ACQUISITION OF TAGALOG VERB MORPHOLOGY: LINGUISTIC AND COGNITIVE FACTORS[1]

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1. INTRODUCTION

As a field of research, developmental psycholinguistics has been charged with the task of describing and explaining the intricate phenomena underlying language acquisition: how the child constructs for himself the grammar of his first language. According to Slobin (1973: 176) there are two prerequisites for language acquisition: ability to 'cognize the physical and social events which are encoded in language' and ability to 'process language and store linguistic information'. While Slobin considers cognitive development primary, i.e. it is possible to talk about order of acquisition of certain features of the language in terms of cognitive development, he pointed out that there is a point at which structural or linguistic complexity also plays a role. Therefore, a child, in order to acquire language, must have cognitive and linguistic discovery procedures. Slobin has suggested some cognitive and linguistic strategies that the child uses in organizing language as he learns it.

Similarly, Halliday (1975) shows how a child is capable of expressing a considerable range of meanings even before he has any words or structures at all. He says that learning a first language is learning how to mean, i.e. learning a system of meanings and the means whereby these meanings are realized or expressed.

1.1. REVIEW OF RELATED LITERATURE

Five studies in the literature dealt with the acquisition of Tagalog[2] focus and/or aspect marking by Filipino children. Probably due to certain methodological weaknesses and/or limitations, the studies of Tucker (1971, but conducted in 1967), Luna (1968), and Lopez (1971) provided inconclusive and even contradictory findings. For example, Tucker used only 10-year-olds who presumably have already attained a relative mastery of most of the focus markers in Tagalog. An examination of the instruments used by Luna would show some doubt on the clarity of the stimulus pictures used. The use of nonsense words in the three studies is questionable since the Tagalog verb system is such that the semantic properties of verbs determine the cases that can co-occur with them (Ramos 1974) and consequently the affixes that will be used to mark focus. The other two studies of Oestman (1974) and Segalowitz and Galang (1978, but conducted in 1975) were limited in scope and had other concerns; they failed to treat Tagalog verb morphology in depth.

[2]Tagalog is one of the structurally related but mutually unintelligible Malayo-Polynesian languages spoken in the Philippines.

1.2. THE STUDY: SCOPE AND DELIMITATION

Comprehension and production tasks were administered to assess the children's mastery of the linguistic devices in Tagalog which mark:

(1)   focus (specifically the affixes *mag-* and *-um-*, *-in*, *-an*, and *pag--an* which are associated with the Actor, Object, Directional, and Locative Focuses) and

(2)   aspect (specifically the Contemplated, Imperfective, and Perfective Aspects).

Age, sex, and socio-economic status (SES) were examined in conjunction with these tasks to discover if the three variables affected the children's mastery of the devices under study.

Based on the results of this psycholinguistic study, an attempt was made to determine (1) the language learning strategies of children acquiring Tagalog as their first language, specifically the process and order by which they learned the features under study and (2) the possible determinants of the same.

The linguistic devices enumerated above are considered primary and most productive in the verb morphology of Tagalog and other Philippine languages. Numerous additional affixes mark other focuses such as benefactive, instrumental, etc. and other meanings such as plurality, intensity, etc., but were excluded so as not to complicate the study.

Although semantic considerations were made in the choice of the verbs to be used, this study is dominantly syntactic since it aimed to investigate surface structure linguistic markers. While the researcher believes in the importance of performance data gathered through observation of spontaneous speech, she also realizes the observation, processing, and sampling difficulties and therefore decided to rely on performance data obtained through carefully designed testing techniques. Because of the primacy of the deep structure in determining semantic interpretation, a question might be raised as to the validity of this investigation. It should be pointed out that while case relationships should be determined in the deep structure as advocated by Fillmore (1968), many aspects of surface structure in Tagalog do play a role in determining semantic interpretation. For example, the use of *ang* or *si* to mark the subject in the surface structure carries with it the meaning of definiteness. Also, affixes have been found to mark cases quite consistently in Tagalog verbs. Concentrating on the surface manifestations of deep structure notions, phonological problems were considered only when necessary for the interpretation of the data obtained.

1.3. LINGUISTIC CONSIDERATIONS

The verb has been postulated as central to the Tagalog sentence (Ramos 1974). On the basis of the semantic properties of the verb, the syntactic constituents of the Tagalog sentence can be predicted. Noun complements are peripheral and tied to the verb by relations such as agentive, objective, instrumental, and the like. The Tagalog verb is usually overtly marked for aspect and case relationship with the *subject* or *topic* or *focus*[3] of the sentence.

