

SOME VERBLESS SENTENCES

IN SAMOAN *

1. In this first section I present a brief outline of some major features of Samoan syntax, and an indication of the grammatical assumptions and notational conventions to be used in the paper.

The following rules define a set of sentence-structures (trees) which, with appropriate lexical items inserted, underlie a large class of simple Samoan sentences:

1. $S \rightarrow T \text{ (NEG) } V \text{ (ARG)}$
2. $\text{ARG} \rightarrow (\text{NP}_e) \text{NP}_o (\text{NP}_d) (\text{NP}_i) \text{ (etc?)}$
3. $\text{NP}_x \rightarrow \text{K}_x \text{N (S)}$

Remarks: i) T represents a class of "tense-markers" (whose meanings actually involve aspect and other considerations as well as tense), including:

e	future and general
ole'ā	future
olo'o	present
'ua	recent past/present novel
na	past
sa	past
'ia	hortative

ii) NEG ordinarily has the form le.

iii) ARG stands for "argument"; any one of the subscripted NP's generated by Rule 2 will be referred to as an argument of the verb (V) generated by Rule 1.

iv) The subscripts of the arguments in Rule 2 are features of case, and x in Rule 3 stands for any such feature. K stands for a class of "case-markers", distinguished by the same features that

* I am grateful to Paul Chapin for a number of helpful criticisms of an earlier draft of this paper.

distinguish NP's in various cases. Some of the more important case-markers, with their phonological shapes and an indication of their meaning, are:

K _e	e	Agentive
K _o	∅	Objective
K _d	i*	Dative
K _i	i*	Instrumental
K _l	i*	Locative
K _g	a/o**	Genitive

* These prepositions have the form iā before proper names of persons, and iāte before personal pronouns.

** The choice of a or o is determined by semantic considerations which are not relevant here.

I do not claim that the set of structures generated by the above rules constitute a level of "deep structure", or even that those rules constitute part of an adequate grammar of Samoan. They merely represent the level to which the present analysis reaches.

Most sentences in this paper are cited in the form with initial tense-marker. A very common transformation, however, is Topicalization, which moves any NP to the beginning of the sentence and substitutes for its case-marker the topic-marker, 'o. Thus

- 1) Sa sosi e Ioane le ufi.
 T V NP_e NP_o
 John cut the^e yam. ^o

may be topicalized to

- 2) 'O Ioane sa sosi le ufi.

This process of topicalization leaves in a post-verbal position a pronominal remnant of the topicalized NP, which has different forms according to the case of the topicalized NP:

NP_o, NP_e	\emptyset
NP_d	i ai
NP_i	ai
NP_l	ai (when it is an argument: see below)

Sentences 1) and 2) illustrate topicalization of an NP_e , 3) and 4) topicalization of an NP_d .

- 3) Sa va'ai Ioane i le teine.
 T V NP_o NP_d
 John saw the girl.
- 4) 'O le teine sa va'ai Ioane i ai.

Relative clauses follow the noun they modify, and often (as in all the examples in this paper) they omit the specifically relative pronoun (o le). Relativization leaves the same type of pronominal remnant as topicalization:

- 5) 'Ua tapē le pua'a e le teine.
 T V NP_o NP_e
 The girl killed the pig.
- 6) Sa va'ai i le teine Ioane.
 T V NP_d NP_e
 John saw the girl.

- 7) 'Ua tapē le pua'a e le teine sa va'ai i ai Ioane.
The girl John saw killed the pig.
- 8) Sa va'ai Ioane i le teine 'ua tapē le pua'a.
John saw the girl who killed the pig.

Another transformation can move a personal pronoun to a position immediately following T. In this position pronouns usually appear in a special form, e.g. 'ou 'I' instead of a'u, e 'thou' for 'oe, ma 'thou and I' for ma'ua.

- 9) Sa pese a'u.
I was singing.
- => 10) Sa 'ou pese.

If the tense-marker is e, an obligatory transformation changes it to te and inverts it with the adjacent pronoun:

- 11) E nofo a'u i Pago.
I live in Pago.
- => 12) *E 'ou nofo i Pago.
- => 13) 'Ou te nofo i Pago.

