ERGATIVITY AND WORD ORDER IN SAMOAN CHILD LANGUAGE

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A study of the acquisition of ergative case-marking (ECM) in Samoan indicates that it rarely appears in the speech of 2-4 year old children. It is argued that the late acquisition of ECM is caused primarily by the fact that expression of the case-marker in adult Samoan is sociolinguistically variable, with speech between household members showing the lowest frequency of expression of the case-marker. However, evidence suggests that Samoan children encode ergative distinctions through word order, in that they tend to reserve the position immediately following the verb for absolutive constituents.

Until quite recently, acquisition studies have focussed on nominative/accusative languages, documenting the formal strategies for expressing semantic roles such as agent, experiencer, or object affected by action, and the emergence of grammatical relations such as subject, predicate, or direct object (cf. Bever 1970, Bloom 1970, 1973, Bowerman 1973, Brown 1973, Greenfield & Smith 1976). These studies assume that the grammatical relations mentioned are the endpoint of the acquisition process (adult grammars); all that is disputed is the developmental point at which children evidence knowledge of these relations (cf. Bloom 1970, McNeill 1970, Schlesinger 1974).

Ergative/absolutive languages have received considerable attention within linguistics, because they appear to violate (to varying degrees) the notion that 'subject' is a universal, basic grammatical relation (Comrie 1978, 1979, Dixon 1979, Plank 1979). In contrast to nominative/accusative languages, these languages distinguish, on the one hand, morphologically intransitive subject from transitive subject; on the other hand, they treat intransitive subject and transitive subject as a single morphological category (absolutive). Ergative languages differ in the extent to which they are morphologically and syntactically ergative: many are both accusative and ergative on the morphological level, while others are 'entirely accusative at the syntactic level' (Dixon, 59).

Languages with ergative case-marking (ECM) systems represent a different model (vis-à-vis accusative languages) for a language-acquiring child. In the majority of cases, the child is exposed to a morphological system that is completely or partially ergative/absolutive, but a syntactic system that is dominantly nominative/accusative. In terms of the acquisition process, the child must become competent in using two sets of grammatical distinctions on the morphological or syntactic level. One could reasonably predict that this situation could present cognitive difficulties which are not faced by a child acquiring a language with nominative/accusative case-marking.

Recently two studies of the acquisition of ECM have been completed: Schieffelin 1979 on Kaluli, and Pye 1980 on Quiché Mayan. Both these languages have 'split ergative', in the sense that both ergative and accusative distinctions are made on the morphological and syntactic level. The results of these studies show that ECM is productively acquired before the age of three, and in some cases as early as 27 months (Schieffelin, 293). Ergative distinctions do not appear then, too difficult for a young child to acquire and express.

The present study examines the acquisition of ergative/absolutive distinctions by young Samoan children. Samoan is predominantly a morphologically ergative language, with most syntactic operations sensitive to nominative/accusative distinctions (see §2 below). But unlike the acquisition studies mentioned above, the present study indicates that ECM appears relatively late in child language: children between the ages of three and four rarely use case-marking in less than 5% of the obligatory grammatical context. Younger children do not use it at all.

To account for this difference in rate of acquisition, two possible sets of factors are considered. One source concerns perceptual features of Samoan. Here a comparison is made with Kaluli (for which detailed information is available) in terms of acquisition-facilitating and acquisition-delaying phonological and morphological factors. Comrie (1978) and Dixon (1979) provide crucial information concerning phonological status of ECM within traditional Samoan communities. A comparison with Kaluli indicates major differences in usage patterns. The most important of these is that the Samoan ergative case-marker is used variably—constituent by social identity of speaker, and degree of social distance between speaker and addressee. In particular, the case-marking is relatively rare between household members and other intimates. These results should not be taken to mean that ergative/absolutive distinctions are not expressed in the language of young Samoan children; the evidence that the children do make these distinctions in their use of word order in the discussion to follow, word-order strategies for intransitive and transitive utterances are compared, and a preference is demonstrated for reserving position immediately following the verb for absolutive constituents. Results are consequential for three types of study:

(1) LANGUAGE TYPOLOGY: the Samoan materials indicate that the explicitness of ergative/absolutive distinctions may not only be grammatically constraining in a language, but also sociologically; i.e., they may be sociolinguistic variables.

(2) ACQUISITION STUDIES OF CASE-MARKING: the Samoan data show that the grammatical status of particular inflections is an important variable (along with perceptual constraints) in an account of acquisition strategies.

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I am grateful to several people for their contributions to this analysis of ergativity in Samoan child language. Both Martha Platt and Alessandro Duranti provided data on transitivity and ergativity from the corpus of child and adult Samoan speech collected during our field experience. The analysis of adult use of ECM has drawn on a continuing study of variation in spoken Samoan by Duranti. Cross-linguistic comparison of ergativity in Samoan and Kaluli was the result of numerous discussions with Bambi Schieffelin, who provided crucial information concerning spontaneous use of ergativity in Kaluli society. Finally, the analysis of ergativity and register variation in Samoan child and adult speech has benefited not only from the assistance of those above, but also from comments by Elaine Andersen, Sandra Chung, Eve Clark, Bernard Comrie, Bob Dixon, Ed Finegan, Talmy Givón, Jack Hawkins, Ed Keenan, Alan Rumsey, and Sandy Thompson.
Studies of input: caregiver speech is seen here to form part of a larger speech register—that of Samoan intimates, particularly women.