[3]'Subject', 'topic', and 'focus' have been used in the analyses and descriptions of Tagalog and other Philippine languages. Linguists who have used one of the two terms consistently, such as Cecilio Lopez, Ernesto Constantino, Richard Elkins, and others have used 'subject' or 'topic' to refer to the second major component of a sentence [the other is the predicate or comment]. Schachter and Otanes (1972), who have also used the term 'topic', further define it as that expressed by the *ang* phrase, a cover term for *ang* + an unmarked noun; *si* + a personal name; and the *ang* form of a personal or deictic pronoun.

1.3.1. FOCUS AND ASPECT

Focus is the verbal feature which indicates on the surface the relationship between the verb and the subject noun phrase. It has often been associated with verbal affixes, which in this paper are labeled as focus markers.

The Tagalog verb system does not make true tense distinctions but instead makes a distinction of aspect. Aspect may be defined as the characterization of an event as begun or not begun, and if begun as completed or not. Thus, regardless of the time frame of reference (present, past, or future), all Tagalog verbs are inflectable for the Contemplated (not begun), Imperfective (begun but not completed), and Perfective (begun and completed) Aspects.

Shown in the chart are the features of the Tagalog verb which were investigated in the study. In the first column are the basic forms of the verbs containing the focus makers (*mag-* and *-um-*, *-in-*, *-an*, and *pag- -an* that show on the surface the relation of the subject noun phrase to the verb (agentive case, objective case, directional case, and locative case). The corresponding aspect formations of the same verbs are given in the other columns. (See Ramos 1974 and Schachter and Otanes 1972 for a fuller treatment of the Tagalog verb.)

A SAMPLE PARADIGM

Basic Form	Contemplated Aspect (CA)	Imperfective Aspect (IA)	Perfective Aspect (PA)
1. Agent/Actor Focus (AF)			
magluto 'to cook'	magluluto 'will cook'	nagluluto 'is/are cooking'	nagluto 'cooked'
kumain 'to eat'	kakain 'will eat'	kumakain 'is/are eating'	kumain 'ate'

In an article in 1973, McKaughan who originally used 'subject' to refer always to the actor of an action and 'topic' to the *ang* phrase or its pronoun substitute, explained that he used 'topic' and not 'subject' to emphasize the difference between Philippine and European languages. He decided to use 'subject' for what he had called 'topic' and kept the term 'topic' for that complement that has a place of special preverb position emphasis, be it subject or some other complement. So the 'topic' can be the subject which also has an underlying case in relation to the verb, or the topic may be some other verb complement with the subject expressed apart from the topic, each having its own underlying case relationship to the verb.

Similarly, Gonzalez in his dissertation on Pampangan (1971) shows that a distinction must be made between 'subject' and 'topic'. According to him, except in initial discourse and in certain well-defined conditions, the subject N is usually specified as − new (or old information). Hence, in some instances, it is deletable. On the other hand, the 'topic' which is highlighted or emphasized and pre-posed, even if − new. is never deleted.

'Focus', which is associated with the verbal affix, has been defined as that feature of a verbal predicate that determines the semantic relationship between a predicate and its topic (Schachter and Otanes 1972). According to Llamzon (1973) this grammatical feature 'informs the hearer that the speaker's attention is centered on the relationship between the activity signalled by the particular verb form and its actor, goal, or referent signalled by the noun phrase or its substitute'.

2. Object Focus
   (OF)

kainin	kakainin	kinakain	kinain
'to eat'	'will eat'	'is/are eating'	'ate'

3. Directional
   Focus (DF)

halikan	hahalikan	hinahalikan	hinalikan
'to kiss'	'will kiss'	'is/are kissing'	'kissed'

4. Locative
   Focus (LF)

pagkainan	pagkakainan	pinagkakainan	pinagkainan
'to eat at'	'will eat at'	'is/are eating at'	'ate at'

1.3.2. WORD-ORDER

The usual surface word-order in Tagalog is verb followed by one or more nominal complements. While the order of the complements is usually flexible within limits, the most normal pattern is complement before subject when the subject is a noun and vice versa when the subject is an *ang* pronoun (Bowen 1965: 152-153). Note the Verb Complement[4] Subject (VCS) order in the transitive constructions below:

>   V   A (C)   O (S)
> Sinipa ng bata ANG BOLA
> kicked   child   ball

'The child kicked THE BALL'

>   V   O (C)   A (S)
> Sumipa ng bola ANG BATA
> kicked   ball   child

'THE CHILD kicked the ball'

Another sentence structure that closely resembles English is the Subject *ay* Verb Complement (S *ay* VC) pattern as in:

>   O (S)   V   A (C)
> ANG BOLA ay sinipa ng bata
>   ball   kicked   child

'THE BALL was kicked by the child'

>   A (S)   V   O (C)
> ANG BATA ay sumipa ng bola
>   child   kicked   ball

'THE CHILD kicked the ball'

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[4]Complement refers to any of the case-marked noun phrases except the subject.

