In spite of the ambitious title of this paper, it is impossible in a brief report such as this to give an adequate idea of the nature and range of Paragraph and Sentence structures in New Guinea Highlands languages. My goal in this paper is rather to present initial evidence of units which can reasonably be called paragraph and sentence in languages of the chaining variety in the Highlands and other parts of New Guinea. This means that we must sort out certain obvious features of surface structure in these languages so as to evaluate better their real function. In fact, we might almost entitle this paper 'The Destalinization of the Final Verb'. By the 'final verb', I mean a peculiar surface structure feature which has inordinately held the centre of attention in the linguistic analysis of these languages. By 'destalinization', I mean: recognizing this verb form for what it is, a feature of surface structure, and not taking it to be as focal as we have heretofore.

1 Final Verb as a Feature of Surface Structure.

1.1 Predication is no doubt a cultural universal so that clause structures with such component units as Predicates, Subjects, Goals, and adjuncts of Time, Location, and Manner, are also considered to be cultural universals. It seems obvious that we cannot talk without some unit of predication. Equally universal are inter-clausal connections into larger units. These connections usually occasion some sort of sentence level as well as a paragraph level — if we broadly conceive sentence and paragraph to be chunks of different sizes. In many languages, such as English, compound sentences are found, e.g. 'I went downtown but Mary stayed home'. In this sentence there are two sentence bases: 'I went downtown', and 'Mary stayed home', and the verbs within both bases are of equal rank, so that neither verb is in any way structurally superior or inferior to the other. We can, of course, have several bases in the same sentence, as in 'I was at the Club, Mary was out bowling, and the children were watching television'. Such sentences may also have peripheral clauses in subordinate function, as in 'While all this was going on, I was
at the Club, Mary was out bowling, and the children were watching television'. Here the clause 'While all this was going on' goes with the entire sentence nucleus which consists of three bases. It is peripheral to the entire sentence of which it is part.

From consideration of structures such as these, we derive a model of sentence structure found in many parts of the world, viz. a unit consisting of one or more independent clauses, plus or minus one or more dependent (subordinate) clauses.

1.2 The peculiarity of many New Guinea languages is immediately evident in the fact that for such languages there exist chains of clauses with one and only one clause — usually the last—containing a verb distinct in structure from those found in all preceding clauses. It has been customary to call this verb of distinctive structure the independent or the final verb, and the other verbs dependent or medial. Medial verbs in many of these languages contain affixes which tell us if the subject of the next clause is to be the same or different from the subject in the clause under consideration; such medial verbs may even mark explicitly the person and number of the subject in the clause which is to follow.

This is essentially a different model of sentence structure from that sketched above for English, Philippine languages, and many languages of Mexico and other parts of the world. The contrasting model evidenced in New Guinea chaining languages may be compared to a number of railway cars pulled by one and only one engine. This means that even when we are expressing relations which would be coordinated in an Indo-European language, we must put them into a mould so that one and only one clause has a final verb, and any and all other clauses have medial verbs.

Another relevant fact is the disproportionate length of so-called sentences in some of these languages, if the medial-final chain be equated with the sentence. The plausibility of these long units as sentence units becomes even more suspect when we note that there is detectable articulation and segmentation into parts within such long chains, so that they tend to fall apart into a series of sub-units.

2 It becomes therefore necessary to challenge some of the assumptions which have more-or-less unconsciously guided the analysis of languages of the chaining variety as just described.

2.1 One assumption which should be challenged is that the final verb is to be identified with the independent verb in Indo-European languages while the medial verb is to be
## Chart 1

<table>
<thead>
<tr>
<th>No Relationship</th>
<th>Specific Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Simple</strong></td>
<td></td>
</tr>
<tr>
<td>a) Final Verb</td>
<td>c) Medial Verb</td>
</tr>
<tr>
<td>wakiye</td>
<td>wamaging...</td>
</tr>
<tr>
<td>'he will go'</td>
<td>'he goes and he...'</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adapted</strong></td>
<td></td>
</tr>
<tr>
<td>b) Equative</td>
<td>d) Subordinate Verb</td>
</tr>
<tr>
<td>namáne</td>
<td>wakibipa...</td>
</tr>
<tr>
<td>'it is a house'</td>
<td>'if he goes...'</td>
</tr>
</tbody>
</table>