Data base

The data on which this analysis is based were collected in the course of a year's fieldwork (July 1978 to July 1979) in a traditional village in Western Samoa. The village, Falefē, is located on the island of Upolu, approximately 18 miles from the capital, Apia. The fieldwork was conducted by three researchers: Alessandro Duranti, Martha Platt, and Elinor Ochs. Our data collection consisted of two major projects. The first, carried out by Ochs and Platt, was a longitudinal documentation through audio- and video-tape of young children's acquisition of Samoan. This was accomplished by focusing on six children from six different households, 19–35 months old at the onset of the study. These children were observed and taped every five weeks, for approximately three hours each period. Samoan children live in compounds composed of several households; typically, numerous siblings and peers interact with a young child. We were able to record the speech of 17 other speakers, under the age of six, who were part of the focus children's early social environment. A total of 128 hours of audio and 20 hours of video recording were collected. The audio material is supplemented by handwritten notes detailing contextual features of the interactions recorded. All the audio material was transcribed in the village by a family member or acquaintance, and checked by a researcher. Approximately 18,000 pages of transcript form the child-language data base.

The second research project, conducted by Duranti, concentrated on adult–adult spontaneous language use. Forty hours of formal and informal verbal interactions were audio-taped and transcribed with the help of several native speakers. Since Samoan society is strongly hierarchical, speech of individuals from several social levels was collected: high chiefs, orators, and untitled (i.e. low-ranking) adults. Native speakers who participated in these interactions helped not only to transcribe, but also to translate and evaluate the verbal interactions documented. The primary purpose of this second project was to provide an account of spoken adult Samoan which could be compared to the spontaneous language of young Samoan children. In this way, we were able accurately to capture the 'endpoint' of the Samoan child's acquisition process, particularly the range of sociolinguistic variation characteristic of Samoan speech communities.

The present analysis of ergativity relies on a subset of the data collected during this period. Information concerning acquisition strategies is drawn from recording sessions I, III, V, and VII with six children (5 of the focus children—Matu'u, Iakopo, Pesio, Naomi, Niulalau—and one older sibling, Maselino). These children were 2;1, 2;1, 2;3, 2;10, 2;11, and 3;4, respectively, at the onset of the study. Adult data are drawn from the speech of male and female family members inside the house throughout the longitudinal corpus; from women chatting to non-family members outside the house; from informal conversation among untitled, teenage boys; from informal conversation among titled men; and from highly formal discussions among titled men in village council meetings.

Ergativity and word order in Samoan language

Ergative case-marking in Samoan

As in many ergative languages, the ergative/absolutive distinction in Samoan are expressed through nominal case-marking. In Samoan, the subject is preceded by the particle e only when the transitive subject is a direct object. In Samoan, the tr construction used. Chung has distinguished two types of transitive constructions in Samoan. The first contains canonical transitive verbs, and in which the ergative particle e; sample verbs are fasti 'hit', anu 'know', mana'o 'want', tano 'touch', tilotilo 'listen to', ita 'hate', and alofa 'love'. Middle verbs are (but not exclusively) verbs of perception, cognition, desire, and emotion; one outstanding exception to this grouping is fiau 'give', which behaves as a canonical transitive verb in that its subject is marked by the ergative e. Middle verb constructions, without modification through suffixation, do not mark subjects with the ergative particle. Further objects of canonical transitive verbs, middle verb objects are marked preceding particle e (if common noun), id (if proper noun or pronoun).

1 Samoan is a predominantly verb-initial language (Greenberg 1966, Chung 1978). Hopper & Thompson's 1980 framework, canonical transitive clauses tend to be characterized by more features of transitivity than do middle verb constructions, e.g. expressing action with the particle e.

2 In Hopper & Thompson's 1980 framework, canonical transitive clauses tend to be characterized by more features of transitivity than do middle verb constructions, e.g. expressing action with the particle e.
operations such as subject-to-object raising and cliticization (Anderson basis, while others operate on an ergative/absolutive basis. Thus syntactic system:

In Samoan, certain syntactic processes operate on a nominative/accusative basis, while others operate on an ergative/absolutive basis. Thus syntactic operations such as subject-to-object raising and cliticization (Anderson & Chung 1977, Chung 1978), as well as verb conjunction, fail to distinguish between intransitive and transitive subjects, just as in a nominative/accusative system:

(4) Constructions with Subject Clitic Pronouns
Intransitive: 'Ou te ai.
I PRT go
'I am going / will go.'
Middle: 'Ou te fiafia i Samoa.
I PRT like PRT Samoa
'I like Samoa.'
Transitive: 'Ou te fia le mea sa'o.
I PRT do PRT thing right
'I (will) do the right thing.'

(5) Subject-to-Object Raising
Intransitive:
subject: 'Ou te mana'o i Sefo e alu vave.
I PRT want PRT Sefo to go quick
'I want Sefo to go quick.'
Transitive:
subject: 'Ou te mana'o i Sefo e fa'afou la'u uati.
I PRT want PRT Sefo to repair my watch
'I want Sefo to repair my watch.'

(6) Verb Conjunction
Intransitive and transitive verb:
La e ə ma 'a'ai le suka.
PRT go(PL) ART thing
'They are going and eating the sugar; They are eating the sugar while they are going.'

Other processes, however, distinguish ergative from absolutive constituents:

(7) Nominalizations
Intransitive: le o'o mai o 'oulua
ART arriving DEIC GEN you(du)
'your (two) arriving'

3. While much has been written on the morphological and syntactic side of ergativity across languages, little is known about the sociological scope of ergative morphology-syntaxis within a language—i.e., about the extent to which speakers distinguish ergative from absolutive, and the extent to which the case-marking is sensitive to variation in social context (cf. Gumperz 1977, Hymes 1967, 1974, Labov 1963, 1966, 1972).

A study of adult Samoan speech across several socially significant contexts indicates that the ergative nominal case-marker e is used variably across contexts. The use of the marker is sensitive to the social distance obtained between speaker and hearer and to sex of speaker. The range of variability in the use of ECM in transitive clauses by adult Samoans is presented in Table I, in which five different social situations are represented.

