1.0. INTRODUCTION

In a recent review of the Government's *The Dictionary and Grammar of Hiri Motu*, I tried to indicate where I thought that volume was deficient as a record of what is "in" Hiri Motu at the present time while at the same time pointing out what I think still needs to be done to bring that record up to date (Dutton 1976). I do not believe, however, that merely recording what is in a language at any particular time, and especially in such a currently important language
as Hiri Motu is, is the only thing that one should be doing for that language. 
At best that is a very academic activity and one that has very little relevance 
to the communicative and developmental needs of Papua New Guinea at the present 
time. What we should be doing, I believe, is relating that sort of activity to 
others which are more relevant to the needs of the country at the present time. 
Thus if Hiri Motu is to continue to be used as a lingua franca for development 
purposes (and obviously it must be until some other language replaces it, which 
is not a likely event in the foreseeable future) then I think we should be taking 
a more active interest in what is happening in the language and be thinking 
about how we can help to develop it to suit the new role it is being called on 
to play. That there is a need for some such activity is evidenced by the fact 
that at the moment there are no guidelines of any kind for translators, news 
reporters, and others using the language to disseminate Government information, 
to follow in expressing the new ideas coming into the country. Each is left to 
his own devices to handle the problems that are thrown up in his day-to-day work. 
Yet none is trained to cope with that situation and there is no institutionalized 
body to which he can turn for guidance as to what to do. The result is 
idiosyncratic variation in the production of materials thus leading to poor 
reception and hence waste of effort and money.

The nature of the problem can be easily illustrated by taking some 
common, seemingly simple and uncomplicated phrases like "The University of Papua 
New Guinea" or "Interim Provincial Government" or "Premier" or "Governor-General". 
What is the individual translator or other linguistic broker to do with these? 
Is he just to use the English forms, or is he to adjust them to suit the present 
pronunciation and spelling system, or is he to try to translate them fully into 
Hiri Motu? Whichever one he chooses will of course have different consequences 
for the language in the future and for communication generally within the region
where the language is spoken. Thus, for example, if he adopts the first option then he immediately introduces the new sounds υ (as in the beginning of "University" [yunıvə:sitiː]), ɔ (as in "Provincial" [provınlɔ]), and dʒ (or j) (as in "General"[dʒenərəl] or [jı̂̆nərəl]), new combinations of sounds such as rs, nt, pr, and nɔ, and new grammar like ov 'of' in "University of Papua New Guinea" and a (= 'one who' in English) in "Governor". If he chooses the second option he makes the words look less like English, e.g., Senerall for "General", but still introduces obscurities like initerimi for "interim" (for what does that mean to the average Hiri Motu speaker?), and new grammar such as was mentioned above. If he chooses the third option how will he translate "University" and "of" and the other items without making the whole thing unwieldy and clumsy, and therefore useless? And finally, how does he, or, more fundamentally, should he relate words like "Government" and "Governor" which are related words in English?

Clearly these sorts of decisions are too numerous, complex, and important, to be left to individual workers in the language. What is needed is purposeful intervention, active interference in the growth of the language so that those who work with it can do their tasks properly, and the Government can be assured of maximum benefit from the use of the language.

In the rest of this paper I would like to outline briefly the sorts of issues and problems that have to be considered, and the sorts of decisions that have to be made if Hiri Motu is to be developed to suit the new role it is being called on to play. In doing so I shall distinguish between the processes of standardization on the one hand, and modernization on the other, as aspects of language planning. I shall also assume that it is possible to control to a large extent the development of a language, and especially a pidgin language such as Hiri Motu is (which is, by definition not native to the majority of its
standardization though both are interdependent to some extent. Thus it is not practical to make decisions about what forms new words should take until it has been decided what principles have been adopted for spelling in the language and how new words are to be introduced into the language (e.g., either by direct borrowing, creation out of existing language elements or what). On the other hand the process of standardization will be determined to a certain extent by consideration of the forms that modernization is likely to produce, in the case of unstandardized languages, or that it has produced in the case of already standardized languages. In either situation the standard language will reflect the process of modernization at any time.

