HANDLING UNSOPHISTICATED LINGUISTIC INFORMANTS

by

Alan Healey

Department of Linguistics
Research School of Pacific Studies
THE AUSTRALIAN NATIONAL UNIVERSITY
PACIFIC LINGUISTICS is published by the Linguistic Circle of Canberra and consists of four series:

SERIES A - OCCASIONAL PAPERS
SERIES B - MONOGRAPHS
SERIES C - BOOKS
SERIES D - SPECIAL PUBLICATIONS.

EDITOR: S.A. Wurm. ASSOCIATE EDITORS: D.C. Laycock, C.L. Voorhoeve.

ALL CORRESPONDENCE concerning PACIFIC LINGUISTICS, including orders and subscriptions, should be addressed to:

The Secretary,
PACIFIC LINGUISTICS,
Department of Linguistics,
School of Pacific Studies,
The Australian National University,
Canberra, A.C.T. 2600.
Australia.

Copyright © J.B.M. Guy.
First published 1974.
Reprinted 1975.

The editors are indebted to the Australian National University for help in the production of this series.

This publication was made possible by an initial grant from the Hunter Douglas Fund.

National Library of Australia Card number and ISBN 0 85883 109 0
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>0. Introductory Note</td>
<td>1</td>
</tr>
<tr>
<td>1. General Approach</td>
<td>1</td>
</tr>
<tr>
<td>2. Linguistic Surveys</td>
<td>4</td>
</tr>
<tr>
<td>3. Investigating Phonology</td>
<td>6</td>
</tr>
<tr>
<td>4. Pair Testing</td>
<td>8</td>
</tr>
<tr>
<td>5. Eliciting Grammar Monolingually</td>
<td>11</td>
</tr>
<tr>
<td>6. Determining Meaning</td>
<td>15</td>
</tr>
<tr>
<td>7. Using Tape Recorders</td>
<td>17</td>
</tr>
<tr>
<td>Notes</td>
<td>22</td>
</tr>
<tr>
<td>Bibliography</td>
<td>26</td>
</tr>
</tbody>
</table>
0. INTRODUCTORY NOTE

This paper describes the author's methods of handling unsophisticated informants while investigating the Telefónd language spoken by about 4000 people in the vicinity of Telefomin, Territory of New Guinea. The discussion includes several aspects of field methodology that have received scant attention in the literature to date: linguistic surveys, pair testing for phonology, monolingual informants, and the uses of tape recorders.

1. GENERAL APPROACH

To foster and maintain good relations with one's (potential) informants is an essential part of field work. One needs to be alert for any indications of offence or embarrassment. It is only courteous to respect their dignity, self-respect, feelings, opinions, beliefs, and customs. Despite the social stratification resulting from native-European interaction, I believe that it is both right and far-sighted to treat one's informants as equals in every way possible. I personally feel that I should sit on a log in the shade to work with an informant if that is the way he is most comfortable, rather than insist on using a table and chair in my house. A clip-board for note-paper is an asset when working without a table.

An early and vigorous attempt to learn and speak the vernacular is the best demonstration of the sincerity of one's interest in the vernacular. At Telefomin I started by learning to use the rather involved system of greetings and farewells, with the result that people who usually showed no interest in Europeans became quite friendly and interested in my efforts. In fact, if one's study of the vernacular is to extend more than a few weeks, then conversational fluency in the vernacular is invaluable to grammatical investigations and worthy of top priority for the first few months of field work. A tape recorder can render considerable aid in gaining conversational fluency.

Field workers who commence their studies in a monolingual situation, in which there is no intermediate language used in their contacts with the community or informants, are at a considerable advantage in achieving the goal of conversational fluency. It has been my bitter experience that knowledge of and leaning upon a trade language in the early stages of field work sets habits that are not easily broken, and the goal of conversational fluency may be indefinitely postponed. To overcome this problem some linguists have suggested that before a field worker commences his studies in a given language he should be
provided with an elementary sketch of the language - phonemic contrasts, pronouns, tenses, simple sentence structure, useful questions, short useful vocabulary, and perhaps a short tape-recorded language course - such as could be prepared from previous workers' materials or by an experienced linguist working on the language bilingually for a week or two. The initial boost that this material would give the field worker toward his goal of conversational fluency would allow him to by-pass the initial period of frustratingly inadequate communication experienced in an ordinary monolingual situation, thus doing away with the need (or temptation) for him to settle in a community where the trade language is well known, and where his chances of gaining conversational fluency

An important condition for conversational fluency is adequate opportunity to hear and participate in conversations with as many different people as possible. This may best be achieved by living in a village, or right beside the largest hamlet in an area, or on the busiest road in an area at a place where people stop for water or shade, or close to a place where people gather daily. Alternatively, conversational practice may be gained by daily visiting places where there are lots of people, taking short trips with people, or sharing in people's various tasks - in such a way as not to hinder their work for an employer or for subsistence. In such conversational practice it is good always to mimic new words and utterances at full speed. When away from home for more than an hour or so I make a practice of taking a small note-book and ball-point pen to note down new expressions. However, on shorter absences I prefer to take no notes, and make it a special mental discipline to remember the four or five most interesting new expressions till I arrive home and can note them down and later check them with an informant. In this way they are usually well fixed in the mind.

It is good to come to an agreement with the informant about rates of pay right at the beginning. It is appropriate for an informant's wages to be slightly higher than the locally accepted standard for an unskilled labourer, because of the greater prestige involved and because unsophisticated peoples often consider sitting down answering questions harder work than physical labour. The informant deserves payment, not for the hours he spends with the linguist, but rather for the hours he spends away from his means of livelihood. At Telefomin, a man who spends his mornings at informant work is often away from his agriculture for a whole day, because of the considerable distance of the taro-gardens from the villages and because rain regularly prevents him from gardening in the afternoons. In this case I feel responsible for a whole day's wages. Formal arrangements may not always be made with casual informants, but gifts (especially in kind rather than cash) are always appropriate. Some anthropologists warn against paying directly for the quantity of information or texts that an informant supplies, and against paying such a high wage as to embarrass
other field workers who come to the area in the future.

Sessions are best arranged to suit the informant's daily routine, and the field worker should be punctual. Lack of promptness gives the impression that the field worker doesn't really value the informant's help, but considers himself superior to the informant and thinks nothing of keeping him waiting while he trivializes. The length of sessions varies with the informant, but one hour seems to be the maximum advisable. Breaks of at least 15 minutes are necessary between sessions. Often one half-hour session is all that can be expected from casual and "bush" informants.

