

TAWALA DERIVATIONAL PREFIXES: A SEMANTIC PERSPECTIVE

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The most urgent need in semantics is for fresh empirical evidence obtained by painstaking study of concrete lexical data. (Weinreich 1966:473)

1. INTRODUCTION

Derivational prefixes are probably the most complex aspect of Milne Bay languages. Even though they are central to a thorough knowledge of these languages, they have often received only cursory treatment by linguists. This present study is the first systematic treatment of these prefixes.¹

The Austronesian languages of the Milne Bay area have a reputation for being rather simple – and this is probably true enough for 90 per cent of day-to-day communication. However, mastery of the remaining 10 per cent involves an effort out of all proportion to its frequency. An examination of the dictionaries of Milne Bay and beyond (details are given in

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Firstly, my debt to the Tawala people, and Yailo Robert in particular, is incalculable. The people of Diwinai and Labe villages have always made me most welcome – getting out the pandanus mats and sharing their lives with me.

Without the encouragement of my Summer Institute of Linguistics colleagues – Drs Ray Johnson, Robert Litteral and Ken McElhanon – it is doubtful if I would ever have ventured along the course I have now come to the end of.

The excitement of ‘frontier’ discovery – shared by Professor Dixon and the staff of the Linguistics Department, The Faculties, Australian National University – has been a conducive atmosphere in which to pursue the intricacies of linguistics. Special appreciation is extended to Drs Avery Andrews and Timothy Shopen for their contribution to my MA thesis.

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Finally, to Janet, my wife, constant companion, finest critic, detailed editor and typist of the many drafts of the material in this paper go my deepest appreciation. Without her help and encouragement I could not have started, let alone finished such an undertaking.

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Appendices 1 to 6) reveals that a single root with two or more different prefixes is commonly recorded without any clear distinction in its glosses. The dictionaries and grammars also reveal a trite treatment of the derivational prefixes, with little or no effort being made to give accurate definitions, and little or no attention being paid to data which do not conform to the usual 'causative' definition. This paper, then, reveals something of the detail that needs to be controlled in order to productively use the Tawala derivational prefixes.

The Tawala derivational prefixes (*wi*, *lu*, *li*, *wo* and *om*) are added to roots in order to derive new verbs. There appear to be no restrictions as to which part of speech can be 'verbalised' by the addition of one of these prefixes. A general meaning associated with the respective prefixes has been suggested in section 4 (see Table 5) but these meanings do not enable us to predict the precise meaning a root should have with a given prefix. Although the general meanings of derivational prefixes are not productive in a formal way, all is not chaos, because a given prefix usually has a precise meaning when applied to a specific semantic class. The discovery of the correspondence between the meanings of the prefixes and the various semantic classes has thus reduced a formidable array of data to a manageable corpus (sections 3 and 4).

This present study handles not much more than the tip of the iceberg. Or, to use a more appropriate metaphor suggested by my language helper, Yailo,² we have criss-crossed the jungle with a few paths and discovered the general topography of the area while many details remain hidden, waiting for future discovery. While I am aware that much work remains undone, the very fact of exposing a difficult area will hopefully encourage others to take up the challenge. Tawala prefixes need a treatment as detailed as Wierzbicka's (1980) treatment of the Russian instrumental case, which seeks the general core meaning of the case and the patterns divergent from the general meaning.

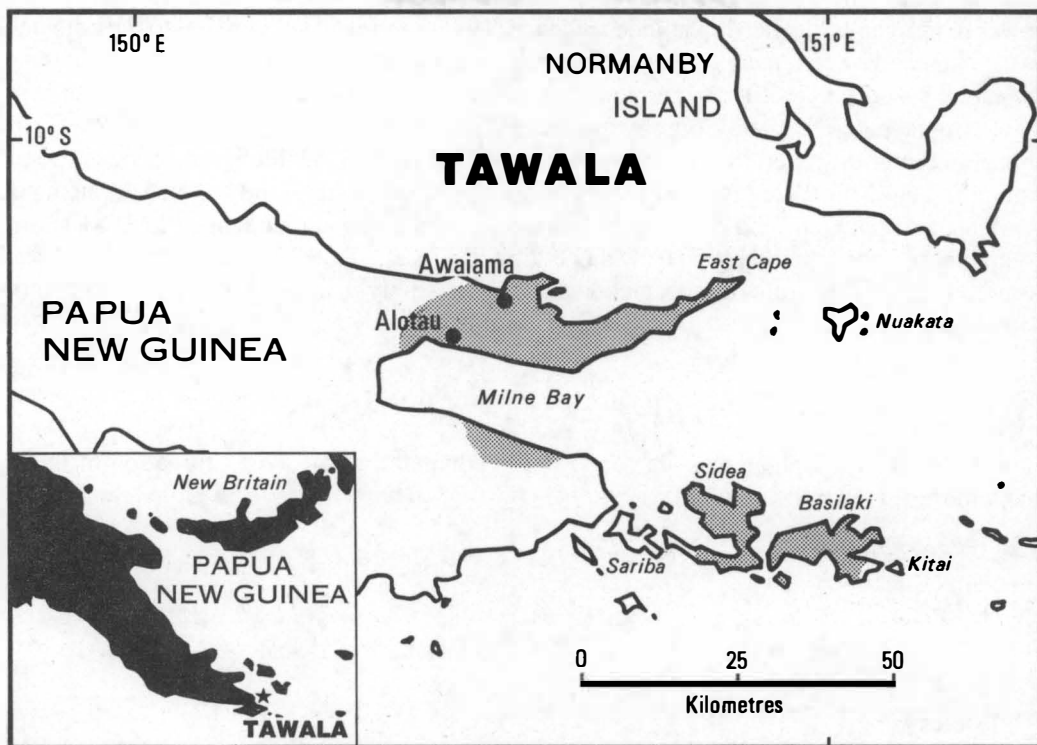
1.1 THE TAWALA SITUATION

The data presented in this paper are predominantly from the Diwinai dialect, the central dialect of the Tawala language. Tawala is spoken by some 10,000 people living around the shores of Milne Bay and nearby islands of the easternmost tip of Papua New Guinea (see Map 3). It includes the dialects referred to in earlier literature as the separate languages of Basilaki, Bohila[?]i (Bohira[?]i), Kehelala (Keherara) and Tavara,³ but does not include Maiwara (as suggested by Dutton 1973), which is a dialect closely related to the Taupota language, though most Maiwara people have some knowledge of Tawala as a second language.

To understand the growing importance of the Tawala language we need to look briefly at the history of the Milne Bay Province from the time of European settlement. In the early days, a number of forces worked against the use of Tawala (the people themselves say the language was dying). This attitude is seen in the constant misspelling of place names by outsiders, as seen in the language names given above. Today, however, the language is undergoing a revival, and may well become a lingua franca of the province in the years to come.

²No words could express my debt to Yailo Robert, my 'older brother' and co-translator. He has patiently helped me to gain insight into the treasures of his language and culture since we first commenced working together in 1974.

³*r* and *v* do not appear in any present-day Tawala dialects; these sounds reflect Dobu and Suau spelling.



MAP 3: THE TAWALA LANGUAGE AREA

The first consistent contact with the outside world began in the last decades of the nineteenth century with the commencement of three Christian missions, each working in the Tawala language area but not using the Tawala language (see Map 1). From the south, the Kwato mission (an off-shoot of the London Missionary Society) moved into Milne Bay using the Suau language. From the north-west the Anglicans moved along the north coast towards East Cape using the Wedau language. From the north came the Dobu-speaking Methodists, establishing work first on the East Cape Peninsula and later extending to the islands to the south. Though some efforts were made at producing Tawala literature, work was predominantly in the three church languages. The Tawala people thus began to look on their own language as unimportant. This conclusion was reinforced by the government operations being centred at Samarai in the Suau language area, with Suau commonly used by government officers having contact with the people. In the early 1930s Catholic work began in the area, centred at Sideia. Over the years some work was done by them in the Tawala language, but only in a token way in comparison with the literature available in the other church languages of the area. However, later moves in government circles changed the scene.

In the mid 1960s the hopelessly overcrowded island of Samarai was abandoned as the administrative headquarters of the Milne Bay Province in favour of the mainland centre of Alotau on the north coast of Milne Bay, within the Tawala language area. This changeover

was completed in 1976 with the opening of the international wharf at Alotau. The transfer of power to indigenous leadership at independence (1975) has relegated Samarai to the colonial past. There have been many results of this change of location, but none more important than the effect it had on the Tawala people, who have a new-found sense of the importance of their language. A United Church minister active in the Alotau area during the early changeover period reported a swing to the use of the vernacular in church services (pers. comm.). Today the swing is almost complete, with Tawala hymns and the New Testament available and popular, and church services mostly in the Tawala language. In 1981 some young people published the first Tawala newspaper – *Geka Tuwega* (This is News). What is more, people from other language areas are increasingly using Tawala in their contacts with the local people.

1.2 TAWALA PHONOLOGY

The following 20 phonemes are found in the Diwinai dialect. (A justification of these phonemes is given in Ezard and Ezard 1974).

TABLE 1: TAWALA PHONEMES – POINT AND MANNER OF ARTICULATION

CONSONANTS

		Bilabial	Dental	Velar
Plosives	voiceless	<i>p</i>	<i>t</i>	<i>k</i>
	voiced	<i>b</i>	<i>d</i>	<i>g</i>
Labialised plosives	voiceless			<i>kw</i>
	voiced			<i>gw</i>
Grooved fricative			<i>s</i>	
Nasals		<i>m</i>	<i>n</i>	
			Alveolar	
Retroflex lateral			<i>l</i>	
Semiconsonants		<i>w</i>	<i>y</i>	<i>h</i>

VOWELS

	Front	Central	Back
High	<i>i</i>		<i>u</i>
Low	<i>e</i>	<i>a</i>	<i>o</i>

NOTES:

- (1) The *s/t* distinction has been recently introduced as a result of contact with English. Historically, *s/i* and *t* elsewhere.

- (2) There is negligible phonetic variation of Tawala phonemes.
- (3) Tawala has only one closed syllable type, ending in *m*. No *mu* syllables are found, and the *m* closed syllable has historically developed from *mu*. (The Yamalele language of Fergusson Island has *mu* in some dialects with corresponding *m* in others – see J. Ezard 1970).

1.3 WIDER LINGUISTIC RELATIONS

Much work waits to be done on the classification of Tawala, and of Milne Bay languages generally. However, the overall position can be presented in outline. At the lowest level Tawala's closest relations lie along the north-east coast of eastern Papua (Ross 1988:191, 195).

Lithgow (1976) assigned 40 Milne Bay languages to 12 families. While non-lexical data were referred to by Lithgow, his classification rests predominantly on the basis of lexicostatistics. The statistics, no doubt, reflect the synchronic situation well enough, but do not constitute a genetic classification. In addition, no attempt was made to account for extensive and widespread borrowing through the Kula and other trading ventures (Ezard, B. 1977) and for word taboo (Simons 1982), not to mention other fundamental problems involved in lexicostatistical studies themselves (McElhanon 1971).

At the highest level, Milne Bay languages, along with all the Austronesian languages of Papua New Guinea and island Melanesia, belong to a major subgroup of the Austronesian language family set up by Dempwolff (1927, 1937) on a comparative phonological basis, and in recent years referred to as 'Oceanic'. Dyen (1965) questioned the cohesiveness of the Oceanic subgroup, but his lexicostatistics also failed to take into account the extreme distortion of the Melanesian data caused by word taboo, small isolated societies and contact situations involving disparate Papuan languages. Almost all Oceanic linguists today accept the validity of the Oceanic subgroup.

The most recent study to include the prehistory of the Oceanic languages of the Milne Bay area is Ross (1988), which is based on phonological and morphosyntactic comparisons. He argues that the Oceanic languages of Papua New Guinea and the western Solomon Islands fall into four large 'clusters' of languages. Three of these, the Meso-Melanesian, North New Guinea and Papuan Tip clusters, are tentatively attributed to a single Western Oceanic grouping. The latter is the result of diffusion from the probable Proto-Oceanic homeland area, which occurred after Oceanic speakers had departed for the Admiralties and eastern Oceania.

The Papuan Tip cluster includes all the Oceanic languages of Milne Bay identified by Lithgow (1976) together with a few related languages located on the coast of the Oro Province (to the north-west of the Milne Bay Province) and the Oceanic languages of central Papua (Ross 1988:190-212). The cluster divides into two networks of languages, which Ross calls Nuclear Papuan Tip and Peripheral Papuan Tip. The former includes all the Oceanic languages of the mainland in the Milne Bay and Oro Provinces, and the languages of the D'Entrecasteaux archipelago and various islands close to the mainland. Within the Nuclear Papuan Tip network are several communalect chains, one of which is the Are-Taupota chain. This chain of languages includes the Are and Taupota families identified by Lithgow and stretches along the coast of the Oro and Milne Bay Provinces from Arifama-Meniafia on Cape Nelson at its north-western extreme to Tawala at its south-eastern end.

1.4 METHOD

Too many supposedly empirical studies of language employ an 'anecdotal' approach, where a hypothesis is considered established if a half-dozen good examples are culled from the vast stock of possible examples. Under this method counter examples are simply ignored. Often relatively few counter examples are even discovered; the research worker in seeking to prove the theory he is working on elicits supportive material without any thought as to whether he is dealing with central, peripheral or even slightly aberrant language material.

Of course there will always be the need for broad studies which look at the universal features of a large number of languages. But such studies will always be plagued with superficiality and, like an earlier breed of Latin-based studies, an inescapable bias.

The Tawala derivational prefixes, not to mention the relationship between semantics and syntax, are so exceedingly complex that every effort needs to be taken to avoid theoretical and cultural bias. Every effort must also be made to let the language speak for itself, and avoid forcing data into an alien mould. Accordingly, I chose to work from a corpus of 30 texts which had previously been transcribed and reduced to a concordance by computer (in November 1979). After excluding the main person/number markers, 14,441 entries appear in the concordance, representing the multiple occurrence of 2,021 key words. Once the various forms in which a word may appear are accounted for, I estimate that the corpus for this paper consists of a vocabulary approaching 1,000 words, including 460 different verbs, 383 of which I discussed in an earlier paper (Ezard, B. 1980b). The 87 verbs I omitted occur for the most part only once in the text, and not enough was known of their semantics to make their inclusion profitable there.

The texts represent a wide variety of male and female speakers, from teenagers to a very old man respected for his 'pure' speech. This, together with three distinct dialects (Kehelala, Diwinai and Labe) and a wide variety of discourse genre (stories, instruction, narrative etc.) guarantees a fairly representative cross-section of the Tawala language forms. Because of the difficulty of recording spontaneous conversations, most of the texts are 'formal' monologues spoken into the tape-recorder. However a number of impromptu speeches at public gatherings are also represented.

The 383 verbs looked at in B. Ezard (1980b) were sorted into semantic classes with methods and results reported (a summary is presented in section 4.3). This was the point from which I commenced work on this present study.

From the full list of 460 verbs, the derivational prefixes which occur with them number as follows:

<i>wi</i>	81
<i>lu</i>	56
<i>li</i>	20
<i>wo</i>	16
<i>om</i>	35

With a total of 208 out of 460 verbs, we get an idea of the important role played by derivational prefixes in Tawala verb derivation. I examined each prefix to determine its area of meaning but drew no fresh conclusions. I then compared the lists with an eye to the use of more than one prefix to a root. I drew up a chart (similar to those in section 4) of the 55

roots which I knew to occur with more than one prefix and included all the material I had collected in connection with the previous paper (Ezard, B. 1978). At this stage 124 boxes were filled in, averaging only $2\frac{1}{4}$ prefixes per root. Keeping in mind that only roots with two or more prefixes were placed in this chart, this was not an encouraging score. In fact, I was advised at this stage that my search may prove vain, as the prefixes appeared to be non-productive. At this point I returned to the field to collect more data and to find, if possible, a key that would enable me to use the derivational prefixes productively – a key that would unlock some pattern in the function of the prefixes. I had several lines of enquiry in mind, but the one which was to prove successful was the concept of ‘the priority of semantics’ in which the prefixes function in patterns according to their semantic fields (see section 3.1).

My initial aim of trying to fill in the blanks in the chart was successful (at least for the four main prefixes – *om* did not pattern well with the others), with an increase to an average of more than three prefixes per root. It soon became obvious, however, that I could not contain all the relevant data for each root in a single line of a chart so I devised and duplicated blank charts which enabled me to record over 100 pieces of relevant information for each root. The filling in of these charts proved very time-consuming but was eventually completed for the original 55 roots, plus 23 other roots which suggested themselves in the course of the investigation. I then devoted several weeks to an examination of these data from various theoretical standpoints, including the priority of semantics (see section 3.1) which began to show a little promise at this stage, as I attempted to bring together charts from the same semantic fields.

The next period of elicitation proved to be very exciting with almost daily discoveries of new semantic fields in which the prefixes functioned in a regular manner (see section 4). At this point Yailo, my language helper, who had previously had little idea of what I was trying to achieve, began to actively cooperate in discovery procedures. As soon as I could suggest two parallel forms belonging to a single semantic field he was able to suggest further examples – proving the practical value of the ‘priority of semantics’ concept. By this method the corpus increased to 562 verbs derived from 162 roots (listed in section 4, Charts 1–19).

Increasingly the picture became clear, that in so far as two roots share significant semantic components so the verbs derived from the application of the derivational prefixes were completely predictable. In line with this insight, the data were again transferred, this time onto charts in which roots belonging to a single semantic field could be displayed together (similar to those in section 4). The meanings a given prefix has with the various roots of a semantic field were then checked for homogeneity. One problem became apparent with the method at this point. Often a prefix can be used with a semantic field with more than one meaning. However, once a particular meaning surfaced in an elicitation session, it was difficult to change focus. Only by returning to a list at a later date was there much likelihood of discovering new areas of meaning. I took this step in only a handful of cases.

Another caution needs to be stated about some of the meanings contained in section 4. Many of these derived verbs are of low frequency of occurrence and probably represent the personal idiolect of Yailo. He would sometimes preface his remarks by saying something like, “I think it probably means such-and-such”. Checking some of the material with other language speakers confirmed the individual nature of some material. However, as these checks were made in the Labe dialect, the distinctions may be dialectal.

A final problem is also apparent. It is not easy for anyone, untrained in the art, to define words, especially obscure words, in his own language. I constantly encouraged Yailo to

illustrate the differences between words by putting them into sentences or even stories. Doubtless, at many points I may have missed the point of the story and have biased the meaning by failing to understand the full cultural significance of what I was told. Exposure of this problem will probably have to wait until Tawala linguists begin to write about their own language from an internal cultural perspective.

Whatever the weaknesses may be, this paper outlines how hundreds of derived verbs can be controlled, and texts interpreted. That much work remains to be done is obvious, but at least a start has been made.

1.5 TERMINOLOGY

Various terms used throughout the paper are in need of definition and explanation. Unfortunately there are many discrepancies in the terminology of linguists. For my own terminology I revert to some of the fundamental works in the field of morphology of the Tagmemic school.

1.5.1 ROOTS AND STEMS

In their chapter 'Tagmemes and Construction below the Word Level', Elson and Pickett (1964:79) define 'roots' as "single morphemes which function as the nucleus of words". The term 'stem' "is used to refer to either single morphemes (roots, simple stems) or to morpheme sequences (derived stems)". Hence a single morpheme carrying the basic meaning of the resultant word is a root. A Tawala illustration may be helpful:

- (1) *I-lata.*
 he-grow
 He grew.

Lata is the root carrying the basic meaning of the word, and also forms the simple stem in this word. If we now add a derivational prefix (DP) to the root we derive the form *wi-lata* 'to cause to grow'. This is a transitive stem:

- (2) *I-wi-lata-ya.*
 he-DP-grow-it
 He emphasised the point.

In (1) the word is built by adding an inflectional prefix *i* to a simple stem *lata*. In (2) the word is built by adding an inflectional prefix *i* and suffix *ya* to a derived stem *wilata* which is composed of a derivational prefix *wi* and a root *lata*.

1.5.2 DERIVATIONAL AND INFLECTIONAL PREFIXES

We now turn to the distinction we have assumed above between derivational and inflectional prefixes. Halle (1973:6) calls into question the theoretical relevance of the distinction between derivational and inflectional morphology:

The examples discussed above have been chosen from the domain that traditionally has been called *derivational morphology*. As far as I can tell facts that traditionally have been treated under the separate heading of *inflectional morphology* must be handled in completely parallel fashion to those discussed above.

In Tawala it is essential to distinguish derivational from inflectional prefixes (see section 2.5.2) and it thus seems wise to follow the traditional terminology. The distinguishing features between the two classes of affix as outlined in Nida (1949:99) proved useful in establishing the distinction for Tawala prefixes. A summary of these (and other) features relevant to the Tawala distinction is presented in Table 2. However it is not my purpose to pursue the matter further, as the theoretical distinction is largely irrelevant to the main argument of derivational prefixes. (The inflectional prefixes are largely set out in section 2 and the derivational prefixes in section 4.)

While each inflectional prefix has a single function, derivational prefixes have a variety of functions in Austronesian languages; in Tawala and other Milne Bay languages the functions and variety have reached a high degree of utility.

Finally it should be noted that reduplication of stems with derivational prefixes follows different rules from reduplication of word roots (see sections 2.5 and 2.5.1).

2. GRAMMATICAL FOUNDATIONS

Owing to the word-class-changing nature of the derivational prefixes it is essential to start by setting up the major word classes (2.1).

Certain features of the verb morphology also need to be outlined in this section to facilitate an understanding of derivational prefixes and the examples which illustrate their usage, since inflectional prefixes are always present in Tawala sentences (2.2 – 2.7).

2.1 WORD CLASSES

From earliest times linguists have been aware of the fluid nature of many Austronesian roots which are used here as a verb, there as a noun or perhaps an adjective. Codrington (1885:102) comments:

It is not that there is a complete absence of such special forms of Verb or Noun; but that the same word [i.e. root] without any change of form may be in use as almost any of the Parts of Speech. The use of the word, not its form, commonly declares its character...

This phenomenon is apparently a language universal (cf. Bloomfield 1935:196), however its high frequency of occurrence in Austronesian forces itself on the linguists' attention. A Tawala example using the borrowed word *pati* 'putty' illustrates the situation nicely:⁴

⁴Abbreviations used in this paper are as follows: CP – classificatory prefix, DAT – dative, DP – derivational prefix, EXC – exclusive, INC – inclusive, INST – instrument, INT – intensive aspect, IRR – irrealis aspect, FUT – future, N – noun, NEG – negative, O – object, PRES – present, PROG – progressive aspect, R – root, RED – reduplication, RFX – reflexive, s.o. – someone, s.th. – something, TC – transitive concord, V – verb.

TABLE 2: SUMMARY OF DISTINGUISHING FEATURES OF TAWALA INFLECTIONAL AND DERIVATIONAL PREFIXES

	Inflectional prefixes	Derivational prefixes
Semantic features	<ul style="list-style-type: none"> (1) Never involve a change in word-class membership (2) Single predictable¹ meaning (3) Uniform meaning with all roots they occur with (4) Their domain extends beyond the word; i.e. they show relationships between words 	<ul style="list-style-type: none"> (1) Often change word-class membership (2) Meaning dependent on semantics of root (see sections 3 and 4) (3) Derive new stems (4) Their domain does not extend beyond the word
Morpho-syntactic features	<ul style="list-style-type: none"> (1) Unrestricted to specific roots (2) Belong to the outer periphery² (3) Normally a single invariant form 	<ul style="list-style-type: none"> (1) Restricted to certain roots (2) Inner periphery² – never occur first in word (3) Multiple form depending on aspect (see section 5.2)

¹'Predictable' needs qualifying – it is predictable within the framework of the culture – not necessarily cross-culturally.

² 'Inner' and 'outer' periphery refer to the position affixes take in relation to the core or root of a word.

(3) (a) stative verb

Wam i-pati.
 boat it-putty
 The boat has been patched.

(b) transitive verb

Kuka u-na-pati-Ø
 sail you.SG-INT-putty-it
 Patch the sailing boat!

(c) noun

Dimdim hai pati u-na-way.
 foreigner their putty you.SG-INT-take
 Take the foreigners' glue.

(d) adjective

wam patipati-na
 boat putty-its
 putty for the boat

A second example illustrates the same phenomenon using a common Tawala root *bagibagi* 'work':

(4) (a) intransitive verb

Ta-bagibagi.
 we.INC-work
 Let's do some work.

(b) transitive verb

Nima-hi-yei hi-bagibagi-ye-ya.
 hand-their-INST they-work-DAT-it
 They worked it with their hands.

(c) noun

Hai bagibagi i-kokoe.
 their work it-finish
 Their work is finished.

(d) adjective

Meyagai bagibagi-na.
 village work-its
 Work for the village.

Sapir (1921:117ff.) noted that traditional classification of words into parts of speech "is only a vague, wavering approximation to a consistently worked out inventory of experience". Thus, the part of speech "outside the limitations of syntactic form is but a will o' the wisp". Consequently, he considers that interlanguage correspondence of parts of speech is not "of the slightest interest to the linguist". R.M.W. Dixon (1977:19), however, considers that such relationships are not entirely arbitrary; "It is a fact", he observes, "that inter-language class correspondences *are* made, on an intuitive basis, and are valuable".

The unrestricted data of a living language are so vast that in setting up word classes it is essential to distinguish between which are typical of their parts of speech and those which are atypical. In other words, we need a working hypothesis which enables us to handle all the data but at the same time distinguish basic data from that which is non-basic. R.M.W. Dixon (1976:347) suggests a suitable tool for our purpose:

...a language contains a set of basic norms – semantic, morphological, and maybe even phonological norms – from which it deviates in different ways and to different degrees a great deal of the time.

An application of this type of reasoning to parts of speech is given in Lyons (1977:440) (cf. Schachter 1985):

The thesis that will be maintained here is that the semantic...part of the traditional definitions of the parts-of-speech define for each part-of-speech, not the whole class, but a distinguished subclass of the total class. Each such semantically defined subclass is focal within the larger class...

Failure to observe basic norms in language results in great confusion. Without the concept a single counter example is sufficient to destroy an argument. However, by observing basic norms we are able to sort out relevant counter examples from those which are aberrant and mere red herrings.

It is true that certain nouns have underlying verbal notions, but this does not detract from the fact that the core notion of nouns in English is 'persons, places and things'.

Thus we conclude that a part of speech is established on the basis of a characteristic subset of the whole class. Having defined the subset most characteristic of the class, we are then able to define the entire class as the class which includes the defined subset, and all other words which behave in the same way as the described subset.