In languages like Hiri Motu and Tok Pisin which have not yet been standardized or modernized both processes will of necessity be very closely associated. It is convenient and useful, however, to keep them apart in looking at what still needs to be done in both areas, and in what follows standardization will be treated first.

2.2. Standardization of Hiri Motu: Issues and Problems

In this process decisions have to be made at each of the following levels:

(a) Name
(b) Base Variety
(c) Orthography
(d) Phonology
(e) Vocabulary
(f) Grammar

In each case these decisions involve consideration of a range of facts and factors, such as the following:

2.21. Name

Hiri Motu is the name currently used for what used to be called "Police
Motu" or "Pidgin Motu". This name was proposed at a Study Conference on Police Motu sponsored by the Government of the day and held in Port Moresby in May 1971. This conference was called to discuss reprinting *A Dictionary of Police Motu*, the first-ever dictionary of Police Motu, which was published by the Government in 1962, and other problems associated with the language. At that meeting it was agreed to reprint the dictionary as a dictionary and grammar, and to change the name of the language from Police Motu to Hiri Motu. The dictionary and grammar were finally published in August 1976 and the name Hiri Motu has been promoted by the Government and others since that 1971 conference.

However, the name Hiri Motu has not been very widely accepted as yet (e.g., the National Broadcasting Commission uses Motu gado (lit. Motu language) in reference to the language in its news broadcasts) and may be objected to on several grounds:

(i) It is confusing in that many speakers of what used to be called Police Motu think that the new name refers to village Motu or "pure" Motu because of the association of the "pure" Motu with the *hiri* trading voyages to the Gulf of Papua in days gone by, and after which Hiri Motu is named;

(ii) It has yet to be demonstrated that present-day Hiri Motu is a lineal descendant or continuation of a former trading language used by the Motu on *hiri* trading voyages to the Gulf of Papua, as was claimed by the proponents of the new name. Indeed the evidence now being collected seems to indicate that Police Motu was not such a descendant but represents a different tradition (Dutton 1978b; Dutton and Kakare 1977).

However, despite these objections and even though there may be equally good competing names (e.g., Pidgin Motu, Gavmanl Motu) Hiri Motu in itself is a good
name (in that the *hiri* is one of the best known cultural features of Papua New Guinea) and is now partially known. Consequently there does not seem to be any point in trying to change the name Hiri Motu again at this stage (although I did suggest that in the review already referred to) provided that everyone knows what that name refers to and the "correct" history of the language is taught along with it. What is needed, therefore, is an active campaign by the Government to establish the new name, i.e., to teach it to the people. This should be done in association with the history of the language and in the language itself if possible.

2.22. **Base Variety**

Whereas choice of a name for Hiri Motu has no great implications for the content of a standard form of the language (although obviously some names would be better than others, e.g., historically more accurate, descriptively more appropriate etc.) choice of a variety upon which the standard is to be based does - it affects all subsequent decisions and determines the basic form of the orthography, and the adequacy or inadequacy of the grammar and vocabulary for specific purposes. At the moment no decision has been made about which variety ought to be used as the basis of a standard form of the language. Hitherto any suggestions that have been made have been based on a 1961 survey of the language (Brett *et al.*, 1962a). This survey suggested that there were two main dialects at that time, a Central one (spoken around Port Moresby and neighbouring coastal areas in what used to be called the Central District) and a Non-Central one (spoken elsewhere). Of these the Non-Central one was the larger and more widespread and the one most favoured for standardization purposes.

That survey is now fifteen years old and many things have happened since then which are likely to have had an effect on the dialect situation (not the least being the growth of the Papua Besena movement in and around the Central
Province (Premdas 1977), an expanded educated elite of English speakers, and a fast growing urban population. Consequently it would be useful to know (but not essential) whether the old Central/Non-Central dichotomy still exists or whether it has been superseded by a different dialect structure, and what people's attitudes are to whatever exists, before deciding what variety to choose as a basis for developing a standard variety. Supposing, however, for the sake of argument, that very much the same situation as has been previously described still prevails, which of the two varieties (Central and Non-Central) would be the best to choose as the basis for the standard?