Note that in both sentence structures the verb is marked to indicate whether the subject (the *ang* pharse) is agent or object. The particle *ay,* an inversion marker, carries no information about case relationship between the verb and the nominal complement.

Tagalog S *ay* VC sentences, which are used much less frequently than the VCS sentences, are generally associated with the formal style and are more common in writing, lectures, sermons, etc. than in ordinary conversation (Schachter and Otanes 1972: 485).

2. METHODOLOGY

2.1. SUBJECTS

Sixteen 3-year-old (mean age — 3;4[5], range from 3;0 to 3;6), sixteen 5-year-olds (mean age — 5;3, range from 5;0 to 5;6), sixteen 7-year-olds (mean age — 7;4, range from 7;0 to 7;6), and sixteen 8-year-olds (mean age — 8;3, range from 8;0 to 8;6) served as subjects (*S*s) for this study. Half of each age group were males and the other half were females. Half of each sex group belonged to a high socio-economic status (SES) group and the other half belonged to a low SES group. All the *S*s spoke Tagalog as their first language, had parents (at least one) who were native speakers of Tagalog, and resided in Metro Manila.[6] Their dominant home language was also Tagalog.

2.2. INSTRUMENTS

2.2.1. FOCUS COMPREHENSION

Twenty drawings each illustrating an on-going action were constructed for each of the fifteen verbs investigated (*maghiwa* 'to slice', *magluto* 'to cook', *magsabon* 'to soap', *mag-ihaw* 'to broil', *magplantsa* 'to iron', *magdurog* 'to pound', *kumuha* 'to get', *kumain* 'to eat', *tumahi* 'to sew', *gumupit* 'to cut', *magsuklay* 'to comb', *magbigay* 'to give', *magpunas* 'to wipe', *humalik* 'to kiss', and *tumulong* 'to help'). Each of the ten drawings depicting the first ten verbs contained at least three elements: an agent, an object, and a location. These three elements were reproduced separately below the main picture. The ten drawings were presented three times, each time with a different stimulus element. The other ten drawings, two for each of the remaining five verbs, also contained three elements each: an agent, a human goal, and a distractor object. These were presented only once, always with the human goal as the stimulus element. The three elements were also reproduced separately below the main picture.

The sequence of the verbs containing the affixes and positions of the elements were randomized and counterbalanced, the counterbalancing measure being such that each of the four different elements was the target ten times.

2.2.2. ASPECT COMPREHENSION

Eight basic triads of colored photographs each depicting a completed, an on-going, and a contemplated action were used for the eight verbs investigated (*maghiwa* 'to slice', *maggupit* 'to cut', *magluto* 'to cook', *magsabon* 'to soap', *magplantsa* 'to iron', *uminom* 'to drink', *kumain* 'to eat', and *kumuha* 'to get'). Each triad was presented three times, each time with different positioning of pictures and set of two questions which contained verbs in the object and locative focuses.

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[5]The notation 3;4 means three years and four months.

[6]Included in the Metropolitan Manila area (Metro Manila, for short) are Manila, Quezon City, Caloocan City, Pasay City, and Rizal.

2.2.3. FOCUS AND ASPECT PRODUCTION

Ten basic traids of photographs each depicting a completed, an on-going, and a contemplated action were used for the verbs investigated. Five basic triads for the verbs *maghiwa* 'to slice', *maggupit* 'to cut', *magluto* 'to cook', *uminom* 'to drink', and *kumain* 'to eat' contained at least three elements: an agent, an object, and a location. Each photograph in the triad (completed, on-going, contemplated) was presented three times, each time with a different stimulus element (agent, object, or location) as verbal prompt. The remaining five basic triads which portrayed the verbs *magbigay* 'to give', *magpunas* 'to wipe', *magsuklay* 'to comb', *humalik* 'to kiss', and *tumulong* 'to help' also had three elements: an agent, a human goal, and a distractor object. Each photograph in the triad was presented only once, always with the human goal as the verbal prompt.

Randomization and counterbalancing were such that each of the four focuses in each of the three aspects was the target five times.

2.3. PROCEDURES

2.3.1. INTERVIEW PROCEDURES

Each child in the four age groups participated in the focus comprehension, aspect comprehension, and focus and aspect production tasks. In each of the three tasks, half the *S*s of each group received the test items in the randomized-counterbalanced order while the other half received the same items in the reverse order. Half of the *S*s performed the focus comprehension task first and half the aspect comprehension task. All did the production task last.