## Chart 2

<table>
<thead>
<tr>
<th>Relationship marker</th>
<th>Compound Actions</th>
<th>Simultaneous Actions</th>
<th>Sequence Actions</th>
<th>Coordinate Actions</th>
<th>Coordinate Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>gi</td>
<td>-gi</td>
<td>-tegi</td>
<td>-magi</td>
<td>-nta</td>
<td>(-ógá) (class)</td>
</tr>
<tr>
<td>Short form</td>
<td>-Ø</td>
<td>-te</td>
<td>-ma</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Chart 3

### Past Tense

<table>
<thead>
<tr>
<th></th>
<th>Sing</th>
<th>Dual</th>
<th>Plur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>-ùwága</td>
<td>-ùwage</td>
<td>-ùwaka</td>
</tr>
<tr>
<td>2nd</td>
<td>-uku</td>
<td>-úsugu</td>
<td>-úgu</td>
</tr>
<tr>
<td>3rd</td>
<td>-ógá</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Present Tense

<table>
<thead>
<tr>
<th></th>
<th>Sing</th>
<th>Dual</th>
<th>Plur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>-óga</td>
<td>-ogá</td>
<td>-oká</td>
</tr>
<tr>
<td>2nd</td>
<td>-áká</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>-ógá</td>
<td>-ogá</td>
<td></td>
</tr>
</tbody>
</table>

### Future Tense

<table>
<thead>
<tr>
<th></th>
<th>Sing</th>
<th>Dual</th>
<th>Plur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>-áká</td>
<td>-ágá</td>
<td>-áká</td>
</tr>
<tr>
<td>2nd</td>
<td>-ágá</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>-áká</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
identified with the dependent or subordinate verb in such languages. A final clause, one and only one of which can occur in a long chain, is obviously not analogous to an independent clause, several of which can be coordinated in the same sentence in a language like English. This difference would remain even if other parallels were thought to occur.

2.2 A further assumption which should be challenged is the assumption that we are to equate a chain of medial verbs ending in a final verb with the sentence. Undoubtedly in some languages of the chaining variety, such chains are to be equated with the sentence. There are, however, other analytical possibilities which certainly are valid for some languages of the area. Specifically, I suggest that in some New Guinea languages, e.g. Fore, Kanite, and Kosena of the Eastern Highlands, the chain ending in a final verb is roughly equivalent to a paragraph, and contains within it smaller units identifiable as sentences. This implies more grammatical closure for the paragraph than we are accustomed to find in English; and less grammatical independence for the sentence than we are accustomed to find in English. It is time, however, that Bloomfield's definition of a sentence as a maximum independent unit be challenged. This definition has indeed been a source of confusion the world over. Sentences occur within paragraphs and discourse and betray the fact that they are embedded within context. Their independence is therefore only relative at the best, in any discourse in any language of the world.

3 I will now proceed to illustrate the allegations just made in reference to the Fore language. The data are from Graham Scott in a paper which he is preparing, called 'The Higher Levels of Fore Grammar'. The interested reader should check the brief report we are making here against the fuller paper which Graham Scott is submitting for publication.

3.1 First we should note some features of Fore verb suffixes. Chart 1 is a summary by Scott of four types of verbs which occur in Fore. The final verb and medial verb contrast as we have indicated above. Note that the final verb on the chart ends with -e, which is an indicative marker, and that the medial verb has a suffix -magi (which indicates same subject in the following clause), followed by the suffix -na, which marks third person singular subject in the following clause. I will not say anything more at present regarding the equative and subordinate verbs. Equative predicates are derived from nouns. Subordinate verbs are derived from either final verbs or medial verbs and reflect
6) The suggestion is that if we define paragraph and sentence this way for New Guinea chaining languages of the sort exemplified by Fore, we obtain paragraph-level chunks of plausible size, and sentence-level chunks of plausible size, and that these build well into the structure of discourses -- aside from a bit of irregularity in the realm of Aperture and Closure of discourse.