To consider each use of a root as a separate lexeme, in line with traditional views, is to destroy the unity of the root. Rather there is a need for a thorough examination of all word roots in order to ascertain the potential performance and restrictions of each one, and accordingly assign each to a particular subclass. Lack of space prohibits such a classification in this paper.

We now look briefly at the core notional content of Tawala nouns, adjectives and verbs, setting up classes which will later correlate with various morpho-syntactic data presented in the relevant sub-sections of section 4.

2.1.1 THE CORE NOTIONAL CONTENT OF NOUNS

Concrete 'objects' form the core notional content of nouns functioning only as nouns. In order for these noun roots to function as verbs, a derivational prefix must be added to them (see section 4.1). On the other hand, abstract nouns function as verbs or nouns without the use of derivational prefixes. The following noun classes are clearly distinguished in Tawala.

(a) *Persons* only function as nouns. These include proper names (Mika, Yailo), person referent words (*lawa* 'person', *bada* 'man') and relationship terms (*amau* 'my father', *natuta* 'our (inclusive child)'). Human referent and relationship terms are typically reduplicated for plural.

<i>keduluma</i>	woman	<i>kedukeduluma</i>	women
<i>oloto</i>	male	<i>ololoto</i>	males
<i>hinau</i>	my mother	<i>hinahinau</i>	my mothers
<i>nouwe</i> ⁵	my sister	<i>nounouwe</i> ⁶	my sisters

Relationship terms are marked for inalienable possession:

<i>goga-u</i>	my grandparent/grandchild
<i>nou-we</i>	my sister
<i>amama-ta</i>	our (inclusive) fathers

(b) *Places* also only function as nouns. Included here are proper names (Diwinai, Labe) and place referent words (*meyagai* 'village', *huhuna* 'bay').

(5) *Mika e-ge-gae u meyagai.*

Mika he.PRES-PROG-ascend to village

Mika is going to the village.

(6) *Tauna Diwini-yei i-nei.*

him Diwinai-from he-come

He comes from Diwinai.

(7) *Ta-nae hoi tawali.*

we.INC-go to reef

Let's go to the reef.

(c) *Body parts* of animals (including humans) and living things also only function as nouns. Like human relationship terms they are reduplicated for plural and marked for inalienable possession:

<i>ae-u</i>	my leg	<i>aeae-u</i>	my legs
<i>nima-na</i>	his hand	<i>nimanima-na</i>	his hands
<i>lugu-na</i>	its leaf	<i>lugulugu-na</i>	its leaves
<i>laga-na</i>	its branch	<i>lagalaga-hi</i>	their branches

(d) *Things* (animate or inanimate) are signalled by referent terms (*neula* 'coconut', *motamota* 'worms'). They have no special inflectional morphology.

2.1.2 THE CORE NOTIONAL CONTENT OF ADJECTIVES

The Tawala open class of adjectives includes all the universal semantic types (Dixon, R.M.W. 1977) with the exception of the 'human propensity' class, which forms a special closed class of words (section 4.4).

Most adjectives form opposition sets:

(a) Value:

dewadewana good *apapoena* bad

(b) Dimension:

baneina big *habuluna* small

⁵*u* -> *we/u*__

(c) Age:

odubona old *wouna* new

(d) Speed:

bambamna slow *sagesagena* fast

(e) Physical property:

hayahayana dry *niginigina* wet

Colour and some physical property adjectives form complementary sets:

wakewakekena 'white', *waididibalena* 'black', *kayakayana* 'red' etc.

gugouna 'sweet', *waigolana* 'bitter', *tululuwana* 'sour' etc.

2.1.3 THE CORE NOTIONAL CONTENT OF VERBS

(a) *Events* (actions and processes) are typically expressed by verbs in Tawala.

- (8) *Lawa i-nae.*
person he-go
The man went.
- (9) *Logaloga he-lupa-lupa.*
children they.PRES-PROG-jump
The children are jumping.
- (10) *Liyapa i-lalana.*
mat it-dry
The mat dried.
- (11) *Mayau amaka i-lata.*
tree already it-grow
The tree has already grown.

(b) *States* are typically expressed by the use of stative verbs (a verbal form of adjective).

- (12) *Amaka i-dumalu.*
already it-straight
It [the problem] has already been fixed.
- (13) *A-togo po a-yeuyeu.*
I-wash and I-clean
I washed and I am clean.
- (14) *Dobu i-gobu.*
village it-dirty
The village is dirty.
- (15) *Lawa hi-dewadewa.*
person they-good
The people are good.

2.2 INFLECTIONAL PREFIXES

The distinction between Tawala inflectional and derivational prefixes was established in the introduction (section 1.5.2). The verbal inflectional prefixes are used for the categories of person, number, tense and aspect, and are given only cursory treatment here as a full treatment is irrelevant to the purpose of this paper.

2.2.1 PERSON, NUMBER AND TENSE

TABLE 3: THE PERSON/NUMBER PREFIXES

Person \ Number	Singular	Plural
	1	<i>a-</i>
2	<i>u-</i> (<i>e-</i>)	<i>o-</i>
3	<i>i-</i> (<i>e-</i>)	<i>hi-</i> (<i>he-</i>)

The above table sets out the various prefixes associated with person and number. These prefixes are obligatory whenever a stem is used as a verb. The forms in brackets are used when the situation context is in the present tense. Person/number categories not marked for present tense are distinguished purely on contextual grounds.

Only two examples of these prefixes are given at this point as there are numerous examples elsewhere.

- (16) *Awai i yam e-an-ani?*
 what our.EXC food it.PRES-PROG-eat
 What keeps eating our food?

- (17) *To-hopu u Modewa.*
 we.EXC-descend to Modewa
 We went down to Modewa.

Tense is further marked by the future particle *apo* and the completive particle *amaka*. *Apo* marks probable state as opposed to improbable state *apega* (from *apo* (future) and *ega* (negative)), but it is also important in marking tense, especially in the first person).

- (18) *Amaka i-nei.*
 already he-come
 He has already come.
- (19) *Apo a-ne-hi.*
 FUT I-come-towards.hearer
 I will come.
- (20) *Apega a-peu.*
 FUT.NEG I-fall
 I won't fall.

2.2.2 ASPECT

There are three aspects in Tawala, marked by prefixes which follow the person/number prefixes.

- na* intentive aspect, including commands
- ta* irrealis aspect, including negatives
- ∅ realis aspect

The remaining aspect (progressive) is marked by reduplication (handled in section 1.5). The irrealis aspect *ta* is marked with all persons and numbers, but intentive aspect *na* does not productively occur with first person prefixes.⁶ The unmarked form, a zero morpheme, is normally not glossed in the examples.

(a) Intentive aspect (*na*):

- (21) *Ap(o) u-na-peu!*
FUT you.SG-INT-fall
You'll fall!
- (22) *U-na-hopu!*
you.SG-INT-descend
Get down!

(b) Irrealis aspect (*ta*):

- (23) *Apo a-ta-nei?*
FUT I-IRR-come
Can't I come? (I couldn't come, could I?)
- (24) *Ega a-ta-peu.*
NEG I-IRR-fall
I didn't fall.

(c) Simple realis aspect (unmarked)

- (25) *I-peu.*
he-fall
He fell.
- (26) *Amaka to-hopu.*
already we.EXC-descend
We already went down.

2.3 DERIVATIONAL PREFIXES OF VERBS

Derivational prefixes (*wi*, *lu*, *li* and *wo*) attach directly to the root in order to form derived verb stems:

- | | | | |
|-----------------|------------------|----------------|-----------------|
| <i>wi-neula</i> | rub oil on | (<i>neula</i> | mature coconut) |
| <i>lu-mayau</i> | collect firewood | (<i>mayau</i> | fire/firewood) |

⁶The *na* occurs in vestigial form with the *om* prefix, e.g. *ta-n(a)-om-hoe* 'let's go'. The word *to-na-i-baabani* 'we will chat' (Labe dialect) may also be an example of a vestigial form, or it may be another morpheme I have not yet tracked down, e.g. *Hau malatom to-na-i-baabani yaka a-paliweleya* 'If we talk tomorrow I will tell him'.

<i>li-dao-ya</i>	lengthen something	(<i>daodao-</i>	long)
<i>wo-geleta</i>	be revealed	(<i>geleta</i>	arrive)

Only cursory treatment is given the stative prefix (*om*) which is far less productive and apparently less complex than the other derivational prefixes.

Derivational prefixes have often been referred to as 'causative' prefixes. As these prefixes are often clearly not causative it seems wiser to avoid this traditional usage in preference for a more generic term, hence the choice of 'derivational' prefixes. I have previously (Ezard, B. 1978) referred to them as 'modal' prefixes following Capell (1943), but even Capell recognised that the term was 'not satisfactory'. Pawley (1972:39) uses the term "transformative affixes" for a broader class than the Tawala derivational prefixes. This term would be adequate; however, the term 'derivational' is useful in pointing out the syntactic nature of these prefixes in deriving new verbs.

As the initial part of the stem (simple or derived) normally undergoes reduplication (see section 2.5) for progressive aspect, the derivational prefixes are involved in morphological change. However, they are quite irregular in this respect (see section 2.5.2).

2.4 CLASSIFICATORY PREFIXES

In B. Ezard (1978) I outlined the form and function of Tawala classificatory prefixes which do not entirely fit into either the inflectional or derivational class of prefix (see Table 2). The following examples illustrate something of the range of classificatory prefixes (data from Ezard, B. 1978):

(a) Instrumental prefixes

<i>tu-hedali</i>	break something by knocking	(<i>hedali</i>	break something)
<i>guna-loloya</i>	tear by itself	(<i>loloya</i>	tear something)

(b) Declaration prefixes

<i>kawa-moina</i>	proclaim something true	(<i>moina</i>	true)
<i>pali-weleya</i>	tell something	(<i>wele</i>	give)

(c) Movement prefixes

<i>welu-lui</i>	disappear inside	(<i>lui</i>	enter)
<i>tu-hopu</i>	descend a little	(<i>hopu</i>	descend)

Tawala classificatory prefixes share the semantic features of inflectional prefixes in that:

- (1) they do not normally involve a change in word class membership;
- (2) they have completely predictable meaning;
- (3) they have a uniform meaning with all roots;
- (4) some show relationships between words.

However, morphosyntactically the classificatory prefixes are akin to the derivational prefixes in that:

- (1) they are restricted to certain roots – even more than derivational prefixes;
- (2) they belong to the inner periphery;
- (3) they change form according to the aspect of the verb.

The main morphological distinction between classificatory and derivational prefixes is that the latter do not follow the regular forms for reduplication which apply elsewhere in the language (see section 2.5.2) whereas the classificatory prefixes follow normal reduplication patterns (see section 2.5.1).

The greatest affinity of the classificatory prefixes is the compound verbs; however, this present paper is not the place to develop this theme. The classificatory prefixes are included here only because of their relationship to derivational prefixes. Data on classificatory prefixes are included where relevant in section 4 (e.g. motion verbs 4.3.1) as they strengthen the 'priority of semantics' thesis.

2.5 REDUPLICATION

As outlined in B. Ezard (1980a), reduplication is used for a number of separate functions in Tawala. For the purposes of this paper we are interested in one function only: progressive aspect. All active verbs have a special form for progressive aspect, which for most stems, including most derived stems (formed with compound stems or classificatory prefixes), has a reduplicated form. On the other hand, for derived stems formed with the derivational prefixes, the progressive aspect does not consist of a reduplicated form but is formed by the substitution of a separate form of the prefix.

2.5.1 STANDARD VERBS

The actual form of reduplication of normal verbs is determined by the phonetic shape of the stem.

(a) Complete reduplication

Verbs whose roots commence with a CVCV pattern normally reduplicate the first two syllables. As most Tawala roots have this pattern, this is the most common form of reduplication.

<i>hopu</i>	go down	<i>hopuhopu</i>	be/keep going down
<i>hune</i>	praise	<i>hunehune</i>	keep praising
<i>geleta</i>	arrive	<i>gelegeleta</i>	be/keep arriving
<i>hagu</i>	help	<i>haguhagu</i>	keep helping
<i>wele</i>	give	<i>welewele</i>	keep giving

(b) Partial reduplication

There are two types of partial reduplication, firstly for verbs which commence with CVV and secondly for verbs which commence with a vowel (V).

(i) Verbs which have a CVV pattern at the beginning of the root, where the second vowel is higher than the first, are normally reduplicated by prefixing the root with the consonant plus the second (high) vowel. (The aspectual meanings have been omitted in the following examples, but they follow the same pattern as the examples above.)

<i>gae</i>	<i>gegae</i>	go up
<i>houni</i>	<i>hunouni</i>	put something
<i>beiha</i>	<i>bibeiha</i>	search
<i>tou</i>	<i>tutou</i>	cry

However, a few verbs take a vowel other than the second vowel of the root:

<i>nei</i>	<i>nenei</i>	come
<i>peu</i>	<i>pipeu</i>	fall

The small number of verbs having both vowels at the same level (both high or both low, see section 1.2) show complete reduplication:

<i>hoe</i>	<i>hoehoe</i>	open
<i>woe</i>	<i>woewoe</i>	paddle
<i>bui</i>	<i>buibui</i>	turn over

To keep the exceptions together, the following CVCV verbs have partial reduplication:

<i>hale</i>	<i>hahale</i>	throw
<i>niye</i>	<i>niniye</i>	bring something
<i>waya</i>	<i>wiwaya</i>	take something

(ii) Verbs which commence with a vowel form their reduplication by repeating the first VC:

<i>apuya</i>	<i>apapuya</i>	cook something
<i>eno</i>	<i>eneno</i>	sleep
<i>am</i>	<i>amam</i>	eat
<i>uma</i>	<i>umuma</i>	drink
<i>atuna</i>	<i>atatuna</i>	rain

(c) Vowel reduplication

When the first two syllables of a stem are the same, the first vowel is reduplicated to form the progressive aspect:

<i>totogo</i>	<i>tootogo</i>	be ill
<i>guguya</i>	<i>guuguya</i>	preach
<i>tatawa</i>	<i>taatawa</i>	tremble
<i>teteya</i>	<i>teeteya</i>	cross/bridge something
<i>kiki</i>	<i>kiiki</i>	strangle something (dog)

2.5.2 DERIVED VERBS

All verbs form their progressive aspect following the above rules except those with derivational prefixes. The verbs in Tawala which incorporate derivational prefixes distinguish between punctiliar and progressive aspect by using a separate set of prefixes, as set out in Table 4.

TABLE 4: PREFIXES MARKING ASPECT CHANGE ON THE VERB

Punctiliar aspect	Progressive aspect
<i>wi</i>	<i>i</i>
<i>lu</i>	<i>lau</i>
<i>li</i>	<i>lai</i>
<i>wo</i>	<i>woo</i>
<i>om</i>	<i>yam</i>

Examples:

<i>hi-wi-tona</i>	they fought
<i>he-i-tona</i>	they are fighting
<i>hi-i-tona</i>	they were fighting
<i>hi-lu-mayau</i>	they gathered wood
<i>hi-lau-mayau</i>	they were gathering wood
<i>hi-li-bolu</i>	they sat talking
<i>hi-lai-bolu</i>	they were sitting talking
<i>hi-wo-dadani</i>	they touched it
<i>hi-woo-dadani</i>	they were touching it
<i>hi-(o)m-poya</i>	they applied heat/magic
<i>hi-yam-poya</i>	they were applying heat/magic

(For full paradigms and further details of the progressive aspect of derivational verbs see B. Ezard 1978.)

2.6 FOCUS OF VERBS

When I set out to write this paper I had in mind handling the derivational prefixes from a syntactic point of view, placing special emphasis on the causative nature of the prefixes. However, I became so engrossed by the insights gained from the concept of the priority of semantics (section 3) that I soon found I had more material than I could adequately handle without even touching on syntax. Consequently, the syntax of Tawala derivational prefixes must wait for another paper. However an outline of certain problems needs to be presented here to facilitate an understanding of the Tawala data in section 4.

Tawala verbs are of three basic types: stative, intransitive and transitive. The following definitions depend in part on Pawley (1973:126f.).

STATIVE:

In stative verbs the subject experiences or is in the state of the verb, for example, 'good', 'happy', 'soft', 'red'. These verbs are usually closely related to a cognate adjectival form.

- | | | |
|------|---|--|
| (27) | <i>Dobu gobugobu-na.</i>
village dirty-its
A dirty village. | <i>Dobu i-gobu.</i>
village it-dirty
The village is dirty. |
| (28) | <i>Houga daodao-na.</i>
time long-its
A long time. | <i>Houga i-dao.</i>
time it-long
It is a long time. |

INTRANSITIVE:

With intransitive verbs the subject not only undergoes the action but with animate beings can be thought of as causing it as well. Most intransitive verbs involve movement or posture, for example, 'jump', 'go', 'walk', 'stand', 'fly', 'lie down', 'sleep'. These verbs do not have related adjectival usage.

- (29) *Tewela i-eno.*
 child it-sleep
 The child slept.
- (30) *Wam i-nae.*
 boat it-go
 The boat went.

TRANSITIVE:

Transitive verbs may be defined as those verbs which potentially have an object – the experiencer/patient of the action – for example, ‘obey’, ‘eat’, ‘cut’, ‘kick’, etc. There are two distinct forms of many verbs which have, in the past, been referred to as transitive and intransitive forms of a root. The problem with this traditional interpretation is that many of the ‘intransitive’ forms can take objects!

- (31) *Ta-nae polo ta-lugowada.*
 we.INC-go pig we.INC-steal
 Let's go pig-stealing.
- (32) *Ta-nae Kama a polo ta-lugowad(a)-i.*
 we.INC-go Kama his pig we.INC-steal-O
 Let's go and steal Kama's pig.

Example (31) is the ‘intransitive’ and (32) the ‘transitive’ form of the sentence. The real distinction here is obviously not between transitive and intransitive verbs, but between a specific and non-specific object. In (31) there is no specific object in mind, but in (32) there is. In discussing this same phenomenon in Misiman, Callister and Callister (1979) use the terms ‘action focus’ (31) and ‘referent focus’ (32) which seem to capture the distinction nicely, though I use the terms ‘action focus’ and ‘object focus’ in this paper.

However, the situation is complicated by the fact that many transitive verbs do not have an action focus form and hence are always marked for specific object, which as a result loses its markedness and becomes simply a transitive object agreement marker.

In addition to the above problem there are various classes of transitive verbs, depending to a large degree on the phonetic shape of the root involved. These classes are briefly as follows:

- (a) Verb roots ending in *i*; these have no action focus form. The plural is formed by adding *-hi* to the unchanged root:

Singular	Plural	
<i>lawi</i>	<i>lawi-hi</i>	hit something
<i>hapi</i>	<i>hapi-hi</i>	cut/chop something
<i>houni</i>	<i>houni-hi</i>	put something
<i>gowadi</i>	<i>gowadi-hi</i>	hide something

- (b) Roots ending in *ta*; these form the object focus by replacing *ta* with *hi* in the singular, and adding a second *-hi* for the plural:

Action focus	Object focus (plural)	
<i>limaamata</i>	<i>limaamahi(-hi)</i>	wake something
<i>ugota</i>	<i>ugohi(-hi)</i>	plant something
<i>momota</i>	<i>momohi(-hi)</i>	hold something tightly

(c) In the Labe dialect, two-syllable roots add *-ya* for singular and *-hi* for plural specific object. In the Kehelala dialect *-ni* is added for the singular instead of *-ya*. Lying midway between these two dialects, Diwinai shows a good deal of fluctuation between these two forms. Certain words show a definite preference, for example, *huma-ya* 'he wrapped it', *i huwe-ni* 'he blew it'; however, for one form or the other, many have free fluctuation between speakers or even between utterances of a single speaker. (Wherever possible my language helper has accommodated himself to the Labe dialect, as that is where we have done most of our linguistic and translation work in recent years.) Only a small number of the roots with more than two syllables follow the same pattern; however, as most Tawala roots have two syllables, this is by far the most common morphological pattern:

Singular	Plural	
<i>gale-ya</i>	<i>gale-hi</i>	see something
<i>tala-ya</i>	<i>tala-hi</i>	cut something
<i>wilupa-ya</i>	<i>wilupa-hi</i>	let something go
<i>gwae-ya</i>	<i>gwae-hi</i>	make water muddy

(d) Three-syllable roots replace the final vowel with *i* for object focus forms and add *-hi* for the plural object:

Action focus	Object focus (plural)	
<i>toula</i>	<i>touli(-hi)</i>	load something
<i>tagona</i>	<i>tagoni(-hi)</i>	cross over something
<i>(wi)towolo</i>	<i>(wi)towoli(-hi)</i>	stand something up
<i>(lu)yadaga</i>	<i>(lu)yadagi(-hi)</i>	hit something

One of the common functions of Tawala derivational prefixes is to transform stative and intransitive verbs into causative (and thus transitive) verbs. Hence many of the data contained in section 4 have endings falling into the classes just described.

2.7 THE DATIVE SUFFIX

Sometimes Tawala verbs do not specify a direct involvement with their 'object' but a more indirect relationship. This indirect relationship is marked with the dative suffix *-e*, which is a first-order suffix followed by a transitive suffix (section 2.6). The dative involves indirect relationships, including actions carried out with an instrument and also reflexive action upon oneself. The phonetic output of *-e* changes according to environment in the following ways:

- (a) $e \rightarrow \left\{ \begin{array}{l} ye \\ ge \end{array} \right\} / i _$ (*-ye* ~ *-ge* may be a dialectal distinction – most examples in my data have *-ye*)

$$\rightarrow ge / \left\{ \begin{array}{l} \left[\begin{array}{c} V \\ +grave \end{array} \right] \\ \left[\begin{array}{c} C \\ +grave \\ +nasal \end{array} \right] \end{array} \right. (V) _$$

(b) Assimilation also takes place before the dative prefix:

$$\begin{bmatrix} \text{V} \\ \text{-high} \\ \text{-back} \end{bmatrix} + e \rightarrow e$$

Examples:

<i>bagibagi-ye-ya</i>	work at something
<i>pali-ye-ya</i>	scold someone
<i>luwohepali-ge-hi</i>	hit four items (with spear)
<i>geno-ge-ya</i>	worry about something
<i>otu-ge-ya</i>	call to someone
<i>wiwom-ge-ya</i>	warm something
<i>winima-ge-ni</i>	put gloves on (hands)
<i>lugowad(a)-e-ya</i>	hide oneself
<i>widakul(e)-e-ya</i>	gravel an area

Something of the force of the dative/transitive distinction can be seen with the two minimal pairs that have come to light:

<i>widewadewa-ya</i>	repair something (make something good)
<i>widewedew(e)-e-ya</i>	be feeling good
<i>wiluwaga-ya</i>	make something second
<i>wiluwag(a)-e-ya</i>	put two things together

While the following examples are not minimal pairs they do illustrate various meanings of the dative:

<i>winima-ge-ni</i>	put gloves on (hands)
<i>lunima-ni</i>	hit his hand
<i>wigapola-ya</i>	make someone rich
<i>lugapol(a)-e-ya</i>	become rich
<i>luwohepali-ge-hi</i>	hit four items (with spear)
<i>wowohepali-ge-ni</i>	gather/hold four

It will be noted that a large proportion of the above examples involve derivational prefixes (more examples are to be found in the charts of section 4). However, in line with the purpose of this paper, no systematic treatment of this aspect of the syntax is attempted.

3. THEORETICAL FOUNDATIONS

This section looks briefly at three theoretical questions upon which this thesis rests: the relationship between syntax and semantics (3.1); the concept of semantic fields (3.2); and the problem of cross-cultural studies, with reference to world view (3.3).

3.1 THE PRIORITY OF SEMANTICS

In seeking to unravel the complex world of Tawala derivational prefixes, I set as one of my goals to examine them in the light of possible underlying semantic strata – investigating

whether the syntax of the prefixes is in some way dependent on the underlying semantics of words. It was with increasing excitement that I realised that this was indeed the nature of the case, and that I had discovered a key to unlock at least some of the mysteries of derivational prefixes. But this is to anticipate our conclusion.

American linguists from Bloomfield to Chomsky were fascinated with the ideal of autonomous grammar – grammar which could be enunciated without recourse to meaning. to study the objective forms of language was considered the truly scientific method, and as “most linguists are...anxious...to lay claim to being scientists” (Haas 1978:207) this model has had a pervasive influence on the course of linguistic events. In his *Syntactic Structures* Chomsky (1957):

...took the view that the grammatical rules could be established and formalized without making any appeal to sameness and difference of meaning or to any other semantic notions. In this respect, grammar was held to be autonomous and independent of semantics. (Lyons 1977:409)

Chomsky (p.15) distinguished grammatical from meaningful sentences with his now famous example:

Sentences (1) and (2) are equally nonsensical, but any speaker of English will recognise that only the former is grammatical.

(1) Colorless green ideas sleep furiously.

(2) Furiously sleep ideas green colorless.

It is important to keep in mind a second aspect presented in *Syntactic Structures*. Not only did Chomsky stress the independent nature of syntax, he also stressed the importance of the syntactic-semantic relationship (p.93):

There is no aspect of linguistic study more subject to confusion and more in need of clear and careful formulation than that which deals with the points of connection between syntax and semantics.

While Chomsky defined the connection between syntax and semantics in narrow terms, assigning only a secondary role to semantics, and biased research “heavily in favour of syntactic solutions to problems” (Jackendoff 1972:2), yet he did open the door to semantics. The result has been an ever-increasing, worldwide interest in semantics both from within the generative framework and from those working along totally separate lines.

One such line of research is that outlined by R.M.W. Dixon (1977) in his seminal paper ‘Where have all the adjectives gone?’. The underlying principle of his paper is ‘the priority of semantics’. Dixon (p.24) outlines this principle:

We work from the assumption that the syntactic properties of a lexical item can largely be predicted from its semantic description. Semantics is thus held to be prior to syntax. The ways in which syntactic properties can be predicted on the basis of semantic representation are complex, and are not yet fully understood...

The correlation between semantics and syntax is seen from the fact that once the meaning of a new word is learnt we are able to use it in a variety of syntactic structures with a high degree of accuracy. Chomsky (1965:58) himself was forced on the basis of this correlation to postulate a language-acquisition device which enables the child to master the complexities of generative grammar in his daily life:

It seems plain that language acquisition is based on the child's discovery of what from a formal point of view is a deep and abstract theory – a generative grammar of his language – many of the concepts of which are only remotely related to experience by long and intricate chains of unconscious quasi-inferential steps.