Subjects were interviewed individually three to five times by the writer, also the experimenter *(E),* a native speaker of Tagalog. The interviews which were conducted either in school or at home lasted over a seven-month period, September 1975 to March 1976.

Before the actual test began, the child was instructed with several practice pictures how to point to the picture named by *E.* Testing proceeded only when *E* was sure that *S* clearly understood the directions.

2.3.1.1. FOCUS COMPREHENSION

Receptive control of five affixes associated with the Actor, Object, Directional, and Locative Focuses was investigated. The *S* was asked to point to whatever was signalled by the verb which was always cast in the imperfective aspect: the agent, the object, the locative, or the human goal (directional).

Subjects were first asked to name the elements in the test pictures to make sure that they knew the elements that they would be asked to identify. At the beginning of each test item, *E* would show the picture to the child and say *Ituro mo ang kinakain* 'Point to that which is being eaten. When the child pointed to the picture, *E* recorded the answer and proceeded to the next item. If the child made an ambiguous or irrelevant response (e.g. looking away, pointing to a spot outside the frame of any of the pictures), *E* asked *S* to point to or pick out that same element below the main picture before proceeding to the next number.

2.3.1.2. ASPECT COMPREHENSION

Knowledge of three aspects was tested: Perfective, Imperfective, and Contemplated. Verb-Complement-Subject sentences with verbs cast in the object and locative focuses were used. The *S* was asked to point to the picture described by the stimulus sentence which contained a verb inflected for one of the three aspects. Randomization and counterbalancing was similar to that described in the previous task.

Before the interview proper, *E* conducted a 'conceptualization procedure' to ensure that *S* understood the intended perfective, imperfective, and contemplated nature of the actions depicted by the pictures. Pointing to one of the pictures *E* said *Sa litratong ito tapos na* . . . 'In this picture it's all over'. Care was taken to avoid inflecting the verb so as not to give clues to the correct answer. Then *E* shifted attention to the picture with the on-going action and said, *Dito nasimulan na pero hindi pa tapos* . . . 'In this one it [the action] is begun but it is not yet over'. Pointing to the last picture, *E* explained, *Dito naman hindi pa nasisimulan...* 'And in this one it's not yet begun'. To check understanding of what was said, *E* asked *S* to indicate in each triad in which picture was the action 'all over, begun but not yet completed, and not yet begun'. Only when *S* correctly responded to these directions did *E* present the test sentences. In the test sentences, the target verb was inflected for one of the three aspects (Perfective, Imperfective, Contemplated) and one of two focuses (Object or Locative). The child had to point to the picture corresponding to the aspect indicated by the verb inflection.

2.3.1.3. FOCUS AND ASPECT PRODUCTION

The agent, object, location, and human goal were used as verbal prompts to make students describe thirty colored photographs each illustrating a completed, an on-going, or a contemplated action.

Presenting one picture at a time, *E* prompted a description of the picture from *S* by saying the beginning of the appropriate S *ay* VC sentence (e.g. *Ang bata ay* . . . 'The child . . .', *Ang mangga ay* . . . 'The mango . . .', etc.) which the child was to complete with the appropriate verb with or without the complement. The responses were recorded on paper and on tape at the same time.

2.3.2. DATA ANALYSIS

In both the focus and aspect comprehension tasks, each response was marked correct when the child pointed to the appropriate element or picture described by the verbal stimulus which always contained an inflected verb.

In the focus and aspect production task, each answer was marked correct only when it was inflected correctly both for focus and aspect. Correct inflection for focus meant the use of the appropriate verbal affix to indicate the focus prompted by the stimulus phrase, i.e. *mag-* and *-um-, -in, -an,* and *pag- -an* for the Actor, Object, Directional, and Locative Focuses, respectively. In cases where two or more affixes can be used to signal the same focus, e.g. *-in* and *i-* for object (as in *iluto* 'to cook' and *lutuin* 'to cook'), either affix was accepted as correct.

Aspect was considered correct when the verb was inflected accurately to describe the action portrayed by the stimulus picture. (For a detailed explanation of aspect inflection, see Schachter and Otanes 1972).

Separate analyses of variance were performed to determine if there were age, sex, SES, focus, and aspect differences in the children's performance in each of the three tasks.

Where significant main effects were revealed by the analysis of variance, the a posteriori t-test was applied for a better interpretation of the data, i.e. to find out which differences between means were significant.

Errors in the production task were also analyzed. In this process, verbs were marked separately for focus and aspect.

To arrive at more generalizable conclusions, data obtained from the experimental testing were compared with spontaneous utterances of children which were gathered by the present researcher and Gonzalez (unpublished manuscript).