Usually the best situation is just one informant at a time, of the same sex as the field worker, and over 15 (preferably 20) years of age. In some areas it is socially acceptable for a single woman field worker to employ a male informant, and in other areas it is not acceptable. When two informants are used simultaneously, any friction between them is likely to detract from the linguistic value of the session. To avoid friction it is important to use informants from the same village or clan to ensure their dialectal uniformity, and it is advisable to interrogate them with meticulous alternation. In some social situations it may prove necessary to have two informants - an intelligent young man acting as spokesman and an old man of some status and experience acting as censor and consultant. Employing the one person for both household service and regular informant work may not be very satisfactory. He is often needed for both tasks at the same time. He tends to get tired, and a sleepy informant is completely unreliable. The linguist finds it very difficult to maintain two kinds of inter-personal relationship to the same person simultaneously - a distant disciplinarian and a friendly co-worker.

It is necessary to explain to each new informant, especially casual ones, what one is doing and why. If a tape recorder is used it is essential to demonstrate it first with one's own voice or that of a local person familiar with it. Someone who has not seen or heard a recorder before is likely to be scared of it, supposing that it will steal his soul or that it contains the voice of his ancestors. Sometimes linguists have even found it necessary to explain the process of writing and the purpose of their note-taking.

For all of his varied enquiries, the field worker needs patient and intelligent informants. Most informants prove to be good at just one or two types of investigation, such as lexicon, or verbal paradigms, or tonal contrasts; few informants are competent for all of the facets of a linguist's researches. The best work is accomplished when the field worker and informant have compatible temperaments.
2. LINGUISTIC SURVEYS

The making of rapid linguistic surveys offers some special problems. Often the informant has had little or no contact with Europeans, let alone linguists. It is necessary to go out of one's way to gain rapport with the informant right at the start of the session. As time is usually limited, it is good to come to the session with the information to be sought fully prepared. Word lists and grammatical material are best presented to the informant in semantic groupings rather than in alphabetical order. Where enquiry is limited to one informant session, a list of about 100 items seems to be an optional amount to ask the average "bush" informant before he shows signs of tiring.

Although recognized standard word lists such as Swadesh's are valuable for several purposes, various considerations may force the adoption of a modified list for surveying a given area. In some areas the likely informants are mostly monolingual, and the only items that can be obtained with fair certainty of their meanings being correct are objects, qualities, and actions that may be clearly demonstrated. For example, "skin", "flesh", and "bone" are not easily distinguished in a monolingual situation unless a cut of meat happens to be available. Often the likely informants have a poor understanding of the trade language that is being used for enquiry, and it is wise to accompany one's enquiries by monolingual-type demonstrations, especially for items that are ambiguous in the trade language. For example, in the Sepik dialect of Neo-Melanesian smok may include "smoke of a fire", "cloud", and "tobacco". When clarification of such ambiguities is not easily accomplished by demonstration, such items are best omitted from the list.

If the survey is limited to the languages of a single family, then the grammatical enquiry can be oriented towards the known grammatical characteristics of that family. For example, the Telefodi language has obligatorily possessed forms for many kinship words, some of which are suppletive: fik 'his elder brother', tifng 'your elder brother', badb 'my elder brother', but no word for 'elder brother'. Telefodi also has two sets of pronoun roots, the emphatic and the ordinary, and it has two or more unpredictable stem allomorphs for about half of the verbs. A survey of the languages of the Ok Family, of which Telefodi is a member, attempted to enquire into these features whenever there was sufficient time. In some language families a particular word class may have obligatory affixes which are difficult to control semantically through a poorly understood trade language, and it may prove necessary to omit items of this class from the vocabulary list. For instance, in the Ok Family verbs were omitted from the short questionnaire for this reason.

It is good to finalize any necessary modifications of one's survey questionnaire before embarking seriously on the survey, and this pre-
supposes some prior knowledge of one or more languages of the family.
If one has no prior knowledge of any of the languages then modifications
to monolingual elicitation and to elicitation through a poorly understood
trade language are the only ones that can be made.
If two questionnaires are used, a short one of 60 to 100 items for
monolingual elicitation in a single 30-minute session and a longer one
of 200 or more items requiring a bilingual informant and perhaps two
sessions to complete it, then it is advisable for the short questionnaire
to constitute the first part of the longer one. In this way the
short questionnaire will be completed for every informant, thus giving
a uniform set of data for comparison.

When taking data from an informant outside of his own language area
it is advisable to hold the session in private. Once, a Kwelmín
informant that I was interrogating was very distressed by the Telefo-
min onlookers who constantly laughed at his strange pronunciation.
When using an interpreter whose language is similar to that of the
informant it is essential to get the informant to understand that he
is to talk his own language and that he is not merely to say what the
interpreter says. Despite taking such precautions, in some cases I
have detected an increase of up to 20% in the number of words cognate
with the interpreter's language due to the suggestive effect the
interpreter has on the informant. The same considerations apply
when the linguist uses some familiar language of the same family as
the medium of elicitation. If the only medium of elicitation is a
very similar language of the family, then more reliable results can be
obtained by using monolingual elicitation rather than using that
language. Similarly, if one has several informants to interview in a
particularly short period of time and one wishes to work with several
informants simultaneously, then it is advisable to avoid having in the
same session informants whose languages are markedly similar in
vocabulary, lest they influence each other in their choice of words.

With each set of survey data it is essential to elicit enough
general information to put those data in their right setting among the
rest of the survey material. To identify the geographical location of
each dialect it has been my habit to enquire not only the name of the
informant's village, but also that of the main watercourse and dominant
mountain of the locality. Around Telefomin it has been customary to
move villages and change their names every ten years or so, and con-
sequentially some more permanent geographical feature is needed to
identify the informant's locality on maps. However, this method must
be applied with care in the Ok Family area, since streams have the
same name as the mountain at their head, and often two streams on op-
posite sides of a watershed have the same name. Clan names are
usually easier to elicit than elusive dialect and language names. In
the Telefomin area there are often dialect differences between clans,
and usually there is relative uniformity of dialect within a clan.
However, the same clan name may occur in two different language areas. Each informant has always been asked to evaluate the degree of similarity of the speech of his and surrounding groups. An accumulation of many such judgements from various informants gives a fairly reliable picture of dialect and language boundaries.

3. INVESTIGATING PHONOLOGY

With all informants it has been found best to limit the number of repetitions of an utterance to three or four. Most informants quickly tire of multiple repetitions and get bored with the session; some informants are inclined to lose interest in informant work altogether because of the field worker's apparent dullness of hearing. Furthermore, continued repetitions of an utterance rapidly decrease in linguistic value because of the appearance of tired allophones and intonation patterns, and because in such artificial circumstances the informant's acoustic image of the utterance becomes disassociated from his semantic image of it with a consequent uncontrolled drift in pronunciation that may involve changes of phonemes. It is no longer a meaningful utterance, but a string of nonsense syllables. This phenomenon is one reason why linguists working with informants need to make some positive identification of the meaning of each utterance, rather than rely solely upon sameness or difference of meaning.