There are arguments in favour of both. As already indicated the Non-Central variety is the largest and most widespread, and therefore may be said to represent in one sense the "true" Hiri Motu. Yet the Central variety is to a certain extent more prestigious than the Non-Central one because of its association with the capital of the country, i.e., with that part of the country where development is most obvious and where new ideas originate. It is also the variety that is more akin to its principal source language "pure" Motu and is in consequence (and by definition) more flexible and better able to tap the resources of the fuller language. Finally, it is the variety that has been most used in mission literature and is therefore presumably already seen as standard in certain areas.

One cannot simply choose between these two on these grounds alone, however. Other factors such as how is the language to be modernized, for example, need to be taken into account also. Such factors entail such specific questions as how close to "pure" Motu should the standard be, or how close to English should it be? Whatever the final decision, however, it does not mean to say that the chosen variety should be taken over in its entirety, but simply that it should serve as the starting point. As noted earlier, a standard variety is artificial.
to some extent and does not have to correspond to what speakers actually say, although obviously it should be as close to that as possible if it is to be well accepted by speakers.

2.23. **Phonology and Orthography**

Given that the most useful kind of orthography is the one that is in a one-to-one relationship with the phonology (so that given the pronunciation of a word that word can easily be written down by representing each sound with its appropriate symbol and any written word can pronounced by giving each symbol its appropriate sound value) it is clear that these two aspects of standardization (and modernization) are best treated together. There are, however, three aspects that need to be considered:

(a) the sound system as a **system** of discrete (sound) units;
(b) the orthography as a **representation** of that system;
(c) the sound system as a **sequence** of discrete (sound) units.

As already implied in the discussion of dialects above there is no one phonological system in Hiri Motu. Rather there are many overlapping, or only partially corresponding systems, so that someone from the Port Moresby area might pronounce the word for 'name' as **ladana** while someone from the Gulf Province might well pronounce it as **natara**. In general, however, similarities and differences are determined by the mother tongues of speakers since Hiri Motu is for them only a second language. There will be regional similarities, however, which reflect the similarities of related languages or groups of languages. Thus the (old) Central dialect is much more akin to "pure" Motu than is the Non-Central one because the largest proportion of the population speaks Austronesian languages related to "pure" Motu and with similar sound systems to it (Wurm(ed) 1976). In choosing a standard phonology therefore one has to falsify the linguistic picture by generalizing it or choosing one system and simply imposing it on others, or a
combination of both.

In practice the last solution is the one that has been adopted hitherto, at
least as far as a standard form can be said to have been used in published
materials. Thus because Hiri Motu owes so much of its vocabulary and structure
to "pure" Motu and is historically closely associated with it Hiri Motu is
usually written with a modified "pure" Motu orthography. Thus it uses the five
vowel symbols \( i, e, a, o \) and \( u \), of "pure" Motu and the consonant symbols \( p, t, k, b, d, g, f, s, h, v, m, n, r, l, \) and \( w \), all of which are used in "pure" Motu
except that \( f \) is only used in (recent(?)) borrowings from English and \( g \)
represents both a voiced velar stop and a voiced velar fricative, sounds which
are in contrast in "pure" Motu and represented differently in that language, but
not usually found in contrast in Hiri Motu.

This system works well enough and I think everyone would agree that it should
be continued. However, it is artificial to a certain extent and that point
should be kept in mind when questions of modernization are considered later on.

But what of the sound system as a sequence of units? Hitherto the language
has been treated as a system of open syllables so that no two consonants (except
for \( kw \) and \( gw \)) fall together in sequence. This system again reflects the
structure of "pure" Motu although it is also common to other languages of the
Central Province (including Non-Austronesian ones like Kolita and Kolarl). This
system works well too because it is easy for all speakers to pronounce all
combinations of sounds (though not necessarily, and most likely not in a "pure"
Motu way) whereas any other system is likely to be distorted by the majority of
speakers. Even so there are still problems in it which have not been ironed out
as yet. These have to do with the sequencing of vowels. In "pure" Motu there
is contrast between the sequences \( ae \) and \( ai \), \( ao \) and \( au \), \( oe \) and \( oi \). That is, they
distinguish between otherwise homophonous forms such as \( lao 'to go' \) and \( lau 'I' \). In
most variants of Hiri Motu these distinctions are not made so that ae and ai are both pronounced as ai, ao and au as au, and oe and ol as ol. The question arises then as to whether the "pure" Motu distinctions should be maintained? This question cannot be answered willy-nilly but should take into account the following questions:

(a) Is Hiri Motu a separate language from "pure" Motu or not?
(b) If so (as it clearly is - see Wurm 1964) then why should it not be made graphically distinct?
(c) Will it increase the number of homographs in the language to an intolerable level? If so, does that matter anyway since they are already homophonous in speech?