3.3 Note the text material which is appended at the end of this paper. Neither of the accompanying bits are a complete text. The first stretch of text is from Scott's Narrative Discourse C-- 'Small People Can Be Useful' and involves only Aperture, Stage, and the first four Episodes of that Fore legend. The second bit of text has only the Stage and the first surface structure Episode.

Note in Narrative Discourse C the occurrence of final verb at the end of 1, 2, 3, 13, 19, 27, and 35. The final verbs at the end of 13, 19, 27, and 35 mark the end of paragraphs within this story. The termination of paragraph in 13, 19, 27, and 35 is in fact double marked by the occurrence of final verbs. Not only do the specific final verbs occur, but also the verb iye, 'so they say'. Each paragraph expounds an Episode of the Story. The final verb at the end of 3 marks the end of a one-sentence paragraph which expounds Stage. Both C1 and C2 together expound Aperture of the story, although both end in final verbs. I have already noted that there is a typical area of irregularity in regard to paragraph and sentence structure in and about Aperture and Closure of discourses, e.g. it is not unusual or uncommon for the Aperture of a discourse to be a sentence (or even clause) which is part of the first paragraph so that the first surface structure paragraph of a discourse expounds what is the deep structure Aperture and first Episode. Similarly, we sometimes find that the Closure of a discourse is part of the final paragraph. At this point of this text, we find the Aperture consists of two one-sentence paragraphs. If this seems unsatisfactory, we could modify our analysis by saying that Fore also contains compound paragraphs composed of sub-paragraphs, and that such units may be found in Aperture.

Look now within Episode 1, that is, from 4 to 14. We note immediately that the suffix -ogo, third person singular past tense coordination with different subject in the following clause, occurs in 4, 7, 8, and 13. Notice its use in 4. 'A certain man made a very large sugar cane garden, and was there (-ogo).' Then in 5 we are told that a monster arose out of the lake. The monster is a different subject than the man who made the sugar cane garden in 4. Therefore, an <ogo> class suffix is called for.
Occurrence of this \(<\text{oqo}>\) class suffix marks the end of the preceding sentence, the domain in which the monster is the Actor. Similarly in 7, 8, and 13, we find shifts of subject in the following clause. Then note the occurrence of the suffix \(-\text{nta}\) in 6, 9, and 12. There is no shift of subject between 6 and 7. 5 and 6 together comprise one sentence in Fore. It could have ended with a verb with the suffix \(-\text{magi}\) in that what follows in 7 is in chronological sequence with what happened in 5 and 6, and there is no change of subject between 6 and 7. The monster is the Actor in 5 and 6, and is also the speaker in 7. Nevertheless, apparently there is some feeling for the size of units on the sentence level and as a result the \(-\text{nta}\) suffix is used at the end of 6 and a new sentence is begun in 7. Similarly, between 9 and 10 there is no change of subject and \(-\text{nta}\) is used to conclude a sentence composed of 9. In 10, 11 and 12 a further sentence occurs, in which the monster continues to be the Actor, and in 13 still another sentence occurs with the monster as the Actor. It would be similarly possible to go through Episodes 2, 3, and 4, noting the distribution of \(<\text{oqo}>\) suffixes, the \(-\text{nta}\) suffix and final verbs. In every case, we obtain a plausible dissection into units of approximately paragraph and sentence size.

3.4 I have been over a moderately large corpus of analyzed text prepared by Graham Scott, that is, a total of twelve texts on differing subjects such as legends, first person accounts, how to build a house, how to bake bread, prayer, lecturing a new bride, and sermonic material. In every case, sentence and paragraph as thus defined prove viable—although sentence and paragraph differ in length and complexity according to the various discourse types. The only interesting exception is presented in the second fragment of text material attached to this article, Scott's Narrative Discourse D, 'A Yam Origin'. Here a Stage and Episode 1 are combined into the same surface structure unit—a long chain of medial verbs followed by the final verb at the end of D32. As before noted, this is not so surprising in that features of beginning and end of discourse often display irregularity. What is surprising in this text is the fact that the surface structure Episode 1 is clearly two deep structure Episodes. There is very clearly fresh recycling of familiar lexical material from D19 on. Thus, just as D1 mentions a teenage girl from a certain village, so D19 for the first time again contains the phrase 'teenage girl'. You will also note through D20 and following clauses the repetition of lexical items which occur in D2 following. Undoubtedly, a new lexical cycle has begun which indicates a new deep structure Episode. These are both combined, however, to form the same surface structure Episode in that they occur within the same surface structure paragraph with a final verb.
at the end of D32.