When phonological details and contrasts tax the linguist's abilities (which happens more often than most of us care to admit) further repetitions of the crucial utterances can be obtained over a period of time, at several informant sessions. It is wise to put the material being studied into different contexts so that the linguist won't be so biased by his memory of a previous session, and so that the informant won't take these repeated enquiries as an insult to his consistency or correctness in speaking his own language. A tape recorder is able to provide endless repetitions without tiring the informant. Often when working with difficult phonetics, one reaches a point in the session when one's brain tires and refuses to register previously-identified items consistently, or refuses to hear the contrast at all. At this point, or preferably before it is reached, it is expedient to quit. The matter may be returned to later at another informant session.

When eliciting material for a problematic contrast it is best to establish the contrast with sub-minimal pairs of utterances, and especially so in the case of prosodic contrasts. Minimal pairs are excellent for demonstrating the contrast once it has been convincingly established without them. If minimal pairs that barely distinguish are used at the beginning of the investigation, then it is essential to be meticulous in specifying or requesting the meaning of every utterance. If the field worker himself uses the
utterance in the vernacular to tell the informant what to say, then it is easy for the informant to misunderstand the field worker's poor pronunciation and to give the opposite utterance from the one the field worker intended. This confusion can be avoided by using synonyms of the minimally contrasting utterances when giving vernacular instructions to the informant, or by using non-linguistic stimuli such as actions or objects, or sketches of actions or objects, in a way pre-arranged with the informant. If the informant is bilingual, instructions for uttering minimal pairs can be given in the second language to avoid confusion. When minimal pairs are difficult for the field worker to hear the informant will often give two or more utterances in close succession - either two the same in an attempt to help the field worker hear it correctly, or two contrasting utterances to help the field worker hear the difference between them. Until the field worker has "tuned in" to the particular contrast he is just as likely to assume that two contrasting utterances were the same or vice versa, unless he takes care always to ask the informant to identify the meaning of each utterance.

A lot of confusion can be avoided in phonemic analysis if a complete phonemicization is made for the speech of just one informant, especially for phonemic systems with several hard-to-hear sounds or systems involving complex inter-related decisions. The speech of other informants, with their variant allophones and allophonic distribution, may then be compared with this and a fuller picture of the phonology of the language be gained. The implication of this for informant work is that all phonological data needs to be clearly labelled with the name and dialect of the informant.

In the case of tonal phenomena some linguists have suggested teaching one's informant to hum or whistle the tonal pattern of each utterance to aid one in hearing these patterns. However, I have found this of limited value. When the field worker finds tone difficult to hear in utterances he resorts to this method because tone is rather easier to hear with humming or whistling. However, the same difficulties in hearing the tonal patterns of utterances which are holding up the field worker's phonemic analysis also prevent him from determining the nature and consistency of the correspondence between these hard-to-hear utterance patterns and the easier-to-hear humming or whistling patterns. Without an understanding of this correspondence, the humming or whistling patterns are of little value for analysis. Their main usefulness is to confirm patterns which the field worker has already tentatively identified in utterances, to clarify his occasional hearing problems, and to identify tonal sandhi and intonation.

For conversational fluency one has to learn to recognize and reproduce all of the phonemic distinctions of the language including those which one finds difficult to hear. Tape recordings, spectro-
grams, tone analysers, humming and whistling, or any other technique only give temporary help in recognizing or demonstrating particular contrasts and features. Ultimately, one has to teach one's self to hear and make such distinctions unaided. Linguistics provides no magic carpet to conversational fluency, but rather a map of the best routes one can walk over a difficult terrain.

4. PAIR TESTING

Pair testing was first formalized by Harris for evaluating an informant's reaction to repetitions of two utterances (A and B) under controlled conditions. If A and B have demonstrably different meanings and are suspected to differ by phonetic features which the linguist has difficulty in hearing, then pair testing indicates whether A and B are homophonous or phonologically contrastive. Harris' method is to present utterances A and B an equal number of times each to the informant, but in random order, asking the informant to identify each item presented to him. For instance, a German linguist wishing to study English /θ/ and /ʃ/ might present the pair of utterances thread and shred to his informant. If the informant's identifications match nearly 100% with the linguist's knowledge of the identity of the items as presented, then A and B are deduced to contrast phonologically, whereas if the informant's identifications match approximately 50% with the linguist's knowledge of the items presented, then A and B are deduced to be homophonic.

The items which are presented to the informant for his reaction may be derived in one of several ways.

(a) The utterances may be spoken by a second informant who speaks the same dialect. To ensure that the only communication between the two informants consists of these utterances, it is necessary to arrange the informants so they can't see each other - seated back-to-back on chairs, for instance. So that the linguist may know the identity of the first informant's utterances, he may present some kind of non-verbal stimulus to him. I have had good success with physical representations of the two utterances being compared (both objects and sketches have been used) once the informants have been made familiar with them. To avoid confusion in tabulating the results of a test I prefer to arrange the representations on the floor, one to each side of each informant, so that the linguist may stand in front of the first informant and see both of the representations of A on his own left and both those of B on his right, as shown in figure 1. Alternatively, the linguist may have an assistant standing in front of the second informant to tabulate his reactions. The linguist points to each representation in front of the first informant in slow random succession, and at each pointing the informant says the appropriate utterance.
Informant points to the appropriate representation to identify each utterance he hears, and the linguist tabulates this response along with his original stimulus to the first informant. Often I run two such tests on a pair of utterances, the roles of the two informants being interchanged in the second test as a check on dialect uniformity. At the beginning the two informants should be taught how to "play" the "game" by using a pair of utterances which are known to contrast.

**PLAN OF ARRANGEMENT FOR PAIR TESTING**

Figure 1.