Instead of postulating a language acquisition mechanism by which the complexities of experience are mapped onto an infinite set of sentences, Dixon (1977:24) starts with a totally different model in which the mature speaker:

On the basis of his semantic competence, and his understanding of the general connections between semantic types and semantic properties in that language... immediately knows how to use the word in a syntactically acceptable manner. That it, he is able to predict its syntactic properties on the basis of the semantic specification.

In section 4 I present some strong strong expirical evidence from the Tawala language in support of Dixon's thesis. The data suggest the general principle that *in so far as two words share significant semantic components so their syntax overlaps*.

3.2 SEMANTIC FIELDS

In the first passage quoted from R.M.W. Dixon (1977) above, we find the term 'semantic description' ("the syntactic properties of a lexical item can largely be predicted from its semantic description").

The semantic description of lexical items is a complex matter which has exercised the minds of many capable scholars this century. For the purposes of this paper it is necessary to examine three areas of semantic description:

(a) The part of speech from which each verb is derived is relevant in determining the meaning of derived forms. Word classes are set up on the basis of a cluster of morphosyntactic features associated with a core notional meaning. This aspect of the semantic description has been partially handled for the open word classes in the grammar section (2.1). Throughout section 4 data are presented on the basis of the part of speech of the underlying root (for a summary see Table 7), commencing with the three open word classes and followed by the three closed word classes. In the process of this presentation further aspects of the word classes are presented.

(b) The valency of roots and the changed valency of derived forms is handled briefly in the introduction to section 4 (see Table 8 for a summary). The magnitude of the subject and the already bulging dimensions of this paper mean that a systematic treatment of this aspect of the prefixes must wait for a future paper.

(c) The semantic field of roots is of vital importance. While we look at this aspect in detail in section 4 (see Table 5 for a summary) we turn now to examine the terminology of the subject.

A semantic field (or domain) consists of a set of words which are related to each other by sharing a common significant component. It is quite feasible for a single word to belong to more than one domain, as illustrated by Lehrer (1974:7):

...*glass* 'a container' would be studied along with *cup, bowl, mug, vase*, and other container words to see how these items contrast. *Glass* 'the material' is compared to *brick, concrete, plastic, wood*, etc.

The Tawala word *gaima* 'stone' belongs to three semantic fields, and in each case it takes at least one derivational prefix appropriate to the domain.

(i) As a type of ground covering, *gaima* falls into the same semantic field as *dakule* 'gravel' and *bubu* 'sand'. By prefixing the derivational prefix *wi* to these roots we get stative stems indicating 'a condition of being covered by something':

- (33) *Dobu i-wi-gai-gaima.*
village it-DP-PROG-stone
The village is very stony.
- (34) *Niha i-wi-dakule.*
salt it-DP-gravel
The beach is pebbly.
- (35) *Numa i-wi-bubu.*
house it-DP-sand
The floor is covered with sand.

(ii) As a type of weapon *gaima* takes the derivational prefix *wo* indicating 'to hold in the hand ready for throwing':

- (36) *Hewa-hewali he-woo-gaima.*
PL-youth they.PRES-DP.PROG-stone
The youths are holding stones.
- (37) *Bada e-woo-higeyala.*
man he.PRES-DP.PROG-spear
The man is holding a spear.

(iii) As a common legendary item into which culture heroes often turn, *gaima* is used with *li-* (*-ya*) indicating 'to turn into something':

- (38) *Bada i-li-gaima-ya.*
man he-DP-stone-RFX
The man became a stone.
- (39) *Neula i-li-ginah(i)-i.*
coconut it-DP-sago-RFX
The coconut palm became a sago palm.
- (40) *Yakoyako i-li-gumaguma-ya.*
shell it-DP-hermit.crab-RFX
The shell-fish became a hermit crab.

Perchonock and Werner (1969: quoted in Lehrer 1974:18) conducted studies in Navaho food classification which led to the conclusion that there are usually several legitimate classifications of words into semantic fields within a speech community:

It is interesting that people, without exception so far, agree to the rightness of another person's classification even though it differs considerably from their own. This seems to indicate that there are several different culturally accepted

ways of categorizing Navaho food, and that each member of the society is implicitly aware of nearly all of them.

It is not my purpose to become embroiled in the semantic field debate. Suffice to say that my exposure to the Tawala data has led me to a strong affirmation of Spence (1961:105) when he states that the association of words is “looser, more complex, and more unpredictable than most field theorists are prepared to admit”. While the concept of ‘the priority of semantics’, along with that of semantic fields, has unlocked considerable areas of Tawala syntax, yet there are sufficient ‘idiomatic’ exceptions and residue data (section 4.7) to forestall complacency and remind us that I may have done little more than scratched the surface in seeking to fully understand the semantic-syntactic connection of just one small area of grammar.

3.3 SEMANTIC FIELDS: INDICES OF WORLD VIEW

In examining the semantic fields of an exotic culture, one becomes acutely aware that the domains have little in common with one’s native language. Lyons (1977:250) agrees that the grammatical and lexical structure of a language will reflect the specific interests and attitudes of the culture in which it operates. He warns us, however, against thinking “that every grammatical and lexical distinction must be correlated with some important difference in the patterns of thought of the society using the language”. While keeping this warning in mind we can feel more confident in dealing with semantic fields than with isolated words as an index of world view. An example of a domain which introduces us to something of the emotional world of the Tawala people is the domain which I refer to as ‘the ritual chants’ domain. Prior to discovering this linguistic domain I had experienced certain emotionally charged chants in the Tawala culture, but did not realise that they were tied together into a single semantic field (by a unique usage of a derivational prefix) until I was collecting the data for my MA thesis. I hope the following brief account of these words reveals something of the Tawala world, so strange to an outsider. In each case the prefix *lu* is used with the reduplicated form of the root.

(i) *lu-hoehoe* (lit. to make *hoe*)

The chant is used when making sago, in order to keep up rhythm and morale during long hours of chopping – “Hoe...hoe...hoe...”. The importance of this cultural trait has been immortalised in the sago myth:

...Lizard’s adze was chopping and he was chanting (*luhoehoe*), “Hoe...hoe...hoe...hoe...”. His friend stood listening and exclaimed, “Wow, whose voice sounds so good?”. Then Possum went down to his friend and said...“Oh Friend, your voice sounded really good; perhaps we should follow this custom of yours since it is so good. Your voice sounded melancholic and your chopping beautiful”. (Yailo Robert)

(ii) *lu-bahabaha* (lit. to make words)

A ritualised boasting or denouncing of another party. For several minutes the boaster keeps throwing one hand and leg into the air and yelling at the top of his voice sentiments such as, “You complete and utter idiots, how could you fail in such a simple thing? When we (exclusive) did it last year it was a complete success. You idiots, you complete imbeciles...”

(iii) *lu-otuotu* (lit. to make calls)

This high pitched call, somewhat akin to the Australian ‘cooee’ is used to communicate short messages through the jungle. “My friend.” Reply, “Ooo”. “I’m going down to the river.” Reply, “Oooo” (‘I understand – I got your message’).

(iv) *lu-hiyahiyawa* (lit. to make countings) or *tou-baha* (to cry words)

The ritualised wailing, accompanied by tears, practised at the death of a friend or relative. The mourner recounts the past glories that the two shared. “Oh my brother, we walked the trails together; my brother, we hunted pigs in the bush. Oh, my brother, my brother...”

(v) *wi-lulougo*⁷ (lit. to make singing)

A ritualised call, used either to notify one’s arrival at a hamlet or as a kind of yodelling by a group of young men walking along the jungle trails. (Even as I wrote these notes the bush was reverberating with such beautiful two-part harmonies, but it is in the middle of the night that these calls are especially beautiful.)

It should be noted that these examples illustrate a semantic field of a set of derived verbs, whereas our main interest in this paper is the semantic fields of underived roots (discussed in detail in section 4). Semantic fields are of two kinds. Firstly, there are those areas of meaning which are based on the nature of things: numbers, colours, size, body parts etc. These will tend to have recognisable parallel focal points in all cultures (cf. Berlin & Kay 1969; Dixon, R.M.W. 1977). However, where the human mind is less tied by the nature of things, and allowed to construct its own world, we discover divergent paths which have little or nothing in common across unrelated cultures. An exceptionally good illustration of this point is the fusion of person and deixis in Kawi (Becker & Oka 1974).

The area of verbs gives ample freedom for thought and language-specific approaches, particularly in the types of semantic domain functioning as grammatical groups. We would not expect the categories set up for English to be more than a very rough guide to the categories of another language. This is certainly true for Tawala, where almost all the residue data belong to the verb class. Doubtless there are a number of interesting semantic fields which, when discovered, will reduce these data to a degree of order.

4. TAWALA DATA

In this section we examine Tawala derivational prefixes in detail. In particular we investigate the meanings attached to these prefixes when used with various roots to derive verbs. In discussing the priority of semantics (section 3.1) the general principle was stated: in so far as two words share significant semantic components, so their syntax overlaps. The data listed in chart form in this section illustrate this thesis.

We can identify a general meaning for each prefix, but these meanings are not sufficient to predict the semantic effect a prefix will have with a given root. However, in addition to assigning general meanings for each prefix, the roots are divided into 16 semantic fields with which each prefix has separate specific meanings. Thus while the general meaning of the *lu* prefix is to derive a verb which ‘involves physical contact or movement’, the specific meaning of *lu* with body parts is ‘to hit a body part’ and with a cultural item it is ‘to collect

⁷The prefix *wi* replaces *lu* here, as the reduplicated form of *lougo* already involves one *lu* prefixed to the root.

TABLE 5: SEMANTIC FIELDS AND TAWALA DERIVATIONAL PREFIXES

general meaning associated with derived root semantic field of root	wi- (1) V involves being/ becoming like s.th. – socially (2) cause condition or action	lu- V involves physical contact or physical movement 'to go and V'	li- V involves s.th. new coming into being	wo- V involves hands or persistent action
<i>Open word classes</i>				
A. NOUNS				
1. Body parts (hand, head)	cover, protect or aid N	hit N	-	hold N
2. Relationships (child, father)	enter or adopt new relationship with N	-	(multiply well)	-
3. Human reference (youth, man)	become/ behave like N – socially	act like N – physically	change s.o. into N	-
4. Cultural items (stone, wood, pigs)	be covered (area) by N spread area with N	collect/catch N	be transformed into N	(a) hold N for throwing (b) steal N (c) be loaded with N for feast
B. ADJECTIVES				
5. Dimension (big, small)	cause condition – socially	-	cause condition – literally	(woi-) manipulate s.th. – by hand
6. Physical property (straight, thick)	(cause condition – socially) (stative verb)	cause condition – physical action	cause condition	cause condition – by hand
7. Age (old, young)	change condition – socially	(idiomatic)	(change condition physically)	-
Value (good, bad)	change condition – socially	(idiomatic)	change condition – physically	(cause condition – by hand)
Speed	-	-	-	-
8. Colour – basic (red, black, white) – non-basic	- (stative verb)	wear uniform colours wear uniform colours manufacture colour	manufacture a colour -	(idiomatic) -
C. VERBS				
9.(a) Basic motion (intransitive) (go, go up)	(idiomatic)	miss mark in direction of V	-	move a little each day in direction of V
9.(b) Basic motion (transitive) (take, take up)	carry s.th. in direction of V	cause by exertion or obvious action	-	move s.th. in direction of V – by hand
10. Manner of motion (fly, fall)	cause s.th. to act	(idiomatic)	cause action – physically	persistent action
11. Rest (sit, stand)	cause s.th. to take position	wait in position	force s.th. into position – using instrument	cause V by hand move self into new position
12. Carrying (on head, back)	load s.o. up	-	-	} repeat action over period of time
Cutting (cut, chop)	-	} involves instrument or obvious action	-	
Fighting (pierce, separate)	state of hostility		-	-
13. Corporal (eat, sleep)	cause s.o. to act	(idiomatic)	(idiomatic)	perform action in stages
<i>Closed word classes</i>				
A. HUMAN PROPENSITY				
14. (be angry, sad)	demonstrate a state – by words	cause a state – physically	cause a state empathy – (idiomatic)	persistently demonstrate a state
B. NUMBERS				
15. (one to five)	make s.th. a number	grow in bunch as number hit a number	-	gather number hold number in hands
C. LOCATIONAL				
16. Static (in, on, at)	(idiomatic)	pile in location	-	put hand in location
Dynamic (before, after)	move in relation to s.th. moving	pile in location	-	-

an item'. The general meanings are set out in Table 5 at the head of each column under the respective prefixes. The specific meanings for each prefix are contained in the cells corresponding to the various semantic fields listed in the left-hand column. Each line represents a semantic field, with the specific meanings listed under the respective prefixes.

The positing of general meanings facilitates discussion in the following sections, as specific meanings need to be related to the general meaning. In her discussion of cases, Wierzbicka (1980:xix) warns against the idea of a single "common meaning" as being "too general to have any predictive value". This is a valid observation, and it will be noted that on more than one occasion two quite distinct meanings have been proposed. This process is taken a step further in Table 7 where separate common meanings are proposed for each of the six word classes involved.

While Table 5 appears rather complicated, it is in fact considerably simpler than the data it represents, which consist of almost 500 derived verbs (based on 135 separate roots). These data, together with the residue data of 68 derived verbs (based on 27 roots), are listed individually in Charts 1-17 and represent an almost impossible memory load, if they had to be individually learned. Charts 1-16 present 90 per cent of the Tawala data in systematic form and these data are summarised in Table 5, with the numbers in the left-hand column corresponding to the charts where the data are presented.

What is posited in Table 5 is that every semantic field has its own unique syntactic-semantic combination of derivational prefixes associated with it. Table 6 sets out how the system works. X, Y and Z represent three semantic fields, and A, B, C and D represent the form-function complex of the resultant derived verbs; A always represents the presence of the same prefix etc. The subscript number represents the same or different meaning with a given prefix depending on whether the same or a different number is used with a given letter. Thus A₁, A₂ represents the same prefix but a different meaning; A₁, B₁ would of course involve a different meaning because a different prefix is involved.

TABLE 6: A FORMAL REPRESENTATION OF THE SEMANTIC-SYNTACTIC RELATIONSHIP

X	A ₁	B ₁	D ₁
Y	A ₁	B ₁	D ₂
Z		B ₂	C ₁ D ₂

Table 6 demonstrates that semantic fields X and Y have a very similar use of prefixes. They not only use the same set of prefixes (A, B and D, with C absent) but also have the same meaning with A and B, though a different meaning with D. If X and Y did not have separate D meanings, it would be possible to collapse the two semantic fields into a single XY domain. As it is, the 'priority of semantics' hypothesis would lead us to expect that X and Y do in fact belong to closely related semantic fields, and this is the very type of situation which occurs over and over again in the Tawala data.

When Y is compared with Z we appear to have two very different semantic fields. Only at one point (D₂) do the two sets of derived verbs overlap. This would be typical of a situation where the semantic domains have almost nothing in common. Again the Tawala data present this type of data at many points.

Thus the lines in Table 5 should be viewed as a type of code for each semantic field, listing the combination of prefixes used with that field together with the resultant meanings. Table 8 presents the supplementary syntactic side of the relationship, but more details on that aspect are given below.

Certain generalisations which may be stated about the use of derivational prefixes are contained in Table 5, but tend to be overlooked in the mass of detail. Table 7 captures these generalisations by listing a common meaning for each prefix with each part of speech. These meanings are not as vague as the general meanings presented in Table 5; however, they are not as complex as the specific meanings either.

Working cross-culturally, it is often difficult to know how far to press various common meanings. For example, in Table 5 the verbs derived from nouns with the *wi* prefix (top left-hand cells) mostly share the common meaning of 'become like item'. Those include 'the covering of a body part' – a glove, for example, appears to become like a hand; similarly when 'an area is covered with items' it becomes like the item – for example, sandy or stony. In a similar vein it is tempting to think of developing new relationships, including adoption, as also in some way involving a 'becoming like the real relationship'. Insights of this nature are discussed under the respective semantic classes below, but should be regarded as hypotheses rather than data, as they present data according to my analysis and not as presented by a native speaker of the language.

Table 7 is an advance on Table 5 as it presents a separate common meaning for each word class, instead of attempting to give a single general meaning for all word classes.

Having mastered this relatively simple table, students would have at their command some 90 per cent of the specific meanings contained in Table 5, and would be in a strong position to tackle the more idiomatic meanings found in the 16 semantic fields. All this is in line with the theoretical claim made above (section 3.1) that once the meaning of a new word is learnt the speaker of the language is able to use it in a variety of syntactic structures with a high degree of accuracy. The fact that a table of common meanings is able to be drawn up on the broad basis of word classes is a confirmation of the thesis that this section seeks to affirm: in so far as two words share significant semantic components so their syntax overlaps. The very fact that two words belong to the same word class is an indication that they do share significant components: the nouns (of this section) are all 'concrete' objects; the adjectives are qualities; the verbs, mostly events etc.

Table 8 is to be read parallel to Table 5 and presents the syntactic data, including the valency changes involved in the use of derivational prefixes. The syntactic formulae represent the forms in which data were collected and no claim is made with respect to other possible formulae; in fact, I have discovered since returning from the field that some data collected previously in texts have different syntax from the more recently collected data. Hence, examples occasionally differ from the systematic presentation of data.

This paper concentrates largely on the semantics of the Tawala derivational prefixes, leaving aside their syntax. While no attempt is made to systematically handle the syntax, clues to its nature are presented at the head of each column of each chart, throughout this section, summarising the syntax of the listed forms:

TABLE 7: THE COMMON MEANING OF DERIVATIONAL PREFIXES

word class \ general meaning	<i>wi</i> V involves being/ becoming like s.th. – often socially or causative action	<i>lu</i> involves physical contact or physical movement	<i>li</i> V involves s.th. new coming into being	<i>wo</i> involves hands or persistent action
<i>Open classes:</i>				
NOUNS	be/become like item	physical manifestation of item	be transformed into item	involves handling item
ADJECTIVES	cause condition – socially	cause condition – physically	cause new condition	cause by hand
VERBS	cause action	action in position or direction of V	(force s.th. into position)	persist in action (intransitive) cause by hand (transitive)
<i>Closed classes:</i>				
HUMAN PROPENSITY	be in a state	cause a state – physically	cause a state – empathy	persistently demonstrate a state
NUMBERS	make a number	grow/hit a number	-	hold a number
LOCATIONALS	move in relation to moving item	make a pile in location	-	put hand in location

TABLE 8: SYNTACTIC SUMMARY OF TAWALA DERIVATIONAL PREFIXES

	<i>wi-</i>	<i>lu-</i>	<i>li-</i>	<i>wo-</i>
NOUNS				
1. Body parts	<i>wi</i> -R-DAT-O	<i>lu</i> -R-O	-	<i>wo</i> -R-O
2. Relationship	<i>wi</i> -R- <i>na</i> <i>wi</i> -R-DAT-O <i>wi</i> -RED-R- <i>na</i>	-	(<i>li</i> -RED-R- $\left\{ \begin{array}{l} \text{DAT-O} \\ na \end{array} \right\}$)	-
3. Human reference	<i>wi</i> -R	<i>lu</i> -RED-R	<i>li</i> -R-RFX	-
4. Cultural items	<i>wi</i> -(RED)-R	<i>lu</i> -R	<i>li</i> -R-RFX	(a)&(b) ¹ <i>wo</i> -R (b)&(c) ¹ <i>wo</i> -R-RFX
ADJECTIVES				
5. Dimension	<i>wi</i> -R-O	-	<i>li</i> -R-O	<i>woi</i> -R-O
6. Physical property	<i>wi</i> -R <i>wi</i> -RED-R-O	<i>lu</i> -R-O	<i>li</i> -R-O	<i>wo(i)</i> -R-DAT-O
7. Age Value Speed	<i>wi</i> -R- <i>mc</i> $\left\{ \begin{array}{l} mc \\ \text{RFX} \end{array} \right\}$	(<i>lu</i> -R-(DAT-O))	<i>li</i> -(RED)-R-O	(<i>woi</i> -R-O)
8. Colour: basic non-basic	- <i>wi</i> -R	<i>lu</i> -R $\left\{ \begin{array}{l} lu-R \\ lu-R-DAT-O \end{array} \right\}$	<i>li</i> -R-O -	<i>wo</i> -R -
VERBS				
9.(a) Basic motion (intransitive)	(<i>wi</i> -(RED)-R)	<i>lu</i> -R	-	<i>wo</i> -R
9.(b) Basic motion (transitive)	<i>wi</i> -R-(DAT)-O	<i>lu</i> -R-(DAT)-O	-	<i>wo</i> -R-(DAT)-O
10. Manner of motion	<i>wi</i> -R-O	<i>lu</i> -R <i>lu</i> -RED-R-DAT-O	<i>li</i> -R-O	<i>wo</i> -R-(DAT)-O
11. Rest	<i>wi</i> -R-O	<i>lu</i> -R <i>lu</i> -R-(DAT)-RFX	<i>li</i> -R-O	<i>wo</i> -R <i>woi</i> -R-O
12. Carrying Cutting Fighting	<i>wi</i> -R (<i>wi</i> -RED-R) <i>wi</i> -(RED)-R	(<i>lu</i> -R-O) <i>lu</i> -R-O <i>lu</i> -R-O	- - -	<i>wo</i> -R-O <i>wo</i> -R-O <i>wo</i> -R-O
13. Corporeal function	<i>wi</i> -R-(O)	<i>lu</i> -RED-R	<i>li</i> -R-O	<i>wo</i> -R
14. HUMAN PROPENSITY	<i>wi</i> -S-(O)	<i>lu</i> -S-(DAT)-O	<i>li</i> -S-O	<i>wo</i> -R ($\left\{ \begin{array}{l} \text{DAT-O} \\ O \end{array} \right\}$)
15. NUMBERS	<i>wi</i> -R- <i>na</i> <i>wi</i> -R-DAT-O	<i>lu</i> -R-(<i>na</i>) <i>lu</i> -R-DAT-O	-	<i>wo</i> -R-DAT-O
16. LOCATIONALS Static Dynamic	(<i>wi</i> -R) <i>wi</i> -R	<i>lu</i> -R (<i>lu</i> -R)	- -	(<i>wo</i> -R) -

KEY

(formula) formula found with only a minority of roots

() morpheme occurs with some roots only

{ ^x either x or y
y¹(a), (b) and (c) as in Table 5 Cultural items.

- (a) RED is used when the resultant verb involves a group of items or group activity. (The various forms which reduplication takes are set out in section 2.5.)
- (b) O at the end of the syntactic formula shows that the resultant verb has an object suffix (where the object is specific). Unmarked verbs have action focus; they may be intransitive or transitive (with a non-specific object). (For further details, including the suffixes associated with the various verb classes, see section 2.6.)
- (c) DAT before O marks the dative suffix (for details see section 2.7).
- (d) The *na* suffix which occurs with a number of the derived forms seems to be a vestigial suffix of the prederived root (R).
- (e) *me* { $\begin{matrix} me \\ O \end{matrix}$ } adverbial particle meaning ‘again’; *meme* is the action focus form and *me O* the object form.“
- (f) *woi-* is a stronger form than *wo-*, typically used with adjective roots and always resulting in transitive, object focus verbs. *wo-* typically, but not always, results in an intransitive or action focus verb, for example:

wo-towolo to assume standing position
woi-towol-i to stand something up

Table 8 is thus a convenient presentation of the syntactic formulae in one place to facilitate comparison and further study of the problem.

4.1 NOUN CLASSES

All the Tawala nouns taking derivational prefixes belong to those concrete nouns which make up the core notional content of the word class. The derivational prefixes make use of four semantic fields within Tawala nouns: body parts, relationship terms, human reference and cultural items. This list differs in detail from the noun classes set up on the basis of a core notional content (2.1.1) in that ‘places’ is omitted and ‘persons’ is subdivided into relationship terms and human reference. Independent evidence for the empirical nature of these classes is presented in Table 9, where the morphosyntactic distinctions between these four noun classes are tabulated.

TABLE 9: MORPHOSYNTACTIC DISTINCTION OF SEMANTIC NOUN CLASSES

Semantic type	(1) obligatory ‘inalienable possession’ marker	(2) reduplication of root for plural
1. Body parts	+	-
2. Relationship terms	+	+
3. Human reference	-	+
4. Cultural things	-	-

The details of the morphosyntactic data are discussed under the respective noun classes below.

Verbs derived from nouns show a high degree of homogeneity in their resultant meaning. *Wi* indicates a becoming like the item, *lu* involves a physical manifestation or bringing forth of the item, *li* involves a transformation into the item and *wɔ* involves handling the item. The specific outworking of these common meanings is discussed under the respective semantic fields (4.1.1 – 4.1.4).

There is thus considerable evidence for the priority of semantics in verbs derived from nouns. In all cases, the absence of a form is explainable on the grounds of a missing significant semantic component; for example, while one can ‘hold stones, sand and gravel in the hand to throw’ it is not possible to hold water in the same way (4.1.4). In a similar vein, animals, being a rather homogenous group, are more closely aligned morphosyntactically than the list of human reference terms (4.1.3) which, as we would expect, show a number of morphosyntactic discrepancies.

4.1.1 BODY PARTS

Most Austronesian languages are characterised by at least two classes of possession: “some nouns take a possessive suffix added directly to the stem, others add it not to the stem but to a particle placed usually before it” (Capell 1976:16). Items which take the possessive suffix are usually referred to as “inalienable possessions” (Lynch 1973). Included in this semantic class are body parts, personal attributes and biological relationships. In Tawala, the suffixes are as follows:

TABLE 10: THE INALIENABLE POSSESSION SUFFIXES

	Singular	Plural
1	<i>u ~ we</i> ¹	<i>ta</i> (INC) <i>iyai</i> (EXC)
2	<i>m</i>	<i>mi</i>
3	<i>na</i>	<i>hi</i>

¹*u* → *we/u*₋

Something of the range of meanings of this class can be seen in the following examples. The term ‘biological relationship’ includes the parts of plants and also kinship terminology:

<i>nima-u</i>	my hand
<i>lugu-na</i>	its leaf
<i>hina-ta</i>	our (inclusive) mother
<i>nou-we</i>	my sibling of opposite sex
<i>gowa-hi</i>	their name/s
<i>kamna-na</i>	his health, disposition

Note that the concepts of name, health and disposition are considered body parts by the Tawala people, not as abstract nouns as we would consider them in English.