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3. The preposition i in Samoan also marks temporal or spatial location, instrumentality, and comparison (Milner 1966, Tuitele et al. 1978, Tuitele & Kneubuhl 1978). Tuitele et al. treat middle verbs as intransitives, based on the uses of i specified above.
second, assertions are typically not directed to one particular addressee, but rather to the participants as a group. In this sense, assertions differ from directives, which are typically addressed to a single recipient and often preceded by a vocative. Many fewer utterances of men (vs. women) inside households were collected, because men do not spend much of their time in this context: rather, they spend most of their waking hours working on the plantation or in the capital, participating in formal gatherings of titled men within the village, or relaxing with their village peers. The data here are drawn primarily from those men who stopped by their houses unexpectedly to report an incident, who were ill and not able to work, or who were passing by between tasks.

Two other situations are more representative of men’s speech. Situation IV is that of relaxed informal talk among male peers (outside the family); it includes both untitled men’s speech and titled men’s speech. Situation V takes place in the highly formal village councils, in which only titled persons can participate. In this sample, only titled men were participants. The data are drawn not from the more conventionalized oratory (lauuga) within these meetings, but rather from the discussions (talanoa) that follow the oratory (Duranti 1980). These data are drawn from a larger analysis by Duranti 1981 of word-order and case-marking in these social situations.

Situation III contrasts with the others in that it displays informal women’s speech to non-family members. The data are drawn from a group of village women who are seated outside, picking weeds on the compound of their pastor, and gossiping with each other.

What do these data indicate? There are two important patterns of variation. The first is that a major difference exists in percentage of ECM in speech of family members as compared with non-family members. ECM rarely appears when speakers are addressing members of their own household. Of the entire corpus of canonical transitive assertions and yes-no questions in these contexts, women used the case-marking 4% of the time and men 5%. In those environments in which formal speech would require ECM (i.e., where a post-verbal agent is expressed), women used the marking 20% of the time and men 16.6%. These percentages contrast with those characteristic of case-marking in speech to non-family members. Women’s speech to non-family members shows more than twice the percentage (45.7%) of ECM in postverbal environments; men’s speech to non-family members shows nearly five times the percentage of ECM (75%, 72.3%) in postverbal environments.

From these data, we can infer that social distance between speaker and audience is an important constraint on the use of ECM. The greater the social distance, the more likely it is that a speaker will use the marking.

A second important pattern of variation is linked to sex of speaker. While both men and women exhibit low frequencies of usage of ECM in intimate settings, men appear to use the marking a much higher percentage of the time in non-intimate contexts. In the intimate settings, men and women do not show much difference in their percentage of use of ECM in postverbal environments: men, 16.6%; women, 20%. But in informal speech to non-family members, there is a large gap between the two groups of speakers: men, 45.7%; women, 44.7%.

Instances in which speakers omit the ergative case-marker are illustrative examples 8–9 below:

(8) Women’s speech in household (Niulala; his mother, M; mother’s sister, S)

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SITUATION

ADULTS

Niulala, 6, 3:7, goes out of house.

M: Niulala, save it! Niulala come here.

S: I tan sau (to S) Kago mei touch bring ‘Get him and b- here.’

S follows N out.

N: le ke- le ala

MEU TENNE MEU

koe fo’i mail

again return

u

here

‘I’m not going, I’m coming back here.’

(fhornes)

S: ila savaili koa

okay walk inside

fale ma pite,

house for noise

‘Okay, go inside house because you’re making rumpus.’

Sa vau,

come now

‘Come now.’

la ‘ai loa

okay eat now

Ko ko’o’s fiai

Ko’oko’o’s bread

‘Okay, Ko’oko’ going to eat (t) bread now.’

4 The reader should note that the social distribution of the ergative case-marker may l

acteristic of other morphological elements in Samoan; i.e., it may be one of a set of morph-features that vary across social contexts. Assessment of the distribution of these feature

ject of on-going research.

5 Spoken Samoan has two major speech varieties, one which uses /n t r/; and one whi

ex in the transcripts as p. Aside from these conventions, transcription procedures used in convi

alyses (Schlenkein 1978) are employed here. The reader should note that examples of

phenomena are primarily colloquial in nature, in which forms of formal or literary Samoan

are tense/aspect marking, complementizers, glottal stops, vowel lengthening) are variable.

scribing the children’s speech behavior, the focus child’s speech is placed to the left of the

of others participating in the interaction (Ochs 1979). Where only adults are conversing, the

is transcribed in standard script format, in which conversational turns follow one anoth-

vertical direction. Such transcripts are drawn from the corpus of adult–adult speech colle-

Duranti as part of the Samoan field project.
Examples 10–13 illustrate the use of the ergative marker in spontaneous adult speech (see fn. 5, above):

(10) Young men talking about boy, Pegi, who was put in jail.

T: ...a oli a Pegei; tense put in jail, the other boy
because they say the other boy has been put in jail.

Lei Pegei; locked Pegi
'Locked up, Pegi.'

S: 'Oh.'

T: Ke lilo Pegei; tense know Pegi
'Do you know Pegi?'

S: Ke lilo Pegei; tense know Pegi
'I know Pegi.'

'Aisle?'

'Why?'

(1.0)

T: O le sala le ka'aratele; TOPIC art fine the truck
'Because it was because of the fine of the truck.'

La 'a koa kakafa e Siegi ma- ma Uluse... PRT tense again release erg Siegi and- and Ulusese
'Now Siegi and Ulusese have just released him.'

(11) Young men talking about Dracula film, which only T has seen.

T: Leuga leega le amio o le kama, sole; bad bad the character of art guy brother
'The character of the guy is bad bad, brother.'

Gai keie, sole; poor dear girls brother
'Poor dear girls, brother.'