(b) If a tape recorder is available a rather simpler form of the pair test may be used. The utterances may be pre-recorded by the same informant as is used for hearing-reaction at the end of the test. The linguist may use either verbal or non-verbal stimuli when he is recording provided that only the utterances themselves are actually recorded. Then, with the list of the order in which stimuli were first presented hidden from the informant, the tape is replayed and the informant's reaction is tabulated beside this list and the degree of matching calculated. The informant may react by pointing to physical representations of the utterances or by mentioning agreed synonyms. Provided there are sufficient utterances on the tape not to be memorized, the re-play for hearing can be done immediately after the recording is made. If the linguist has
reason to suspect that the informant was confused at the time the recording was made and that a few of the stimuli were incorrectly interpreted, the tape can be re-played twice and the results of the first and second hearings compared and the degree of matching calculated from them instead. 18

Determining the phonological status of pairs of utterances with contrastive meanings and with problematic phonetics is the chief usefulness of pair testing in the phonological facet of field work. Pair tests, in the two forms described above, cannot be used for synonymous pairs of utterances, as their meanings or physical meaning substitutes are unable to identify them distinctively. 19

It is very important that equal numbers of utterances A and B be included when preparing the material for hearing-reaction. If A and B should actually be homophous, and if the informant should be inclined to give 80% A and 20% B, say, among his responses (and there is no basis for assuming he will give 50-50), the degree of matching between his responses and the original stimuli is only likely to approximate 50% if equal numbers of A and B were originally included in the test design.

It is also important that utterances A and B be presented to the informant for his reaction in random order. On more than one occasion when I have presented material in alternating order the informant thought that an alternating sequence was an essential feature of the test. Later during the session the informant tended to respond to all homophous examples by alternating responses. This does no harm, but if one doesn't know the actual phonological status of the two utterances under test, then one can't be sure whether an alternating response is merely a formalized response to homophony or an indication that the informant doesn't understand what he is supposed to be doing in the test.

If the informant's reaction to a pair test is that of indecision, how is this to be interpreted? My personal method is to tabulate indecision as "?", but not to count these instances when calculating the degree of matching. However, I assume that a high number of indecisions is as much an indication of homophony as is 50% matching, so long as it is clear from previous tests or practice runs that the informant understands the "game". A high rate of indecision may occasionally be evidence of dialect difference between speaker and hearer. This can be checked by reversing their roles.

If the informant's reaction to a pair test matches the speaker's identifications about 75%, how is this to be interpreted? First, one could use statistics to estimate that the likelihood of such a large deviation as this from 50% occurring by chance is about 0.01 for a 20-item test (my usual size) and about 0.002 for a 40-item test. As this likelihood is significantly small some other explanation is
needed, such as a mixture of homophony and contrast. That is, perhaps one of the utterances involved in the pair test has pronunciation Y and the other has pronunciation Z freely varying with pronunciation Y. If the linguist examines his tabulation of the test results and finds that one of the stimuli has about 100% matching with the reactions and the other stimulus has about 50% matching, then this not only confirms that one of the utterances has free variant pronunciations, but it also indicates which utterance has the free variation should the linguist find this difficult to detect by ear. In Telefomin this kind of result occurred when the pair test was applied to problematic sandhi. Testing ateem 'frog sp.' and ateém 'hole in tree' (from at 'tree' and teém 'hole') gave about 70% matching.

Pair testing is only an aid in phonological investigations; it does not do away with the linguist's need for phonetic acuity. The pair test can show that two utterances contrast, but it cannot indicate the nature of the phonetic difference between them. If the field worker can't hear any difference, then listening to other contrasting pairs of utterances may sharpen his hearing in time. Alternatively, a more experienced linguist may be able to listen to his material and suggest the phonetic nature of the difference. If the field worker can hear several phonetic differences between two contrasting utterances, then a pair test cannot indicate which difference is the characteristic or phonemic one. This is determined by careful phonetic observation of which difference is subject to the least free variation and by consideration of symmetry in the process of phonemic analysis. At Telefomin, an early pair test showed a contrast between [bfl] 'wild banana sp.' and [bfl] 'valley', but it wasn't till much later that it could be seen that these words contrasted in vowel length and tone pattern, but that vowel quality was not significant, being conditioned by length (and by the author's Australian English vowel bias). The final phonemicizations were /bfl/ and /bfl/ respectively.

5. ELICITING GRAMMAR MONOLINGUALLY

Faced with a monolingual informant, the linguist is cast very much upon his own resourcefulness and his powers of observation. At the beginning he can use pointing and miming extensively, and in fact these devices can be used for years as a method of checking data obtained in other ways. Some linguists make considerable use of pictures, especially series of related pictures that tell some kind of story or that may be described by some kind of grammatical paradigm. I have found pictures fairly satisfactory the few times I have used them with sophisticated informants. However, informants that have had little or no contact with education often fail to recognize the type of line drawings I present to them. In particular, sketches of
natural species tend not to be recognized unless they are exact in much more detail than most of us see, and unless they are life size.

The most vital element of linguistic field work is constant observation, and in a monolingual situation this is doubly true. If each new kind of utterance heard is noted down, further enquiry can be made later concerning its meaning and more examples of its structure can be elicited. Only by being constantly alert to hear what people actually say to each other can the field worker have an early way of checking the accuracy of what people say to him. Some field workers have had the experience of a whole community trying to make language-learning easier for them by talking to them in a trade-pidgin or otherwise simplified version of their language. The sooner such a deception is discovered and corrected the better. It has been suggested that one should deliberately check for this situation in the early days of field work by having a young informant repeat some of his utterances to an old man and watch for the old man's expressions of approval or disapproval or for any changes he might suggest. An old man is likely to be insulted if a young man addresses him in the trade-pidgin.

The elicitation of grammatically relevant data by monolingual means is not easy. In fact, at times it seems to be more efficient to observe than to elicit. That is, it is relatively easy to be always alert for new grammatical features and examples of features that are not fully understood. Starting from such data, the linguist is able to enquire the meaning of utterances containing such features and obtain more examples of their occurrence. On the other hand, monolingual eliciting for the vernacular equivalent of a particular grammatical feature of English can be much more difficult.

If one finds a particular grammatical feature difficult to control while eliciting any kind of paradigm, then one is well advised to use some vernacular free word as a method of control. For instance, Telefodi amsín sin fluo 'the day before yesterday' was used in eliciting to make sure that verbs were given in the near past tense rather than in any of the other four past tenses. Similarly, either vernacular or trade-language words can be used as controls in bilinguial elicitation.

Another technique for investigating the meaning and usage of a function morpheme is that of contrastive elicitation. One asks the informant to compare the meanings of two utterances (either previously observed, or manufactured by the linguist on the spot), one of which contains the function morpheme under investigation and the other differs only by the lack of that morpheme or by its substitution by another similar morpheme of slightly different meaning. Contrastive elicitation can also be used with features of syntactic order.

Exploratory eliciting involves setting as clear a cultural context as possible and then saying to the informant some utterance based on
Inadequately understood grammar. Many informants will correlate the context and the linguist's attempt to say something, deduce what he was wanting to say, and tell him how one says such a thing. Utterances elicited in this way need to be compared with several other such utterances elicited in this or other ways to detect any distortions arising from the linguist's "errors" in the stimulus utterance. Also the meaning of such utterances needs to be elicited separately. Whenever exploratory eliciting is used it is best to note down the fact that a particular attempted utterance was considered to be incorrect by the informant, partly as a record of the possible bias of the "correct" utterance given by the informant, and partly as a source of negative clues to grammatical structure.