3. RESULTS

The separate analyses of variance indicated age, focus, and aspect to be significant sources of variation in the children's comprehension and production of the Tagalog verb focus and aspect inflections. Except at age seven when the high SES group performed significantly better than the low SES group in the aspect comprehension, there were no significant differences in performance due to sex or SES.

The results of the analyses of variance and a posteriori t-tests will not be presented or discussed in this paper because of space limitations. Only the highlights of the findings and their interpretation will be included. Focus of the discussion will be on the developmental patterns and possible determinants of the same.

3.1. FOCUS COMPREHENSION

The four focus markers were comprehended by the four age groups in this order of increasing difficulty: Object Focus (OF) -in, Directional Focus (DF) -an, Actor Focus (AF) -um/-mag-, and Locative Focus (LF) pag- -an. The first two focus markers were found to be almost equally easy for all the subjects.

As shown by Table 1 the 3-, 5-, 7-, and 8-year-olds obtained their highest mean scores (perfect or almost perfect) in the Object Focus (X's = 9.25, 10.0, 9.88, and 10.0, respectively), followed very closely by their slightly lower scores in the Directional Focus (X's = 8.75, 9.50, 9.69, and 10.0, respectively). Coming third were their mean scores in the Actor Focus (X's = 4.69, 5.56, 8.75, and 9.75, respectively). Their lowest mean scores were in the Locative Focus (X's = 2.19 3.31, 6.50, and 8.81, respectively).

TABLE 1
RANKED MEAN FOCUS COMPREHENSION SCORES
OF DIFFERENT AGE GROUPS
(Maximum Score = 10)

Age		Ranked Mean Scores						
	1st		2nd		3rd		4th	
3 years	OF	9.25	DF	8.75	AF	4.69	LF	2.19
5 years	OF	10.00	DF	9.50	AF	5.56	LF	3.31
7 years	OF	9.88	DF	9.69	AF	8.75	LF	6.50
8 years	OF	10.00	DF	10.00	AF	9.75	LF	8.81

3.2. ASPECT COMPREHENSION

Except among the 8-year-olds who performed almost perfectly and equally well in the three aspects, the best comprehended aspect was the Imperfective (IA), then the Contemplated (CA), and last the Perfective (PA).

An examination of the means (see Table 2) points out that the 3-, 5-, and 7-year-olds obtained their highest scores in the Imperfective Aspect (X's = 4.25, 6.09, and 6.59, respectively), followed by those in the Contemplated Aspect (X's = 3.88, 5.31, and 6.06, respectively) and then by their scores in the Perfective Aspect (X's = 3.09, 4.5, and 5.38). The 8-year-olds performed almost perfectly in the Contemplated Aspect (X = 7.69) and slightly but equally lower in the Imperfective and Perfective Aspects (X's = 7.66).

TABLE 2

RANKED MEAN ASPECT COMPREHENSION SCORES
OF DIFFERENT AGE GROUPS
(Maximum Score = 8)

Age	1st		2nd		3rd	
3 years	IA	4.25	CA	3.88	PA	3.09
5 years	IA	6.09	CA	5.31	PA	4.50
7 years	IA	6.59	CA	6.06	PA	5.38
8 years	CA	7.69	IA	7.66	PA	7.66

3.3. FOCUS AND ASPECT PRODUCTION

The mean scores in the production task showed that in general, the focus data conform to those obtained in the comprehension tasks. The ranking of the four focuses in the order of ascending difficulty was practically maintained, i.e. all age groups were more accurate with the Object and Directional Focuses (with slightly better performance in the former) than in the Actor Focus. The 3-, 5-, and 7-year-olds were least accurate in the Locative Focus. In contrast to this, the 8-year-olds who scored almost perfectly in the three tasks, performed better in the Locative than in the Actor Focus.

As indicated in Table 3 the 3-, 5-, 7-, and 8-year-olds performed best in the Object Focus (X's = 2.60, 3.98, 4.21, and 4.92, respectively), and second in the Directional Focus (X's = 1.96, 3.25, 4.06, and 4.92, respectively). While the first three age groups obtained their third highest scores in the Actor Focus (X's = 1.5, 2.46, and 3.34, respectively) and lowest in the Locative Focus (X's = .48, 2.02, and 3.04, respectively), the 8-year-olds obtained better scores in the Locative Focus (X = 4.27) than in the Actor Focus (X = 3.73).

