, VIII, IX), Two and Three Word Utterances (Stage X). Stages in development

. Early babbling	<pre>{ Stage I 0;3.0 - 0;3.22 Stage II 0;3.23 - 0;4.19</pre>
Later babbling	<pre>{ Stage III 0;4.20 - 0;5.15 Stage IV 0;5.16 - 0;7.20</pre>
Proto-language	<pre>{ Stage V 0;8.0 - 0;10.15 Stage VI 0;10.16 - 0;11.12</pre>
One-word_utterances	<pre>Stage VII 0;11.13 - 1;1.02 Stage VIII 1;1.03 - 1;2.24 Stage IX 1;2.25 - 1;3.23</pre>

Two-three word utterances Stage X 1;3.24 - 1;6.0

The detailed description of each stage is as follows:

Stage I: (3 months to 3 months 22 days)

The child's vocalizations were 'fluid', consisting mostly of vowellike sounds, and varied from open to close and from close to open. There was also variation from front to central and back. However, the vowel quality in the close front position as [i] did not occur. These vocalizations were sometimes interrupted by consonant-like sounds. The strictures for these consonant-like sounds were made at the labial, alveolar, palatal, velar, and glottal places, but they were articulated vaguely and imprecisely.

Pitch in this stage had a great variety of possibilities, i.e. mid, low, high, falling, rising, and rising-falling; the change of pitch direction was unpredictable. However, it was noticeable that at the end of almost every stretch of utterance, the pitch level appeared to be lowered or there was a change of pitch direction, e.g. falling or rising. Pitch plays an important role in this study, since the acquisition of $pitch^2$, or eventually tone³ of the language is as important as consonantal and vocalic elements. An attempt to divide early babbling into syllables has been made on the basis of the changes of pitch and of pitch discontinuity for it is difficult to delimit syllables on the basis of consonantal and vocalic elements as is usually done in the adult system. This is because the early babbling is so 'fluid' and 'vague'.

Nasalization in the early babbling occurred randomly both in the happy state and the unhappy state, and also in vocal play.

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Stage II: (3 months 24 days to 4 months 19 days)
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The vocalizations still varied in the range mentioned in Stage I, but there was an increase in the use of back rounded vowels, of complete closure at the alveolar place, and of homorganic articulation. In the vocal play, screeching vocalizations were often produced with a combination of normal pitch register and high pitch register. These screeching vocalizations continued in the stages that followed.

In sum, the early babbling is articulated vaguely and imprecisely. The vocalic elements are variable and tend to be centralized. The place features of consonantal elements range from labiality, alveolarity, palatality, velarity to glottality, but they are variously restricted in the manner features with which they combined, e.g.

w	m	b	р		bbb ⁴	ppp ⁴	bl ⁴	are	instances	of	labiality,
n	ł	ſ	t	d						of	alveolarity,
3	j									of	palatality,
¥	×	g	k	ŋ						of	velarity,
?	h									of	glottality.

Ex. 2

and

 $\begin{vmatrix} - \\ k = : u^{Wau} \end{vmatrix} \varepsilon : ai \begin{vmatrix} j \\ j \\ u^{Wau} \end{vmatrix} : \frac{1}{2} \begin{vmatrix} j \\ u^{Wau} \end{vmatrix} : \frac{1}{2} \end{vmatrix} : \frac{1}{2} \begin{vmatrix} j \\ u^{Wau} \end{vmatrix} : \frac{1}{2} \end{vmatrix} : \frac{1}{2} \begin{vmatrix} j \\ u^{Wau} \end{vmatrix} : \frac{1}{2} \end{vmatrix} : \frac{1}{2} \begin{vmatrix} j \\ u^{Wau} \end{vmatrix} : \frac{1}{2} \end{vmatrix} : \frac{1}$

Stage III: (4 months 20 days to 5 months 15 days)

In this stage the vocalizations became more strongly articulated and accented. They became more rhythmic and more patterned. It could be said that now there were two types of vocalizations: checked and nonchecked. (The 'checked' were vocalizations interrupted by stricture of complete closure, the 'non-checked' by strictures of close approximation and open approximation). All these were produced in monosyllabic and disyllabic patterns, but in this stage the disyllables outnumbered the