An article, with one of the following forms, may precede the noun:

	Definite	Indefinite
Singular	le	se
Plural	∅	ni

These articles are assumed, with no great conviction, to be derived from features on the noun by a "segmentalization" rule. Not surprisingly, the Samoan definite/indefinite distinction has only a very general resemblance to the distinction in English called by the same name.

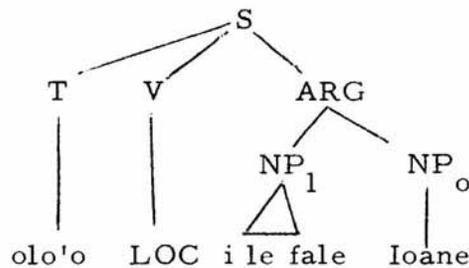
2. In this paper I will consider the following types of sentences and the ways in which some of them may be related.

- 14) Locational Olo'o i le fale Ioane.
 T NP₁ NP_o
 John is in the house.
- 15) Possessive Olo'o iā Ioane la'u tusi.
 T NP₁ NP_o
 John has my book.
- 16) Existential Sa i ai pia.
 T ? NP_o
 There was some beer.
- 17) Proprietary E a lo'u tamā le tupe.
 T NP_g NP_o
 The money is my father's.
- 18) Existential-Proprietary
 E i ai le solofanua a Ioane.
 T ? NP_o NP_g
 John has a horse.
- 19) Nominal Sa peresetene Ioane.
 T NP_o NP_o
 John was president.
- 20) Numerical E fitu lanu i le nuanua.
 T Num NP_o NP₁
 There are seven colors in the rainbow.

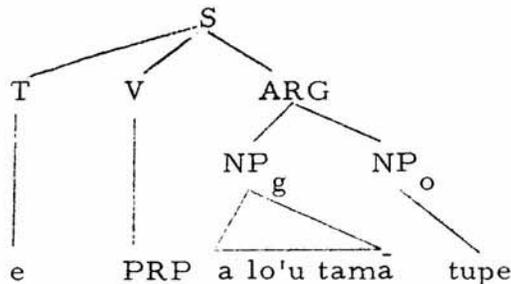
What these sentences have in common is that they do not obviously contain a main verb. It is interesting to observe that the main verb in the English translations of all these sentences, at least at the surface level, is either have or be. These two verbs have long been realized to have unique grammatical properties, and it has recently been suggested² that in English they do not appear in deep structure at all, being introduced transformationally.

3. NP Predicates: The first question to be considered is the correct analysis of Locational, Proprietary and Nominal Sentences. The rules given in Section 1 generate only structures containing verbs; but sentences 14), 17) and 19) have no verbs. Two plausible explanations suggest themselves. The first is that at some deeper level these sentences do contain a verb, which is deleted by some transformational rule, or has the phonological shape \emptyset . The second is that the rules are incorrect as they stand and must be modified to allow for structures without verbs. I believe the latter explanation to be correct. To see why, let us examine the first (zero-verb) analysis in more detail. It would claim that sentences 14), 17) and 19) are derived from structures like the following:

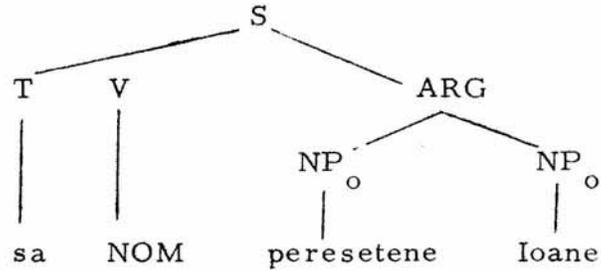
I (14)



II (17)



III (19)



where LOC, PRP and NOM are verbs (not necessarily all distinct) which either have a null phonological representation or are later transformationally deleted.

The following facts argue against such an analysis.

First, in ordinary Samoan sentences containing a verb, there is virtually complete freedom in the ordering of the major post-verbal constituents, as the following pairs of sentences illustrate:

21a) Sa va'ai le tama i le teine.
 T V NP_o NP_d
 The boy saw the girl.