Situational elicitation involves describing a physical or social situation in some detail and then asking the informant what a particular participant or observer would be likely to say in such a situation. Of course, the linguist's description needs to be true to the culture. Often, utterances obtained in this way will not have the meaning the linguist was attempting to elicit, so need to be checked, both then and later, for their meaning. When using situational elicitation with a bilingual informant I have often found it helpful to precede the description of the situation by a trade-language statement of the utterance I am trying to elicit. The description of the situation, because it is the longer and later element in the elicitation process, tends to remain the main stimulus to the informant. The trade-language statement prefaced to it merely helps to narrow down the informant's choice between the hundreds of different utterances possible in most situations.

Pronouns are best obtained by careful observation. If the language contains several series of pronouns, once the commonest series is known in full this may be used as a basis for eliciting another full series whenever a pronoun of some new series is observed. In this way some 17 series of Telefodl pronouns were eventually elicited, even though only a few of the individual pronouns in the later series were ever observed in text. When eliciting pronouns through the trade language, the field worker can assume that the average informant will not actually translate all the pronouns, but will interchange second and first person. The second person can usually be identified with certainty if both the linguist and the informant address their remarks to another person. The person of possessive pronouns can usually be identified with certainty by asking who is the owner of some real thing that belongs to the informant, something that belongs to the linguist, and so on through all the possible persons and numbers.

Questions are the single most useful items in gaining conversational fluency and in eliciting grammatical material from monolingual informants, as well as constituting a major section of the grammar of a language. Often, the features that signal interrogation differ from
one question to the next so that one's knowledge of the syntax of statements does not always permit one to form the corresponding questions by analogy. In a monolingual situation several questions may be obtained quite early in field work by careful observation. Monolingual elicitation is also possible. The presentation of hidden objects or persons and the performing of hidden actions may stimulate the informant to ask "What is it?" "Who is it?" "What are you doing?". Himing a losing-and-searching situation often results in the informant giving "Where is it?", and setting out on some unusual route will prompt people to ask "Where are you going?". "Why" and "when" questions require rather more ingenuity for monolingual elicitation. Once a few questions have been learned other questions may be obtained either by exploratory eliciting or situational eliciting. When one asks a bilingual informant to give the translation in the vernacular of a particular trade-language question, the informant often answers the question instead of translating it. This situation may be avoided by formulating the enquiry so that the informant imagines he is asking the linguist or a third person the question, rather than himself being asked the question.

To ensure that one's data include several examples of each grammatical feature, systematic elicitation of grammatical material is necessary. One way of doing this is to take a text and go through it word by word, and for each new morpheme or construction discovered in it, to elicit several (5 to 20 say) more utterances containing the particular feature. It is good if the informant can see the systematic nature of the elicitation, for his intelligent co-operation can cut the time and frustration involved in early monolingual elicitation to a fraction. When a new feature is discovered it is good to follow it up immediately, while the semantic or grammatical context appropriate to it is still fresh in the informant's mind. Doing so also helps fix the discovery in the field worker's mind for further reference. This means that informant sessions may at times appear rather disorganized by digressions, but in this way the field worker tends to get a more balanced collection of data than if he rigidly follows through his prepared elicitation programme. If the informant can see the field worker's alertness he will do his best work.

Paradigmatic elicitation is commonly used for the systematic investigation of grammatical features. In this method the linguist attempts to elicit a series of utterances which are identical except for one point in their structure where a class of morphemes are interchanged.28 If picture series or situational eliciting are used the paradigms can be expected to be fairly reliable, but if exploratory eliciting or bilingual eliciting are used there is a considerable likelihood that a few false forms may be given by the informant. The field worker needs to be alert for any hesitancy or facial expression as a clue to false forms. If one asks whether a particular form is
used in the vernacular, some informants will say "Yes" just to please
the field worker, even though the purported form be a false one. Even
good informants will be somewhat influenced by hearing the utterance
from the mouth of the field worker and from time to time will suggest
that such an utterance may be used. Some linguists feel that one can
never be sure how much the informant has been influenced by the forms
used in the process of exploratory or bilingual eliciting, and wish to
avoid these methods of eliciting. However, such types of paradigmatic
eliciting do speed up the understanding of the rarer features of
the grammar which are just as much a part of the language's system as
are those which occur more frequently. Most of the biased responses
can be detected as inconsistencies if the field worker elicits the
same material on several different occasions and in several different
settings. These false forms can be eliminated, and perhaps be re­
placed, as the result of further checking. For instance, enquiry into
their meaning or usage is often met by a denial of their real exist­
ence on the part of the informant.

The main emphasis here has been upon methods of investigating
grammar with monolingual informants because these methods are appli­
cable far beyond the bounds of monolingual situations. Many a linguist
working with a bilingual informant finds, at some point in his gram­
matical enquiries, that either he or the informant has an inadequate
grasp of the trade-language for such detailed investigations. At this
point monolingual methods have to be resorted to.

6. DETERMINING MEANING

Perhaps the commonest weakness in bilingual translation elicitation
of the "How do you say" type is that, because of the informant's or
field worker's inadequate knowledge of the trade language, the inform­
ant's vernacular utterance is not an accurate translation of the
English utterance that the field worker had in mind when he began
eliciting. The best remedy is always to ask the informant to translate
his vernacular utterance back into the trade-language. This trade­
language form is written down as the "meaning" of the vernacular
rather than the original English utterance the field worker started
with. As the field worker gains a better understanding of his in­
formant's idiolect of the trade-language he is in a better position to
translate such "meanings" into English. Thus back-translation is used
not merely as a checking device, but as the primary technique for
determining meaning.

Several observations or occurrences of a grammatical feature are of
more value than a single observation or occurrence. Usually a single
occurrence of an item provides only very ambiguous information about
the meaning or grammatical behaviour of that item. To ascertain the
meaning of a stem often requires 10 or 20 occurrences of it and a good
deal of informant explanation of the cultural contexts of its usage. To ascertain the meaning of a function morpheme often requires 50 or 100 occurrences of it and considerable investigation into which grammatical features co-occur with it. One should expect that some of the function morphemes of a vernacular will have no translation equivalent in English, and that some will have several disparate translation equivalents. When working with a bilingual informant one needs to be patient when he is unable to explain the meaning or usage of a function morpheme, recognizing that in these circumstances the need is for a large number of examples of the morpheme in a wide range of occurrences, and that it is the linguist's analysis of these that will provide a basis for guessing at the meaning and making further enquiry.