Note, however, that there is no possibility of confusion in a text of this sort. In spite of the fact that two deep structure Episodes are combined in the same surface structure paragraph, there can be no feeling of confusion on the part of the hearer. We may say that surface structure can be loose in proportion as deep structure units are well marked lexically.
4.1 NARRATIVE DISCOURSE: "Small People can be Useful"

APERTURE:

C₁SCI: ka amanipa maya puntiye, iye
One spirit-being like this did, so they say.

C₂SCI: Agonamapine, iye.
(Here) is the gist of it, so they say.

STAGE:

C₃SCI: Yabu yuguba, pabita, agasiya yabu yuganamane, iye
A sugar garden, wait, it was an extreme sugar garden, so they say.

EPISODE₁:

C₄SeqSCI: Agasiya yabu yuganamakana puma'ma
An extreme sugar garden he did and did and
mintogana, ka yagarama, C₅SeqSCI: kotupisa
was there, one man (was), and out of a lake
awanama tara uma ba pabita, agasiya
(a being with) two tusks was there and, wait, extremely
puma awa e'ernataga karinamampa imagina,
it did and the being with the very long tusks came up, and
C₆CompSCI: pi ntamu yugaba kagisa awamora asy
at the fence-edge of that sugar garden it came up
mintana C₇SCI: "Warana pe," yogana,
and was there, and "Fall down," it said, and
C₈SCI: pabigo kagisaba warara pawoogana,
completely the fence fell down flat, and
C₉SeqSCI: pabigo yabuba asy maema
completely the sugarcane it went up and took and
asy maema asy maemutamanta, C₁₀SCI: pabigo
up and took and up and took, and completely
maegina, C_{11} SeqCl: kotupintiya momo puma
it took it, and into the lake down it did and
momo pumutategina, C_{12} SC1: pigo to tumigaintana,
down down it did, and alright again it went down
C_{13} SC1: "Ituru pe," yogana, C_{14} SC1:
completely, and "Stand up," it said, and
ituru puwaewantive, iye,
(the fence) all stood up, so they say.

EPISODE_2:
C_{15} SC1: Piya yogana, C_{16} CompCl: agaga
Like that it did, and he looked and looked and
pugagagategina, C_{17} SC1: "Nanaenama pive," pugagagategina,
did and did, and "What is it doing?" he said and
C_{18} SC1: pabigo ampagina, C_{19} CompCl:
said, and completely he came there, and
ampa ka yogorama kabima mintantive, iye.
he came and (that) one man watched and was there, so they say.

EPISODE_3:
C_{20} Comp Cl: Namapa pabi yabu yugabinti ampa kita magina,
A house in that sugar garden he went and built, and
C_{21} SeqCl: kabima mintogana, C_{22} SeqCl: ima
he watched and was there, and it came up
pi karinamampa imagina, C_{23} Comp Cl: asu
and that being came up, and it went up and
mintana, C_{24} SC1: "Warara pe," yogana, C_{25} SC1:
was there, and "Fall down," it said, and
pabigo yabuba tataku pumagina, C_{26} SC1:
completely the sugar-cane fell around, and
pabigo kana yagaraba tumpagina, C_{27} SC1:
completely on that man it fell down, and
airari kaewantive, iye.
covered him up, so they say.
Airari kaewaogana, C_{28}^{SC1} apasa puntogana, it covered him, and he peeped through at it, and

C_{30}^{SeqC1} pabigo tagama tagamutamagina, completely it piled up and piled up (the sugar- cane), and C_{31}^{SC1} pabigo kotupinti momo pumutamagina, C_{32}^{SC1} pabigo maetequina, it did (take) it, and completely it got it, and

C_{33}^{SC1} tumigaintana, C_{34}^{SC1} "Ituru pe," went down completely, and "Stand up",
yogana, C_{35}^{SC1} pabigo kaga ituru it said, and completely as one (the fence)
puwaewantiye, iye.
all stood up, so they say.