S: 'Ai e le kama a? bite erg art guy right
'The guy bit them, right?'

(12) Fono 'meeting' in the village, about the elections.

M: soli e Lu'afili le kakou movaega; violate erg Lu'afili art our(INCL.PL) promise
'Lu'afili violated our promise.'

(13) Fono of April 7, 1979; third speech of the day.

F: ia. O kei lua aiga aiga aiga ga fa'apa'ia e leva; PRT TOPIC these very days all TOPIC days all PRT tense blessed erg Jehovah
'So. All these very days, all these days, were blessed by Jehovah.'

ACQUISITION OF THE ERGATIVE CASE-MARKING SYSTEM

4.1. Results. The most significant finding of the longitudinal study is that Samoan children between the ages of two and four rarely use the ergative marker e in their spontaneous speech. The frequency with which this marker appears in canonical transitive of the five sample children is displayed Table 2 (overleaf).

This shows that the youngest children—Matu'u, Iakopo, and Pe never used ECM. The older children, Naomi and Niulala, used the infi
AGENTS 

POSTVERBAL 

AGENTS 

ERGATIVE CASE 

MARKERS IN

UTTERANCES 

WITH 

POSTVERBAL 

AGENTS 

ERGATIVE CASE 

MARKERS IN

UTTERANCES 

TABLE 2. (The item marked with an asterisk is a partial repetition of adult speech.)

in one utterance each, representing .9% and .7% respectively of their total canonical transitives (cf. 10.1% and 13.5% respectively of their transitives with postverbal agents). These extremely low percentages led me to examine the speech of an older sibling, Maselino, who was not one of the 'focal' children in the study, and was present only intermittently throughout the recording sessions. The percentage of ECM was higher in his speech: 4.6% of the total canonical transitives (cf. 33.7% of those with postverbal agents), However, these figures are still extremely low, and provide no evidence that ECM is part of his productive competence.

An example in which the ergative case-marker $e$ is both omitted and expressed is the following:

(14) Niulala, d, 3/4

context

N has noticed and talked about tractor moving along road. He then begins to scare and threaten the others present.

child

N: sua okoul
strike down you, (+)

'It's going to strike you down.'

sua okou e makou low
strike down you erg our (EXCL) truck

'Weer truck is going to strike you down.'

sua okou e makou lo fual
strike down you our (EXCL) truck new

'Our new truck is going to strike you down.'

Examples 15–17 illustrate further instances in which children use the ergative case-marker $e$:

(15) Naomi, 9, 2:11, with mother

context

N hits mother, asks where her mango is.

child

N: ike una magol
shit finish mango

'Shit, the mango is finished.'

una mago a'ai
finish mango my

adult

M: Ai e ai?
who erg who

'Who ate it?'

(?)

Foa?

'Where?'

una aal
finish eat

'You ate it.'

(16) Maselino, d, 3/8; Pesio's father; Paula (female caregiver); Elenoa.

context

Pesio, 2;7, is crying, looking at her father. Another child, Kala, has hit her, though this has not been mentioned. Her father wants her to stop crying.

child

M decides to scare another child, Gike, by using a common scare expression about a mother's absence.

M: Gike! Gike! pua'a Koe/ pig Koe

'Gike! Gike! Now the pig ate K [Gike's mother]'
4.2. Discussion of results. Several factors could account for the frequency of the ergative particle e in the speech of young Samoan children.6

4.21. Expression of agents as major constituents. Table 2 shows that these results are linked to the low frequency of agents expressed in transitive assertions and yes–no questions. However, this does not explain why the case-marker is not used when agents are expressed postverbally as major constituents. Young children appear to use constructions in which ECM would be required (according to speakers' judgments of 'good Samoan', tautala lelei); yet they do not use the case-marking.

4.22. Perceptual characteristics of ergative case-marking. Another possible determinant for the low usage of the ergative case-marker in children's speech concerns the perceptual salience of the marker in Samoan. Slobin 1973, 1975, 1978 has argued that the acquisition of grammatical morphemes is sensitive to whether or not the morphological items are postposed, syllabic, stressed, obligatory, tied to the noun, consistent with word-order patterns, rationally ordered, non-synthetic, used exclusively for grammatical (vs. pragmatic) functions, regular, consistently applied to all pro-forms, and distinct (i.e. with no homonymous functions; Slobin 1978:18). If the morphological system of a language is characterized by the presence of these features, children find no difficulty in acquiring it, and do not (for example) prefer word order as an initial strategy for encoding semantic roles. A system of grammatical morphemes which displays these features, such as that of Turkish, is acquired more quickly than one which does not, such as that of Serbo-Croatian. Nonetheless, Slobin argues, these morphological systems are all usually learned during the preschool period; and Turkish children are competent 'at the two-word period, before the age of two.'

6 A list of canonical transitive verb types used by each child in each session is listed in the Appendix. As can be seen, children use a wide range of such verbs. Those verbs whose agents received the nominal ergative marker are followed by erg. These verbs are so few in number that no generalizations can be made (for the use of the case-marker) based on semantic properties of verbs.

The ergative particle in Samoan has a number of perceptually disre characteristics (in terms of Slobin's list), being characterized by only fo the twelve features of perceptual saliency: it is syllabic, consistent with v order patterns, regular, and has no homonymous case-marker. This fact certainly affect the acquisition of the case-marker by Samoan children. l ever, if we examine features of Kaluli case-marking, acquired much e than that of Samoan, we find that it too lacks many acquisition-facilit features; Table 3 shows that, like Samoan, it is characterized by only fo these features.