21b) Sa va'ai i le teine le tama.
 Same as 21a).

22a) Olo'o galue Ioane i le fale.
 T V NP_o NP_l
 John is working in the house.

22b) Olo'o galue i le fale Ioane.
 Same as 22a).

In sentences like 14, 17) and 19), however, the order of the two NP's cannot be reversed. The following are all ungrammatical:

- 23) *Olo'o Ioane i le fale.
 24) *E (le) tupe a lo'u tamā
 25) *Sa Ioane peresetene.

Second, consider the combinations of NP's dominated by ARG in each of the three hypothetical structures above. I will assume that the representation of any verb in the lexicon includes a specification of the combinations and types of arguments that may co-occur with it in a sentence (in essence the same thing as "strict subcategorization features"). If the zero-verb analysis is correct, LOC, PRP and NOM will each be unique in the lexicon in respect of these features: LOC because it requires NP₁ followed by NP₀ -- an order which goes against all evidence on the underlying order of arguments; PRP because it has an NP₀ as an underlying argument; and NOM because it takes two NP₀'s. The need to postulate highly unusual lexical items like this should be grounds for suspecting the analysis.

Third, notice that the pronominal remnant left as a result of topicalization of NP₁ in sentences like 14) is different from that when the topicalized NP₁ is an argument (or at least a constituent) in a sentence with an overt verb.

- 14) Olo'o i le fale Ioane.
 26) 'O le fale olo'o i ai Ioane.
 27) Olo'o galue i le fale Ioane.
 John is working in the house.
 28) 'O le fale olo'o galue ai Ioane.

These facts make it hard to maintain the zero-verb analysis. They can be accounted for in a plausible way, however, if we suppose that in sentences 14), 17) and 19) i le fale, a lo'u tamā and peresetene, respectively, are in some sense analogous to verbs. Specifically, I

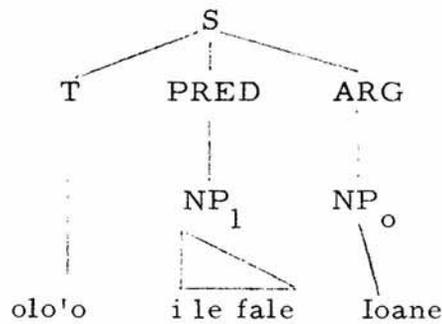
will introduce a new category, Predicate, to which these phrases as well as verbs will belong. This means replacing Rule 1, given in Section 1, with the following two rules:

1a. $S \rightarrow T \text{ (NEG) PRED (ARG)}$

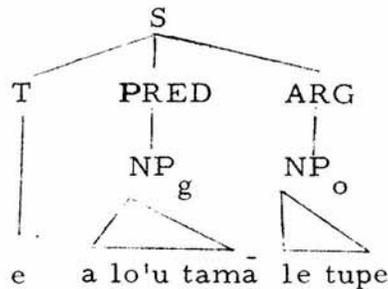
1b. $\text{PRED} \rightarrow \left\{ \begin{array}{l} V \\ \text{NP}_1 \\ \text{NP}_g \\ \text{NP}_o \end{array} \right\}$

The structures I, II and III are now replaced by:³

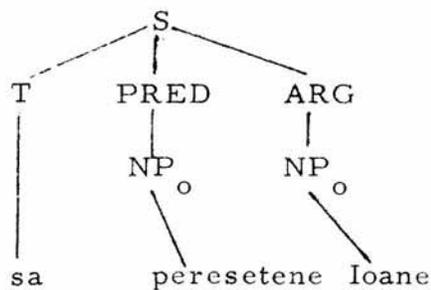
IV



V



VI



The arguments just given apply to all seven sentence-types listed in Section 2. The Predicates of sentences 14) - 20) are thus, in order: i le fale, iā Ioane, i ai, a lo'u tamā, i ai, peresetene, and fitu.

4. Possessive Sentences: Although usually translated with "have", Possessive sentences seem to be merely a special case of locatives. The differences in meaning which are reflected in the different English translations are due to different classes of lexical items: Locatives generally have an inanimate noun in the predicate, Possessives an animate (human) noun.