When noting questions that have been observed it is important to note also their replies if possible. Once the paradigmatic variations of a question are understood by the linguist he is then in a position to use this type of question often in conversation and to note down the responses. Also, he may ask his informant to give him several typical replies to each question. The meanings of the replies to a question provide the clearest picture of the meaning of the question which stimulated them.

It is good to note down each new word that is heard, even when there is no indication of its meaning. It is far easier to elicit examples and the meaning of a word that has been observed than to elicit the word for a particular meaning that interests the linguist. When enquiring about the area of meaning of a word or checking on its collocations, it has been found of only limited usefulness to ask whether or not that word can be used in a given situation, since every now and then the informant will say "Yes" when he should have said "No"—either to please the linguist or to hasten the end of a session that involves too much hard thinking for him. It seems preferable to ask the informant in what situations the particular word can be used and to request illustrations.

When investigating the meanings of a set of near synonyms I have found the following procedure useful. Taking each word in turn, enquiry is made as to the situations in which it is used. Next, a composite list is made of all the situations mentioned for all the words in the set. Then, for each situation in turn, the informant is asked which words of the set can be used in that particular situation. If more than one word can be used in the same situation, then enquiry is made as to whether their meanings are the same or different in that situation.

When testing for collocations it is good to get several typical utterances on several occasions to ensure a good spread of meaning variants and usage. For each verb it is necessary to enquire as to
its typical subjects, typical objects (if transitive), its typical beneficiaries or indirect objects, and any other clause-level category that is closely related to the verb stem. For example, for Teleéfodí it was necessary to enquire for each verb whether it took all persons as subject, or only plural persons, or only the third person feminine singular (sometimes with an impersonal meaning). When each new grammatical feature is discovered, it is economical to examine first just a sample of the appropriate word class (50 verbs, say) to see how this feature applies to them. If it is seen to be systematic and predictable in some way, then no further research is needed. But if there is evidence to the contrary, then all the words of that class in the lexicon will need to be examined for this feature, as well as each new word discovered. For instance, only a couple of months before the conclusion of field work at Telefomin a sample of verbs were being examined for their tonal patterns in all paradigmatic forms. It was noticed that the punctiliar benefactive forms seemed to have unpredictable tonal patterns, and some 400 verbs were examined and the existence of tonal classes among the verbs was confirmed.

7. USING TAPE RECORDERS

The field worker needs to be thoroughly familiar with the operation of his tape recorder, to be able to make minor repairs and lubricate it on the field, to carry a small supply of fuses and commonly needed spare parts, and to carry an adequate supply of batteries if the recorder is battery operated. He needs to know what volume control settings to use under various conditions in case the level indicator should go out of action. He should have or devise some way of telling when the batteries are flat and need replacing, and when the tape is slowing down appreciably. He needs to practise threading the tape past the heads so that it always records without fail. The level indicator only shows that the voice is passing from the microphone to the recording head; the voice may not be reaching the tape if it has been incorrectly threaded onto the machine. The only sure way is to listen to the playback, or to record a few seconds and then play that back, whenever one changes tapes or sides of tapes on the machine. It is good to have some idea of the directional properties of the microphone - how much softer does the same noise sound on the tape when it is made beside or behind the microphone (at the same distance) rather than in front of it? Early in field work one needs to listen critically to the first few recordings to assess the common types and levels of noise - pigs, dogs, roosters, children, walking in the house, shuffling papers, coughing, rain on a metal roof, blowflies, cicadas, night insects - so as to decide what place, time, and circumstances are the most practicable ones for recording.

Magnetic tape is relatively cheap compared with the price of a recorder. It is vital that the field worker have an adequate supply
of tape, and that towards the end of his stay in the field when he has a better grasp of the language and the problems to be solved, he be generous in its use. There are many situations where tape recording is vital - the informant is available for only a short time, or he is the last speaker of an otherwise extinct language, or for one reason or another he will not repeat any utterance - so vital that it is advisable to have a tape recorder running without stop right through the informant session. This provides much more information than one's written record usually contains. Also, this is much more economical of time than the method of just recording the more important items of data. For instance, in survey work I have found that to alternate between writing and recording wordlists takes about 60% more time than does simultaneous writing and recording. The linguist should take several empty tape reels to the field, and use a new one each time he wishes to interrupt his work on one tape to use another tape. Eventually, this saves a lot of time that would otherwise be spent in rewinding the tape and finding the right place again.

Tape recording can assist the linguist in his language learning and in attaining his goal of conversational fluency. He may record phonetic drills and use them to improve his pronunciation, especially for stress, length, tone, rhythm, and intonation. In the absence of conversational opportunities, listening to texts over and over again on tape helps improve one's recognition of intonation patterns, function morphemes, and common word combinations. Drills of both words and complete sentences may be used for mimicry once one has a fair grasp of the phonetics involved and the attaining of normal speaking speed is the main problem. Occasionally one should record one's own voice alongside that of one's informant, using the same utterance. Listening to such recordings is a kind of shock therapy, spurring one on to more frequent and careful mimicry.

Whenever phonological contrasts (especially prosody) present a hearing difficulty liberal use can be made of a tape recorder to take down all the data that seem to be crucial to the phonemic analysis. Such tapes can be used for multiple playback (without tiring as does an informant), can be stored for checking later when the field worker's hearing has sharpened by practice, or can be submitted to a more experienced linguist for his evaluation.

Some situations require the recording of short portions of speech at close intervals, as in preparing language-learning drills or pair tests. This requires good control of the stop-start mechanism of the tape recorder. It also requires a considerable degree of cooperation from the informant so that he will say exactly what is needed when it is needed. A method I found useful at Telefomin was to indicate to the informant in the trade-language the utterance that I wanted and then wait until he said it. When he said the vernacular I wanted, I would switch on the recorder, say something in English to identify or
translate the item, pause, then signal the informant who would say the vernacular utterance into the microphone. If the informant doesn't say the desired utterance, I re-elicit till he does. It is essential to have the informant actually say the desired utterance before beginning the recording, otherwise he is likely to hesitate at the crucial moment in the recording or say something else that is not wanted. In either case one may feel this has spoilt the recording and take time to erase it, and in the process perhaps offend the informant.