In both languages, the ergative marker is non-obligatory, in that it is su to morpho-syntactic constraints. As noted, in Samoan, erg appears onl transitive subjects that follow the verb; in Kaluli, it appears only when transitive subject immediately precedes the verb (OAV). In Samoan, marker appears on all pro-forms except elics (and these always appear be the verb). In Kaluli, the restriction is much more severe, in that no pronoun can be marked with erg; the marker appears only with full n noun: demonstratives. Further, unlike Samoan, Kaluli has homonymous case-n ers: the erg particle is also used to mark the genitive and instrumental c With the knowledge that Kaluli ergative-marking is acquired earlier than of Samoan, it would be plausible to infer that the acquisition-facilitating fe that distinguish Kaluli from Samoan have a greater impact than those distinguish Samoan from Kaluli. That the ergative marker is postposed tied to the noun in Kaluli, while the Samoan marker is preposed, de pendent of the noun, may account for the differential rates of acquisition tween these two groups of children.7

7 Whether or not the morphological marker e should be considered a lexical item, distinct the noun that follows, is a relatively difficult issue—as is generally the case with un morphemes in languages. As partial evidence of its independent nature, it may be noted that modifications of the agent noun can appear between the particle e and the noun:

Ne fa'a'ai te'eni 'iga le ma'ui.  
PAST feed erg this family ART village  
'This family fed the village.'
4.23. Sosiolinguistic characteristics of ergative case-marking. However, one of the most important differences between Kaluli and Samoan case-marking concerns the feature 'obligatory'. This difference is not captured in Table 3, in which both case-markers are characterized as 'non-obligatory'. Rather, the difference is in the nature of the restriction which constrains the use of the ergative marker in each language. Kaluli and Samoan both impose syntactic and semantic constraints on the appearance of ECM: in this sense, erg is sometimes present in both languages. However, Samoan and Kaluli differ in the extent to which the case-marking is used, given that the appropriate grammatical conditions are met.

As discussed in §3, the use of ECM is situationally restricted in adult Samoan; it is used more by men than by women, and is more frequent in speech to non-family members than in speech among household intimates. If we relate this to Samoan child language, we can see that ECM is statistically most 'sallet' in those environments to which the child is least exposed. Children up to the age of 3–3:6 spend nearly all their time within the household compound. The large bulk of discourses to which they are exposed are those between family members. Further, as noted above, it is women rather than men who spend time in the house during daylight hours; thus it is women's speech that provides the primary adult input to the language-acquiring Samoan child. The primary reason that children do not acquire the ECM system rapidly is that it is not characteristic of the speech behavior of those around them.

The use of the ergative case-marker in Kaluli, by contrast, is not constrained by the social status of the speaker, nor by the social relationship between speaker and others present. When the transitive subject appears immediately before the verb (OAV) and meets the necessary semantic criteria, Kaluli speakers must and do use erg. Pye has also noted that Quiche Mayan speakers use the ergative case-marker with relatively high frequency.

The difference in the sociolinguistic status of the ergative marker between Samoan, on the one hand, and Kaluli and Quiche Mayan, on the other, provides an important source for understanding why Samoan children use the ergative case-marker less frequently, and later in developmental time.

Ergative distinctions through word order

5. The results of the acquisition study should not be taken as conclusive evidence that the speech of young Samoan children is not sensitive to ergative/absolutive distinctions. A study of word-order strategies over developmental time supports the notion that ergative/absolutive distinctions are expressed by 2–4-year-old Samoan children. The most important finding of the word-order study is that young children tend to reserve the location immediately following the verb for absolutive constituents (transitive patients and intransitive major arguments); they disprefer ergative constituents (agents) in this position.

This pattern is displayed in Tables 4–12. The data on which these tables are based are all spontaneous utterances of young children (i.e. non-repetitions of others' prior speech). Further, these tables represent only novel utterances of children; exact repetitions of a child's own prior utterances are excluded. In this sense, the tables illustrate strategies employed by young children producing different types (vs. tokens of the same and different type) of intransitive and transitive constructions.

Table 4 summarizes word-order strategies of Samoan children in productive utterances containing a major argument. The table does no major arguments expressed as clitic pronouns, given that the order of clitic pronouns in adult Samoan is fixed in preverbal position (cf. fn. 1). The table indicates the frequency with which children place the major argument after the intransitive verb (VS order). As can be seen, there is a preference for this word order. This is true particularly in the earliest (Session I), where 90–100% of intransitive major arguments appear preverbal position.

These data are compared, in the following tables, to word-order preferences in canonical transitive utterances containing both an expressed agent (O) and a patient (V). As in Table 4, these tables do not represent utterances in which agents and patients expressed as full NPs, because these can appear in a range of positions with relation to each other, but all transitive verbs (VOA, VAO, AVO etc.) The question which these tables address is: 'In utterances in which both an agent and a patient are expressed, the preferred orders for encoding these roles?'

Table 5 shows the percentages and frequencies of each word order of the young children in our study. (The heading O(V)A in column here and below indicates that a relative clause followed the O 6–10 specify for each child the frequencies of different word orders recording session. These tables indicate a strong preference for VOA (52.3%) and VAO (average 29.8%) word orders, and a dispreference for OVO (average 11.3%) and other orders in which agent is expressed after the verb. Only Nuilala, the oldest child in the study, displays no strong preference for certain orders over others.