My own preference is that the distinctions currently maintained should not be maintained in any standard variety but that the language should reflect the spoken norm.

Another question to be considered is whether the old open-syllable-single-consonant-onset-type structure is to be maintained. In the Government's The Dictionary and Grammar of Hiri Motu this criterion shows signs of being abandoned in the face of increased borrowing from English. Thus a perusal of the dictionary will show that the following combinations occur: tr (as in trella 'trailer'), mb (as in memba 'member'), mp (as in ampaa 'umpire'), nk (as in bilankesi 'blanket'), kb (as in bilakbodi 'blackboard'), fr (as in frisa 'refrigerator'), kt (as in faktori 'factory'), ntr (as in kontraka 'contract'), ns (as in pensolo 'pencil'), tk (as in sutkelsi 'suitcase'), and ks (as in taksi 'taxi'). If uncontrolled borrowing is allowed to occur then it is likely that the structure of words in Hiri Motu will approach that of English more and more.

Finally, there is the question of what to do about variant pronunciations of common items like vadaeni 'all right' and dohore 'later on' in different
syntactic positions. The former appears as *vadaini* and/or *vadan* in isolation but as *vadan* or *vada* in phonologically close-knit sequences. *Dohore* occurs as *dohore*, *do:re* and *do*.

2.24. **Vocabulary**

One of the first problems to be tackled here is to decide what is already in the language. Published dictionaries to date have attempted to do this but with only limited success principally because of the way in which they were compiled. Good dictionary-making depends on good research work and so far no one has tackled this work in a systematic and comprehensive way. This will have to be done before other decisions can be made about what should be added to the language to bring it up-to-date. Of course, by the very nature of things, dictionaries will always be out-of-date to a certain extent, and can never be really up-to-date. There will also be the problem of deciding what is truly "in" the language (i.e., part of common usage) and what is merely peculiar to certain speakers. The committee which was responsible for compiling *The Dictionary and Grammar of Hiri Motu* was well aware of this problem and attempted to meet it. But the problem is exacerbated by the fact that, in the present situation in which there is no intervention or attempted control by anyone, many words will be at different stages of inclusion or introduction in different parts of the country at different times, and spreading out from Port Moresby the main locus of introduction. The only way to attempt to overcome this situation is to try to control the growth of the vocabulary and to teach it to users. In other words the language should be standardized and modernized, not haphazardly, but according to agreed general principles. But these principles cannot be worked out until the language has been studied in more depth as recent work in Tok Pisin has shown.

We shall return to this question again below.
2.25. Grammar

Unlike the vocabulary the grammatical structure of Hiri Motu is more clearly defined and consistent from one part of the country to another, and the basic elements of this structure have been set down in the sketch grammars that have been published to date (e.g., Chatterton 1950; Dutton and Voorhoeve 1974). In most of these, however, one variety is chosen for purposes of description with notes given explaining and/or illustrating other variants. The principal areas of variation include the following:

(a) the use of *eiva* in the Central dialect for *o* 'or' in the Non-Central;
(b) the use of *ani* in the Central dialect for a 'eh (question tag)' in the Non-Central;
(c) the use of object suffixes -*gu*, -*mu*, -(i)a, -*mai*, -*da*, -*mu*i, -*dia* on verbs in the Central dialect instead of a combination of free form pronouns and a verb marked for transitivity by *a* (for singular objects) and *dia* (for plural objects) in the Non-Central dialect. Consider for example:

CD:   lau      ita(i)mu
      I see. you

NCD:  oi     lau     itaia
      you I see.sg.obj.