The body-part class of nouns is further characterised by a unique set of derivational prefixes as set out in Chart 1. It will be noted that the meanings in the chart are consistent, so that a Tawala speaker would easily be able to productively use any body part not listed in Chart 1.

root		<i>wi</i> -R-DAT-O to cover, protect or aid	<i>lu</i> -R-O to hit a body part	<i>li</i> -	<i>wo</i> -R-O to hold a body part
<i>ae</i> -	leg	<i>wiaegeni</i> put on shoes etc.	<i>luaeni</i> hit its leg	-	<i>woaeni</i> hold its leg
<i>taniga</i> -	ear	<i>witanigageni</i> put on hearing aid etc.	<i>lutanigani</i> ¹ hit its ear	-	<i>wotanigani</i> hold its ear
<i>mata</i> -	eye	<i>wimatageni</i> put on glasses etc.	<i>lumatani</i> ² hit its eye	-	-
<i>giu</i> -	tail	-	<i>lugiuni</i> hit its tail	-	<i>wogiuni</i> hold its tail
<i>ununu</i> -	head	<i>wiununugeni</i> put on hat	<i>luunununi</i> hit its head	-	<i>wounununi</i> hold its head
<i>nima</i> -	hand	<i>winimageni</i> put on gloves etc.	<i>lunimani</i> ³ hit its hand	-	<i>wonimani</i> hold its hand
<i>hipu</i> -	buttocks	-	<i>luhipuni</i> hit its buttocks	-	<i>wohipuni</i> hold its buttocks
<i>tolotolo</i> -	ribs	-	<i>lutolotoloni</i> hit its side	-	<i>wotolotoloni</i> hold its side

CHART 1: DERIVATIONAL PREFIXES WITH BODY PARTS

¹The form *lutanigana* is an idiom 'to listen'.²This verb has an idiomatic meaning 'to talk face to face'. POC **mata* is reconstructed with the meaning 'face' as well as 'eye', so this type of idiom has been around a long time.³The form *lunimana* is an idiom 'to hold hands'.

The *wi* prefix with body parts is used to derive verbs which involve placing a cover, protection or aid on a body part:

wi-ae-ge-ni put on a shoe etc. (ae foot/leg)

Thus, used with 'leg' the combination can mean 'the use of shoes, underwater flippers and also cricket pads (there is no separate word for foot). In line with the proposed common meaning 'become like item', a cover, protection or aid used with a body part does indeed become like the body part.

The *lu* prefix with a body part is used to derive a verb which refers to hitting that body part:

lu-tanigan-i hit his ear (*tanigana* his ear)

The notes to Chart 1 refer to three additional idiomatic meanings. This combination of *lu* with a body part relates to the common meaning 'the physical manifestation of item', in that hitting a body part is to draw everyone's attention to that part, thus point it out in an obvious way.

There are no examples of *li* used with a body part.

The *wo* prefix with a body part is used to derive verbs in which the animal or human is held by that body part:

wo-giun-i hold its tail (*giuna* its tail)

As it is not possible to hold an animal by its eye, there is a gap in the data at this point. The common meaning 'involves handling item' differs little from the specific meaning, 'to hold body part'.

Typical examples:

- (41) *Natani unuhau i-wi-ununu-ge-ni.*
Nathan hat he-DP-head-DAT-it
Nathan put the hat on.
- (42) *Am kwasikwasi-gei u-na-lu-giun-i!*
your.SG machete-INST you.SG-INT-DP-tail-it
Hit it on the tail with your machete!
- (43) *Polo-na hi-wo-ae-ni.*
pig-that they-DP-leg-it
They held the pig's leg(s).

4.1.2 RELATIONSHIP TERMS

The subclass of nouns involving human and animal relations is distinguished by inalienable possession suffixes (for details see 4.1.1) and by reduplication. Reduplication is used with nouns referring to humans, to mark plural. Reduplication morphology is productive for all open word classes (the details are handled in section 2.5).

Some examples of reduplication with relationship terms:

<i>amana</i>	his father	<i>amamana</i>	his fathers
<i>gogata</i>	our (inclusive) grandparent	<i>gogata</i>	our grandparents
<i>natum</i>	your (singular) child	<i>natunatum</i>	your children

The derivational prefixes are not highly productive with this semantic field; *wi* is the only productive prefix, though *li* has a two-fold idiomatic use.

Chart 2 presents three separate, though related, uses of *wi* with relationship terms, involving the concepts:

- (a) to enter a new biological relationship

wi-ama become a father (*ama* father)⁸

- (b) to call someone by a kin term or to adopt a new relationship

wi-amana call someone father (*amana* his father)

- (c) to develop relationships with others (church term)

wi-amamana gain new fathers (*amamana* his fathers)

The distinction between these three meanings rests on only slight differences of form, and a thorough treatment of the grammar would perhaps reduce these to productive grammatical distinctions. While example (46) below does not appear to have anything to do with the church, it is so connected in the minds of the people, as such wandering around in the dark was unthinkable in pre-Christian times. The form **wi-tulana* for 'becoming a friend' (biological relationship) is omitted as it would involve a logical contradiction. The absence of the forms **wi-tugona* 'become older brother' and **wi-tewela* 'become younger brother' reflect the relative unimportance of these relationships in the Tawala culture. The relationships of all these meanings to the common meaning 'become like item' is quite obvious, in that adopting a new relation, say a child, is for that person to become like one's child.

Li occurs with two roots ('child' and 'grandchild') in reference to the progeny of pigs, if they had bred prolifically:

li-go-o-gana have many grandchildren (*gogana* his grandchild)

When a person dies, a female pig is set aside for producing offspring which will all be used at a mortuary feast in honour of the dead person. If in two generations the pigs number over 20 the original hog and sow will be said to have produced a large progeny. Even though these uses are idiomatic, they are in line with the common meaning of 'being transformed into item' or in this case into many items.

The retention of the third person singular suffix *na* with most of the intransitive examples in Chart 2 is apparently a vestigial affix reflecting the fact that relationship terms never occur by themselves. We cannot have 'a sister' in Tawala, but only 'someone's sister'.

Typical examples:

- (44) *Ega nou-we ma a-wi-nouna.*
not sister-my but I-DP-sister
She's not my sister, but I call her sister.

- (45) *Bada-na amaka wawine i-wi-gogan-e-ya.*
man-that already woman he-DP-grandparent-DAT-her
The man treated the woman as his grandmother.

⁸*Ama* 'father' and *hina* 'mother' are the only exceptions to the rule that relationship terms cannot occur without the possessive suffix.

		<i>wi-R-(na)</i>	(1) <i>wi-R-DAT-O</i> ¹ (2) <i>wi-R-na</i>	<i>wi-RED-R-na</i>	<i>lu-</i>	<i>li-RED-R-DAT-O</i> <i>na</i>	<i>wo-</i>
root		to enter new biological relationship	(1) to adopt new relationship (2) to call someone by kin term	church term, develop a new relationship with others	-	terms used of pigs who are multiplying well	-
<i>ama-</i>	father	<i>wiama</i> become a father	<i>wiamana</i> adopt a father	<i>wiamamana</i> gain fathers	-	-	-
<i>natu-</i>	child	<i>winatuna</i> ² have a child	<i>winatuna</i> adopt a child	<i>winatunatuna</i> gain children	-	<i>linatunatunehi</i> have many children	-
<i>goga-</i>	grandparent, grandchild	<i>wigogana</i> become grandparent	<i>wigogana</i> adopt grandchild	<i>wigoogana</i> gain grandchildren	-	<i>ligoogana</i> have many grandchildren	-
<i>nou-</i>	sibling of opposite sex	<i>winouna</i> become sister	<i>winouna</i> adopt sister	<i>winounouna</i> gain sisters	-	-	-
<i>hina-</i>	mother	<i>wihina</i> become mother	<i>wihinana</i> adopt mother	<i>wihinahinana</i> gain mothers	-	-	-
<i>tula-</i>	friend	-	<i>witulana</i> adopt friend	<i>witulatulana</i> gain friends	-	-	-
<i>tugo-</i>	older sibling same sex	-	<i>witugona</i> adopt brother	<i>witugotugona</i> gain brothers	-	-	-
<i>tewela</i> ³	younger sibling same sex	-	<i>witewela</i> adopt brother	<i>witewetewela</i> gain brothers	-	-	-

CHART 2: DERIVATIONAL PREFIXES WITH RELATIONSHIP TERMS

¹The object focus forms (*wi-R-ne-ya*) have been omitted from the chart.²cf. *wigunaguna* 'to give birth'.³*Tewela* 'child-brother' is used with alienable possession only.

- (46) *I-didibal-ei meka po meka ta-nae po ta-wi-tula-tulana...*
 it-dark-at where and where we.INC-go and we.INC-DP-RED-friend
 When it is dark, wherever we go we are all friends...
- (47) *Polo hi-li-natu-natu-ne-hi.*
 pig they-DP-RED-child-DAT-RFX
 The pigs (hog and sow) have a large progeny.

4.1.3 HUMAN REFERENCE TERMS

As with relationship terms (4.1.2), human reference terms are generally reduplicated for plural. The reduplicated forms are incorporated into Chart 3 as they are somewhat irregular.

This semantic field is less homogeneous than those we have examined so far, as is revealed by the number of gaps in the data and the idiomatic meanings presented in Chart 3. The semantic shift between 'man' and 'male' is greater than between the two body parts 'arm' and 'leg'. Hence it is not surprising that the human reference terms should prove to be less regular than the body-part terms.

The prefix *wi* with human reference terms has two distinct meanings:

- (a) to become the item

wi-bada become a man (*bada* man)

- (b) behave like the item (socially)

wi-keduluma be like a woman (child with a deep cough) (*keduluma* woman)

In both cases we see a direct relationship between these specific meanings and the common meaning, 'become like item'. Chart 3 presents data which mostly have meaning (a); however, this meaning is not possible with 'female' and 'male' and hence the second meaning is the only possibility with these items. When the second meaning is used, the implication is that the 'action' is verbal or some other social form of behaviour, as opposed to the *lu* form which would imply physical action. The only word for acting like a foreigner is that of physical action rather than a social adaptation. This seems to embody the insight that most cross-cultural adaptation is a fairly superficial affair.

The prefix *lu* with human reference terms has the meaning 'act like the item':

lu-hewahewali act like a youth (swing arms etc.) (*hewali* youth)

As has just been mentioned, this implies physical action – often a caricature of the way the thing is normally done. This is very close to the common meaning, 'physical manifestation of item'.

The prefix *li* with human reference terms involves the meaning of 'someone being turned into someone else':

li-wawineya change into a woman (*wawine* woman)

With the male/female items, the meaning necessarily involves a change of sex. Once again these meanings are very close to the common meaning 'be transformed into item'.

No occurrence of *wo* with human reference terms has been found.

root		RED-R plural	wi-R (1) to become N (2) to behave like N (socially)	lu-RED-R to act like N	li-R-O to change s.o. ¹ into N	wo-R
<i>bada</i>	man	<i>babada</i>	<i>wibada</i> become a man	<i>lubabada</i> act like men	<i>libadaya</i> make s.o. a man	-
<i>keduluma</i>	woman	<i>kedukeduluma</i>	<i>wikeduluma</i> become a woman	<i>luketukuluma</i> act like women	<i>likedulumaya</i> make s.o. a woman	-
<i>hewali</i>	youth	<i>hewahewali</i>	<i>wihewali</i> become a youth	<i>luhewahewali</i> act like youths	-	-
<i>guguhini</i>	maiden	<i>guuguhini</i>	<i>wiguguhini</i> become a maiden	<i>luguuguhini</i> act like maidens	-	-
<i>tewela</i>	child	<i>logaloga</i>	<i>witewela</i> become a child	-	<i>litewelaya</i> make s.o. a child	-
<i>lawa</i>	person	-	<i>wilawa</i> become a person (idiom – become populated)	-	<i>lilawaya</i> make s.o. a person	-
<i>wawine</i>	female	<i>wiwine</i>	<i>wiwawine</i> be effeminate	<i>luwawine</i> ² dress prettily	<i>liwawineya</i> change to female	-
<i>oloto</i>	male	<i>ololoto</i>	<i>wioloto</i> behave as male	<i>luoloto</i> dress handsomely	<i>liolotohi</i> change to male	-
<i>(mi)dimdim</i>	foreigner	-	-	<i>lumidimdim</i> act like foreigners	<i>lidimdim</i> give s.o. white skin	-
<i>meyameya</i>	infant	-	<i>wimeyameya</i> become an infant	<i>lumeyameya</i> act like infants	-	-

CHART 3: THE DERIVATIONAL PREFIXES WITH HUMAN REFERENCE TERMS

¹*Luwawine* also has a transitive form *luwawineya* 'to rape a woman'.²The concept involves work on the part of an agent.

Typical examples:

- (48) *E-lau-gonu po amaka i-wi-keduluma.*
 she.PRES-DP.PROG-cough and already she-DP-woman
 She has a (deep) cough and sounds like an old woman.
- (49) *Dawida amaka i-wi-hewali.*
 David already he-DP-youth
 David has already become a young man.
- (50) *Bada i-wi-hewali-meme.*
 man he-DP-youth-again
 The man appeared as a youth again.
- (51) *Lectures hi-wawala po kikeina dobu i-wi-lawa.*
 lectures they-start and little village it-DP-person
 The lectures started and gradually the place became more populated.
- (52) *Tu manini a baha-gei polo i-li-lawa-ya.*
 person power his word-from pig it-DP-person-RFX
 At the magician's word the pig became a person.

4.1.4 CULTURAL ITEMS

The final semantic field within the noun class is a large class of 'cultural items'. Items belonging to this group share no special morphosyntactic features apart from the distinctive set of derivational prefixes (Chart 4). Semantically, the cultural items are natural resources which involve no cultivation and are complete entities in themselves and not parts of constructions. Thus the group does not include cultivated food items or materials used in the construction of houses etc. Coconuts are not an exception to the cultivation rule as the planting of coconuts is a remote process carried out years before their collection and use.

Subclasses along mineral, vegetable and animal lines are required to explain distinctive uses with the derivational prefixes, but are not sufficiently distinctive to set up separate noun classes, nor is there any independent morphosyntactic evidence for their status as independent noun classes.

Chart 4 summarises the use of derivational prefixes with cultural items. The *wi* prefix derives intransitive verbs with the meaning of an area covered by the item – mineral and vegetable subclass:

wi-gai-gaima be covered with stones (*gaima* stone)

or an area containing an excessive number of the item – animal subclass:

wi-itala be infested with rats (*itala* rat)

A transitive form of this verb involves covering an area with the item – mineral subclass only, as the other semantic fields do not lend themselves to being 'spread out':

wi-bubu-ge-ya spread sand on ground (*bubu* sand)

The common meaning 'be like item' corresponds to the fact that if an area is covered with an item, then it is indeed like the item.

The prefix *lu* with cultural items always involves collecting the items:

lu-mayau collect firewood (*mayau* tree)

In English we use the separate lexical items 'catch' and 'hunt' when 'collecting' animals:

lu-polo hunt pigs (*polo* pig)

The common meaning of 'physical manifestation of item' is achieved with this class by bringing the collected items back to the village for all to see.

The prefix *li* has the single meaning 'be/become transformed into item' with this group of items:

li-gaima-ya become a stone (*gaima* stone)

This meaning is the prototypical common meaning of *li* with nouns.

The prefix *wo* has a distinctive use with each of the subclasses.

(a) Mineral – 'hold item for throwing' – these are typical weapons:

wo-gaima hold a stone (*gaima* stone)

(b) Vegetable – 'steal item' – these items, particularly betel nut, are the most commonly stolen items in the culture:

wo-beda steal betel nut (*beda* betel palm)

(c) Animal – 'be loaded with item to take to a feast' – meat is always the most popular food at a feast:

wo-iyana-ya be loaded with fish (*iyana* fish)

Meanings (a) and (b) are intransitive and (c) is transitive with a reflexive suffix. It is also possible to use (b) items with a transitive sense similar to (c) meanings, but not vice versa. All three of these meanings conform directly to the common meaning 'involves handling item'.

Meanings have not been supplied under each derived stem in Chart 4 as the meanings generally conform to those at the heading of the column; exceptions are recorded in the footnotes.

Typical examples:

(a) Mineral

(53) *Dobu i-wi-gai-gaima.*

village it-DP-RED-stone

The village ground is covered in stones.

(54) *Hi-gale-ya ma bada amaka i-li-gaima-ya.*

they-look-him but man already he-DP-stone-RFX

They looked but the man had turned into a stone.

(55) *Ta-nae ta-lu-dubu.*

we.INC-go we.INC-DP-sand

Let's go and get sand.

root		<i>wi</i> -(RED)-R (intransitive) (a)&(b) (area) to be covered by item (c) (area) to support an excessive number of items	<i>wi</i> -(RED)-R-DAT-O (transitive) to sprcad item on ground	<i>lu</i> -R (a)&(b) to collect item (c) to hunt/catch item	<i>li</i> -R-RFX to be/become item	(a)&(b) <i>wo</i> -R (c) <i>wo</i> -R-RFX (a) to hold item for throwing (b) to steal item (c) to be loaded with items to take to a feast
(a) Mineral						
<i>gaima</i>	stone	<i>wigaima</i>	<i>wigaimeya</i>	<i>lugaima</i>	<i>ligaimaya</i>	<i>wogaima</i>
<i>bubu</i>	sand	<i>wibubu</i>	<i>wibubugya</i>	<i>lububu</i>	<i>libubuya</i>	<i>wobubu</i>
<i>dakulc</i>	gravel	<i>widakulc</i>	<i>widakulcya</i>	<i>ludakule</i>	<i>lidakuleya</i>	<i>wodakule</i>
<i>goila</i>	water	<i>wigoigoila</i>	<i>wigoilcya</i>	<i>lugoila</i>	<i>ligoila</i>	-
(b) Vegetable						
<i>ginahi</i>	sago	<i>wiginahi</i>	-	<i>luginahi</i> ¹	<i>liginahi</i>	<i>woginahi</i>
<i>mayau</i>	trec	<i>wimayau</i>	-	<i>lumayau</i>	<i>limayauya</i>	<i>womayau</i>
<i>beda</i>	betel nut	<i>wibeda</i>	-	<i>lubeda</i>	<i>libedaya</i>	<i>wobeda</i>
<i>gaga</i>	pepper ²	<i>wigaga</i>	-	<i>lugaga</i>	<i>ligagaya</i>	<i>wogaga</i>
<i>neula</i>	coconut	<i>wineula</i> ³	-	<i>luncula</i>	<i>lineulaya</i>	<i>woneula</i>
(c) Animal						
<i>polo</i>	pig	<i>wipolo</i>	-	<i>lupolo</i>	<i>lipoloya</i>	<i>wopoloya</i>
<i>hagwai</i>	possum	<i>wihagwai</i>	-	<i>luhagwai</i>	<i>lihagwaiya</i>	- ⁴
<i>sigapa</i>	wallaby	<i>wisigapa</i>	-	<i>lusigapa</i>	<i>lisigapaya</i>	<i>wosigapaya</i>
<i>kiu</i>	bird	<i>wikiu</i>	-	<i>lukiu</i>	<i>likiuya</i>	<i>wokiuya</i>
<i>buncbunc</i>	pigeon	<i>wibuncbunc</i>	-	<i>lubuncbunc</i>	<i>libuncbuncya</i>	<i>wobuncbuncya</i>
<i>iyana</i>	fish	<i>wiyyana</i>	-	<i>luiyana</i> ⁵	<i>liyyanaya</i>	<i>woiyanaya</i>
<i>yakoyako</i>	shell	<i>wiyakoyako</i>	-	<i>luyakoyako</i> ⁶	<i>liyakoyakoya</i>	<i>woyakoyakoya</i>
<i>kamkam</i>	chicken	<i>wikamkam</i>	-	<i>lukamkam</i>	<i>likamkamya</i>	<i>wokamkamya</i>
<i>kedewa</i>	dog	<i>wikedewa</i>	-	<i>lukedewa</i>	<i>likedewaya</i>	<i>wokedewaya</i>
<i>itala</i>	rat	<i>wiitala</i>	-	<i>luitala</i>	<i>liitalaya</i>	<i>woitalaya</i>
<i>gumagama</i>	hermit crab	<i>wigumagama</i>	-	<i>lugumagama</i>	<i>ligumagamaya</i>	<i>wogumagamaya</i>

CHART 4: DERIVATIONAL PREFIXES WITH CULTURAL ITEMS

¹to process sago'.²Pepper' refers to the vine whose hot fruit and leaves are eaten with betel nut.³*Wineula* also has the meaning 'to rub oil on something'.⁴*Wo* prefix with *hagwai* does not take reflexive suffix, and means 'to act like a possum' – *Tarzan iwohagwai nae*. 'Tarzan flies like a possum'.⁵to pull fish in'.⁶to gather and break open shell for eating'.

- (56) *Hewali i-wo-gaima.*
youth he-DP-stone
The youth held a stone (ready to throw).
- (b) Vegetable
- (57) *Naka dobu i-wi-ginahi duma.*
that area it-DP-sago really
There are many sago palms at that place.
- (58) *Yakoyako i-li-gumagama-ya.*
shell it-DP-hermit.crab-RFX
The shell became a hermit crab.
- (59) *To-nae to-lu-mayau.*
we.EXC-go we.EXC-DP-tree
We are going to collect firewood.
- (60) *To-lu-mayau-pahi-yai.*
we.EXC-DP-tree-very-RFX
We really loaded ourselves with wood.
- (c) Animal
- (61) *Dobu i-wi-hagwai duma.*
village it-DP-possum really
The village is really infested with possums.
- (62) *Bada i-baha po kedewa i-li-polo-ya.*
man he-talk and dog it-DP-pig-RFX
When the man spoke the dog became a pig.
- (63) *Pusi i-lu-itala po i-(a)m-am.*
cat it-DP-rat and it-PROG-eat
The cat caught the rat and was eating it.
- (64) *To-wo-polo-pahi-yai.*
we.EXC-DP-pig-many-RFX
We are really loaded with pigs (for the feast).

4.2 ADJECTIVE CLASSES

Adjectives form a distinctive open word class in Tawala, already introduced on semantic grounds (2.1.2). There is morphosyntactic evidence for distinguishing between the universal semantic classes set up by R.M.W. Dixon (1977:31). A summary of the data is included in Table 12. The type of semantic opposition has also been included in the table as these data help to distinguish the classes. The data on which Table 12 is based are set out in the remainder of this introductory section. Following that, the distinctive use of derivational prefixes with each of the adjectival classes is demonstrated (4.2.1 – 4.2.4). In all, six adjectival classes are recognised: physical property, dimension, value, age, speed and colour. A seventh, aberrant class set up by Dixon (1977) – the human propensity class – has been assigned to its own closed class (4.4) as this class has nothing to do with adjectives in Tawala.

Adjectives follow the noun, if one is present, and they always mark the person/number of the noun they refer to, see Table 11. The form of these suffixes is identical to the inalienable possession suffixes (Table 10). Thus Tawala adjectives can be viewed as an extension of the concept of ‘body parts’ to include a person's attributes.

TABLE 11: ADJECTIVAL SUFFIXES

	Singular	Plural
1	<i>u ~ we</i> ¹	<i>ta</i> (INC) <i>iyai</i> (EXC)
2	<i>m</i>	<i>mi</i>
3	<i>na</i>	<i>hi</i>

¹*u* → *we/u* _.

- (65) *Bada dewadewa-m.*
man good-your.SG
You are a great man.
- (66) *Lawa moina-u.*
person true-my
I am a truthful person.
- (67) *Keyalu banei-hi.*
casuarina big-their
They are large casuarina trees.

TABLE 12: SOME DISTINGUISHING FEATURES OF TAWALA ADJECTIVES

Semantic type	A. MORPHOSYNTAX			B. SEMANTIC OPPOSITION	
	Reduplicated form	Plural form	Use with <i>wai-</i>	Antonym pair	Complement sets
Physical property	±	-	±	±	±
Dimension	±	±	-	+	-
Value	±	-	-	+	-
Age	-	-	-	+	-
Speed	+	-	-	+	-
Colour	+	-	+	-	+

KEY: + all; ± most; ± few; - none.

A. MORPHOSYNTACTIC DATA

(a) Reduplicated forms

By far the majority of Tawala adjectives have a reduplicated form (for morphological details see section 2.5). Many adjectives are synchronically still derived from unreduplicated stems:

<i>dewa</i>	custom	<i>dewadewana</i>	good
<i>tahaya</i>	path	<i>tahatahayana</i>	first (lead)
<i>hogoya</i>	be full	<i>hogohogoyana</i>	full

The fact that the age class of adjectives and also certain other adjectives do not have a reduplicated form is not accidental. Reduplication in Tawala typically refers to repetition of activity or a plural number of items (Ezard, B. 1980a). The age adjectives do not fit this classification – ‘old’ and ‘new’ are single events, happening only once. Similarly the unreduplicated nature of many other items can be explained within this framework. ‘Big’ and ‘small’ are unreduplicated, whereas items which have the qualities ‘good’, ‘bad’, ‘fast’, ‘slow’ demonstrate these qualities over and over again – hence the reduplicated forms.

(b) Plural forms

Dimension adjectives are distinguished in that they do not have lexical reduplication in the singular, but do have reduplicated forms for plural marking. The situation is somewhat complicated by the use of suppletive forms which make it impossible to say whether we are dealing with lexical or morphological reduplication:

<i>habulu-na</i>	small (singular)	<i>muhomuho-hi</i>	small (plural)
<i>banei-na</i>	big (singular)	<i>balubalu-hi</i>	big (plural)

(c) Use of intensifier *wai-*

Wai- has the general meaning ‘to be in the extreme or permanent condition of...’ It is thus roughly equivalent to the English ‘very’ when used with adjectives. Two usages need to be distinguished:

(i) Obligatory use of *wai-*

Colour and certain physical condition adjectives have the prefix as an adjectiviser. The following examples have been noted:

Physical property

<i>wai-dubudubuna</i>	sandy	(<i>dubu</i>	dust)
<i>wai-goigoilana</i>	watery	(<i>goila</i>	water)
<i>wai-donadonana</i>	horny/thorny	(<i>dona</i>	tusk/horn)

Colour

<i>wai-didibalena</i>	dark	(<i>didibala</i>	night)
<i>wai-idaidagana</i>	green	(<i>idagana</i>	unripe)
<i>wai-kanikaniyogana</i>	yellow	(<i>kaniyogana</i>	ginger used for yellow dye)

(ii) Optional use of *wai-*

Certain adjectives take *wai-* as an intensifier with the implication ‘to be in a more permanent or extreme condition of...’ or ‘to have the intrinsic nature of...’:

Physical property

<i>gigeimana</i>	stony	(<i>gaima</i>	stone)
<i>wai-gigeimana</i>	completely covered with stones		
<i>gomugomuna</i>	broken	(<i>gomu</i>	to snap)
<i>wai-gomugomuna</i>	hinged, swinging		
<i>holiholina</i>	wound (fish line)	(<i>holi</i>	to pull in)
<i>wai-holiholina</i>	wound (spring)		

Colour

<i>wakewakekena</i>	whitish
<i>wai-wakewakekena</i>	completely white
<i>dubadubana</i>	blackish
<i>wai-dubadubana</i>	completely black
<i>kayakayana</i>	reddish (e.g. cow)
<i>wai-kayakayana</i>	completely red (e.g. car)

Note that the distinction between obligatory and optional use of *wai-* with colour fits neatly into the Berlin and Kay (1969) hierarchy (see section 4.2.4).