It is a popular pastime to record many hours of text material on magnetic tape, and to bring it back from the field for transcription and analysis at home. Unless the linguist knows the language well this is a waste of time and tape. To transcribe tape without an informant requires the ability to recognize immediately the elisions and contractions that occur in speech at normal speed, and the ability to weigh up the various lexical and syntactic possibilities so as to reconstruct the occasional word obscured by noise on the tape. Many of us don't know the language we are studying that well, and need to bring home more than a text on tape. It is essential to transcribe the tape onto paper while still in the field. It is best to do this as soon as possible after recording, using as informant someone who was present when the recording was made, if possible the person whose voice was recorded. I have found it most satisfactory not to transcribe directly from the tape, but to use the tape as an informant prompting device, and to transcribe from the informant after he has heard the tape and repeated it, a few seconds at a time (in pause groups where possible). Some informants are good at this tiring work, but others are quite unsatisfactory because they give the meaning of what they hear from the tape in different words rather than an exact repetition. Even a good informant will sometimes say something different from what the linguist feels he can hear on the tape. It is best not to argue with the informant, but to transcribe both versions. Usually the difference is that between slow and fast forms. For instance, my Telefóol informant always insisted on the slow form kànumbéé 'if' where I often heard nubré on the tape.

Towards the end of my field work I found that every hour of continuous speech on tape took me about 70 hours (3 hours per day was about all the informant and author could tolerate) to transcribe phonemically, to ascertain the meaning of all unfamiliar morphemes and grammatical features, and to obtain a fairly accurate free translation. Recordings that are too soft, or have too much noise, or are of speakers who are excessively fast, take about twice as long to transcribe and usually aren't worth that much field time.

Once stories have been recorded, the field worker's tape recorder is likely to become a source of community entertainment. He will often be pressed to replay various of his tapes by way of payment for story telling. Whenever I record text I have found it satisfactory to
play back just the last few minutes of the text. This is still some kind of reward for the person giving the text, without being boring or time-consuming, and at the same time serves as a check that the recording is technically satisfactory.

Because of community interest in one's recordings and because playing back is likely to be a public affair at any time (unless one uses headphones), it is wise to check the meaning of what has been recorded as soon as possible, either with the person who gave the text or with a trusted informant. If any of the content is offensive in any way, or involves taboo topics, then this tape must be clearly marked that it is not for public replaying. I prefer to erase such material completely so as to avoid any danger of embarrassment or marring of my relationship with the informant or his community. One way to avoid recording such material is to make recordings under circumstances that could be regarded as public in some way. If both sexes are within earshot at the time, taboo topics are not likely to be recorded, and if several people are within earshot insults are not likely to be used without the linguist knowing. Although taboo topics are of interest to anthropologists and may even be of linguistic interest too, the difficulty of finding adequate privacy for replaying and transcribing it on the field is considerable, as is the danger of accidentally having the replay volume too loud, and it seems wise to obtain such texts without a tape recorder. I know of a field worker who replayed a tape for entertainment, without realizing that it contained material highly insulting to one of the audience. In a flash, the man was brandishing a bush-knife and chasing the informant and his relatives.

Sometimes it is difficult to get text material. Informants who seem uninterested in telling stories may be encouraged to give an account of some very recent event in which they participated. Some field workers encourage reluctant informants to tell a story in the trade-language and then ask them to say the same thing in the vernacular. However, it has been my experience that the vernacular version, being a repetition, is usually much shorter and less interesting than the trade-language version. Of course, even short texts are better than no texts. Accounts of crafts, customs, warfare, and biographies are other types of topics for text collection. Personally I have avoided folklore and similar traditional accounts because they are likely to contain archaic language forms rather than the language spoken today. It also happens that much of the folklore at Telefomin is the property of the initiated men, and it has not been recorded to avoid accidentally breaking taboos by playing back within earshot of women or children. Another device for getting text material is to replay a story or account previously recorded, and then ask the informant to tell the same story again in his own words. This may be done several times over for the one story, either with different informants.
or with the one informant over a period of months, thereby providing a
set of similar texts all describing the same physical or social situation.
These are a potential source of paradigmatic material and for
material involving grammatical transformations. 39 Another way to get
text material when few informants get the idea, is to get a group of
people together when they are relaxed and in a talkative mood (after
the evening meal, say). If one person can be induced to tell even a
short story, the other members of the group are soon eager to have
their turn to record a story and hear the replay. Another way is for
the linguist to attempt to tell some short story, and sometimes stories
will come tumbling out in response. Some linguists first elicit a
considerable amount of vocabulary in a given semantic domain, and then
immediately request text material. This vocabulary stimulates reluctant
informants to give stories or ethnographic accounts, and also pre­
pares the linguist for transcribing the text. 40

Conversations recorded on tape are prize material for the gram­
marian, but natural conversations are difficult to record. Those
staged in front of a microphone are stiff, but may become more natural
as the participants become more interested in their topic (key: suggest a "hot" topic), especially if the field worker can forget his
tape recorder (or the direction of the microphone or the level indi­
cator) and take a genuine but non-vocal interest in the conversation.
Another way of obtaining records of natural conversation is to leave
the recorder all set up in a suitable semi-public place, and as soon
as one hears a conversation in progress switch it on without the
participants knowing. Alternatively, two or three people could be
 ushered into a room where the recorder is usually used, with the
recorder previously switched on in case a conversation should begin.
It may be advantageous to cover the microphone with cloth to make it
less obvious and to cover the top of the recorder so the moving reels
can't be seen. I record only conversations of a non-personal nature,
conversations held in some kind of public situation. It is good to
play back the tape immediately to the participants for their approval,
or if that is not possible, to a trusted informant, to make sure that
no one will be offended by the keeping or studying of the recording. 41
Linguists have differing views as to the value of a single informant
record ing imaginary conversations. 42 Conversations between two people
are the best; the more people participating the more likely it is that
several people will talk at once, and this is almost impossible to
transcribe from the tape.

In conclusion, one can but reiterate what others have said: *Proper
field procedure is absolutely essential to any adequate analysis or
description of a language, but frequently it is the most neglected
aspect of the linguist's training. ... He should have some understand­
ing of the various approaches to collecting data, of the most success­
ful ways of handling informants, and of the methods by which the field
procedure may most advantageously supplement the analytical pro­
cesses.* 43
1. Pre-literate peoples that have had little or no contact with Western education or ways of life are here called "unsophisticated", rather than the less ambiguous but more coloured "primitive".

2. This study was supported by a scholarship from The Australian National University. For the sake of literary style much of the presentation is in the third person or impersonal. These Telefodi experiences are occasionally supplemented by the author's experiences with unsophisticated informants elsewhere in New Guinea and the Philippines gained under the auspices of the Summer Institute of Linguistics, and by the experiences of other linguists and anthropologists, clearly indicated as such.


4. See also Pike 1947: 231, Cowan et al. 1958. "Field worker" and "linguist" are here used interchangeably for "linguistic field worker".

5. Occasionally the field worker and informant may rely on an intermediate language other than a trade language, such as another vernacular or the language of the field worker.