<table>
<thead>
<tr>
<th></th>
<th>SESSION I</th>
<th>SESSION III</th>
<th>SESSION V</th>
<th>SESSION VII</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mate'ua</td>
<td>100.0% (9)</td>
<td>70.0% (7)</td>
<td>84.6% (21)</td>
<td>71.4% (20)</td>
<td>81.5%</td>
</tr>
<tr>
<td>Iakopo</td>
<td>100.0% (1)</td>
<td>85.7% (6)</td>
<td>85.7% (18)</td>
<td>85.2% (23)</td>
<td>89.2%</td>
</tr>
<tr>
<td>Pesio</td>
<td>96.1% (25)</td>
<td>80.0% (4)</td>
<td>78.9% (30)</td>
<td>86.5% (45)</td>
<td>85.4%</td>
</tr>
<tr>
<td>Naomi</td>
<td>100.0% (16)</td>
<td>70.6% (12)</td>
<td>91.3% (22)</td>
<td>75.8% (25)</td>
<td>84.4%</td>
</tr>
<tr>
<td>Nuilala</td>
<td>90.9% (30)</td>
<td>77.3% (34)</td>
<td>88.9% (64)</td>
<td>65.6% (25)</td>
<td>80.7%</td>
</tr>
</tbody>
</table>

Table 4.

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>VOA</th>
<th>AVO</th>
<th>OAV</th>
<th>AOV</th>
<th>VAO</th>
<th>OVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mate'ua</td>
<td>43</td>
<td>53.5% (23)</td>
<td>32.6% (14)</td>
<td>-</td>
<td>7.0% (3)</td>
<td>2.3% (1)</td>
</tr>
<tr>
<td>Iakopo</td>
<td>19</td>
<td>52.6% (10)</td>
<td>42.1% (8)</td>
<td>5.3% (1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Pesio</td>
<td>23</td>
<td>69.5% (16)</td>
<td>17.4% (4)</td>
<td>4.5% (1)</td>
<td>8.7% (2)</td>
<td>-</td>
</tr>
<tr>
<td>Naomi</td>
<td>26</td>
<td>65.4% (17)</td>
<td>23.1% (6)</td>
<td>-</td>
<td>11.5% (3)</td>
<td>-</td>
</tr>
<tr>
<td>Nuilala</td>
<td>40</td>
<td>32.5% (13)</td>
<td>32.5% (13)</td>
<td>-</td>
<td>22.5% (9)</td>
<td>10.0% (4)</td>
</tr>
<tr>
<td>TOTALS</td>
<td>151</td>
<td>52.3% (79)</td>
<td>29.8% (45)</td>
<td>.7% (1)</td>
<td>7.7% (1)</td>
<td>11.3% (17)</td>
</tr>
</tbody>
</table>

Table 5.
Table 6. Matu'u.

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOTAL</th>
<th>VOA</th>
<th>AVO</th>
<th>OAV</th>
<th>VAO</th>
<th>OVA</th>
<th>O[V]A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IV</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V</td>
<td>7</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VI</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>VII</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIII</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTALS</td>
<td>43</td>
<td>23</td>
<td>14</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 7. Iakopo (only seven sessions were held with this child).

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOTAL</th>
<th>VOA</th>
<th>AVO</th>
<th>OAV</th>
<th>VAO</th>
<th>OVA</th>
<th>O[V]A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>II</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IV</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>V</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
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<tr>
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<td>3</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VII</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTALS</td>
<td>19</td>
<td>10</td>
<td>8</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 8. Pesio (7 sessions only).

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOTAL</th>
<th>VOA</th>
<th>AVO</th>
<th>OAV</th>
<th>VAO</th>
<th>OVA</th>
<th>O[V]A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>II</td>
<td>8</td>
<td>5</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>IV</td>
<td>3</td>
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<td>-</td>
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<td>V</td>
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<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VII</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TOTALS</td>
<td>23</td>
<td>16</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 9. Naomi.

Table 10. Niulala.

Table 11 focuses on the position of patient NP's. It shows how frequently these constituents appear immediately following the verb, so that a comparison can be made with the position of major arguments of intransitive verbs. Table 11 summarizes this information for each session and for each child. It can be observed again that Niulala, a strong tendency to place patients right after the verb.*

<table>
<thead>
<tr>
<th>SESSION</th>
<th>TOTAL</th>
<th>VOA</th>
<th>AVO</th>
<th>OAV</th>
<th>VAO</th>
<th>OVA</th>
<th>O[V]A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
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<tr>
<td>II</td>
<td>10</td>
<td>4</td>
<td>4</td>
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<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>III</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IV</td>
<td>7</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
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<td>V</td>
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<tr>
<td>VI</td>
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<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VII</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>VIII</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>TOTALS</td>
<td>40</td>
<td>13</td>
<td>13</td>
<td>9</td>
<td>4</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 11.

These word-order results have implications beyond the expression of ergativity. In particular, they indicate that what has been considered basic word order of Samoan, namely verb-subject-object (Greenberg), is NOT DEVELOPMENTALLY BASIC. This word order is relatively late to appear and does not account for the majority of utterances in which agent and patient are both expressed. These results confirm the hypotheses of Lehman and of Slobin, that the verb and patient form a 'perceptual Gestalt which is not interrupted' (Slobin 1975:13). Slobin would predict that such a word order (VSO) would not be initially acquired by young children, and this is borne out by the Samoan data. Young Samoan children prefer to keep the patient sequentially contingent, placing the agent either before or after a unit.

* A reader has suggested that young Samoan children may be reserving the immediate position for pronouns (rather than for absolutive constituents). A count of the number of personal and pronominal patients appearing immediately after the verb in the canonical transitives indicates that this is not true. The patient NP's in VOA and AVO canonical transitives predominantly nouns rather than pronouns, as the table below indicates.

<table>
<thead>
<tr>
<th>TOTAL</th>
<th>NOMINAL</th>
<th>PRONOMINAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matu'u</td>
<td>37</td>
<td>30</td>
</tr>
<tr>
<td>Iakopo</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>Pesio</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Naomi</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Niulala</td>
<td>26</td>
<td>14</td>
</tr>
<tr>
<td>TOTALS</td>
<td>124</td>
<td>90</td>
</tr>
</tbody>
</table>

Table 12.
It has been suggested by a reader that the children's word-order data allow a second interpretation, in which children have an encoding strategy which orders predicates and subjects—rather than verbs, absolutes, and ergative constituents. The ordering strategy places predicates before subjects; see Figure 1.