B. SEMANTIC OPPOSITIONS

(a) Antonyms

The denial of one term implies the assertion of its opposite. The following antonym pairs are typical, but not exhaustive. It will be noted that the opposites are not necessarily parallel to English antonym pairs (e.g. Tawala 'smooth – hard', English 'smooth – rough').

Physical property

<i>bigabigana</i>	muddy	<i>gigimeina</i>	stony
<i>hegohegoyana</i>	smooth	<i>kapakapalana</i>	hard
<i>koyakoyana</i>	flat	<i>bibituna</i>	spherical

Dimension

<i>awawana</i>	thin	<i>potopotona</i>	thick
<i>daodaona</i>	long	<i>kukuna</i>	short
<i>baneina</i>	big	<i>habuluna</i>	small
		(cf. <i>kikeina</i>)	

The following three sets are exhaustive:

Value

<i>dewadewana</i>	good	<i>apapoena</i>	bad
<i>yeuyeuna</i>	clean	<i>gobugobuna</i>	dirty ⁹

Age

<i>odubona</i>	old	<i>wouna</i>	new
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⁹This opposition literally belongs to physical property, but in value judgements of a person's worth and customs these words are normally used.

Speed

sagesagena fast *bambamna* slow

Antonym pairs can also be formed by negativising the topic-comment clause, but this falls outside the realm of this paper.

(b) Complementary sets

Here we have contrastive sets of words. Only two sets are presented here, but others would not be difficult to elicit.

Colour

<i>waididibalena</i>	black	<i>waiuguguwana</i>	dark
<i>kayakayana</i>	red	<i>waikanikaniyogana</i>	yellow
<i>waidaidagana</i>	green	<i>wakewakekena</i>	white
<i>waikulikulina</i>	mottled		

Taste

<i>gugouna</i>	sweet	<i>tululuwana</i>	tart/sour
<i>tomatomana</i>	tasteless	<i>dagidagihana</i>	tasty
<i>wainihana</i>	salty/tasty	<i>waigolana</i>	bitter/salty (excessive)

Dixon (1977:31) remarks that “complements provide absolute descriptions, antonym pairs...are always ‘relative’ to some implicit norm”. While there is truth in this comment, the word ‘absolute’ is perhaps a little strong to describe the amount of salt in a particular bowl of soup. Some sets are better regarded as continuums.

4.2.1 DIMENSION ADJECTIVES

The semantic field of dimension adjectives has a distinctive set of derivational prefixes, with closest affinities to the related semantic field of physical property. Chart 5 sets out the use of three derivational prefixes with dimension adjectives.

Wi is a causative prefix when used with dimension adjectives:

wi-dao-ya to lengthen something (*dao* long)

The derived verb has social overtones – it is a talk or a meeting which is prolonged or cut short. These verbs are thus prototypical examples of the common meaning ‘cause condition – socially’.

No examples of this semantic field used with the prefix *lu* have been discovered.

The prefix *li* results in another causative verb:

li-habulu-ya to reduce something (*habulu* small)

This time the derived verb is to be taken literally – it is a house which is extended, or a canoe which is reduced in size. This specific meaning agrees well enough with the common meaning of *li* ‘to cause new condition’.

The prefix *woi* (see p.180, explanation (f)) involves manipulating an item by hand:

woi-dao-ya let out a line (i.e. lengthen it) (*dao* long)

root ¹		<i>wi</i> -R-O cause condition – socially	<i>lu</i> - -	<i>li</i> -R-O cause new condition – (physical)	<i>woi</i> -R-O manipulate s.th. by hand
<u><i>daodaona</i></u>	long	<i>widaoya</i> lengthen s.th. (e.g. talk)	-	<i>lidaoya</i> lengthen s.th. (e.g. house)	<i>woidaoya</i> to let s.th. out
<u><i>kukuna</i></u>	short	<i>wikikuya</i> run s.th. short (e.g. meeting)	-	<i>likikuya</i> shorten s.th. (e.g. canoe)	<i>woikukuya</i> take s.th. in
<u><i>baneina</i></u> ²	big	<i>wilataya</i> emphasise s.th. (e.g. point of view)	-	<i>lilataya</i> increase s.th. (e.g. land)	<i>woilataya</i> ³ adopt child (cause it to grow)
<u><i>habuluna</i></u> ⁴	small	<i>wihabuluya</i> make light of s.th.	-	<i>lihabuluya</i> reduce s.th. (e.g. payment)	<i>woihabuluya</i> take s.th. in

CHART 5: DERIVATIONAL PREFIXES WITH DIMENSION ADJECTIVES

¹The root is underlined.²The adjective *baneina* (plural *balubaluhi*) is a suppletive form; *lata* is the productive root.³The intransitive form *wolata* means 'to grow a little each day'.⁴Plural *muhomuhohi*.

This meaning is in line with the common meaning ‘cause by hand’ in that a translation of this type (e.g. ‘cause the line to grow by hand’) would be accurate enough even if somewhat awkward.

Typical examples:

- (68) *A baha i-wi-dao-ya.*
his talk he-DP-long-it
He spoke for a long time.
- (69) *A numa i-popo-ya po i-li-dao-ya.*
his house he-join-it and he-DP-long-it
He joined a section onto his house and lengthened it.
- (70) *Boga i-dao duma, yawai a-woi-kuku-ya.*
sea it-long really line I-DP-short-it
The line went down too deep so I shortened it.
- (71) *Lampa u-na-woi-habulu-ya!*
lamp you.SG-INT-DP-short-it
Turn the lamp down!

4.2.2 PHYSICAL PROPERTY ADJECTIVES

This semantic field is quite close to the dimension adjectives discussed above (4.2.1). The main distinguishing features involve some small morphosyntactic details discussed in the introduction to this section (see Table 12) and the use of the *lu* prefix with physical property adjectives. Other distinctions of meaning can be seen by comparing Charts 5 and 6. Chart 6 sets out the uses of the derivational prefixes with dimension adjectives.

The *wi* prefix has two meanings, each applying to only two out of six roots:

- (a) to cause a condition – socially:
wi-kadidili to strengthen a relationship (*kadidili* strong)
- (b) to be in a temporary condition:
wi-bigabiga to be muddy (*bigabiga* muddy)

The first of these meanings agrees with the most common meaning, ‘cause condition – socially’. The second (stative) meaning of *wi* occurs from time to time and is productive with some semantic fields.

The prefix with physical property adjectives involves more than the common meaning ‘cause condition – physically’ as the items in the data involve ‘a strenuous or violent action in order to cause the condition’:

- lu-pilipili* crumple a hard object (*pilipili* tangled)

The *li* prefix involves ‘causing a condition’ but does not always follow the common meaning ‘to cause a new condition’. Sometimes the derived verb is to be taken literally (e.g. ‘to sharpen something’) at other times metaphorically:

- li-dumalu-ya* pay off debt (lit. straighten it) (*dumalu* straight)

		(1) <i>wi</i> -R-O (2) <i>wi</i> -R	<i>lu</i> -(RED)-R-O	<i>li</i> -R-O	<i>wo</i> (<i>i</i>)-(RED)-R-DAT-O
root ¹		(1) cause condition – socially (2) temporary condition (stative verb)	cause condition – violent action	cause new condition	cause condition – involves hands
<i>kamkamna</i>	sharp	-	-	<i>likamya</i> sharpen s.th.	<i>woikamkanya</i> feel s.th. sharp
<i>bigabigana</i>	muddy	<i>wibigabiga</i> be muddy	<i>lubigabigaya</i> make s.th. muddy	<i>libigabigaya</i> cause s.th. to be muddy	<i>woibigabigaya</i> muddy s.th.
<i>dumadumaluna</i>	straight	-	-	<i>lidumaluya</i> pay off debt	<i>woidumaluya</i> straighten s.th.
<i>kapakapalana</i>	hard	<i>wikapalaya</i> harden s.th.	-	<i>likapalaya</i> harden s.th. (by the sun)	<i>woikapakapalaya</i> harden s.th.
<i>kadikadilina</i>	strong	<i>wikadidili</i> strengthen s.th.	<i>lukadikadilil</i> hit s.th. hard	<i>likadidilil</i> cause s.th. to harden by adding s.th.	<i>wokadidiliyeni</i> hold s.th. tightly
<i>pilipilina</i>	tangled/ crumpled	<i>wipilipili</i> be tangled	<i>lupilipilil</i> crumple a hard object	<i>lipilipilil</i> cause s.o. problems	<i>wopilipilil</i> crumple a soft object

CHART 6: DERIVATIONAL PREFIXES WITH PHYSICAL PROPERTY ADJECTIVES

¹The root is underlined.

The *wo(i)* prefix (see p.180, explanation (f)) normally follows the common meaning 'to manipulate something by hand':

wo-kadidili-ye-ni hold something tightly (*kadidili* strong)

But on one occasion there is no causative sense:

wo-kamkam-ya feel something sharp (*kam* sharp)

Typical examples:

- (72) *Nugonugo-na i-wi-kapala-ya.*
heart-his he-DP-hard-it
He resolutely made up his mind.
- (73) *Fael-gei a-li-kam-ya.*
file-with I-DP-sharp-it
I sharpened it with a file.
- (74) *Om keliko u-woi-bigabiga-ya.*
your.SG cloth you.SG-DP-mud-it
You muddied your clothes (with your dirty hand).
- (75) *Pepa nima-u-gei a-wo-pilipili.*
paper hand-my-with I-DP-crumple
I screwed up the paper with my hands.

4.2.3 AGE, VALUE AND SPEED ADJECTIVES

The age, value and speed adjectives are three quite distinct classes, but are handled here in a section as they are each a small closed class of items and hence conveniently fit on a single page chart. The three classes are distinguished by the absence or presence of the various derivational prefixes (as well as morphosyntactic distinctions – introduced above, Table 12), rather than by distinct meanings attached to the prefixes.

The speed adjectives are the only class of adjectives to take no derivational prefixes at all. The age adjectives do not take the *wo(i)* prefix, but otherwise share the same prefixes as the value adjectives.

The *wi* prefix is used with age and value adjectives to signify a changed condition:

wi-wou-meme be renewed (*wou* new)

This is a stative verb with the age adjectives but a causative verb with the value adjectives:

wi-yeuyeu-ne-ya make something clean (*yeuyeu* clean)

Thus the latter semantic field agrees more closely with the common meaning 'cause condition – socially' than does the former. All these verbs have strong social overtones.

The *lu* prefix occurs with only a minority of age and value adjectives, and the resulting verbs have distinctly idiomatic meanings:

lu-gobu be unkempt (*gobu* dirty)
lu-odubo-ge-ni follow tradition (*odubona* old)

These are only indirectly related to the common meaning 'to cause condition (physically)'.

root ¹		<i>wi-R-me</i> ^{me} RFX	<i>lu-R-(DAT-O)</i>	<i>li-(RED)-R-O</i>	<i>wo(i)-R-(O)</i>
		change condition – socially	idiomatic	cause new condition to s.th.	cause s.th. with hands
Age					
<u>wouna</u>	new	<i>wiwou-meme</i> be renewed	-	<i>liwouya</i> renew, repair s.th.	-
<u>odubona</u>	old	<i>wiodubo-meme</i> return to old custom	<i>luodubogeni</i> follow tradition	-	-
Value					
<u>gobugobuna</u>	dirty	<i>wigobugena-meya</i> ² dirty oneself	<i>lugobu</i> be unkempt	<i>ligobugobuya</i> dirty s.th.	<i>woigobuya</i> dirty s.th.
<u>yeuyeuna</u>	clean	<i>wiyeyeu-meya</i> clean oneself	-	<i>liyeyeyuya</i> clean s.th.	<i>woyeyeu</i> make s.th. clean
<u>dewadewana</u>	good	<i>widewadewayaya</i> make s.th. good (with magic)	-	<i>lidewadewayaya</i> make s.th. good	<i>woidewadewayaya</i> fix s.th.
Speed					
<u>bambamna</u>		-	-	-	-
<u>sagesaena</u>		-	-	-	-

CHART 7: DERIVATIONAL PREFIXES WITH AGE, VALUE AND SPEED ADJECTIVES

¹The root is underlined.²*Meya* is the reflexive form and represents the only examples I have. *Gena* (transitive concord marker) is required before the reflexive form.

The *li* prefix is used in line with its common meaning and involves 'to cause something to enter a (new) condition'.

li-wou-ya renew something (*wou* new)

The *wo(i)* prefix is used only with the value adjectives, and the examples have meaning 'to cause something with the hands'.

woi-gobu-ya dirty something (*gobu* dirty)

Typical examples:

- (76) *Ita kamna ta-buini-hi ta-wi-wou-meme.*
our.INC disposition we.INC-turn.over-them we.INC-DP-new-again
Let's change our ways and start again.
- (77) *Ta-wi-gobu-ge-na-me-ta.*
we.INC-DP-dirty-DAT-TC-again-RFX
We corrupt ourselves (by bad thoughts).
- (78) *Gibson meyagai i-li-yeuyeu-ya.*
Gibson village he-DP-clean-it
Gibson kept the grounds tidy.
- (79) *Hi-lu-odubo-ge-ni.*
they-DP-old-DAT-it
They follow the old (traditional) ways.
- (80) *Hiwape i-lu-gobu babana ago-na i-hilage.*
widow she-DP-dirty because spouse-her he-die
A widow neglects her appearance because her husband has died.
- (81) *Om luilui u-woi-gobu-ya nima-gei.*
you.SG shirt you.SG-DP-dirty-it hand-INST
You have dirtied your shirt with your hands.

4.2.4 COLOUR ADJECTIVES

As pointed out in section 4.2 colours form a clearly distinguished class of adjectives on morphosyntactic as well as semantic grounds. Further evidence for the distinctive nature of adjectives is presented in Chart 8 which reveals a number of fundamental differences from the above data on the other classes of adjectives.

- (a) The roots, and hence the derived forms, are always reduplicated in form.
- (b) The meaning 'to be dressed in uniform' is a unique usage of the *lu* prefix, confined to the semantic field of colour.

The prefixes show clearly a distinction between the primary colours, red, black and white (there is even a word for 'coloured' – *lugilugiluma* – literally 'to be carved', which involves red, black and white paints), and the secondary colours, green/blue, yellow, mottled etc. Thus Tawala preserves as a grammatical distinction what in some languages is a lexical distinction (Berlin & Kay 1969). In addition, the secondary colours all have the fossilised prefix *wai* before their root in their basic lexical form, whereas *wai* with other adjectives is more typically an intensifier, as it is in fact with the primary colours (see 4.2 A. (c)).

The distinctive set of derivational prefixes is set out in Chart 8.

The *wi* prefix does not occur with the primary colours, and with the secondary colours does not occur with the most common meaning but with a secondary stative meaning which occurs occasionally throughout the data, but at this point occurs systematically with all the secondary colours:

wi-idaidaga to be green (*waiidaidagana* green)

The *lu* prefix is used intransitively with all colours to refer to a group of people dressed in uniform:

lu-wakewakeke be dressed in white (cricketers) (*wakewakekena* white)

In addition, the secondary colours have a transitive use of *lu* being a causative verb:

lu-idaidag-e-ya make something green (*waiidaidagana* green)

Only the second of these meanings concurs with the common meaning 'to cause condition (physically)'.⁷

Curiously, the gap left in the primary colour verbs by not using *lu* in the transitive sense 'to make something a colour' is filled by *li*:

li-kayakaya-ya make something red (*kayakayana* red)

Li is the causative verb with primary colours. This agrees well enough with the common meaning 'to cause new condition' but I can offer no explanation as to why the two semantic fields should have a different form at this point.

Only two verbs occur with *wo*:

wo-kayakaya hold firebrand (in the dark) (*kayakayana* red)
wo-dubadubana become black (*dubadubana* black)

These appear to be completely idiomatic with little relationship to the common meaning 'to cause by hand'. Even though the former meaning involves holding something, the verb appears rather to emphasise the fact that the colour shines brightly in the dark.

Typical examples:

- (82) *Yada i-wi-gomigomida duma.*
 sky it-DP-green/blue really
 The sky is really blue.
- (83) *I-li-wakewakeke-ya kabudala uyahinei.*
 it-DP-white-it sun from
 It was bleached from the sunlight.
- (84) *Tu wipanipani hi-lu-kayakaya.*
 people bound they-DP-red
 The prisoners were all dressed in red.
- (85) *A-wi-neula po a-wo-dubaduba.*
 I-DP-coconut and I-DP-black
 I rubbed oil on myself and became black.

root		wi-R state	lu-R wear uniform colours	lu-R (DAT)-O make a colour	li-R-O make a colour	wo-R idiomatic
Primary colours:						
<i>kayakayana</i>	red	-	<i>lukayakayaya</i> be dressed in red	-	<i>likayakayaya</i> make s.th. red	<i>wokayakaya</i> hold fire-brand in dark
<i>dubadubana</i>	black	-	<i>ludubadubaya</i> be dressed in black	-	<i>lidubadubaya</i> make s.th. black	<i>wodubaduba</i> become black
<i>wakewakcna</i>	white	-	<i>luwakewakec</i> be dressed in white	-	<i>liwakewakecya</i> make s.th. white	-
Secondary colours:						
<i>waiidaidagana</i>	blue/ green	<i>wiidaidaga</i> be green	<i>luidaidaga</i> be dressed in green	<i>luidaidagcya</i> make s.th. green	-	-
<i>waigomigomidana</i>	blue/ green	<i>wigomigomida</i> be green	<i>lugomigomida</i> be dressed in green	<i>lugomigomidaya</i> make s.th. green	-	-
<i>waikanikaniyogana</i>	yellow	-	<i>lukanikaniyoga</i> be dressed in yellow	<i>lukanikaniyogaya</i> make s.th. yellow	-	-
<i>waimagomagololona</i>	orange	<i>wimagomagololo</i> ¹ be orange	<i>lumagomagololo</i> ² all be dressed in dance skirts	-	-	-
<i>waikulikulina</i>	mottled	<i>wikulikuli</i> ³ be mottled	<i>lugilugiluma</i> be dressed in mottled colours	<i>lugilugilumcya</i> ⁴ make s.th. mottled	-	-

CHART 8: DERIVATIONAL PREFIXES WITH COLOUR ADJECTIVES

¹Used of bright sunsets.²Orange dye is used in making *magololo* – special dancing skirts.³Used of pigs, dogs and cats that have mottled/patches of colour.⁴I am not sure whether this is a suppletive form, separate words or a mixing of dialects. It means to paint something red, black and white. The two forms are diachronically related.

4.3 VERB CLASSES

Much more work needs to be done on verbs. The following data reveal a few patterns with very basic verbs, but the general picture beyond these is rather messy, especially when the residue (Chart 17) is included in the picture. In addition, while there is some evidence for derivational prefixes being used along semantic lines, there is very little evidence that these semantic fields are verb classes which play any other function in the grammar.

While linguists are in general agreement as to the presence of verbs in all languages (Sapir 1921:119; Bloomfield 1935:198), work on subclasses within verbs, as part of a general theory of language, has been largely neglected.

R.M.W. Dixon (1971:461) presents seven sets of verbs distinguished on the syntactic as well as the semantic properties of 250 Dyrbal verbs:

- (1) Verbs of position, including 'go', 'sit', 'lead', 'take', 'throw', 'pick up', 'hold', 'empty out', and so on.
- (2) Verbs of affect, including 'pierce', 'hit', 'rub', 'burn', and so on.
- (3) Verbs of giving.
- (4) Verbs of attention: 'look', 'listen', 'take no notice'.
- (5) Verbs of speaking and gesturing: 'tell', 'ask', 'call', 'sing', and so on.
- (6) Verbs dealing with other bodily activities; a residue set including 'cry', 'laugh', 'blow', 'copulate', 'cough', and so on.
- (7) Verbs of breaking, that are 'meta' with respect to verbs in other sets, and can also have specific meanings: 'break', 'fall', 'peel'.

Subsequent work by Dixon has led to an extended semantic listing, based largely on English, but useful in the search for verb classes in other languages as well.

The following examples are selected from among the best data correlating semantics with phonetic shape in Tawala (Ezard, B. 1980b). It will be noted that the categories tend to be far more specific than those presented in Dixon (above). In applying derivational prefixes in the following sections, it has also been necessary to posit small, specialised subclasses within these classes. While the lists are tentative they are not anecdotal in that B. Ezard (1980b) systematically presents all 383 verbs of the pilot study in one list or another.

A. VERBS OF MOTION

These verbs mostly require an animate subject and rarely take an object.

(a) Generic verbs of motion involve a CVV pattern, which is relatively rare (only about ten words) in Tawala, but these words are among the most common in everyday use:

<i>nae</i>	go
<i>nei</i>	come
<i>gae</i>	go up, ascend
<i>gei</i>	come up

These are presented in Table 13.

TABLE 13: MOTION WITH RESPECT TO SPEAKER

	Away from speaker	Towards speaker
neutral	<i>nae</i>	<i>nei</i>
ascending	<i>gae</i>	<i>gei</i>

In addition, the motion-towards-speaker verbs distinguish motion towards speaker from motion towards hearer.

TABLE 14: DIRECTION OF MOTION WITH RESPECT TO SPEAKER AND HEARER

	Towards speaker	Towards hearer
neutral	<i>nei</i>	<i>nehi</i>
ascending	<i>gei</i>	<i>gehi</i>

These verbs are all +control; there is also a CVV motion verb which is -control:

peu fall

(b) Specific verbs of motion (two-syllable intransitive words):

hala dance
dala crawl
lupa jump, fly
hopu go down, descend

(c) Specific verbs of motion involving speed (three-syllable intransitive words ending in *lili*):

bulili run
kalili hurry westwards

(d) Motion involving a starting point |—————| (a rather random group):

lowo run away
gelu get on board
wi-yoli sink, drown
wo-mahili leave (involves speed?)

(e) Motion involving a specified end point —————| (another fairly random group – though a preference for two-syllable words is evident):

talu land (on perch)
yato land (on perch, airstrip)
gota arrive (at beach)
geleta arrive (generic)
wialoni meet (storm) (negative connotation)

(f) Verbs involving passing a middle point ———|———— (three-syllable words ending in *na* – a rare form):

<i>tagona</i>	go across (mountain)
<i>damana</i>	to across (bay)

B. VERBS OF EFFECT

These verbs mostly involve a human subject, and are controlled action verbs.

(a) Intransitive verbs involving action on many small objects. We here meet with the remaining derivational prefix (*om*) in one of its productive domains:

<i>om-giluma</i>	carve, write
<i>om-hiyawa</i>	count, read
<i>om-datu</i>	collect shells
<i>om-hapi</i>	pound sago
<i>om-dine</i>	comb hair
<i>om-bulumu</i>	sweep
<i>om-goda</i>	stir sago pudding (sago is cut in tiny pieces)
<i>om-printing</i>	print
<i>om-tepo</i>	bail out
<i>om-apu-gehi</i>	burn it (rubbish)

(b) Transitive verbs involving a radical transformation of the object (*-i* transitive form):

<i>boli</i>	chop a piece off
<i>tahi</i>	carve (non-animate)
<i>hapi</i>	pound sago palm
<i>tawi</i>	dig
<i>uni</i>	kill, catch for killing
<i>pani, tami</i>	tie (traditionally for killing – animate)
<i>pehi</i>	exchange places
<i>lawi</i>	hit, kill
<i>launi</i>	hit

(c) Transitive verbs involving isolating part from whole; often take a non-animate object (two-syllable words with *-ya* transitive form):

<i>toneya</i>	spear
<i>kahaya</i>	separate
<i>hepaya</i>	lift up
<i>pohaya</i>	put in a basket
<i>talaya</i>	cut (lengthwise)
<i>teleya</i>	leave (food) for later
<i>libeya</i>	throw (rubbish) into the sea
<i>guduya</i>	shut, close
<i>hoeya</i>	open
<i>dewayya</i>	make, do
<i>higuya</i>	fill
<i>humaya</i>	wrap

<i>buyoya</i>	squeeze out
<i>buhuya</i>	drill
<i>gutaya</i>	share
<i>wogoya</i>	hold
<i>wilaya</i>	mix

(d) Repeated actions involving an instrument (another use of CVV pattern):

<i>woe</i>	paddle
<i>wao</i>	dig holes for planting

(e) Verbs involving prolonged or continuous activity. The intransitive forms seem to be statives with the subject referring to the patient. The addition of the transitive suffix *-i* also marks the fact that the patient is now the object (three-syllable words with *i* transitive form):

<i>ulona - i</i>	cook
<i>lelega - i</i>	line up
<i>toula - i</i>	collect, load up
<i>yaluma - i</i>	mend fish net
<i>upuma - i</i>	pile up
<i>hiyawa - i</i>	count, read
<i>hiwoga - i</i>	pour out, unload
<i>giluma - i</i>	carve, write
<i>didina - i</i>	sew
<i>guluwa - i</i>	bury

(86)	<i>I-ulona.</i>	<i>A-ulon-i.</i>
	it-cook	I-cook-it
	It is cooking.	I am cooking it.

C. CORPOREAL VERBS

(a) Life-sustaining functions. There are to my knowledge only four VCV verbs, and three of these form the following set, a single semantic field of life-sustaining functions:¹⁰

<i>eno</i>	sleep
<i>uma</i>	drink
<i>ani</i>	eat (intransitive form <i>am</i>)

(b) Verbs involved in taking something into the body (verbs involving a special use of the *lu* prefix):

<i>lu-bogahu</i>	smoke (tobacco)	<i>(bogahu</i>	smoke)
<i>lu-haba</i>	chew (betel nut)	<i>(haba</i>	red)
<i>lu-yawahi</i>	breathe, inhale	<i>(yawata</i>	breath)
<i>lu-tanigana</i>	listen, hear	<i>(taniga-</i>	ear)

(c) Verbs involving a slowing down of bodily activity (the *wi* prefix in these examples is no longer productive as there is no meaning attached to the root apart from them):

¹⁰The remaining VCV verb is *otu* 'call'.