(d) the use of English-based cardinal and ordinal numbers in the Non-Central dialect as against the "pure" Motu ones in the Central dialect;
(e) the use of a phonologically different subset of verb stems in the two dialects. This subset involves the "pure" Motu verb stems that end in *a*. In "pure" Motu -*ia* is suffixed to these stems to indicate the third person singular object, e.g., *ita* 'to see' becomes *ita-ia* 'see-it'. This system is followed in the Central dialect. However, in the Non-Central one speakers treat these verbs as consisting of a stem ending
In I and a suffix -a (by analogy with many other verb stems in it which do not end in a, e.g., utu-a 'cut-it', henac-a 'steal-it', hamaoro-a 'tell-him') when the third person plural suffix -dia is used. Thus, for example, Central and Non-Central speakers use phonologically different forms for 'see-them', viz. ita-dia and ital-dia respectively.

(f) the use of possessive suffixes with certain classes of nouns instead of fixed forms ending in -na with free form possessive pronouns.

Consider, for example, the following chart:

<table>
<thead>
<tr>
<th>English</th>
<th>&quot;pure&quot; Motu</th>
<th>Central dialect</th>
<th>Non-Central dialect</th>
</tr>
</thead>
<tbody>
<tr>
<td>my father</td>
<td>tama-gu</td>
<td>tama-gu lauegu tamana</td>
<td>lauegu tamana</td>
</tr>
<tr>
<td>your father</td>
<td>tama-mu</td>
<td>tama-mu olemu tamana</td>
<td>olemu tamana</td>
</tr>
<tr>
<td>his father</td>
<td>tama-na</td>
<td>tama-na laena tamana</td>
<td>lēna tamana</td>
</tr>
<tr>
<td>his head</td>
<td>kwara-na</td>
<td>kwara-na laena kwarana</td>
<td>lēna kwarana</td>
</tr>
</tbody>
</table>

(g) use of na as well as be as an equative in verbless sentences, e.g., oI na namo? 'Are you all right?' where most would say oI (be) namo?

(h) use of ela bona (lit. 'it goes and') and ema bona (lit. 'it comes and') instead of la lao bona/ma and ia mai bona/ma for 'until' in appropriate sentences;

(i) use of amo 'from' as a postposition instead of dekena or dekena amo;

(j) use of mai 'with' in structures translating 'have' in English, e.g., mai emu masis? (lit. 'with your matches') 'Have you any matches?' instead of a structure using noho as in masis ia noho oI dekenaI? (lit. 'matches it/they stay with/on you').
If the language is to be standardized which of the above alternatives should be included in the standard and which excluded? Clearly the decision about which variety to accept as base will have an immediate determining effect on these questions.

These then are the sorts of questions that have to be considered in setting out to standardize Hiri Motu. What now of those involved in modernizing it?

2.3. Modernization: Issues and Problems

Here we need only consider orthography and phonology, vocabulary and grammar since once a name and a base variety have been decided upon they do not enter into further consideration. For the sake of argument then let us assume that it has been agreed that the base variety is to be the Non-Central one and hence that:

(a) the orthography contains the symbols $l$, $g$, $s$, $o$, $u$ and $p$, $t$, $k$, $b$, $d$, $j$, $f$, $s$, $h$, $v$, $m$, $n$, $l$, $r$, and $w$ as at present;

(b) the syllable structure is to be open but that certain consonant clusters are to be allowed;

(c) the vocabulary contains those items that appear in The Dictionary and Grammar of Hiri Motu; and

(d) that the grammar is more or less clearly defined, or is definable, what problems are we likely to encounter in attempting to modernize the language from this position.

Clearly the most important areas will be the vocabulary and grammar - decisions in these areas will determine to a large extent what developments are required in the orthography and spelling systems. Let us begin then with the vocabulary.

2.3.1 Vocabulary

Initially the basic problems here will be ones of developing a set of principles or guidelines for deriving the new vocabulary required. These guidelines should be developed out of a number of observations about the nature of the
language and the experience of others who have attempted to do the same thing in other languages (e.g., Indonesia, Malaya) as well as out of decisions about what one wants the language to look like in the end. Their chief purpose will be to help to decide in particular cases whether the new vocabulary is to be derived (a) by borrowing (either in part, as in loan translations or loan blends, or in whole) from one or more languages; (b) by creation out of already existing elements in the language; (c) by giving new meanings to old words already in the language; or (d) by a combination of these possible methods.