TABLE 3

RANKED MEAN FOCUS PRODUCTION SCORES
OF DIFFERENT AGE GROUPS
(Maximum Score = 5)

Age	1st		2nd		3rd		4th	
3 years	OF	2.60	DF	1.96	AF	1.50	LF	0.48
5 years	OF	3.98	DF	3.25	AF	2.46	LF	2.02
7 years	OF	4.21	DF	4.06	AF	3.34	LF	3.04
8 years	OF	4.92	DF	4.92	LF	4.27	AF	3.73

The mean scores in the three aspects (see Table 4) showed greater variability. Note that for the 3- and 5-year-olds, the most difficult aspect to produce was the Imperfective, which in contrast, was the easiest for the 7- and 8-year-olds.

TABLE 4
RANKED MEAN ASPECT PRODUCTION SCORES
OF DIFFERENT AGE GROUPS
(Maximum Score = 5)

Age		1st		2nd		3rd
			Ranked Mean Scores			
3 years	P	1.69	C	1.67	I	1.55
5 years	C	3.08	P	2.91	I	2.80
7 years	I	3.80	P	3.72	C	3.47
8 years	I	4.48	C	4.47	P	4.39

4. DISCUSSION

4.1. FOCUS COMPREHENSION

The data present a clear pattern: the four age groups comprehended the different focuses in this order of ascending difficulty: Object, Directional, Actor, and Locative. This finding is consistent with that obtained in an investigation of the children's mastery of Agent Focus (Active) and Patient Focus (Passive) sentence structures (Segalowitz and Galang 1978). While the previous investigators claimed that better comprehension of *P* sentences could not be attributed to a better mastery of the Patient Focus inflection, the present study reveals that the Object Focus inflection *-in* is really mastered earlier than the other focus markers. It is possible that the OF *-in* is treated as unmarked and the others as marked. The early acquisition of this suffix provides support to what Slobin (1973) suggested as an operating principle that the child brings to the task of language learning: 'Pay attention to the ends of words'. Thus, suffixes are learned before prefixes which in turn are learned before infixes. The operation of this same principle partly explains the early and probably simultaneous acquisition of the Directional Focus *-an* and the later acquisition of the Actor Focus *mag-* and *-um-* and the Locative Focus *pag--an*.

The early mastery of the Object Focus marker can also be due to the frequency of its occurrence. To find out the relative frequency of Object and Actor Focuses, Segalowitz and Galang (1975) also conducted an experiment among mothers teaching at the Philippine Normal College Laboratory School who were presented with sequential pictures and asked to imagine telling stories to their children. Their stories were tape recorded and transcribed. A frequency count of the focuses revealed that seventy per cent of the verbs were in the Object Focus. When the Object was definite, almost always the Object Focus was used. This is to be expected since one of the contextual constraints in Tagalog is: When the deep structure object is definite, it has to be chosen topic or subject of the sentence (McFarland 1976).

It seems that initially children use the perceptual 'agent-then-patient' word-order strategy in interpreting the Object Focus sentences until they master the focus affix. In an Object Focus VCS sentence (see section 1.3.2 for an example), the more frequently used word-order, the object is mentioned last and therefore the word-order strategy will lead to correct interpretation. However, with an Actor Focus VCS sentence (see section

1.3.2 for an example), the object comes before the subject (the actor) and therefore the use of the strategy will lead to wrong interpretation. Thus, the OF marker is learned earlier than the other focus markers.

Earlier mastery of object focus may also be attributed to patient primacy in Tagalog. Ceña (1977) substantiates this claim by presenting (1) a variety of constructions in Tagalog which suggest preference for the patient as surface subject, and (2) some evidence from studies that support the psychological saliency of patient focus more than actor focus sentences.

Aside from being linguistically similar (i.e. their basic forms consist of Verb base plus suffix), the Object and Directional Focuses are semantically the same. They show that the action is directed on or toward something or somebody. They differ only formally. When transformed to Actor Focus, the object complement takes *ng* and the directional complement takes *sa*. This semantic similarity partly explains the early and simultaneous acquisition of the two markers.

4.2. ASPECT COMPREHENSION

Again, the pattern revealed by the data is clear. The 3-, 5-, and 7-year-olds performed best in the Imperfective, then next in the Contemplated, and last in the Perfective. Among 8-year-olds, however, performance in the three aspects is almost perfect and therefore the difference is very slight.

Just like Segalowitz and Galang's research, the study here described shows that the Imperfective, though structurally more complex, i.e. it involves reduplication of $(C_1)V_1$ and the realization of an aspect marking element N, is mastered earlier than the other two aspects which appear to be structurally simpler. The Contemplative requires only reduplication while the Perfective only the aspect marking element N. The above sequence is in accord with the claim of psychologists that children perceive the more perceptually immediate (on-going) than the contemplated and completed actions (Langer 1969). This finding is an instance of the primacy of cognitive over linguistic factors in language development.