If we examine the meanings of Locative and Possessive sentences more closely it becomes clear that they are two cases of a single type of predicate. The meaning of the Locative predicate is not spatially explicit; in the following sentences the specific English preposition is supplied according to the predicate noun and its most normal relation to the argument:

- 29) 'O Ioane olo'o i le pusa.
John is in the box.
- 30) 'O Ioane olo'o i le tauluga.
John is on the roof.
- 31) 'O Ioane olo'o i le fa'atagata.
John is by the statue.

Sentence 29) would be equally appropriate if John were on top of the box, or standing beside it.

The "have" relationship expressed by Possessive predicates, on the other hand, is not ownership, but mere possession, possibly temporary. Sentence 15) illustrates this: the book is simultaneously and without contradiction owned by the speaker and possessed by John. Or rather it is "on him", if my claim that these two sentence-types are in fact one is correct. This English expression and similar

phenomena (such as the Russian use of the preposition u "by, beside" to express possession) show that a relation between possession and location is not uncommon in natural languages.⁴ A sentence such as

32) 'O le pusa olo'o iā Pili.

thus has two possible translations: "Bill has the box" and "The box is by Bill."

A combination of human predicate with human argument yields still another English translation, which nevertheless can be seen to be an instance of the same type of predicate:

33) 'O Ioane olo'o iā Pili.
John is with Bill.

5. Existential Sentences: Consider the following sentences:

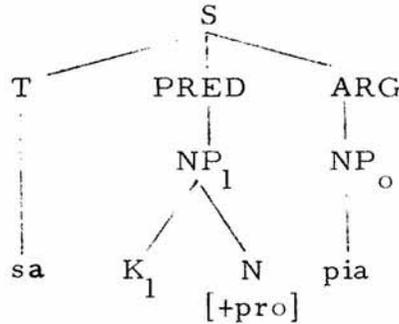
34) E i le pusa le laumei.
The turtle is in the box.

35) 'O le pusa e i ai le laumei.

The second is derived from the first by topicalization of the predicate NP i le pusa. (I disregard any difference in meaning between the two). Notice that the pronominal remnant in 35) is i ai. I have claimed that i ai is the predicate in Existential sentences such as 16). Let us consider the hypothesis that Existential sentences are a subclass of Locatives, derived from structures in which the predicate NP₁ is a pro-form, which is eventually realized as i ai. There is more motivation for such a hypothesis than a simple resemblance of forms. Like location and possession (as mentioned in Section 4), existential and locative predicates are intimately related in many languages,⁵ so the existence of such a similarity in Samoan is likely to be more than mere coincidence. If the

hypothesis is correct, sentence 16) would be derived from the structure:

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A problem appears when we compare the negatives of 35) and 16):

36) 'O le pusa e lē i ai le laumei.
The turtle is not in the box.

37) Sa leai ni pia.
There was no beer.

The negation of the Locational sentence 36) is quite regular, but the negated Existential predicate takes the form leai. The sentence

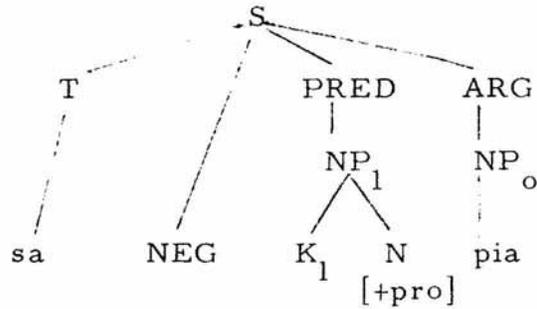
38) *'O le pusa e leai $\left. \begin{matrix} \text{le} \\ \text{ni} \end{matrix} \right\}$ laumei.

is ungrammatical because there is no place from which the first phrase could have been topicalized.