<i>wiyuwa</i>	pain
<i>wiyagohina</i>	rest
<i>wiyohi</i>	fast
(cf. <i>wikamna dewadewa</i>	to get better)

These data reveal that seemingly random features such as syllable patterns, word length and transitivity patterns are used with certain semantic fields, while other related semantic fields systematically use different patterns. Thus we see evidence for a correlation between form and meaning. To know the form of a word is to limit the semantic field to which it could belong. To know the semantic field of a word that is 'on the tip of the tongue' is to be able to predict its likely form – thus we see further evidence for the priority of semantics. The following sections dealing with the derivational prefixes make use of a number of the semantic fields illustrated in the above lists, demonstrating further the value of these semantic-syntactic correlations.

4.3.1 MOTION VERBS

Three classes of motion verbs are distinguished in Charts 9(a) and 9(b) on the basis of morphosyntactic distinctions. Two of these classes agree closely with the semantic fields set up above on a phonetic-syntactic-semantic basis. The remaining class involves an irregular *lui* 'enter' which did not occur in my original data, though *luiya* 'to put on clothing' was placed in a semantic field, but not with the motion verbs. The area of motion verbs is one of the most complex areas of Tawala verb morphology as the charts show.

In the first place there is a fully productive set of transitive and intransitive derived verbs with most of the prefixes. In the second place the transitive forms distinguish between transitive and dative forms. Finally, there are numerous classificatory prefixes associated with this group of words. Two of these prefixes have been included in the charts owing to their irregular nature and idiomatic usage with Class 2 and Class 3. The common meanings of these prefixes are:

<i>hu</i>	to move deliberately, or with effort
<i>tu</i>	to move a little or move something with the foot

It is possible that these prefixes are moving in the direction of becoming productive derivational prefixes, as they have more complex meanings than the usual classificatory prefixes and their single syllable form is more typical of derivational prefixes than the usual two syllable classificatory prefixes. In addition *hu* has a parallel form to *lu* for the progressive aspect (*hau*). However, these prefixes are not highly productive, occurring mainly with the motion verbs listed in this section.

Each of the three classes has a quite distinct use of the derivational prefixes. These prefixes with basic motion verbs (intransitive forms) are set out in Chart 9(a). The transitive forms are found in Chart 9(b).

(a) The prefix *wi* is not highly productive and has a series of meanings:

<i>wi-ne-nae</i>	try to go	(<i>nae</i>	go)
<i>wi-gae</i>	to thatch (house)	(<i>gae</i>	ascend)
<i>wi-ge-gae</i>	argue	(<i>gae</i>	ascend)

These are only connected to the common meaning 'to cause action' in a vague way.

On the other hand *lu* is a highly productive prefix, except with Class 3 motion verb. With Class 1 the derived verb has a meaning closely related to the common meaning 'action in direction of verb'.

lu-gae shoot high (*gae* ascend)

There are no examples of the use of the *li* prefix.

The *wop* prefix is fully productive with all roots. With Class 1 roots this involves 'moving a little each day', which is in line with the common meaning for verb roots 'persist in action'.

wo-hopu move down a little each day (*hopu* descend)

Class 2 roots have a variety of idiomatic meanings:

wo-geleta reveal something (*geleta* arrive)
wo-damana hand things over (*damana* cross bay)
wo-tagona follow (*tagona* cross mountain)

(b) The use of derivational prefixes with the same set of basic motion verb roots, but this time with object focus, transitive forms (cf. section 2.6) are set out in Chart 9(b).

The prefix *wi* is highly productive (in contrast to the action focus forms). With most roots these verbs involve carrying an item in the direction indicated by the verb (i.e. 'cause something to go') and are thus in line with the common meaning 'to cause verb':

wi-hopu-ni put something down (*hopu* descend)

With a few roots the meaning is somewhat idiomatic:

wi-gelete-ya sing an item
 (cause something to appear) (*geleta* arrive)
wi-tagona-i wind twine over something
 (cause something to go over) (*tagona* cross mountain)
wi-gei-ni put roof up
 (cause something to go up) (*gae* ascend)

A distinction which is found a number of times in Chart 9(b) is between transitive (object focus) and dative forms; normally the dative involves an instrument or a less direct contact with the object (cf. section 2.7):

wi-daman-i bridge a gap (transitive)
wi-daman-e-ya carry something across (dative)

The prefix *lu* involves an exerted or obvious action, which is an extension of the common meaning 'action in direction of the verb':

lu-hopu-ne-ya push something down (*hopu* descend)

Only one of these verbs is idiomatic:

lu-gelet-e-ya be revealed/understood (*geleta* arrive)

As with the intransitive forms there are no transitive motion verbs with the prefix *li*. Transitive motion verbs which take the dative ending usually are able to replace this with an ablative form:

lu-hopu-ne-ya push something down (dative)
lu-hopu-niyai pull something down (ablative)

The prefix *wo* is used with the sense 'to move something by hand in the direction of the verb', which conforms to the common meaning of *wo* for transitive verbs 'cause by hand':

wo-hopu-ne-ya push something down (*hopu* descend)

Again a single idiom is found in this group:

wo-tagon-i follow someone (*tagona* cross mountain)

Typical transitive and intransitive examples of the prefixes with the three classes of motion verbs are as follows:

CLASS 1:

- (87) *Tau a-ne-nae numa a-wi-gae.*
 myself I-PROG-go house I-DP-ascend
 I am going to (thatch) a house.
 (In answer to question, 'What are you going to do?')
- (88) *Numa ta-wi-gei-ni!*
 house we.INC-DP-come up-it
 Let's thatch the roof!
- (89) *U-na-tu-hopu!*
 you.SG-INT-DP-descend
 Move down a bit!
- (90) *U-na-tu-hopu-ne-ya.*
 you.SG-INT-DP-descend-TC-it
 Shove it down! (with your feet)
- (91) *A-lu-hopu duma po polo a-lupate-ya.*
 I-DP-descend really and pig I-miss-it
 I shot too low and missed the pig.
- (92) *Nima-m u-na-lu-hopu-ne-ya!*
 hand-your.SG you.SG-INT-DP-descend-TC-it
 Put your hand down a bit!

CLASS 2:

- (93) *Hiyamoni tapu-na i-lu-gelet-e-ya.*
 grass different-its it-DP-arrive-DAT-RFX
 A different type of grass appeared.
- (94) *Amaka ta-lu-gelet-e-ya.*
 already we.INC-DP-arrive-DAT-it
 We already understood it.
- (95) *Lawa i-wo-gelet-e-na-me-ya.*
 person he-DP-arrive-DAT-TC-again-it
 The man showed himself.

	<i>wi</i> -(RED)-R idiomatic	<i>lu</i> -R Cl 1 miss mark in direction of V Cl 2 idiomatic	<i>li</i> - -	<i>wo</i> -R Cl 1 move a bit each day Cl 2 idiomatic	<i>tu</i> -R Cl 1 move a little Cl 2 unknown Cl 3 idiomatic	<i>hu</i> -R Cl 1 move deliberately Cl 2 involves stepping
Class 1						
<i>nac</i> go	<i>wincnac</i> try to go	<i>lunae</i> shoot further	-	<i>wonac</i> move on	<i>tunac</i> move on	<i>hunac</i> move away
<i>nci</i> come	-	<i>lunc-i/hi</i> shoot towards	-	<i>wonc-i/hi</i> move towards	<i>tunc-i/hi</i> move towards	<i>hunc-i/hi</i> move towards
<i>gac</i> ascend	<i>wigac</i> thatch <i>wigcgac</i> argue	<i>lugac</i> shoot high <i>lugegac</i> be bighheaded	-	<i>wogac</i> move up	<i>tugac</i> move up	<i>hugac</i> move up
<i>gei</i> come up	-	<i>luge-i/hi</i> shoot high, shoot closer	-	<i>woge-i/ho</i> move up towards	<i>tuge-i/hi</i> move up towards	<i>hugc-i/hi</i> move up towards
<i>hopu</i> descend	-	<i>luhopu</i> shoot down	-	<i>wohopu</i> move down	<i>tuhopu</i> move down	<i>luhopu</i> move down
Class 2						
<i>geclta</i> arrive (up)	-	<i>lugeclta</i> arrive after long walk	-	<i>wogeclta</i> reveal s.th.	<i>tugeclta</i> ²	<i>hugelclta</i> walk home
<i>damana</i> cross (bay)	-	<i>ludamana</i> inherit, cross over	-	<i>wodamana</i> hand things over	<i>tudamana</i>	<i>hudamana</i> step across
<i>tagona</i> cross (mountain)	-	-	-	<i>wotagona</i> follow	<i>tutagona</i>	<i>hutagona</i> step over
Class 3						
<i>lui</i> enter	-	-	-	<i>wolui</i> ²	<i>tului</i> move into bush	-

CHART9(a): INTRANSITIVE BASIC MOTION VERBS WITH DERIVATIONAL PREFIXES

¹For *-i/-hi* distinction see section 2.6(a).²Meanings have been omitted with certain verbs as I am not sure what the combination means.

root		<i>wi-R-(DAT)-O</i> carry s.th. in direction of V idiomatic	<i>lu-R-(DAT)-O</i> cause by exertion or obvious action	<i>li-</i>	<i>wo-R-O</i> move s.th. in direction of V by hand	<i>tu-R-O</i> move s.th. by foot	<i>hu-R-O</i> use effort to move s.th.
Class 1							
<i>nac</i>	go	<i>wincecneni</i> take/bring	<i>luniyceni</i> push s.th.	-	<i>woniyceni</i> push s.th.	<i>tuniyceni</i> push s.th.	<i>huniyceni</i> push s.th.
<i>nci</i>			<i>luneiyai</i> pull s.th.	-	<i>wonciyai</i> pull s.th.	<i>tunciyai</i> pull s.th.	<i>huneiyai</i> pull s.th.
<i>gac</i>	ascend	<i>wigceni</i> put root up (cause s.th. to ascend)	<i>lugiyceni</i> push s.th. up	-	<i>wogiyceni</i> push s.th. up	<i>tugiyceni</i> push s.th. up	<i>hugiyceni</i> push s.th. up
<i>gci</i>	come up		<i>lugeiyai</i> pull s.th. up	-	<i>wogeyai</i> pull s.th. up	<i>tugeiyai</i> pull s.th. up	<i>huceiyai</i> pull s.th. up
<i>hopu</i>	descend	<i>wihopuni</i> put s.th. down	<i>luhopuncya</i> push s.th. down	-	<i>wohopuncya</i> push s.th. down	<i>tuhopuncya</i> push s.th. down	<i>huhopuncya</i> push s.th. down
			<i>luhopuniyai</i> pull s.th. down	-	<i>wohopuniyai</i> pull s.th. down	<i>tuhopuniyai</i> pull s.th. down	<i>huhopuniyai</i> pull s.th. down
Class 2							
<i>gcleta</i>	arrive (up)	<i>wigcletcya</i> sing an item	<i>lugecletcya</i> be revealed, understand s.th.	-	<i>wogcletcya</i> reveal s.th. in hands	<i>tugcletcya</i> ¹	<i>hugcletcya</i> sing a number of items
<i>damana</i>	cross (bay)	<i>widamani</i> bridge a gap	<i>ludamani</i> cross on s.th.	-	<i>wodamani</i> carry across	<i>tudamani</i> step across	<i>hudamani</i> jump s.th., step across
		<i>widamancya</i> carry s.th. across	<i>ludamancya</i> pour from one to another	-	<i>wodamancya</i> pass s.th. across	<i>tudamancya</i> push s.th. across	<i>hudamancya</i> lift s.th. across
<i>tagona</i>	cross (mountain)	<i>witagoni</i> wind twine over s.th.	-	-	<i>wotagoni</i> follow s.o.	<i>tutagoni</i> follow s.o. ²	<i>hutagoni</i> jump over s.th.
			<i>lutagoncya</i> throw s.th. over	-	<i>wotagoncya</i> push hands over s.th.	<i>tutagoncya</i> push s.th. over	<i>hutagoncya</i> lift s.th. over
Class 3							
<i>lui</i>	enter	<i>wiluiya</i> wear clothes	-	-	-	-	-

CHART 9(b): TRANSITIVE BASIC MOTION VERBS WITH DERIVATIONAL PREFIXES

¹Meaning is omitted because I omitted to elicit it.²The expected meaning 'to step over something' is carried by the verb *tulagoni*.

- (96) *A-hu-geleta u yu numa.*
 I-DP-arrive my at house
 I am going home.
- (97) *Wam-gei (*tete-gei) e-lau-daman-i.*
 boat-by bridge-by he.PRES-DP.PROG-cross-it
 He is crossing the bay by boat (*bridge).
- (98) *Wam-gei (tete-gei) e-hau-daman-i.*
 boat-by bridge-by he.PRES-DP.PROG-cross-it
 He is using the boat to get across. (He is using the bridge to go across.)

CLASS 3:

- (99) *Polo i-tu-lui.*
 pig it-DP-enter
 The pig went into the bush.
- (100) *Am pilipou u-na-lui-ya.*
 your.SG trousers you.SG-INT-enter-it
 Put on your trousers!

4.3.2 MANNER-OF-MOTION VERBS

A small class of motion verbs, perhaps belonging to a manner-of-motion subclass of motion verbs, is presented in this section. A comparison of these data with the basic motion verbs reveals some similarities in that they also take the classificatory prefixes discussed in connection with basic motion verbs, and yet there are some basic differences. The most basic one is the lack of a productive transitive-intransitive relationship. In addition these manner-of-motion verbs are highly productive with the *li* prefix, whereas none of the basic motion verbs are at all productive with *li*. The four verbs seem to belong to three or even four separate semantic fields on the basis of the distinctive use they make of the derivational prefixes. These data are set out in Chart 10.

The *wi* prefix occurs with two of the manner-of-motion verbs with the meaning 'to cause something to act', which conforms with the common meaning 'to cause action':

<i>wi-lupa-ya</i>	let something go	(<i>lupa</i> jump)
	(cause it to jump)	

The *lu* prefix is used intransitively with only a single root:

<i>lu-dala</i>	creep forward	(<i>dala</i> crawl)
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This meaning conforms to the common meaning 'action in position of verb'.

The transitive use of *lu* occurs with two of the four roots under examination, both of which appear to be idiomatic, having little to do with the common meaning quoted in the previous sentence.

<i>lu-dala-ge-ya</i>	drop one's hand	(<i>dala</i> crawl)
<i>lu-bulili-ye-ya</i>	hit faster	(<i>bulili</i> run, hasten)

		<i>wi</i> -R-O cause s.th. to act	<i>lu</i> -R action in position of V	<i>lu</i> -(RED)-R-DAT-O action in position of V	<i>li</i> -R-RF cause violent action	<i>wo</i> -R-(DAT-O) persistent action (intransitive) hands involved (transitive)
root						
<i>lupa</i>	fly, jump	<i>wilupaya</i> let s.th. go	-	- spring s.th.	<i>lilupaya</i> keep going up	<i>wolupa</i>
<i>dala</i>	crawl, lean	<i>widalaya</i> cause s.th. to take crawling position	<i>ludala</i> creep forward	<i>ludalageya</i> drop one's hands	<i>lidalaya</i> knock to crawling position	<i>wodala(nae)</i> grope (forward) in the dark
<i>peu</i>	fall	<i>wipeuni</i> ¹ drop	-	-	<i>lipeuya</i> topple s.th. or s.o.	<i>wopeu</i> drop s.th.
<i>bulili</i>	run, hasten	-	-	<i>lubulibuliyeya</i> hit faster	-	<i>wobulibuliyeya</i> grab s.th. quickly

CHART 10: DERIVATIONAL PREFIXES WITH MANNER-OF-MOTION VERBS

¹Data from Ross 1983:38.

The *li* prefix involves causing an action violently, which conforms to the common meaning 'force something into position':

li-dala-ya knock to crawling position (*dala* crawl)

However, in one case it is the resulting action which is violent:

li-lupa-ya spring something (*lupa* jump)
(cause something to jump)

The *wo* prefix conforms to the common meaning for intransitive forms 'persistent action':

wo-lupa keep going up (*lupa* jump)

and for transitive forms 'cause by hand':

wo-peu drop something (*peu* fall)
(cause something to fall)

This last example is an action focus form of the transitive verb and hence has no definite suffix (cf. section 2.6).

Typical examples:

(101) *Kiu nima-u-gei a-wi-lupa-ya.*
bird hand-my-from I-DP-jump-it
I let the bird go.

(102) *U-na-lu-dala!*
you.SG-INT-DP-crawl
Crawl forward!

(103) *Ega u-na-wo-buli-bulili apo nima-m i-na-ala-hi!*
NEG you.SG-INT-DP-PROG-run FUT hand-your.SG it-INT-burn-it
Don't grab it too quickly, it will burn your hand!

(104) *Premier hi-li-peu-ya.*
premier they-DP-fall-it
They have toppled the Premier (from office).

4.3.3 VERBS OF REST

Our data contain five 'verbs of rest' which function as a fairly homogenous group. A comparison with motion verbs reveals that these two semantic fields overlap. Though I have no data for how this class functions with classificatory prefixes, my feeling is that a Tawala analyst may well assign these verbs to a subclass of motion verbs because the concept of motion is strong especially when used with derivational prefixes. However, the meanings associated with these prefixes have their own quite distinctive uses.

Eno with the meaning 'to lie down' clearly functions with this group; it is also found with a different set of meanings with the corporeal function verbs (4.3.5).

The use of the derivational prefixes with the verbs of rest are set out in Chart 11.

The *wi* prefix is used with the sense 'to cause something to take a position'. The common meaning 'cause action' seems appropriate enough in view of the fact that these are 'verbs of rest':

wi-towol-i stand something (*towolo* be standing)

		<i>wi-R-O</i> cause s.th. to take position	<i>lu-R</i> wait in a position	<i>lu-R-(DAT)-RFX</i> move quickly to position	<i>li-R-O</i> force s.th. into position – instrument involved	<i>wo-R</i> move into new position	<i>woi-R-O</i> move s.th. by hand
<i>towolo</i>	be standing	<i>witowoli</i> stand s.th.	<i>lutowolo</i> stand poised with spear etc.	<i>lutowologeni</i> stand quickly	<i>litowoli</i> lever up s.th.	<i>wotowolo</i> assume standing position	<i>woitowoli</i> stand s.th.
<i>tugula</i>	be sitting	<i>wituguli</i> sit s.th.	<i>lutugula</i> sit fishing	<i>lutuguli</i> sit quickly	<i>lituguli</i> force down	<i>wotugula</i> assume sitting position	<i>woituguli</i> sit s.th.
<i>tagela</i>	swivel on fixed point	<i>witageli</i> swivel s.th.	<i>lutagela</i> lean to one side	<i>lutageli</i> move quickly to one side	<i>litageli</i> knock over	<i>wotagela(nae)</i> stagger (along)	<i>woitageli</i> push to one side
<i>wahala</i>	be leaning	<i>wiwahali</i> lean s.th.	<i>luwahala</i> lean on s.th.		<i>liluwahali</i> knock down to leaning position		<i>woiluwahali</i> lean s.th.
<i>eno</i>	be lying down	<i>wienoya</i> lie s.th. down	<i>lueno</i> rest head on hand	<i>luenogeya</i> be woken when almost asleep	<i>lienoya</i> knock s.th. down	<i>woeno</i> begin to sleep	<i>woienoya</i> lie s.th. down

CHART 11: DERIVATIONAL PREFIXES WITH VERBS OF REST

The *lu* prefix with verbs of rest has two almost contradictory meanings. When the verb is intransitive it has the meaning ‘to wait in a position’:

lu-tugula sit (fishing) (*tugula* be sitting)

With a transitive form (reflexive) the meaning is ‘to move quickly to a position’:

lu-tugul-i sit quickly (*tugula* be sitting)

This distinction seems to capture both aspects of the common meaning ‘action in position and direction of verb’.

The *li* prefix with verbs of rest incorporates not only the common meaning ‘force something into position’ but the added dimension of implying the use of an instrument:

li-towol-i lever up something (*towolo* be standing)

The *wo* prefix involves a unique meaning, ‘to move into a new position’. Here the ‘persistence’ involves the ongoing result of the action, rather than the repetition of an action usually involved in the *wo* prefix. A set of transitive forms associated with the verbs of rest take the stronger *woi* prefix, normally associated with adjectival roots (see sections 4.2.1 – 4.2.3). This is presumably because these verbs have a stative component found also with the adjective class. This is a good example of a shared semantic component (even across word classes) resulting in shared syntactic components. These forms have the meaning ‘to move something by hand’, in line with the normal common meaning associated with transitive verbs, ‘to cause by hand’:

wo-eno-ya lie something down (*eno* be lying down)

Typical examples:

- (105) *Kiwou-gei a-li-towol-i.*
stick-with I-DP-stand-it
I stood it up with my stick.
- (106) *Gaima a-lu-tugul-e-u.*
stone I-DP-sit-DAT-RFX
I dodged the stone.
- (107) *Motaka a wili i-wi-tage-tagel-i.*
car its wheel it-DP-PROG-swivel-it
He was turning the driving wheel.
- (108) *Kedewa a-lau-laun-i po a-li-eno-ya.*
dog I-PROG-hit-RF and I-DP-lie.down-it
I kept hitting the dog and eventually I knocked it down.

4.3.4 VERBS OF EFFECT

All the verbs of effect have been placed in a single chart (12) for convenience of comparison. There are three distinct semantic fields involved – verbs of carrying, cutting and fighting – and even these divisions seem to be too broad to account for the distinctive use of prefixes. Derivational prefixes are not over-productive with verbs of carrying and cutting, hence the numerous blanks in these sections of the chart. The fighting verbs appear

to be more of a cohesive group with all forms being fully productive, except with *li* which is never used with verbs of effect.

Chart 12 lists data from all three semantic domains.

The *wi* prefix has separate meanings with each class of effect verbs. With the carrying verbs it occurs only with those verbs which list specific ways of carrying. With these verbs it means 'to load someone up'. This usage is in line with the common meaning 'to cause action':

wi-awali-i load on shoulder (awali- shoulder)
(cause someone to carry)

There is only a single idiomatic use of *wi* with verbs of cutting:

wi-talatala cut area of grass (*tala* cut)

The fighting verbs have a stative meaning with the *wi* prefix. While this is not the most common meaning, it is not the first time we have met this meaning with verb roots:

wi-tona to be fighting (*tona* pierce)

The *lu* prefix has a single idiomatic use with verbs of carrying:

lu-awali-i carry on shoulder (awali- shoulder)

This verb is derived from the body part *awalana* 'his shoulder', and the *lu* is required because *awali* is often used in a generic sense 'to carry' and thus *lu-awali* is used in line with the common meaning of *lu* 'action in position of verb' to stress the use of the shoulder. With verbs of cutting and fighting *lu* is productive and its meaning involves the use of an instrument or an open obvious action. This is a distinctive use of *lu* and is limited to verbs of effect:

lu-gomu-ya break something with a stick (*gomu* snap)
lu-kaha-ya separate something into piles (*kaha* separate, divide)

As stated above *li* is never used with verbs of effect.

The *wo* prefix is used with all verbs of effect to indicate that an action is repeated over and over. This meaning is of course in line with the common meaning 'persist in an action':

wo-boli keep cutting pieces off (*boli* cut off)

Typical examples:

- (109) *Kopala u-na-wi-awali-u.*
copra you.SG-INT-DP-shoulder-me
Put this bag of copra on my shoulder!
- (110) *Wam-gei apo a-wo-toul-i.*
boat-with FUT I-DP-collect-it
I will collect the load with my boat.
- (111) *Yailo nagonugo-u i-wo-way.*
Yailo mind-my he-DP-take
Yailo persuaded me.

root	(1) <i>wi</i> -R (2),(3) <i>wi</i> -(RED)-R	<i>lu</i> -R-O	<i>li</i> -	<i>wo</i> -R-O
	(1) load s.o. up (2) idiomatic (3) 'state' of s.th.	(1) idiomatic (2),(3) involves instrument or obvious action	-	repeat action over period of time
(1) Carrying (a) specific				
<i>awali</i> carry on shoulder	<i>wiawali</i> load on shoulder	<i>luawali</i> carry on shoulder	-	<i>woawali</i> carry a number of things
<i>naba</i> carry on head	<i>winaba</i> load on head	-	-	<i>wonabaya</i> carry a number of things
<i>gedu</i> carry on back	<i>wigedu</i> load on back	-	-	<i>wogedu</i> carry a number of things
(b) on vehicle				
<i>touli</i> collect	-	-	-	<i>wotouli</i> keep collecting things
(c) generic				
<i>waya</i> take	-	-	-	<i>wowaya</i> take
<i>houni</i> put	-	-	-	<i>wohouni</i> put
(2) Cutting (a) specific				
<i>hapi</i> chop	-	<i>luhapi</i> (i) cut oneself (ii) beckon s.o. ¹	-	<i>wohapi</i> (keep) chopping sago
<i>boli</i> cut off	-	-	-	<i>woboli</i> keep cutting things off
<i>tala</i> cut	<i>witalatala</i> cut area of grass	<i>lutalaya</i> cut s.th.	-	<i>wotalaya</i> keep cutting things
(b) snapping				
<i>gomu</i> snap	-	<i>lugomuya</i> break s.th. with stick	-	<i>wogomuya</i> keep breaking things
(3) Fighting				
<i>tona</i> pierce	<i>witona</i> be fighting	<i>lutonaya</i> poke with stick	-	<i>wotonaya</i> keep poking things
<i>kaha</i> separate, divide	<i>wikahakaha</i> be separated (fight)	<i>lukahaya</i> separate into piles	-	<i>wokahaya</i> keep separating things
<i>gawiya</i> fight	<i>wigawiya</i> be warring/at war	<i>lugawiyeya</i> fight in a pack	-	<i>wogawiya</i> keep fighting

CHART 12: DERIVATIONAL PREFIXES WITH VERBS OF EFFECT

¹The hand is dropped from above the head to one's side.