Observations about Hiri Motu that are relevant here are:

(1) Hiri Motu is a pidgin language whose chief source language in the past has been "pure" Motu. Clearly if the language is to retain its present Papua New Guinea flavour it should continue to draw on this source for as much of its vocabulary as possible. How far it will be able to go in this direction, however, will depend on a number of factors not the least of which is the semantic field being looked at. Thus "pure" Motu has a wealth of technical terms to draw on in such areas as carpentry, boat-building, sailing, weaving, pottery, farming, etc. - areas in which the Motu had developed skills. In other areas where Hiri Motu vocabulary is not so well developed it is possible that some of these same technical terms could also be extended in meaning (metaphorically or otherwise) to cover other ideas associated with, or felt to be associated with them in some way. For example, the sailing terminology could conceivably be applied to politics just as it often is in English (as, for example, when we speak of the 'ship of Government', etc.). However, as "pure" Motu itself also has to cope with many new ideas (in one of the ways already mentioned) it is clear that Hiri Motu will not be able to borrow all its vocabulary from that source. By the same token, however, it means that it would probably make most sense if the two languages were
developed together at these points. In both cases considerations that will
determine final choices will include currently held social attitudes towards
the various possible donor languages (English, Pidgin, and other local
languages), how well entrenched borrowings have already become, and how easy
it is to form new words in them using their present word stock and rules of
combination. Answers to the former two questions (i.e., to attitudes and
entrenched borrowings) can only be obtained by surveying present speakers
while those to the latter can only be obtained by a thorough study of the
structure of the present vocabulary, a subject which needs to be considered
in more detail, and to which we now turn.

(2) Because Hiri Motu was, and still is, a pidgin language its vocabulary is
(except for present borrowing) not very elaborate but restricted to certain
kinds of social situations (e.g., trade, work situations), and although it is
adequate to express most things in these situations it is underdeveloped in
other areas (e.g., emotions). Yet precisely because it is a pidgin language
it makes maximum use of the limited means it has at its disposal to express
a wide range of concepts. It does this by utilizing such processes as

(i) multifunctionality (i.e., using the same word or base in different ways,
e.g., bada as adjective 'big', as noun 'size', as verb habadala 'to
increase', as adverb 'loudly, strongly');

(ii) reduplication (e.g., pidia 'to shoot', pidipidi 'to knock on a door'
(repetitious action); korema 'black', korema korema 'very black';

(iii) circumlocution (e.g., la mai lasi tauna 'the absentee');

(iv) compounding (of sorts) (tadikaka 'brothers').

Consequently in considering ways in which the vocabulary can be expanded one ought
to see first just what processes are already used creatively in this way so that
these can be used in coining new vocabulary as required. The advantage of coining
new vocabulary in this way is that the meaning of that vocabulary would be immediately intelligible (or transparent) to speakers of the language whereas words created by other means (including borrowing) are opaque, or not so intelligible, and have to be learned as new vocabulary items. Besides, indiscriminate borrowing is likely to interfere with the present rules and so destroy the basic structure of the language and lead to chaotic irregularity. So one of the first tasks that has to be done is to make a detailed study of the vocabulary of the language just as has been done for Tok Pisin (Mühlhäuser 1976; Wurm et al. 1977).

Assuming, however, that many new words can be brought into the language, or developed in it, in the ways discussed (to express desired new concepts) this does not mean that all the problems are solved, for there are a number of specific problems that do not lend themselves to the application of these principles. These are:

(i) personal and geographic names of different sorts;
(ii) scientific and technical terms of international currency;
(iii) interrelated sets of words in the source language that involve bound affixes.