4.2 NARRATIVE DISCOURSE_{D} "A Yam Origin"

STAGE:

D_{1}^{SC1} Karagarisa ka aragawa'namampa in'magina, From Karagari a teenaged girl appeared, and

EPISODE_{D}:

D_{2}^{CompCl} kasabi tumpa aetaogana, in a 'kasa' tree she went down and shook with her foot, and

D_{3}^{SimuCl} ka'yu iro'ute waogana, D_{4}^{SC1} "Maro a possum appeared and went, and "Over

nk'a'eriba kampa abeno, kampa abeno, ka'yu in that village, don't you know, don't you know, a possum
maro piye, maro piye," yogana, D_{5}^{SC1} ka is over there, is over there," she said, and a
yagarama asimagina, D_{6}^{SimuCl} "Mebiye, mebiye," man stood up, and "Watch out, watch out,"

otote kanamagina, D_{7}^{SC1} kanamagina, D_{8}^{SC1} "Mebege, he said and came, and "Watch out,
kabagaitegi asu I'll shoot you first (have relations with you) and then go
pakameno," yogana, D_{9}^{SC1} "A'a up and shoot it and give it you," he said, and

marumpa nabakibena, igaga asu panamite before you shoot me, the possum go up and shoot for me,
yo", yogana, D_{10} SC1: imagina, (please) say, "she said, and he went up, and

D_{11} CompCl: pigo\: asu\: pataaogana, D_{12} SC1: alright he went up and shot it, and
tumogana, D_{13} SC1: igawa\: maeritegina, D_{14} SeqCl: it fell down, and her possum she got, and

kanuwa\: akinga\: pabita\: atantana, D_{15} SimuCl: his arrow she pulled out and there she put it, and
"Kanu\: kanugapa\: mebiye," oate\: maeritegina, "Arrow, your arrow is there, she said and took (the possum).

D_{16} SC1: wa'napinta\: pai'waagana, D_{17} SC1: mo\: into the bush path she fled, and that
ntagara\: yaba\: atategina, D_{18} SC1: wa'eri\: man from the tree left there, and home
umintogana, D_{19} SC1: mo\: nkaragawae'\: ma\: to\: that teenage girl again
pabita\: asima\: imagina, D_{20} SimuCl: wa'napisa\: iro'ute\: there stood, and from the bush path appeared

imagina, D_{21} CompCl: pabi\: areba\: kasabi\: that same "kasa" tree
and went up, and
asu\: aetaaogana, D_{22} SimuCl: ka'yu\: iro'ute\: she went up and shook it, and a possum appeared

waagana, D_{23} SC1: "Maro\: nka'eriba\: kampa\: abeno\: and went, and "Over in that village, don't you know,
kampa\: abeno, ka'yu\: maro\: piye, maro\: piye," don't you know, a possum is over there, is over there,"
yogana, D_{24} SimuCl: mo\: ka\: yagarama\: pabigo, she said, and that man completely,
"Mebiye, mebiye," oate\: pabigo\: irebu\: "Watch out, watch out," he said and completely a bow
maete\: kanamagina, D_{25} SC1: "Mebeba, kaboragaite he got and came, and "Watch out, I'll shoot you

asu\: pagameno," and then I'll go up and shoot and give it to you,"
yogana, D_{26} SC1: "Kampaye, ma\: tumpa he said, and "No, here you will come down and
nabakibena, ima\: igaga\: asu shoot me, but first go up and the possum go up and
panamite\: yo," yogana, D_{27} SC1: imagina, shoot and give me, so say," she said, and he went up

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and completely he went up and shot it, and it fell down, and she got it and, "Arrow, your arrow is there," she said, and down there she got it, and into the bush path she fled.

FOOTNOTES

1. This is a preliminary report on a project still in progress under the Office of Education (United States Government Department of Health, Education, and Welfare), entitled 'Hierarchy and Universality of Discourse Constituents (New Guinea Languages)', Contract No. OEC-O-9-097756-4409 (014).