This problem may mean that in reality the Existential predicate is not to be identified with the Locational in the present-day grammar of Samoan (although a historical connection seems almost certain). However, it is possible to preserve the hypothesis if we postulate that the special rule creating leai (some special rule will

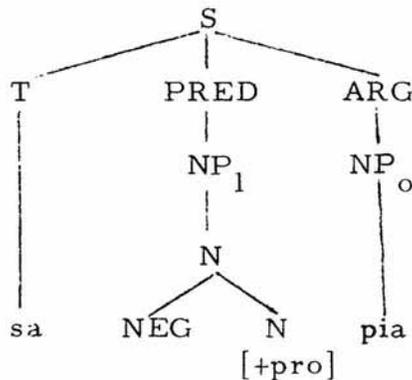
be required in any case) precedes topicalization (or more precisely, precedes the pronominalization which creates the "remnants" of topicalized NP 's). Beginning with the structure

VIII



which underlies 37), the leai rule would have to delete the case-marker K_1 (i) and adjoin NEG into a single word with the predicate noun, giving

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The pronoun would eventually be realized as ai by a spelling rule which applies also to dative and instrumental pronouns. The realization of the negative element as le instead of lē may perhaps be explained on purely phonological grounds: the same change occurs elsewhere when lē is incorporated into another word, as in

- 39) E le'o Ioane sa 'ou va'ai i ai.
It's not John that I saw.

where $le'o < \bar{le} + 'o$.

I do not find this explanation intuitively satisfying, and I suspect that in present-day Samoan i ai is simply a verb meaning "exist", with an idiosyncratic negative form.

6. Existential-Proprietary Sentences: From a strictly Samoan point of view there would be no reason to set these up as a separate sentence-type. They are merely a subclass of Existentials, defined by the fact that the head noun of their argument is modified by an NP_g, as in:

18) E i ai le solofanua a Ioane.

This NP_o is derived from a relative clause with a Proprietary predicat_g. The structure underlying 18) is roughly the following:

E i ai [le solofanua [e a Ioane le solofanua]_S]_{NP_o}

Regular relativization processes lead to:

40) E i ai le solofanua e a Ioane.

The tense-marker e is then deleted from the relative clause by a Relative Reduction rule. Such a rule is required for the derivation of other noun phrases, such as

41) le tama i le potu kuka
the boy in the kitchen

42) 'ofu mananaia
pretty dresses

43) se tagata ulaula
a person who smokes

whose underlying structures contain, respectively, the relativized sentences

44) E i le potu kuka le tama.
 T NP₁ NP_o
 The boy is in the kitchen.

45) E mananaia 'ofu.
 T V NP_o
 The dresses are pretty

46) E ulaula le tagata.
 T V NP_o
 The person smokes.

(There is a completely analogous group of sentences which we may call Existential-Possessive, in which the relativized sentence is Possessive rather than Proprietary:

47) E i ai le fana iā Ioane.
 John has a gun with him.)

The reason for calling attention to this particular subclass of existential sentences is to show how the expression of possession in Samoan is organized in a way which is the reverse of the English situation. In the analysis commonly accepted (though not extensively discussed) among transformational grammarians⁶, an English sentence like John has a horse is a simple sentence, while The horse is John's is complex, having John has the horse as one of its underlying components. In Samoan, as we have seen, it is the sentence corresponding to The horse is John's (E a Ioane le solofanua) which is simple, and sentence 18), which translates John has a horse is complex, having E a Ioane le solofanua as one of its underlying components.

7. Nominal Sentences: The class of nouns that can occur as heads of nominal predicates in sentences like 19) seems to be quite restricted. For this reason it might be suggested that we have to do rather with a class of verbs which happen to be homonymous with certain semantically related nouns; that peresetene in 19), for example, is a verb, with a meaning like "be president". Sentences such as the following, however, show that this is not the case:

- 48) 'O Johnson sa ia peresetene sa 'ou lē mana'o i ai.
Johnson was a president I didn't like.
- 49) 'O Ioane olo'o tupu o Egelani.
John is king of England.

The underlined phrases can be explained only as modifiers of nouns, and the meanings make it clear that the nouns must be peresetene and tupu.

The preceding argument does not preclude the possibility that peresetene and tupu in the above sentences might originate as verbs in the lexicon and obligatorily undergo some nominalizing transformation, as Lakoff⁷ has suggested in connection with similar nouns in English. It merely shows that, at the relatively superficial level we are discussing, they must be analyzed as nouns.