Let us consider each of these briefly:

(i) **Personal and Geographic Names of Different Sorts**

Generally these are non-translatable so that they have to be borrowed more or less in the form that they appear in the source language. The only choice one has is to either "Hiri Motu-ize" them (i.e., alter the spelling so that it fits with the standard Hiri Motu spelling) or to compromise and spell the form as in the source language but with a Hiri Motu pronunciation guide given in brackets. In this situation what the planner is trying to do is one of two things: (i) to let the Hiri Motu speaker give his own pronunciation to the form, or (ii) to give
him a guide as to how it is pronounced in the source language.

Given that most of those who are (or will be) literate in Hiri Motu are not (or will not be) literate in English it would seem most sensible to adopt the first principle and perhaps eventually introduce the English forms later on when more speakers are literate in both languages.

(II) **International Scientific and Technical Terms**

These appear at first glance to be akin to the personal and geographical names just discussed. However, there are two important respects in which they are different. One is that because they belong to an international set it is highly desirable that as far as possible they keep their international look, otherwise those who have to use them have to learn two sets at some point — the 'real' (international) one and the translated (local) one. In general then it is desirable that the form of the word be kept as close as possible to that of the source language, leaving readers to give it, in the Hiri Motu case, a Hiri Motu pronunciation. Thus in this view 'geology', say, would be transliterated as *giologi* which retains the basic form of the word but Hiri Motu-izes it graphically, so that it will be pronounced *giologi* and not *dziolodzi* as in English.

The second important respect in which international scientific and technical terms differ from personal and geographical names is that they have an internal structure of their own, and this fact brings us to the third specific problem mentioned above, namely, the problem of interrelated sets of words and bound affixes.

(iii) **Interrelated Sets of Words in the Source Language that Involve Bound Affixes**

The problem here is how to deal with a set of words like 'geology, geological, geologically, geologist' which are based on Greek roots (*ge* 'the earth' and *logos* 'discourse') and which are related to one another by suffixation (e.g., -cal, -ly, -lst), or a more elaborate set like 'language, linguist, linguistic, linguistically, anti-linguistic(ally), pro-linguistic(ally), supra-linguistic(ally),
multi-linguistic(ally), non-linguistic(ally)' etc which are related to one another by both prefixation (anti-, pro-, supra-, multi-, non-) and suffixation (-ic, -ist, -cal, -ly). Much of English vocabulary is interrelated in this way and depends heavily therefore on a wide variety of processes for the formation of new words and the conflation of ideas. Hiru Motu cannot match this. The best it can do is to provide phrasal or clausal substitutes. Thus the suffixes -er, -or 'one who' or 'that which' in English become tauna 'person' or gauna 'thing' respectively as in gaukara tauna (lilt. work person) 'worker' and giroa gauna (lilt. turn thing) 'egg-beater' (or anything else used for turning something around); or again the negative prefixes in-, un-, etc become lasl 'not' placed after the head noun, e.g., compare tau badana 'important person' with tau badana lasl 'unimportant person'. More serious, however, is the fact that for the majority of English affixes, Hiru Motu has no convenient counterparts. The question is then what do we do about them - do we introduce them, or do we ignore them, or do we try to manufacture some as has been tried in Malaysia (Asmah 1975:115). For example one that would seem to lend itself to the latter possibility is rua 'two' for the prefix bi- 'two' in English. Thus for 'bi-valve' one would get something like ruavaiva 'two-valve'. However, this runs into trouble when one tries to do the same thing with 'bilingual (person)' for example. Superficially this should come out as gado rua tauna (lilt. two language person) but this does not capture the English meaning of 'knowing two languages equally well'. This meaning can only be approximated by extending the Hiru Motu form to something like nega tamona gado rua dibu tauna (lilt. one time two languages knows person). But this is nothing more than a circumlocution, a relative clause in fact describing the meaning of the English word. And this brings us back to the original problem. Hiru Motu cannot go on using circumlocution and/or relative clauses to convey meanings expressed by single words in English if it is to have the same kind of flexibility
that English has. There are two possibilities available – either it develops new systems for deriving new vocabulary of the kind needed or it merely borrows the foreign terms. Of course not all semantic fields have to be introduced at once and in the beginning (for example political and economic terms are going to be needed before scientific ones), so that there will be an order of priority and consequently some time to adjust. But planners will still need to be aware of the full range of problems so that planning can be more effective in the long run.