- (112) *Kasi u-na-wele-u po a-wi-tala-tala.*
 knife you.SG-INT-give-me and I-DP-PROG-cut
 Give me a grass knife and I will cut (the grass).
- (113) *Ginahi a-wo-hapi ma o-na-nae po o-na-lu-neula.*
 sago I-DP-chop and you.PL-INT-go and you.PL-INT-DP-coconut
 I'll chop the sago so you go and collect coconuts.
- (114) *Baubau hi-wo-boli.*
 bamboo they-DP-cut
 They cut the bamboo (over several days).
- (115) *Lawa-na ago-na mite-hi*
 person-that spouse-his together-them
hi-woo-gawi-ye-na-me-hi.
 they-DP.PROG-fight-DAT-TC-again-RFX
 The man and his wife are always fighting.

4.3.5 CORPOREAL FUNCTION VERBS

The three verbs of corporeal function show a reasonable degree of homogeneity, though a degree of divergence is to be expected from the diverse semantics incorporated in the three verbs.

Chart 13 sets out the uses of derivational prefixes with the members of this semantic field.

The *wi* prefix always involves causing someone to act, which is in line with the common meaning 'to cause action':

wi-eno-ya put someone to sleep (*eno* sleep)

The *lu* prefix is used in only a single idiomatic sense with this group:

lu-eno-eno lazy person (*eno* sleep)

The uses of the *li* prefix are also idiomatic:

li-eno-ya lay out a dead body (*eno* sleep)

li-uma-ya cause someone to choke by hitting them (*uma* drink)

The *wo* prefix is fully productive, 'to do something little by little', which is in line with the common meaning 'to persist in action':

wo-ani eat something in stages (*ani* eat something)

Typical examples:

- (116) *Logaloga iyana a-wi-ani-hi.*
 children fish I-DP-eat-them
 I fed the children fish.
- (117) *Hi-nae hi-li-eno-ya.*
 they-go they-DP-lie-it
 They sent to lay out the dead body.

root		<i>wi-R-(O)</i> cause s.o. to act	<i>lu-RED-R</i> idiomatic	<i>li-R-O</i> idiomatic	<i>wo-R</i> do s.th. little by little
<i>ani</i> ¹	bite, eat s.th.	<i>wiani</i> feed s.th. to s.o.	-	-	<i>woani</i> eat s.th. in stages
<i>am</i> ¹	eat, dine	<i>wiam</i>	-	-	<i>woam</i> eat in stages (i.e. feast)
<i>eno</i>	sleep, lie down	<i>wienoya</i> put to sleep	<i>luenoeno</i> lazy	<i>lienoya</i> lay out dead body	<i>woeno</i> sleep in stages
<i>uma</i>	drink	<i>wiumaya</i> give s.o. drink	-	<i>liumaya</i> cause s.o. to choke on liquid by hitting them	<i>wouma</i> drink in stages (i.e. get drunk)

CHART 13: DERIVATIONAL PREFIXES WITH VERBS OF CORPOREAL FUNCTION

¹*Ani* is the object focus form. *Am* is the action focus form. This is the only case in Tawala where this distinction is lexicalised.

- (118) *Hanali uyahina yaniyani o-n(a)-upum-i ma*
 food.house at food you.PL-INT-heap-it then
o-na-wo-am.
 you.PL-INT-DP-eat
 Pile the food in your storehouse to eat over the following months.
- (119) *Hi-wo-uma po hi-buuwa.*
 they-DP-drink and they-mad
 They kept drinking and got drunk.

4.4 HUMAN PROPENSITY CLASS

With human propensity words we begin looking at closed word classes – classes which are no longer open to the productive introduction of new items, unlike nouns, adjectives and verbs (cf. example (3) above). The human propensity class is treated by R.M.W. Dixon (1977) as one of his seven universal classes of adjectives. The remaining six adjective classes all appear as adjectives in Tawala (see section 4.2).

Human propensity is expressed in Tawala by a unique class of idiomatic words. Each lexical item is composed of a compound stem in which the first element is a body part and the second a descriptive root. There are over 70 lexical items connected with *nugo* ‘heart’, for example:

<i>nugo-gului</i>	forget	(heart-bury)
<i>nugo-dubu</i>	be sad	(heart-dust)
<i>nugo-dumoli</i>	be tranquil in oneself	(heart-calm)
<i>nugo-hegohegoya</i>	be unruffled by others	(heart-smooth)
<i>nugo-apatoe</i>	be angry	(heart-bad)
<i>nugo-kadidili</i>	have strong convictions	(heart-hard)

Caution is needed in the translation of such idioms. It would be all too easy to think of *nugo-kadidili* (heart-hard) as ‘*lacking in pity’ and thus being an undesirable quality (as early missionaries did), whereas it really means just the opposite – ‘to have a stable character’. Once, at a funeral, I heard a man from a neighbouring language saying over and over again that he was *nugo-apatoe* (heart-bad) ‘angry’ when he meant *nugo-dubu* (heart-dust) ‘sad’. I later discovered that the equivalent idiom (heart-bad) in his Bunama language did in fact mean ‘sad’.

There are about ten words connected with *hini* ‘skin’, for example:

<i>hini-dagihana</i>	have sexual desire	(skin-tasty)
<i>hini-doodola</i>	be promiscuous	(skin-touchy?)
<i>hini-maya</i>	be ashamed	(skin-feel?)

There are even fewer words connected with *mata* ‘eye’:

<i>mata-kaya</i>	be fighting sleep	(eye-red)
<i>mata-maga</i>	be promiscuous	(eye-many)
<i>mata-pota</i>	be sleep	(eye-shut)

This category should probably be considered a formal part of speech in its own right, as these words are unique in semantics, form and morphosyntactic structure.

A weakness of Dixon's (1977) paper arises from the shortage of languages with an open class of adjectives as his sample. In his data only Dyirbal and English had open classes. There appears to be no a priori reason why all languages with open adjectival classes should follow English and Dyirbal in assigning all seven semantic types to the adjective semantic class. Yet for a strongly adjective-dominated language, Dixon (p.62) believes "the seven types are exclusively associated with a single part of speech, the adjective class".

However, Tawala and other languages of Milne Bay assign human propensity to a special class which probably should be regarded as a separate part of speech in its own right. A study of the properties of the human propensity class in English (for summary see Dixon 1977:32, Table 1) reveals that this class differs from the other classes in a number of important ways:

- (a) Unlike all other adjective semantic classes, human propensity does not typically form antonym pairs or complement sets.
- (b) Derivation with *un-* is highly productive only with the human propensity class (e.g. 'unkind', 'unhappy' etc.)
- (c) The use of the *-ish* suffix is rare with the human propensity class, but productive elsewhere.

There are other distinct differences presented in Dixon's paper, but sufficient has been said to show that we are dealing with a distinct subclass of adjectives in English.

In footnote 51 Dixon (p.78) makes reference to Yidin^y, a northern neighbour of Dyirbal:

This language has an open class of adjectives, covering *almost* exactly the same semantic ground as the Dyirbal class. But Yidin^y has some HUMAN PROPENSITY nouns – e.g. *bimbir* 'jealousy' – from which adjectival forms can be derived by the comitative suffix *-d^yi* 'with'.

Again we find a language giving special treatment to the human propensity class.

The Tawala data may thus point us in the right direction to correctly interpret the English, Dyirbal and Yidin^y. It is possible that human propensity may occur as a subclass of verbs or nouns, even in an adjective-dominated language; or the properties of the class may be such that it requires being assigned to a part of speech of its own, which is how I have placed human propensity in Tawala. This also helps solve the problem of classifying this class as verbs, when a number of the stems are in fact nouns and can only function as verbs by the addition of derivational prefixes.

The psychological words in Chart 14 have been chosen to illustrate the human propensity class. They fall into two classes:

Class 1 are stative verbs, and all undergo a transformation similar to the following example:

<i>a-nugo-apapoe</i>	—>	<i>nugonugo-u i-apapoe</i>
I-mind-bad		mind-my it-bad
I am angry		I am angry

In the second form the 'agent' takes less responsibility; it literally means 'my mind is angry'.

Class 2 are nouns and can only function as verbs by the addition of a derivational prefix, for example:

<i>nugoneina</i>	—>	<i>i-wi-nugoneina</i>
ignorance		he-DP-ignorance
ignorance		he was ignorant

These two classes are useful in distinguishing various uses of derivational prefixes as seen in Chart 14.

The *wi* prefix with Class 1 seems to mean ‘to demonstrate a state by words’. This is an extension of the common meaning ‘to be in a state’:

<i>wi-nugodewadewa-hi</i>	show them peace	(<i>nugodewadewa</i> show peace)
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With Class 2 words the *wi* prefix is used with the common meaning ‘to be in a state’:

<i>wi-nugoneina</i>	be ignorant	(<i>nugoneina</i> ignorance)
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The *lu* prefix means ‘to cause a state – by actions’ which is the common meaning as it applies to all human propensity words which take the prefix:

<i>lu-nugoapapoe-ge-hi</i>	make them angry	(<i>nugoapapoe</i> anger)
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The *li* prefix is used with Class 1 stems with the meaning ‘to cause a state – by empathy’ which is also the common meaning for this prefix. ‘Empathy’ involves the inspiration and encouragement of seeing an example, and hence the encouragement of others to follow that example:

<i>li-nugohegoya-hi</i>	cause contentment	(<i>nugohegoya</i> contentment)
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With Class 2 stems *li* is not productive and the meanings are idiomatic:

<i>li-nugoneina-hi</i>	be ignorant about things	(<i>nugoneina</i> ignorance)
<i>li-nugoemota-hi</i>	bring them together	(<i>nugoemota</i> unity of mind)

With the *wo* prefix both Class 1 and Class 2 stems have the common meaning ‘to persistently demonstrate a state’:

<i>wo-nugodubu</i>	keep mourning	(<i>nugodubu</i> sadness)
<i>wo-nugoneina</i>	be slow in learning (persist in ignorance)	(<i>nugoneina</i> ignorance)

Typical examples:

- (120) *Ma lawa ugoli-hi tauna i-wi-nugodubu po ugoli-n-ei*
also people to-them himself he-DP-sadness and to-it-from

lawa hi-nugodubu.

people they-sadness

He was so sad that he made the people sad.

- (121) *Tu wi-nugototogo o-na-lu-nugotootogo.*
person DP-poor you.PL-INT-DP-mercy
To the poor, show mercy.

- (122) *Tauna tu nugodewa yaka i-wi-nugodewadewa-hi.*
himself person peace consequently he-DP-peace-them
He is a peaceful person and so showed them how to be peaceful.

stem		<i>wi</i> -S-(O ¹) Cl 1 demonstrate a state by words ² Cl 2 stative verb	<i>lu</i> -S-(DAT)-O cause state – by actions	<i>li</i> -S-O Cl 1 cause a state – by empathy Cl 2 idiomatic	<i>wo</i> -S2-(^{DAT-O} _{O¹}) persistently demonstrate a state
Class 1					
<i>nugodcwa</i>	peace	<i>winugodcwadcwa</i> (<i>hi</i>) show peace	<i>lunugodcwadcwahi</i> make them peaceful	<i>linugodcwadcwahi</i> cause peace	<i>wonugodcwa</i> (<i>ya</i>) keep showing peace
<i>nugoapapoc</i>	anger	<i>winugoapapoc</i> (<i>nihi</i>) show anger	<i>lunugoapapocgchi</i> make them angry	<i>linugoapapochi</i> cause anger	<i>wonugoapapoc</i> (<i>gcya</i>) keep showing anger
<i>nugohcgoya</i>	contentment	<i>winugohcgoya</i> (<i>hi</i>) show contentment	<i>lunugohcgohcgoyahi</i> make them content	<i>linugohcgoyahi</i> cause content	<i>wonugohcgoya</i> (<i>ya</i>) keep showing contentment
<i>nugogului</i>	forget	<i>winugogului</i> forget words	<i>lunugoguluihi</i> make them forget	<i>linugogului</i> cause things to be forgotten	<i>wonugogului</i> forget little by little
<i>nugodubu</i>	sadness	<i>winugodubu</i> show sadness	-	<i>linugodubui</i> cause sadness	<i>wonugodubu</i> (<i>gcya</i>) keep mourning
Class 2					
<i>nugoncina</i>	ignorance	<i>winugoncina</i> be ignorant of word	-	<i>linugoncinahi</i> be ignorant of things	<i>wonugoncina</i> be slow to learn
<i>nugocmota</i>	singleness	<i>winugocmota</i> agree	<i>lunugocmoti</i> work together	<i>linugocmotahi</i> bring them together	<i>wonugocmota</i> (<i>hi</i>) bring people closer together
<i>nugoluwaluwaga</i>	uncertainty	<i>winugoluwaluwaga</i> be uncertain of right thought	<i>lunugoluwaluwaga</i> be uncertain about actions	-	<i>wonugoluwaluwaga</i> follow two paths, be schizophrenic
<i>nugototogo</i>	poverty	<i>winugototogo</i> be needy	<i>lunugotootogo</i> show mercy	-	-
<i>nugotuhu</i>	thought	<i>winugotuhu</i> think	-	-	<i>wonugotuhu</i> (<i>ya</i>) keep thinking

CHART 14: DERIVATIONAL PREFIXES WITH HUMAN PROPENSITY CLASS

¹*Hi* is plural form 'them' i.e. 'people'.²These have an optional transitive form, given in brackets.

- (123) *Bada i-wi-nugohegoya-u.*
man he-DP-content-me
The man calmed me down.
- (124) *A-laun-i po a-li-nugoapapoe-ya.*
I-hit-him and I-DP-anger-him
I hit him and made him angry.

4.5 NUMBERS

Tawala numbers are a small closed class of words somewhat aligned to adjectives, but showing several distinctive features (cf. section 4.2):

- (a) They are not marked for subject-person agreement, unlike adjectives:

- (125) *Bada banei-hi hi-nae.*
man bid-their they-go
The big men went.
- (126) *Hai tonuga hi-nae.*
their three they-go
The three (men) went.

- (b) They do not have a reduplicated form, unlike most adjectives.

- (c) They function as nouns, both by themselves and with alienable possession clitics:

- (127) *Luwaga he-ma-mae.*
two they.PRES-PROG-stay
There are two remaining.
- (128) *Omi wohepali o-na-nae.*
you.PL four you-INT-go
You four will go.

There are five basic numbers in Tawala:

<i>emois/emota</i>	one
<i>luwaga</i>	two
<i>tonuga</i>	three
<i>wohepali</i>	four
<i>nim(a) i-tutu</i>	five
hand it-joint	

Grammatically, any number higher than that is referred to as *gogo-na* 'together-its'. Referentially it is possible to continue counting by combinations of these basic numerals plus the concept of *olotoi-hilage* 'twenty' (literally 'male he-finish'):

<i>nim(a) i-tutu po emosi</i>	six
hand it-joint and one	
<i>nima luwaga hi-tutu po luwaga</i>	twelve
hand two they-joint and two	
<i>nima tonuga hi-tutu po tonuga</i>	eighteen
hand three they-joint and three	

oloto emosi i-hilage po wohepali twenty-four
male one he-finish and four

Numbers represent the most perfect semantic-syntactic correlation I have discovered in Tawala. In section 3 the general principle was proposed: in so far as two words share significant semantic components so their syntax overlaps. The corollary is also true: in so far as two words have significantly separate components, to that extent their syntax is likely to diverge. Tawala numbers are a paradigmatic example of these principles. The numbers 'two' to 'five' do not differ in any significant way, semantically, and consequently they do not differ in their grammar. Nor are there any of the idiomatic uses found in most charts in this section. The number 'one' differs significantly from the other numbers semantically, involving such significant components as 'leadership', 'priority' and 'excellence' as well as 'number'. The resultant grammatical forms also differ at a number of points. The number 'beyond five' is a different, more generic concept than the specific numbers 'one' to 'five', and its grammar diverges quite significantly in line with the semantic distinction.

Charts 15(a) and 15(b) set out the details of the grammatical forms derived from derivational and classificatory prefixes respectively.

(a) Derivational prefixes

The *wi* prefix with a number forms an ordinal number which functions as an adjective, agreeing with the noun it follows in person and number:

<i>wi-emosi-na</i>	first	(<i>emosi</i> one)
<i>wi-luwaga-na</i>	second	(<i>luwaga</i> two)

The *wi* prefix also derives a transitive verb meaning 'to make something a number' which is considered the common meaning for these roots. These meanings are similar to the 'cause action' meaning common to verbs derived with *wi*:

<i>wi-emot-e-ya</i>	pile things together	(<i>emota</i> one)
<i>wi-luwag-e-ya</i>	make something second	(<i>luwaga</i> two)

The prefix *lu* is used with two different syntactic frames, involving the meaning 'to grow together in a bunch' and 'hit or spear a number'. These uses are similar to the meaning associated with nouns, 'to hit noun' and 'to collect item':

<i>lu-luwaga-na</i>	grow in a bunch of two	(<i>luwaga</i> two)
<i>lu-luwag-e-hi</i>	hit or spear two	(<i>luwaga</i> two)

The prefix *li* does not occur with numbers.

The prefix *wo* is used with the meaning 'to gather a number' or 'to hold a number in that hand'. This latter meaning is a common meaning of *wo* with a number of word classes:

<i>wo-luwag-e-ya</i>	gather two	(<i>luwaga</i> two)
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(b) Classificatory prefixes

Data are included in Chart 15(b) for the use of numbers with classificatory prefixes and the little-used *om* derivational prefix, because of the distinctive nature of these prefixes with numbers. Thus while there is nothing particularly distinctive in the use of derivational prefixes in distinguishing this semantic field of roots, there certainly is with the following prefixes.

The prefix *om* is, of course, a derivational prefix, largely omitted from this thesis because of its failure to be productively used with most of the roots introduced in this section. With numbers it is productive and has the distinctive meaning 'number to be caught on a hook':

hi-(o)mluwaga two were caught (*luwaga* two)

The four classificatory prefixes are used with the following meanings:

tu step on a number, cover number with feet
tu-luwag-e-hi step on two items (*luwaga* two)

tape break something a number of times, break a number
tape-luwag-e-ya break it twice (*luwaga* two)

hage number go alone
hage-luwaga two go alone (*luwaga* two)

ne number go along together
ne-luwa-luwaga two go together (*luwaga* two)

Typical examples:

- (129) *He-ne-nae mi dimdim po*
 they.PRES-PROG-go from across.the.sea and
he-tu-tu-luwa-luwaga.
 they.PRES-PROG-CP-RED-two
 They (husband and wife) are acting like Europeans and walking together.
- (130) *Iyeta emois i kokoe ma wi-luwaga-na uyahina...*
 day one it finish then DP-two-its at
 On the second day...
- (131) *Mika iyana i-lu-tonug-e-hi.*
 Mika fish he-DP-three-DAT-them
 Mike caught three fish with one throw of the spear.
- (132) *Kama ma Yailo hi-hage-luwaga.*
 Kama and Yailo they-CP-two
 Kama and Yailo have gone alone.

4.6 LOCATIONALS

This small closed class of words includes those words referred to as 'position adjectives' by Dixon. He notes (1977:74):

POSITION can be justified as a further semantic type associated with the class Adjective in English but is most frequently dealt with through Adverbs in other languages, even, when they do have an open Adjective class.

In Tawala they are neither adjectives nor adverbs, but a closed class in their own right. Like adjectives, abstract nouns, inalienable nouns, etc. they are suffixed for person and number agreement of the noun they follow. However, they also stand absolutely as locational nouns by the addition of the prefix *u* 'to, in, at'. The following examples demonstrate something of the range of usage of locationals:

	<i>wi-R-na</i>	<i>wi-R-DAT-O</i>	<i>lu-R-DAT-ya na</i>	<i>lu-R-DAT-O</i>	<i>li-</i>	<i>wo-R-DAT-O</i> ¹
cardinal number	ordinal number	make s.th. a number	grow in bunch ²	hit or spear a number	-	gather a number hold a number in hands
<i>emosi/emota</i> ³ one	<i>wiemosina</i> ⁴	<i>wiemoteya</i> ⁵	<i>luemotana</i>	<i>luemosigeya(-ni)</i>	-	<i>woemoteya</i>
<i>luwaga</i> two	<i>wiluwagana</i>	<i>wiluwageya</i>	<i>luluwagana</i>	<i>luluwagehi</i>	-	<i>woluwageya</i>
<i>tonuga</i> three	<i>witonugana</i>	<i>witonugeya</i>	<i>lutonugana</i>	<i>lulongehi</i>	-	<i>wotonugeya</i>
<i>wohepali</i> four	<i>wiwohepalina</i>	<i>wiwohepaligeya</i>	<i>luwohepalina</i>	<i>luwohepaligehi</i>	-	<i>wowoheraligeni</i> ⁶
<i>nimitutu</i> five	<i>winimitutuna</i>	<i>winimitutugeya</i>	<i>lunimitutugeya</i>	<i>lunimitutugehi</i>	-	<i>wonimitutugeya</i>
<i>gogona</i> together	-	- ⁷	- ⁸	<i>lugogonehi</i> ⁹	-	<i>wogogoni</i>

CHART 15(a): DERIVATIONAL PREFIXES WITH NUMBERS

¹The identical paradigm applies to *hana* 'to hold a number with teeth' or 'to bite a number'.

²These have stative meaning – *wiluwageya* 'to grew together' etc.

³Dialect/age-group distinction, but also the two forms have separate usage with prefixes.

⁴*Tahatahayana* is used for 'first (on trail), be leader'.

⁵*Wicmoteya* means 'to pile things together'.

⁶This *ni* is only a free variant (dialectal) but I have maintained the irregularity as that is how I collected the data.

⁷This concept is handled by *muli-na* 'behind' (lit. 'back-its').

⁸This concept is handled by *puli-na* 'bunch' (lit. 'bunch-its').

⁹*Lugoluhi* is used for 'felling a bunch of coconuts with a stone'.

root		(o)m-R ¹ number to be caught on hook	ru-R step on a number, cover number with feet	tape-R-DAT-O ² break s.th. a number of times, break a number	hage-R number to go alone	ne-RED-R ³ number to go along together
<i>emosi/emota</i> ⁴	one	<i>i'memosi</i>	<i>tuemoteni</i>	<i>tapeemoteya</i>	<i>hageemota</i>	<i>neemoemota</i>
<i>luwaga</i>	two	<i>hi'mluwaga</i>	<i>tuluwagehi</i>	<i>tapeluwageya</i>	<i>hageluwaga</i>	<i>neluwaluwaga</i>
<i>tonuga</i>	three	<i>hi'mtonuga</i>	<i>tutonugehi</i>	<i>tapetonugeya</i>	<i>hagetonuga</i>	<i>netonutonuga</i>
<i>wohepali</i>	four	<i>hi'mwohepali</i>	<i>tuwohepaligehi</i>	<i>tapewohepaligeya</i>	<i>hagewohepali</i>	<i>newohewohepali</i>
<i>nimitutu</i>	five	<i>hi'mnimitutu</i>	<i>tunimitutugehi</i>	<i>tapenimitutugeya</i>	<i>hagenimitutu</i>	<i>neniminimitutu</i>
<i>gogona</i> ⁵	together	<i>hi'mgogona</i>	<i>tugogonehi</i>	<i>tapegogoni</i>	<i>gelugelu</i> ⁶	<i>negogona</i>

CHART 15(b): SOME CLASSIFICATORY PREFIXES WITH NUMBERS

¹I have included the fully inflected form because of vowel loss and the change from singular to plural. *Ona* 'number to be caught in net' can substitute for *om* but does not suffer vowel loss.

²The paradigm also applies to *tupa* 'to hit number'.

³*Ge* 'to cling, go up together' substitutes for *ne*.

⁴Dialect/age-group distinction, but also the two forms have separate usage with prefixes.

⁵*Gogona*, not being a number, does not always follow the formulae for numbers.

⁶*Gelugelu* – probably from the root *gelu* 'to get on board'.

<i>numa hine-na</i>	the inside of a house
house inside-its	
<i>...numa u-hine-na</i>	(it is) inside the house
house at-inside-its	
<i>I-nae u-hine-na.</i>	He went inside (it).
he-go to-inside-its	
<i>u-hine-u</i>	inside me
in-inside-my	

There are two separate classes of locationals:

Class 1 static relationship locations

depict the relationship between items which are stationary.

Class 2 dynamic relationship locationals

depict the relationship between items which are moving.

This semantic distinction is paralleled by differing usage of derivational prefixes, set out in Chart 16.

With static locationals the *wi* prefix is used with a single root and has an idiomatic meaning:

wi-tepa pretend (*tepa* on top)

However, with the dynamic locations the *wi* prefix is productive and means 'move in relation to something':

wi-muli follow (*muli* behind)

The *lu* prefix is productive with both classes of locationals in the sense 'to make a pile in location':

lu-hine-ni pile inside (*hine* inside)

The dynamic aspect is retained with the Class 2 locationals in that the pile is made in respect to (i.e. after) the marriage process:

lu-muli pile (gift) made after marriage (*muli* behind)

The *li* prefix is never productive with these roots.

The *wo* prefix is used only with static locationals and has the sense 'to put hand in location':

wo-gabola put hand underneath (*gabola* under)

Typical examples:

(133) *U-na-tahae-ya po a-wi-muli.*
 you.SG-INT-lead-it and I-DP-behind
 You go first and I will follow.

(134) *Ba-bada hi-wo-tepa-ni.*
 RED-man they-DP-top-him
 The elders laid hands on him.

root	<i>wi</i> -R (1) idiomatic (2) relationship to moving item	<i>lu</i> -R pile in location	<i>li</i> - -	<i>wo</i> -R put hand in location
Class 1 Static relationship				
<i>hine</i> inside	-	<i>luhineni</i> pile inside	-	<i>wohine</i> put hand inside
<i>gabola</i> underneath	-	<i>lugabola</i> pile underneath	-	<i>wogabola</i> put hand underneath
<i>tepa</i> on top	<i>witepa</i> ¹ pretend	<i>lutepanya</i> pile on top	-	<i>wotepani</i> lay hands on
<i>liyaliya</i> near	-	<i>luliyaliyani</i> pile near	-	<i>woliyaliyani</i> place hand near
Class 2 Dynamic relationship				
<i>muli</i> behind	<i>wimuli</i> be behind s.th. moving	<i>lumuli</i> pile made after marriage (gifts)	-	-
<i>nao</i> in front	<i>winao</i> be in front of s.th. moving	-	-	-

CHART 16: DERIVATIONAL PREFIXES WITH LOCATIONALS

¹This is probably *tepa* used in the sense of 'face' i.e. *wi-tepa* 'to make a face'.

- (135) *Yaniyani hi-lu-tepa-ne-ya.*
 food they-DP-top-DAT-it
 They piled food on top.