As noted earlier, the data do suggest that the children treat transitive verb and patient NP as a unit, in that they disprefer VAO constructions—i.e., constructions in which a major constituent interrupts the predicate. This dispreference is not limited to children's speech. Research on adult word-order (Ochs, ms) indicates that Samoan adults also show a preference for placing transitive verb and object next to each other. Tables 12-14 show that this preference is strongest in the speech of women and in that of household members, the primary sociolinguistic environment of the young child.

As noted earlier, the data do suggest that the children treat transitive verb and patient NP as a unit, in that they disprefer VAO constructions—i.e., constructions in which a major constituent interrupts the predicate. This dispreference is not limited to children's speech. Research on adult word-order (Ochs, ms) indicates that Samoan adults also show a preference for placing transitive verb and object next to each other. Tables 12-14 show that this preference is strongest in the speech of women and in that of household members, the primary sociolinguistic environment of the young child.

<table>
<thead>
<tr>
<th>Situation</th>
<th>TOTAL</th>
<th>VAO</th>
<th>VOA</th>
<th>AVO</th>
<th>OVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>23</td>
<td>21.7% (5)</td>
<td>34.8% (8)</td>
<td>34.7% (8)</td>
<td>8.7% (2)</td>
</tr>
<tr>
<td>II</td>
<td>15</td>
<td>26.7% (4)</td>
<td>66.7% (10)</td>
<td>0% (0)</td>
<td>6.6% (1)</td>
</tr>
<tr>
<td>III</td>
<td>14</td>
<td>28.6% (4)</td>
<td>35.7% (5)</td>
<td>28.6% (4)</td>
<td>5.7% (1)</td>
</tr>
<tr>
<td>IV</td>
<td>6</td>
<td>66.7% (4)</td>
<td>16.7% (1)</td>
<td>16.6% (1)</td>
<td>0% (0)</td>
</tr>
<tr>
<td>V</td>
<td>17</td>
<td>52.9% (9)</td>
<td>17.6% (3)</td>
<td>11.8% (2)</td>
<td>17.6% (3)</td>
</tr>
<tr>
<td>TOTALS</td>
<td>75</td>
<td>34.7% (26)</td>
<td>36.0% (27)</td>
<td>20.0% (15)</td>
<td>9.3% (7)</td>
</tr>
</tbody>
</table>

Table 12. Word-order preferences: canonical transitives with three full constituents. (Situations are defined as in Table 1, above.)

<table>
<thead>
<tr>
<th>TOTAL UTTERANCES</th>
<th>VAO</th>
<th>VOA</th>
<th>AVO</th>
<th>OVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>38</td>
<td>44.7% (17)</td>
<td>36.8% (14)</td>
<td>7.9% (3)</td>
</tr>
<tr>
<td>Women</td>
<td>37</td>
<td>24.3% (9)</td>
<td>35.1% (13)</td>
<td>32.4% (12)</td>
</tr>
</tbody>
</table>

Table 13. Word-order preferences and sex of speaker.

<table>
<thead>
<tr>
<th>TOTAL UTTERANCES</th>
<th>VAO</th>
<th>VOA</th>
<th>AVO</th>
<th>OVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPEAKING IN</td>
<td>38</td>
<td>23.7% (9)</td>
<td>47.4% (18)</td>
<td>21.0% (8)</td>
</tr>
<tr>
<td>SPEAKING OUT</td>
<td>37</td>
<td>45.9% (17)</td>
<td>24.3% (9)</td>
<td>18.9% (7)</td>
</tr>
</tbody>
</table>

Table 14. Word-order preferences: speech to family vs. non-family. (The asterisk marks a rough figure.)

However, the children's word-order patterns offer no evidence for a unified category 'subject' that collapses major arguments of intransitive verbs and agents of transitive verbs. The argument for their use of syntactic subject as

a category would rest on a parallel between transitive VOA word-order intransitive verb + major argument word-order. However, the data do support such a parallel. As Tables 4 and 5 indicate, agent NP's appear the predicate (VO) in only 52.3% (average) of the corpus, whereas major arguments follow the intransitive predicate in 83.8% (average) of the corpus. That is, major arguments appear after the verb approximately one and a half times as often as agent NP's. In contrast, the percentage (for intransitive arguments) matches closely that for patient NP's that appear in the same word order position (average 82.1%).

To summarize, the children's speech data suggest that ergative relations expressed in the early stages of Samoan language acquisition. They are expressed through word order rather than through case-marking. These results are also consistent with a number of findings in the child-lan literature that show children relying on word order as an initial strategy expressing semantic relations (Bever 1970, Bloom 1970, Radulović 1977, cf. Slobin 1978). Finally, the particular word-order pattern relied upon by Samoan children preserves the verb-patient predicate as a coherent unit. This is consistent with Slobin's claim that interruption of the predicate is perceivably distressful.

**IMPLICATIONS**

6.1. ACQUISITION OF MORPHOLOGY. This study indicates that, in so far as particular morphological features are acquired when they are, research need to consider their social salience. In Samoan ECM, perceptual factors such as the fact that the ergative particle e appears before the agent, rather than postpositionally—enter into the acquisition process. However, such perceptual characteristics of morphological features are relevant only to the extent that they are actually in use in the speech environment of the language-acquiring child. If two languages under comparison share similar sociolinguistic and grammatical constraints on the expression of ECM differences in other perceptual characteristics of the marking in each language play a very important role in accounting for acquisition patterns. However, significant differences exist in environments and frequency of use where significant differences exist in environments and frequency of use these will emerge as the significant factors influencing the time when will productively use the case-marking. In comparing Samoan and Kaluli children, the fact that ECM is sociologically constrained in Samoan child language, but not in Kaluli, best explains why Samoan children acquire the marking later than Kaluli children.