2.32. Grammar

One of the consequences of adopting the first of the two solutions proposed above to cope with what can be conveniently called the conflation problem would be that the language would have to add new word-formation rules to its grammar and/or change old ones. It is also possible that this would have effects on other rules as well. Thus the Malaysian experience has been that:

"Complex sentences, which result from the combination of two or more simple sentences either by the process of embedding or conjoining, are hardly used in dialectal speech. Such sentences are found to occur in the formal variety of Malay, spoken or written. Technical and philosophical concepts are expressed more easily in these sentences than in simple short sentences which not only hamper the smoothness of the flow of thought but which also give rise to a staccato-type of intonation."

(Asmah 1975:54)

Just how far, or whether Hiril Motu is likely to have to go in the same direction would depend on what decisions are taken about the problems so far discussed.

2.33 Phonology and Orthography

One of the consequences of adopting direct borrowing from English as a solution to the problems of modernization of Hiril Motu vocabulary would be a much expanded Hiril Motu phonology and orthography. Indeed if large-scale borrowing were to occur
then the language would gradually change its shape to be more like English. However, this is not necessarily a bad thing for after all the country is at present espousing a policy of universal education in English. On the other hand the process would be relatively gradual and as Laycock (1977) has shown for Tok Pisin - which is under the same influence - is not likely to be complete. Instead, it is likely that it would develop its own system (just as Tok Pisin has) and so avoid the most objectionable aspects of such borrowing.

3.0. CONCLUSION

I think it is clear from what has been said that if Hiri Motu is to continue to be used for official and unofficial communication and development purposes in Papua New Guinea, some thought has to be given as soon as possible to the problems of how best to standardize and modernize the language, so that it can fulfill the tasks it is being called on to do as efficiently as possible. Chaos, inefficiency, wastage of precious Government resources and loss of respect are all to be expected if the present state of affairs continues. I hope that the above survey will be of some value in helping to think about the various problems clearly and rationally and to facilitate active interference in the development of the language in the not too distant future.
NOTES

* This is a revised version of a paper presented to the Eleventh Annual Congress of the Linguistic Society of Papua New Guinea, Lae, September 2-3, 1977.

1. Hiri Motu is the name now used in some circles to refer to what used to be called Police Motu. It is the second largest lingua franca of Papua New Guinea and is spoken throughout most of the southern half of the mainland. For further details see Dutton and Brown (1977) (although this was actually written in 1974) and later sections of the present paper.

2. For present purposes I use the term language planning to mean "the organized pursuit of solutions to language problems, typically at the national level" (Jernudd and Das Gupta 1971).

3. These varieties have also been called Austronesian and Non-Austronesian by Wurm (1964) who noted that the Central variety is basically spoken by speakers of (closely related) Austronesian languages of the Central Province and the Non-Central variety by Non-Austronesian speakers elsewhere.

4. For example Brett et al. (1962a:11) recommended that the type of Hiri Motu spoken in the Western District (now Province) should be adopted as standard in preparing material for mass communication. Chatterton (1970:98), however, thought that the Purari Delta (or Koriki) variety should be, for a number of linguistic reasons which he listed.

5. For a review of this material to 1973 see Dutton and Brown (1977). The Office of Information's The Dictionary and Grammar of Hiri Motu (1976) can now also be added to the listing discussed in that review.

6. For further details see Dutton (1976).

7. See Mühlnäusler (1976), Wurm et al. (1977), and Laycock (1977).

8. The ( )'s mean that some speakers use the I and some do not. "Pure" Motu speakers do not.

9. By contrast "pure" Motu is well developed in this area (Reymond 1977) so that Hiri Motu could again profitably draw on this source to fill gaps as required.

10. The same is also true of "pure" Motu and most other Austronesian languages which are not pidgin languages but fully-fledged natural ones (although this does not preclude them from having been pidgin languages at some earlier time). For a description of the various processes used in "pure" Motu see Taylor (1970b).
REFERENCES


HEALEY, L. R. 1975. 'When is a Word Not a Pidgin Word'. In McElhanon (ed.) 1975:36-43.