From the obtained data, one is led to speculate on the process of learning to understand aspect. It seems that children initially learn to distinguish between ± *begun* and therefore to them there are only two aspects: Imperfective used in free alternation with Perfective, and the other is Contemplated. Of the two, they comprehend the Imperfective better because it is perceptually immediate. The Perfective appears to be difficult to perceive as shown by the late mastery of the markers associated with this feature in other languages (Slobin 1973). It is only later when the children make the distinction ± *finished* that their repertoire of the three aspects is completed.

As the means showed, comprehension of the focuses is affected by aspect. While the children still performed better in the Object Focus, the scores for this focus were not as high as those in the focus comprehension task where all the verbs were cast in the Imperfective aspect. Interaction between aspect and focus will be an interesting area to investigate.

4.3. FOCUS AND ASPECT PRODUCTION

In general, the production data conform to the focus comprehension data. The ranking of the focuses in the order of ascending difficulty is practically maintained, i.e. all age groups were more accurate with the Object and Directional Focuses (with a slightly better performance in the former) than in the Actor Focus. The 3-, 5-, and 7-year-olds were least accurate in the Locative Focus. In contrast to this, the 8-year-olds performed slightly better in the Locative than in the Actor Focus, probably because they had achieved almost perfect mastery of the four focuses. Besides, they could use the suffix *-an,* another Locative Focus affix.

As to aspect, the mean scores show more variability. Among the 3- and 5-year-olds, the aspect that seems to be the most difficult to produce is the Imperfective which in contrast is the easiest among the 7- and 8-year-olds. Apparently, the younger children find it difficult to reduplicate the first syllable and then to produce the aspect marking element N which involved infixation in most of the verbs investigated. The primacy of the linguistic factor demonstrated by the aspect production data is in opposition to that indicated by the aspect comprehension data.

4.4. ANALYSIS OF ERRORS

It was found that when only focus or aspect but not both was correctly produced on a given item, practically all age groups were likely to get aspect correct over focus alone. It appears that although aspect has been found to be cognitively difficult, it is acquired fairly early in Tagalog and probably prior to focus. This can be due to the regularity of aspectual marking in the language. Focus marking, on the other hand, is less regular and is constrained by the existence of affix correspondence sets or classes (see Schachter and Otanes 1972 for the discussion).

Moreover, the children were more likely to produce the Contemplated and Perfective aspects correctly. These two are structurally simpler compared to the Imperfective. The Imperfective, though comprehended better because of its semantic simplicity, is difficult to produce because of its structural complexity. The 7- and 8-year-olds showed an increased ability to produce the three aspects and demonstrated only slight differences in their performance in the three aspects.

A proof of the different strategies that the children used to handle the linguistic difficulties encountered in the production of the Imperfective, is their consistent use of either the Contemplated or Perfective for the Imperfective. Evidently those who used PA for IA consistently could produce the aspect marking element N, while those who used CA for IA could reduplicate the initial syllable of the Verb base.

The use of *ni-* instead of *-in-* by several children provides support to the claim that children learn to prefix more easily than to infix.

Among the four affixes, the Object and Directional Focuses were more likely to be produced correctly than the other two. While among the 3-year-olds the Actor Focus was more likely to be produced correctly than the Locative Focus, the reverse was true among the older age groups. Apparently, the younger children found it difficult to produce the complex affix *pag- -an*. The 5-year-olds demonstrated an almost equal control of the Locative and Actor Focuses (.58 and .54, respectively), and the 7- and 8-year-olds showed a better mastery of Locative and Actor Focuses, probably because this time they could use another suffix *-an* instead of *pag- -an* to mark the Locative Focus.

An examination of the errors in the comprehension and production task reveals that the favorite answer is the Object Focus. In other words, when the actor or locative was asked for, the children oftentimes pointed to the object. In the production, the children many times substituted the Object Focus for the locative or actor and even for the directional, probably because to the children the Object Focus is the unmarked form.

The alternate use of *-in* and *-an* observed among a number of the subjects and the frequent use of *-in* for the other focuses lead the investigator to propose that the two are the unmarked forms especially at the early stages of learning Tagalog.

Aside from the difficulties just described, certain interesting cases were noted. Five 3-year-olds used the uninflected forms in all cases where verbs were required. Another child consistently affixed *a-* to the verb and produced this whenever a verb was asked for. As was noted by Brown (1973) in the learning of the English verb inflections, the verbs in their uninflected forms are used to express different kinds of meanings. Later these children will learn the inflections to mark just those functions that they are already

capable of or that are already implicit in the verb use at the stage when all the verbs were unmarked. For example, when the children learn to distinguish the Imperfective by reduplication, this is very likely extended to the Contemplated. There is probably a time when these two functions are expressed by the same form. These instances merely 'illuminate the general proposition that a child's underlying semantic intentions can contain more information than his surface utterance' (Slobin 1973: 182).