8. Numerical Sentences: The question of whether sentences like 20) should be included in a discussion of "verbless" sentences is just the question of what part of speech numerals belong to. In the following sentences they seem to be verbs:

- 50) Sa 536 i'a sa 'ou sapo.
T Num fish T I catch.
I caught 536 fish.
- 51) Matou te to'atolu.
We T Num
There are three of us.

- 52) 'O le matafaga sa lima ai va'a.
 beach T Num boat.
 On the beach there were five boats.

On the other hand, in sentences such as:

- 53) Ole'ā o mai le to'atolu tamaloloa.
 T V NP_o
 Three men will come.
- 54) 'Ou te mana'o i se lima (o) fa'i.
 T V NP_d
 I want five (of the) bananas.

they behave like nouns. In particular they resemble nouns of the Quantifier type (examples of which are tele 'many, most', fia 'how many?', lafu 'herd', pauna 'pound') in their ability to enter into measure phrases:

- 55) le to'atolu tamaloloa
 three men⁸
- 56) le lafu povi
 a herd of cattle
- 57) se lima o fa'i
 five of the bananas
- 58) le to'atele o ali'i
 most of the chiefs

I suggest that numbers are in fact quantifier nouns in the lexicon. Given suitable rules for the generation of measure phrases, this allows us to account for examples 53) - 58). As for sentences 50) - 52), they can now be seen to be of the Nominal type, having

NP_o predicates.⁹ In support of this analysis we may observe that at least some of the other quantifiers may occur as Nominal predicates:

- 59) E fia ufi sa e kuka ina ?
How many yams did you cook ?
(The yams you cooked are how many ?)
- 60) E pauna le tapa'a i le pusa.
There is a pound of tobacco in the box.
(The tobacco in the box is a pound.)

The recognition of Numerical predicates also makes clear the identity of the e that occurs in sentences such as:

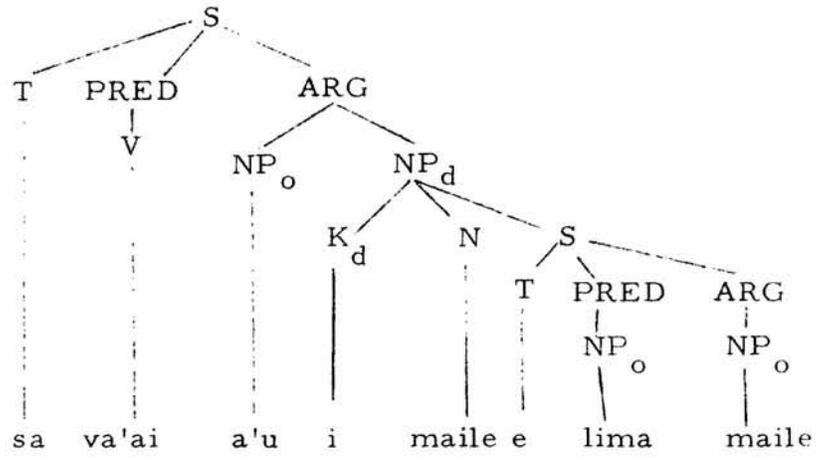
- 61) Sa 'ou va'ai i maile e lima.
I saw five dogs.

which has traditionally been considered a special particle used with numerals and other quantifiers.¹⁰ In fact it is nothing but the tense-marker e; in the above sentence, e lima is a relative clause. (Apparently the relative reduction rule mentioned in Section 6 does not apply to numerical predicates, for we never get phrases of the type *maile lima.) Other tense-markers do appear in this same construction, although more rarely:

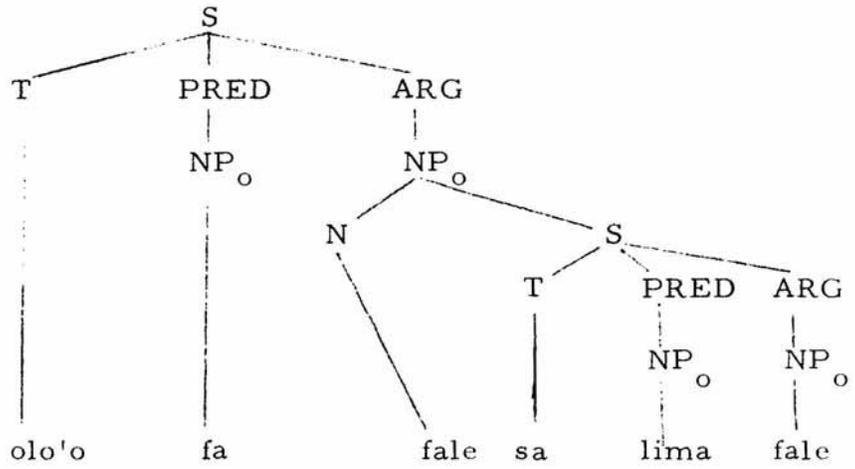
- 62) Olo'o fa fale sa lima.
T 4 house T 5
There are four houses where there used to be five.
(The houses that were five are four).

Sentences 61) and 62) are derived from the following structures:

X.



XI



FOOTNOTES

1. The division into "sentence-types" and the names given are for purposes of exposition only, and do not constitute part of a grammar.

The most important type of verbless sentence excluded from consideration here is that exemplified by 'O le leoleo Ioane, "John is a policeman." Such sentences are not clearly related to any other type, verbless or not, and their true grammatical nature is still a mystery to me.

2. Emmon Bach "Have and be in English Syntax," Lg. 43. 2 (June 1967), 462-485.

3. It is a general rule that no article appears in the first NP_o of a Nominal sentence (thus peresetene instead of le peresetene in 19)).

The reason for this is, presumably, either that there is an article-deletion transformation, or that the article-segmentalization rule is restricted so as not to apply to such phrases. In either case the absence of the article may constitute a weak piece of evidence in favor of the analysis proposed. For if the first NP_o in a nominal sentence is merely another Argument, (Structure III), the condition governing deletion (or non-application of segmentalization) will be the environment T (NEG)_____. If the presently proposed analysis is correct, however (Structure VI), the condition will be simpler to state (perhaps more "natural"): the article is deleted (or fails to appear) if NP_o is dominated by PRED.

For proof that peresetene in sentence 19) is really an NP, see Section 7.

4. Further comparative material can be found in the considerable literature in this area. See, for example, J. Lyons, "A note on possessive, existential and locative sentences," Foundations of Language 3 (1967), 390-396; and various articles in the series The Verb "Be" and its Synonyms, edited by John W.M. Verhaar (Foundations of Language Supplementary Series, 1967-).

5. See references of footnote 4.

6. See, for example, P.S. Rosenbaum, English Grammar II, IBM Research Report, Yorktown Hts, N. Y., 1968, pp. 53-55, 74-85.

It is interesting to note that even if we accept this analysis of the English, at least two senses of have will have to be distinguished even in simple sentences like John has a car, in order to account for the fact that John doesn't have his car is perfectly normal, whereas John isn't reading the book he is reading is self-contradictory.

7. G. Lakoff, On the Nature of Syntactic Irregularity, NSF Report 16, Cambridge, 1965 (Section 5.4).

8. to'a- is a prefix added to numerals and quantifier nouns when they enumerate human beings.

9. The semantics of this analysis seem quite plausible, if we take the basic meaning of a numeral such as lima to be "group of five". Sentence 50) can now be glossed "The fish that I caught were a group-of-536". If we had chosen the other obvious possibility and claimed that numerals were lexically verbs, and that phrases like 55) and 57) result from some process of nominalization, we would be forced to assert that the derived meaning was something like "fiveness", or "that which is five", which seems rather less intuitively natural.

The question of how the infinite set of numerals (including, for example, lima selau tolu sefulu ma le ono, "536") is to be generated from a small set of lexical items has not been considered here. Although some special rules may be necessary, it seems likely that the basic processes are the same as in measure-phrase formation and noun phrase conjunction, i. e. that the above compound numeral has essentially the same structure as the phrase le lima ufi, le tolu fa'i ma le 'ulu "five yams, three bananas and a breadfruit".

10. As, for example, in G. B. Milner, Samoan Dictionary, London 1966, p. 39.