6. This suggestion came from several colleagues of the Summer Institute of Linguistics.

7. This suggestion comes from Royal Anthropological Institute 1951: 44-45 and from M.A. Jaspan in private communication. See also Keesing 1957: 34.

8. This experience was mentioned by S.A. Wurm in private communication.

9. See also Swadesh 1954.

10. Collinder 1963 also warns against alphabetical word lists. One must not be deceived by the publication of word lists in alphabetical order for easy reference. For example, Swadesh 1954 gives his 200 words alphabetically but mentions the need to elicit the words in semantic groupings.

11. Pop 1955 shows the variety of linguistic questionnaires that

12. Professor Collinder of Uppsala tells me he has had similar experiences.

13. This practice has also been noted by Brongersma and Venema 1962: 114, 143.


15. Pike 1947: 105 also discourages relying on minimal pairs when analysing pitch, but for a different reason - their relative infrequency in the lexis.


18. To make a detailed study of the free variant ranges of two contrasting phonemes it would be possible to replay such a tape twenty times, say, and to identify allophones in utterances heard most consistently as typical ones, and those in utterances heard least consistently as allophones at the fringe of the range of free variation. This suggestion is equivalent to the form of the pair test given by Halle 1954: 200.

19. However, another form of the test mentioned by Chomsky 1982: 96 does not depend on the positive identification of each utterance spoken and heard. Utterances are produced two at a time, and each time both the speaker and hearer are requested to indicate independently whether the paired utterances are "same" or "different". If tape recording is used the speaker and the hearer are the same person, and the two sets of judgments are made at different times. These are compared, and again, about 100% matching is interpreted as phonemic contrast and about 50% matching as homophony. An equal number of actual sames and differents need to be produced. This form of the test could conceivably (despite elicitation difficulties) be applied to synonyms, and 100% matching would correspond to allomorphic (free) alternation, and provided that both speaker and hearer are demonstrably evaluating sounds rather than meaning, 50% matching would correspond to complete allomorphic identity. However, if the informant evaluates
meaning rather than sound, it is to be expected that he will always respond "same" and the test is incapable of distinguishing allomorphic alternation and identity.


22. Personal communications from W.M. Rule and C.I. Frantz.


25. There is an extensive discussion of "situational testing" in Wurm 1959.

26. Nida 1949: 177 suggests joint miming with an informant to elicit pronouns (see also pp.180-1); Capell 1940: 68 suggests using a previously documented neighbouring vernacular to elicit pronouns with an informant bilingual in that vernacular (I have had good results with this method), and Wurm 1959 has further suggestions.


29. Bloomfield, for example, as mentioned in Harris and Voegelin 1953: 61-62. Many writers regard paradigmatic elicitation, especially using bilingual methods, as a necessary evil, and urge that great care be taken to check the results: Harris and Voegelin 1953: 62, 68, McLeod 1961, Nida 1949: 186, Wurm 1959. Voegelin and Voegelin 1957: 3-4 claim that as a result of cross-checking, bilingual elicitation eventually yields reliable results.

30. Henry 1940: 637 lays similar stress on back-translation. Phillips 1960: 189 mentions that it is easier for a person to translate from his second language into his first language rather than vice versa. If accuracy of translation also follows this pattern, then the only circumstances which would justify using back-translation as the
primary source of meaning seem to be (a) if the field worker is less competent in the trade language than the informant (it is difficult for the field worker to make an impartial assessment of this), (b) or if the field worker and informant speak considerably different idiolects/dialects of the trade language and the informant has much more trouble than the field worker in translating between the two.

31. The semantic analysis of function morphemes is well illustrated by Garvin 1958.


33. Continuous recording is also recommended by Lounsbury 1953: 410.

34. Further ideas on the use of tape recorders for language learning may be gleaned from Oinas 1960.

35. Boas 1917 and Bloomfield 1942: 4,14 have discussed the difficulty of training informants to dictate texts slowly, the inevitable syntactic distortion in dictated texts, and the near impossibility of obtaining natural conversational texts. The advent of good, cheap, portable tape recorders has greatly reduced these problems.

36. Transcription of tapes whilst still in the field has also been emphasized by: Collinder 1963, Harris and Voegelin 1953: 70, Voegelin 1950, Voegelin and Robinett 1954.

37. Lounsbury 1953: 410 also mentions the tape recorder's informant-prompting function.

38. This suggestion comes from Henry 1940: 639.

39. The value of multiple accounts of the same incident for paradigmatic material is suggested by Pittman 1957.

40. This suggestion comes from Voegelin and Robinett 1954: 99.

41. Like Barnes 1963, I do not approve of completely secret recordings.

42. R.S. Pittman mentions (private communication) having good results with this method, whereas Harris and Voegelin 1953: 63 are quite pessimistic.

43. Nida 1949: 175.
**BIBLIOGRAPHY**


1962, Syntactic Structures, Janua Linguarum No.4, s'Gravenhage, Mouton. (Second Printing.)


Dixon, Roland B. and Kroeber, A.L., 1919, Linguistic Families of
California, University of California Publications in American Archaeology and Ethnology 16: 47-118.


Elson, Benjamin and Pickett, Velma, 1962, An Introduction to Morphology and Syntax, Santa Ana, California, Summer Institute of Linguistics.


Harris, Zellig S., 1951, Methods in Structural Linguistics, Chicago, University of Chicago Press.


Hymes, D.H., 1960, Lexicostatistics So Far, Current Anthropology 1: 3-44. (See also 1: 338-345.)


Kirschbaum, P. Franz J., und Färer-Halmendorf, Christoph von, 1934, Anleitung zu ethnographischen und linguistischen Forschungen mit besonderer Berücksichtigung der Verhältnisse auf Neuguinea und den
umliegenden Inseln, Wien, Anthropos-Institut. (pp. 42-63 are by P. Jos. Schebesta.)


Mead, Margaret, 1939, Native Languages as Field Work Tools, American Anthropologist 41: 189-206. (See also Lowle's reply 42: 81-89.)


Oinas, Felix J., Ed., 1960, Language Teaching Today, Research Center in Anthropology, Folklore, and Linguistics Publication 14. (See also Publications 18 and 28.)


1948, Tone Languages, Ann Arbor, University of Michigan Press.


Ray, Sidney H., 1907, Reports of the Cambridge Anthropological Ex-


Short Guide to the Recording of African Languages, 1933, International Institute of African Languages and Cultures, Oxford University Press. (Supplement to Africa 6(2).)


Tri-Institutional Pacific Program, approx. 1952, Department of Anthropology, Yale University (litho).


Languages and Cultures, Memorandum 14, Oxford University Press. (Supplement to Africa 10(2).)