4.5. COMPARISON WITH SPONTANEOUS SPEECH

Spontaneous speech utterances were obtained by the researcher before, after, and in-between her testing of seventeen Ss used in this study (five 3-year-olds and four from each of the other age groups). These data and those of Gonzalez (unpublished manuscript) were examined for comparison with the findings in the present experimental study. In general, the patterns observed in spontaneous speech data are in agreement with those obtained from the experimental testing.

However, it was observed that children were producing spontaneously aspect and focus marking devices which they found difficult to produce in the experimental tasks. A possible explanation of this seeming contradiction is the echoic nature of early speech (Fillmore 1976). Maybe some of the children did not really understand what they were producing. It is possible that sometimes children have a kind of undistinguished category that seems to fit the context and when forced they make the necessary distinctions.

It was also noted that three 3-year-olds and one 5-year-old used the verb base instead of the Actor Focus verb, e.g. *Kain tayo* 'Let's eat' and *Upo tayo* 'Let's sit down'. The alternation of the verb base with the AF verb, but not with the OF verb, is acceptable in Tagalog. This phenomenon, which is observed even in adult speech, partly explains the better control of the affixes *-in* and *-an* than *mag-* and *-um-*. The use of an Object Focus verb when an Actor Focus was appropriate may be cited as further evidence of the earlier mastery of the former.

The early and probably simultaneous acquisition of the OF *-in* and the DF *-an* is evidenced by the occurrence of items as *hawakin* (which should be *hawakan* 'to hold') and *papalitin* (which should be *papalitan* 'will change'). In the case of Popong and Emen, the Ss observed by Gonzalez, the first verb-like utterances that appeared were unaffixed such as *sakay* 'ride', *tumba* 'fall down' and *baba* 'go down'. The early appearance of OF *-in* and DF *-an* verbs was also observed. The first affixed verbs heard from Popong were *ditin* heard at 1;8 (interpreted as *alisin* 'remove'), *buttan* heard at 1;9 (interpreted as *buksan* 'to open'), and *puyatan* heard at 2;0 (interpreted as *punasan* 'to wipe'). From Emen the first affixed verbs were also *butan* and *bigan* (interpreted as *bigyan* 'to give').

A stage observed only in the girl was the *a*-stage where she prefixed *a-* to all verbs. However, it was not clear whether this was a general verb marker or the beginning of aspect marking.

The occurrence of the same form for the Contemplated and Imperfective Aspects even among the 5-year-olds shows that children find it easier to reduplicate than to infix. Difficulty with infixation was also manifested by the use of *ni-* instead of *-in-* as *nibigyan* 'given', *nibuksan* 'opened', etc. Surprisingly, one 3-year-old child used even the structurally more complex imperfective for all the three aspects.

The predominance of the contemplated and perfective forms in the data of Gonzalez could be taken as evidence of the children's difficulty at producing the imperfective. The later appearance and development of the imperfective is suggestive of its structural complexity. Emen's use of *a-* was carried on even when she could already reduplicate. Later the *a-* was dropped and only the reduplication was retained. In both stages the distinction between the imperfective and contemplated was not clear.

5.   CONCLUSION

In this study of the acquisition of four focus and three aspect marking devices, common developmental patterns were observed but with some variation in the rate of acquisition. As Chomsky (1969) pointed out, although we cannot say just when a child will acquire the structures in question, we can offer a reliable judgment about the relative order in which he will acquire them.

The findings concerning focus and aspect comprehension and production have demonstrated that acquisition hierarchies can reflect as much about nonlinguistic and cognitive processes as they do about linguistic ones. Similar studies of the developmental sequence in language acquisition can be conducted in order to identify with confidence the strategies in learning the verb morphology and other aspects of Tagalog.

Because of the significance of cognitive development in language learning, a taxonomy and a coding system are necessary in order to establish the development of communicative intentions among Tagalog-speaking and other children. The patterns of development can be compared in order to establish a stable and universal sequence of communicative intentions (Slobin 1967). Then it will be possible to measure the lag between the appearance of a communicative intention and the mastery of the forms to express the intentions in the native language.

Of the variables examined in this study, sex and SES were found to have no significant effect on the children's acquisition of focus and aspect marking devices. A sociolinguistic study that will concentrate on identifying the sociolinguistic factors in language development would prove valuable for a more comprehensive account of the acquisition of Tagalog or any Philippine language.

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