6.2. CAREGIVER REGISTER. In the past fifteen years, there has been erable interest in the speech of caregivers for the language-acquiring child. This interest has led to a number of studies that have isolated distinguishing features of caregiver speech (Andersen 1977, Brown et al. 1977, Cross 1975, 1977, Ferguson 1964, 1977, Newpo and Snow 1972). A major motivation for these studies has been the se
features that may facilitate the language-acquiring process. Recently, some researchers (e.g. Ferguson 1977 and Andersen 1977) have regarded caregiver speech as a social phenomenon—treating it as part of a set of speech varieties, called registers (Ellis & Ure 1969), available to speakers of a particular language. These registers are varieties that are sensitive to contexts of use (cf. Andersen). Caregiver register can then be placed alongside others (doctor–patient register, teacher talk, foreigner talk, lawyer talk) that may exist in a language.

Research into register variation within a language is still in its infancy. Only a handful of registers have been described for any one language; the bulk of these descriptions are based on English. However, one often studied is caregiver register or ‘baby talk’. We know very little at present about the relationships between particular registers—which features are shared, to what extent, and why, though Ferguson and Andersen have been pursuing this last question. Ferguson has discussed features shared by caregiver and foreigner talk, e.g., and has posited processes that account for their similarities (e.g. simplification processes). Andersen has discussed the effects of superior status and sex of speakers that run through several registers in English, e.g. nurse talk and mothers’ talk as compared with doctor talk and fathers’ talk.

Despite this recent research, little attention has been paid in the developmental psycholinguistic literature to the social status of caregiver speech. Psychologists carrying out research on language acquisition do not, by and large, compare language addressed to children with the range of language used in recurrent social situations within a particular community. Typically, in isolating features of caregiver speech, the researcher compares caregiver speech to the child with caregiver speech to the researcher (e.g. Garnica 1977, Newport 1976). This comparison focuses only on the status of the researcher as a member of the same generation as the caregiver, and the child as a member of the next lower generation.

From a sociological perspective, such a comparison has major flaws. In particular, it fails to consider other relevant characteristics of the social relationships under analysis. The researcher may be of the same generation (an adult); but the researcher is not typically an intimate of the caregiver. The child may be of a lower generation than the caregiver, but they share an intimate relationship. Thus it becomes difficult to sort out whether differences that exist between caregiver–researcher and caregiver–child speech are functions of age/maturity factors, or of social-distance (intimacy) factors, or of both. To distinguish these effects, the analysis should minimally compare language among intimates of the same generation with language across generations (intimate adult–child relationships), and language of non-intimates of the same generation with language of non-intimates across generations (non-intimate adult–child relationships).

In the case of Samoan, the low frequency of ECM in the speech of women to children is not a defining feature of caregiver register. It is not a feature exclusive to adult–child communicative contexts. Rather, it is a feature that characterizes the language used between family members in relatively casual moments at home. The language of adult family-member to child family-mem-

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**APPENDIX:** Canonical transitive verb types in children's speech

**Mata'U**

**Session I:**
- 'ai 'eat'
- 'i' 'carry'
- tia'i 'throw away'
- 'ave 'take'
- ta'e 'break'
- fai 'do, make'
- 'aumui 'give'
- tu'a 'leave'
- fa'aua 'finish'
- nan 'hide'

**Session III:**
- 'aumiai 'bring'
- to'a 'report, tell u
- fisi 'hit'
- to'a 'report, tell u
- togi 'throw'

**Session V:**
- pu'e 'catch'
- 'vatu 'take away'
- tu'u 'leave'
- faga 'shoot'
- 'ai 'eat'
- 'ave 'take'
- ta'e 'break'
- fa'u 'wash'
- fal 'do, make'
### Session VII:

- **'ave** 'take'
- **fai** 'do, make'
- **'ai** 'eat'
- **lulu** 'shake'
- **pu'e** 'catch'
- **'au'** 'bring'
- **sir'** 'carry'

### NUIULU

**Session I:**
- **fasi** 'hit'
- **'u'u** 'hold'
- **'ai'** 'eat'
- **'u'a** 'kick'
- **fa'a'** 'do, make'
- **inu** 'drink'
- **'al** 'eat'
- **fa'a'** 'buy'
- **ta'e** 'break'
- **'a'a** 'kick'
- **sasa** 'hit'
- **fasi** 'hit'
- **kogi** 'throw'
- **fasi** 'hit'
- **'a'a** 'kick'
- **po** 'smack'
- **fasi** 'hit'
- **'ai'** 'eat'
- **kipi** 'cut'

**Session III:**
- **upa** 'explode, burst'
- **fa'a** 'do, make', (trans. suffix)
- **'a'a** 'kick'
- **'a'a** 'kick'
- **fa'a** 'do, make'
- **inu** 'drink'
- **'a'a** 'kick'
- **fa'a** 'do, make'
- **'u'u** 'hold'
- **po** 'smack'
- **fa'a** 'do, make'
- **'u'u** 'hold'
- **po** 'smack'
- **fasi** 'hit'
- **sasa** 'hit'
- **'a'a** 'kick'
- **'a'a** 'kick'
- **'ai'** 'eat'

### Session V:

- **fa'a** 'do, make'
- **'au'** 'brake'
- **'oi'** 'make laugh'
- **'ti'a** 'throw away'
- **pu'e** 'catch'
- **po** 'smack'
- **ka** 'hit'

### references


GARCIA, OLOD. 1977. Some prosodic and paralinguistic features of speech to young children. In Snow & Ferguson, 63-89.