4.7 RESIDUE

Chart 17 contains those roots which have been found to be productive with the derivational prefixes, but have not, as yet, been assigned to classes such as have been handled in Charts 1–16.

An examination of the data contained in Chart 17 reveals that the roots consist almost entirely of verbs (both transitive and intransitive) and that many of the meanings of the derived forms are similar to those encountered with the more regular data, though there are also many idioms. With the 'priority of semantics' hypothesis, we would expect roots coming from a wide range of semantic fields to appear to have an almost random use of derivational prefixes with a wide variety of form and meaning, and this is indeed what we have with Chart 17, which contrasts sharply with the order found in all the charts based on items from a single semantic field. Thus we find here a negative confirmation of the hypothesis in the lack of correlation between semantics and syntax.

Almost half of the roots contained in the residue are among the verbs of highest occurrence in everyday conversation. In addition the verbs derived from these roots often have quite distinctive meanings not yet encountered in the regular data. The combination of these two facts was largely responsible for early lack of progress in controlling derivational prefixes. With a systematic approach to a larger corpus of data the residue was able to be viewed in perspective and assigned a relatively unimportant role in the resultant schema.

As detailed comments on all 26 roots of Chart 17 would involve a very lengthy and somewhat tedious end to this data section, I have, instead, selected four of the most common roots to illustrate the major conclusions which can be drawn.

(a) *bagibagi* work

This word is so common that it is often the first word people recognise as a recurring partial when listening to Tawala. It is basically the noun 'work', though it does occur in restricted contexts as a verb:

- | | | | |
|-------|---------------------|----------|---------------------|
| (136) | <i>Ta-bagibagi!</i> | but not: | <i>*Hi-bagibagi</i> |
| | we.INC-work | | they-work |
| | Let's work! | | |

The *wi* prefix is used with the unique meaning 'to use a tool' and includes the sense of the English 'to borrow':

- (137) *Ilama a-wi-bagibagi-ye-ya mayau ugoli-na.*
 axe I-DP-work-DAT-it tree at-it
 I am using the axe to cut the wood.

This meaning has been found with only one other word. It is another residue word belonging to a closely related semantic field:

wi-hagu-ge-ya to use something (hagu help)

The root *bagibagi* does not occur with the *lu* and *li* prefixes, however, it does occur with *wo*, where it functions as a verbaliser. The usual meaning, where the derived verb 'involves hands or persistent action', has been lost and the verb is simply the generic verb 'to work':

- (138) *Apo lawa ega i-na-wo-bagibagi...*
 FUT person NEG he-INT-DP-work
 If a person won't work...
- (139) *Kewokewou a-wo-bagibagi-ye-ni.*
 canoe I-DP-work-DAT-it
 I made a canoe.

(b) *baha* talk

This root does not occur with the *wi* prefix, but it does with the other three prefixes. The form derived with *lu* means 'to boast' and in line with the general meaning 'verb involves physical movement' the person 'boasting' uses wild gesticulations (see section 3.3 for a fuller definition).

- (140) *Bada e-lau-baha-baha.*
 man he.PRES-DP.PROG-RED-talk
 The man is boasting.

With the *li* prefix *baha* is used with the meaning 'cause someone to start talking':

- (141) *Natani ba-bada e-lai-baha-hi.*
 Nathan RED-men he.PRES-DP.PROG-talk-them
 Nathan caused the men to start talking.

This meaning of 'to start something' is found with only one other root, which also belongs to the residue:

<i>li-dagu-ya</i>	start something	(<i>dagu</i>	?
		<i>widagudagu</i>	wriggle)

The *wo* prefix with *baha* is used in line with the common meaning 'persist in action' and means 'to continually boast or complain':

- (142) *Bagibagi e-woo-bahe-bah-e-ya.*
 work he.PRES-DP.PROG-RED-talk-DAT-it
 He is always complaining about the work (to be done).

(c) *hilage* be finished, die

This root has a distinction between the *wi* and *li* prefixes not attested with any other roots:

<i>wi-hilage</i>	kill by sorcery
<i>li-hilage</i>	kill physically

The first meaning is in line with the common meaning which occurs with adjectives, 'to cause condition (socially)', as 'social' action often involves the spoken word, which is also true of sorcery. However, it is most unusual to have *li* used for 'physical contact' (the general meaning of *lu*). However, this may be because *lu* already had an idiomatic meaning of its own:

<i>lu-hilage</i>	be exhausted
------------------	--------------

The meaning with *wo* is also similar to that with *lu*, except that the implication in line with the common meaning is that the state is the result of persistent action:

wo-hilage be worn out

The following examples present *hilage* with the four prefixes in the order presented above:

(143) *Lawa tula-na balau-gei i-wi-hilage-ni.*
 person friend-his sorcery-INST he-DP-die-him
 The man killed his friend by sorcery.

(144) *Mika kamkam ilama-gei i-li-hilage-ni.*
 Mika chicken axe-INST he-DP-die-it
 Mika killed the chicken with an axe.

(145) *A-lu-hilage.*
 I-DP-die
 I am exhausted. (after pushing a car)

(146) *Wiyuwa-na a-wo-hilage.*
 pain-that I-DP-die
 I am worn out with the pain.

(d) *hogoya* be full

The prefixes *wi* and *li* with this root change the stative verb into the active form:

wi-hogoya }
li-hogoya } fill something

The distinction between these two forms is difficult to pin down, but *lihogoya*, in addition to meaning 'to fill something', also means 'to pour out':

(147) *Goila hipuli i-li-hogoya babana tanki i-gunanagili.*
 water ground it-DP-fill because tank it-break
 The water poured out on the ground because the tank got a hole in it.

The following examples illustrate the distinction between these two verbs:

(148) *Goila/baketi u-na-wi-hogoya.* **Goila/baketi u-na-li-hogoya.*
 water/bucket you-INT-DP-fill water/bucket you-INT-DP-fill
 Fill the water/bucket.

(149) *Goila hoi baketi u-na-wi-hogoya / *u-na-li-hogoya.*
 water in bucket you-INT-DP-fill / you-INT-DP-fill
 Fill the bucket with water.

(150) *Baketi goil(a)-ei u-na-li-hogoya / *u-na-li-hogoya.*
 bucket water-INST you-INT-DP-fill / you-INT-DP-fill
 Fill the bucket with water.

The prefixes *lu* and *wo* do not occur with this root.

root		wi-	lu-	li-	wo-
<i>bagibagi</i>	work	<i>wibagibagi</i> use a tool	-	-	<i>wobagibagi</i> work
<i>baha</i>	talk	-	<i>lubaha</i> boast	<i>libahaya</i> start s.o. talking	<i>wobahabaha</i> continually boast, complain
<i>daada</i>	dawdle	<i>widaadaya</i> walk s.o.	-	-	<i>wodaada</i> practise walking
<i>dadana</i>	inspect	<i>widadani</i> try s.th.	<i>ludadani</i> test s.o.	-	-
<i>(dagu)</i>	-	<i>widaguya</i> move s.th.	-	<i>lidaguya</i> start s.o.	-
<i>gayo</i>	bc in water	<i>wigayoya</i> immerse s.th.	-	<i>ligayoya</i> wet s.th.	-
<i>guyau</i>	chief	<i>wiguyougeya</i> treat as chief	<i>luguyougeya</i> ridicule, mock	-	-
<i>hagu</i>	help	<i>wihaguceya</i> use s.th.	-	-	<i>wohaguya</i> help s.o. in task
<i>halcy</i>	throw s.th.	<i>wihalcy</i> remove s.th.	<i>luhalcy</i> exchange places with s.o.	-	<i>wohaleya</i> let s.th. go
<i>hepa</i>	beach boat	<i>wihcpaya</i> run boat aground	<i>luhcpaya</i> dig up vegetables	-	<i>wohcpaya</i> raise s.th.
<i>hilagc</i>	die, bc finished	<i>wihilageni</i> kill – sorcery	<i>luhilagc</i> be exhausted	<i>lihilageni</i> kill – physically	<i>wohilage</i> be worn out
<i>hiyaw</i>	count s.th.	<i>wihiyawi</i> read s.th.	<i>luhiyahiyawa</i> recount the past	-	<i>wohiyahiyawa</i> read/count rapidly
<i>hocya</i>	open s.th.	-	<i>luhochoc</i> be untied	-	<i>wohocya</i> dismantle s.th.
<i>hogoya</i>	bc full	<i>wihogoya</i> fill s.th.	-	<i>lihogoya</i> pour out on ground	-
<i>holi</i>	pull in	<i>wiholahola</i> sexual intercourse	<i>luholi</i> furl a sail	<i>liholi</i> scatter s.th. to multiply it	<i>woholi</i> take s.th. from a hole
<i>hunaya</i>	urge s.o. on	-	-	<i>lihunaya</i> urge s.o. by actions	<i>wohunahunaya</i> urge with whispers
<i>lawi</i>	jerk s.th.	<i>wilawi</i> hit/kill s.th.	<i>lulawi</i> break s.th. off with hooked stick	-	<i>wolawi</i> break s.th. off by hand
<i>lougo</i>	sing, yank a line	<i>wilougo</i> knock	-	<i>lilougo</i> hit s.th. again	<i>wolougo</i> persist in hitting
<i>pati</i>	bc patched	<i>wipati</i> stick s.th.	-	<i>lipati</i> stick s.th. up	<i>wopati</i> stick many things
<i>pili</i>	bc rolled	<i>wipilipili</i> speak riddles	<i>lupilipili</i> hit with instrument	<i>lipilipili</i> make mistake	<i>wopilipili</i> crumple s.th.
<i>popoya</i>	join s.th.	-	<i>lupopoya</i> join string	-	-
<i>poyaya</i>	heat s.th.	<i>wipoya</i> be/become hot	<i>lupoyaya</i> apply heat/medicine to s.o.	<i>lipoyaya</i> heat s.th. on fire	<i>wopoyaya</i> heat s.th. by hand
<i>tomatoma</i>	bc inspired	-	<i>lutomatoma</i> talk like foreigner	<i>litomatomaya</i> lack s.th. (salt)	-
<i>wiwila</i>	go round	-	<i>luwilawila</i> ask many questions	-	<i>wowilawilaya</i> mix things together
<i>(yadaga)</i>	-	-	<i>luyadagi</i> hit s.th. blindly	-	<i>woyadaga</i> search in the dark
<i>yagi yagina</i>	quickly	<i>wiyagi yagineya</i> bring s.th. fast	<i>luyagi yagina</i> do s.th. in a hurry	-	<i>woyagi yagineya</i> carry s.th. quickly

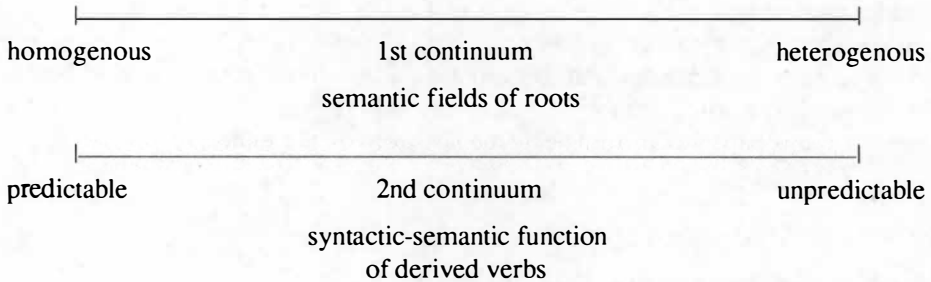
CHART 17: DERIVATIONAL PREFIXES WITH SUNDRY ROOTS

4.8 SUMMARY

A semantic continuum of data has been presented in this section. At one extreme, data were presented from homogenous semantic fields, with the prototypical example being the number roots (4.5). At the other extreme, data were presented from heterogenous semantic fields which had little in common with each other, the prime examples being four roots illustrated in the residue section (4.7). In between these two extremes were numerous semantic fields within which roots show varying degrees of homogeneity of semantic content.

A second and parallel syntactic-semantic continuum has been mapped onto the above semantic continuum (as illustrated in Table 15). The second continuum is parallel to the first in the sense that its degree of predictability has been shown to be in direct proportion to the homogenous nature of the semantic continuum.

TABLE 15: THE RELATIONSHIP BETWEEN THE SEMANTIC FIELDS OF ROOTS AND THEIR DERIVED VERBS



The second continuum involves predictable patterns in the use of the four derivational prefixes (*wi*, *lu*, *li* and *wo*) in common use with Tawala roots. Attempts to find a general meaning for these prefixes resulted in only vague and not very useful definitions. However, once the focus of attention was concentrated on the meaning of the prefixes with specific word classes, common meanings were found to which the majority of the data bear recognisable resemblance. Thus even at this stage we observed a confirmation of the thesis that 'in so far as two words share significant semantic components, so their syntax overlaps'.

At one extreme of the second continuum are sets of derived verbs which share identical syntactic-semantic functions. The prototypical examples are the derived verbs which are formed from the semantic field containing number roots (4.5). Thus the highly predictable end of the derived verb continuum corresponds to the homogenous end of the semantic field continuum.

The other extreme of the second continuum consists of derived verbs from isolated roots with unique syntactic-semantic functions. The prime examples are the derived verbs associated with the residue. Little or no correspondence is found to exist between these derived forms (4.7). It is no accident that these unpredictable sets of derived verbs correspond to the heterogenous semantic fields of their roots, for in both the irregular data and the regular data we see clear evidence for the thesis stated above, and a confirmation that there is indeed a priority of semantics in the operation of Tawala verb derivation.

5. CONCLUSION

It has not been possible in a paper of this size to handle all aspects of Tawala derivational prefixes. The main casualty has been the syntactic treatment of the derived verbs. However, insights have been gained into even this aspect of the subject, pointing to fruitful avenues for future research.

The main advance has been in the systemisation of derived verbs in relation to the semantic fields of their roots; for, while efforts directed at finding the 'general' meanings for the derivational prefixes proved only marginally successful, the meaning of each prefix when combined with roots from a specific semantic field were found to be highly predictable. In addition, the general agreement of these meanings within the various word classes enabled me to successfully posit 'common' meanings for each prefix as used with all the roots within a word class. Divergences from this common meaning were noted where appropriate, however these divergences were found only in a minority of data, and often only one or two idiomatic examples. Thus the data were reduced from chaotic to manageable proportions, making language learning within the grasp of the outsider.

Besides unlocking some of the mysteries of Tawala data, I hope that this paper may also inspire some of my colleagues working on Milne Bay languages, and perhaps even further afield, to take up the challenge and pay more rigorous attention to an area of language so easily dismissed in a trite fashion. I am sure that such studies will be amply rewarded, for I am aware that this paper is far from being the last word on the subject.

APPENDIX 1: Muyuw derivational prefixes

Material culled from Lithgow (1974) (stress omitted).

(a) *v/va*¹

<i>vasus (vses)</i>	suckle a child	(<i>sus</i>	breast)
<i>vatow (vtow)</i>	stand it up	(<i>tow</i>	stand, stand away)
<i>vvag</i>	keep doing it	(<i>vag</i>	do, make)
<i>vtok</i>	criticise, slander, complain about him	(<i>tok</i>	bury, lead by hand)
<i>vtam</i>	ask permission for it	(<i>tam</i>	agree, consent)
<i>vnavek</i>	become a senior/old woman	(<i>tovek</i>	grow old)
<i>vapel</i>	cross it on foot, step over something	(<i>pel</i>	jump)
<i>vakun</i>	tread in his footprints	(<i>kun</i>	trade in kula)
<i>vanoy</i>	farewell him on foot	(<i>noy</i>	go on that road)
<i>vap(w)</i>	step on it and break it		
<i>vapwapwel</i>	stand on it and squeeze stuff out of it	(<i>pwapwas</i>	soft, easy)

¹ *va-* may be simply a classificatory prefix and *v-* a derivational prefix.

(b) *ya*

<i>yakawn</i>	praise	(<i>kaves</i>	praise)
<i>yabin</i>	crowd round and force	(<i>sibin</i>	force into a corner)
<i>yabik</i>	dirty it	(<i>bik</i>	to be dirty)
<i>yabol</i>	make a mistake and spoil it	(<i>bol</i>	confused, wrong)
<i>yadumwal</i>	to discipline	(<i>dumwal</i>	go straight)
<i>yagay</i>	scoff, jeer	(<i>yeg</i>	scoff, jeer)
<i>yageg</i>	spoil, damage	(<i>geg</i>	to be bad)
<i>yamlik(w)</i>	start something moving	(<i>lik(w)</i>	untie)
<i>yamov</i>	save someone's life	(<i>katimov</i>	hit but not kill someone)
<i>yamwen</i>	lift	(<i>mwen</i>	ascend)
<i>yasiblut</i>	startle someone	(<i>sibilut</i>	startle)
<i>yatapip</i>	sleep on floor	(<i>tapip</i>	lie on floor)

(c) *ka*

<i>kabak</i>	bald	(<i>bak</i>	baldness)
<i>kabut</i>	summons, call for work	(<i>but</i>	make noise)
<i>kalag</i>	harvested food	(<i>lag</i>	go up)
<i>kalog</i>	gather food	(<i>log(w)</i>	pile in heaps for distribution)
<i>kawot</i>	wave breaks	(<i>wot</i>	cut big logs)
<i>kabalawein</i>	mad, senseless, stupid	(<i>balawein</i>	mad)
<i>kabayay</i>	wide opening	(<i>babayay</i>	wide opening)
<i>kadumwal</i>	show the right path	(<i>dumwal</i>	go straight)
<i>kalgutan</i>	one pile divided in portions for distribution	(<i>lagutan</i>	one pile)
<i>kalouvat</i>	meet	(<i>louvat</i>	meet)

(d) *kata*

<i>katabuyav</i>	make to bleed	(<i>buyav</i>	blood)
<i>katadumwal</i>	make it straight, go straight	(<i>dumwal</i>	go straight)
<i>katagayay</i>	scatter	(<i>gayay</i>	disintegrate, disappear)
<i>katageg</i>	not hit him properly	(<i>geg</i>	to be bad)
<i>katagimeg</i>	clean dirt off something	(<i>gimagim</i>	clean)
<i>katagulek</i>	wreck, destroy	(<i>katagulek(w)</i>	wreck, destroy)
<i>katakin</i>	choose, sort out	(<i>kin</i>	look at)
<i>kataligen</i>	listen	(<i>ligen</i>	hear, heed)
<i>katamkul</i>	make something sink	(<i>mukul</i>	submerge)
<i>katavis</i>	burst open	(<i>vis</i>	strip something into shreds)

(e) *ta*

<i>tamav</i>	do nothing	(<i>simav</i> (<i>mav</i>	stay doing nothing) without reason)
<i>tabod</i>	block it off	(<i>sibod</i>	block, obstruct)
<i>taboul</i>	cut a hole in it	(<i>kayboul</i>	poke a hole through it)
<i>tabwed</i>	block it	(<i>sibwed</i>	block, obstruct, stand in road of)
<i>tadadog</i>	weigh him down with heavy load	(<i>dadog</i>	crooked)
<i>tadamoms</i>	stand erect	(<i>damoms</i>	taut, straight, unsagging)
<i>tadidul</i>	scratch it	(<i>kaydidul</i>	scratch)
<i>tagiyeil</i>	demolish hill	(<i>giyeil</i>	landslide)
<i>takop(w)</i>	scrape rubbish into heaps	(<i>kop(w)</i>	get pregnant)
<i>takwen</i>	exchange	(<i>kwen</i>	catch with rope or sorcery)
<i>tamumug(w)</i>	leader	(<i>mug</i>	go ahead)
<i>tasinal</i>	avoid someone	(<i>sinal</i>	avoid someone)
<i>tasiyas</i>	those people	(<i>siyas</i>	those)
<i>tawlat</i>	teenage boy	(<i>wlat</i>	teenager dressed up)

(f) Multiple use of a single root:

<i>dumwal</i>	go straight
<i>kadumwal</i>	show the right path
<i>katadumwal</i>	make something go straight
<i>yadumwal</i>	to discipline

APPENDIX 2: Iduna derivational prefixes

Material culled from Hockett (1982).

(a) *ve*

<i>ve?abaga</i>	live with someone	(<i>abaga</i>	place of doing things)
<i>ve?afa</i>	go down into soil	(<i>afana</i>	seed)
<i>ve?agetoga</i>	become a servant	(<i>agetoga</i>	menial servant)
<i>ve?avalana</i>	load someone up	(<i>avalana</i>	carry on shoulder)
<i>vebalauma</i>	become a spirit	(<i>balauma</i>	spirit, ghost)
<i>vebe?una</i>	drop something from hand	(<i>be?u</i>	fall down)
<i>vebulubulu</i>	get black (of yam)	(<i>bulubulu</i>	black pig)
<i>vebwaneni</i>	become dirty	(<i>bwanene</i>	dirt)
<i>vedamana</i>	adopt, copy	(<i>damana</i>	to cross river etc.)
<i>vehifuga</i>	conceive	(<i>hifuga</i>	pregnant)
<i>vekaliva</i>	become a man	(<i>kaliva</i>	man)

(b) *lu*

<i>lu?afu?ano</i>	charm (yams)	(<i>afu?a</i>	magic charm) (sung)
<i>lu?afuna</i>	hold something big under arm	(<i>afuna</i>	put handle on knife)
<i>lu?alala</i>	sing	(<i>alala</i>	songs)
<i>lu?avala?eya</i>	carry on shoulder	(<i>avalana</i>	carry on shoulder)
<i>lubaiba</i>	put in crosswise log	(<i>bai</i>	crosswise stick)
<i>lubaibodana</i>	close off with <i>bai</i>	(<i>boda</i>	close off)
<i>lubaikuna</i>	pierce something upright	(<i>kuna</i>	push stick in)
<i>lubalena</i>	make terraces	(<i>balebalena</i>	lying down horizontal)
<i>lubodana</i>	close book	(<i>boda</i>	enclose, block)
<i>lufifina</i>	draw circle	(<i>fifi</i>	curl round)
<i>lufuwana</i>	hatch, break open (egg)	(<i>fuwana</i>	break, crush)

(c) *ki*

<i>ki?amo?amona</i>	mould, fashion with hands	(<i>amana</i>	mould (clay))
<i>kibahina</i>	throttle, strangle	(<i>bahibahi</i>	small clam)
<i>kibakabalina</i>	pick to pieces (bird, of nest)	(<i>bakalina</i>	disintegrate)
<i>kibalebalena</i>	hold horizontally	(<i>balebalena</i>	lying down horizontal)
<i>kibodana</i>	enclose underpart of house, blot out (sun)	(<i>boda</i>	enclose, block)
<i>kibwadina</i>	patch a hold	(<i>bwadina</i>	patch)
<i>kibwa?ena</i>	touch something	(<i>bwa?ena</i>	touch)
<i>kidalina</i>	make dam	(<i>dalina</i>	plaster nest)
<i>kifanina</i>	misjudge	(<i>fanifani</i>	ignorant)
<i>kihawahawa</i>	count	(<i>hawana</i>	count)
<i>kihobuye</i>	turn lamp down, lower (of reputation)	(<i>hobu</i>	go down)

(d) *ai*

<i>aiyega</i>	clearing	(<i>yegayega</i>	get clean)
<i>aibabala</i>	accusation of flirting	(<i>babala</i>	charm)
<i>aibawe</i>	crawl	(<i>bawe</i>	pig)
<i>aiboda</i>	cover drum with skin	(<i>boda</i>	close in, block)
<i>aibo?u</i>	stack bundle	(<i>bo?u</i>	bundle, stack)
<i>aibubuna</i>	creation, making	(<i>bubuna</i>	make, create)
<i>aidaba(na)</i>	bring to a close	(<i>dabana</i>	bring to end)
<i>aidaka</i>	break away, divide (bananas)	(<i>dakana</i>	break away, divide (banana))
<i>aidobo</i>	break off (of tree)	(<i>dobona</i>	break off)

(e) *luve*

<i>luvealika</i>	kill	(<i>alika</i>	die)
<i>luvebowana</i>	dark brown	(<i>bowabowana</i>	black)
<i>luvedamana</i>	switch promised gift, remake something	(<i>damana</i>	to cross (river etc.))
<i>luvedayagina</i>	cause blood to flow	(<i>dayaga</i>	blood)
		(<i>dayagana</i>	his blood)
<i>luvedubana</i>	sprinkle (something)	(<i>dubadubana</i>	wet)
<i>luvefota</i>	be dependent on someone	(<i>fotana</i>	stick to (something)
<i>luvehayahayana</i>	(to) dry hands	(<i>hayahayana</i>	dry)
<i>luve?ivaguna</i>	make new	(<i>ivaguna</i>	new)
<i>luvekilumina</i>	decorate	(<i>kilumina</i>	decorate something)
<i>luvelakavina</i>	pile up	(<i>lakavina</i>	climb (tree), break out on skin)

(f) *kive*

<i>kivebwadina</i>	kill (by rough handling)	(<i>bwadina</i>	patch)
<i>kivebalana</i>	stop, prevent from going	(<i>bala</i>	walk along, cross over)
<i>kivebelona</i>	be bent, bend something	(<i>belo</i>	bend, wrap)
<i>kivebe?una</i>	drop from hand	(<i>be?u</i>	fall down)
<i>kivebutana</i>	make wet by hands	(<i>butabutana</i>	wet)
<i>kivebwanenena</i>	defile, make dirty	(<i>bwanene</i>	dirt)
<i>kivedubana</i>	make wet	(<i>dubadubana</i>	wet)
<i>kivefotana</i>	stick together (with glue)	(<i>fotana</i>	stick to) (of plaster)
<i>kivehelolona</i>	drain liquid	(<i>helolona</i>	drain liquid)
<i>kivefaiwalana</i>	make someone strong	(<i>faiwala</i>	hold strongly)
<i>kive?ihayana</i>	make easy	(<i>ihayana</i>	easy)

(g) *ive* – (general causative)

<i>ivebikana</i>	calm (heart)	(<i>bikana</i>	become pliable)
<i>ivedigagina</i>	sweeten food	(<i>digadigagina</i>	sweet (taste))
<i>ivehifugana</i>	make pregnant	(<i>hifugana</i>	abdomen)
<i>ivehobu</i>	break power of spell (love potion)	(<i>hobu</i>	go down)
<i>ivekabi?ona</i>	to make small	(<i>kabi?ona</i>	small)
<i>ivekoyona</i>	spoil, make bad	(<i>koyona</i>	bad, wrong)
<i>ivekwe?una</i>	to go out (of firebrand)	(<i>kwe?una</i>	extinguish)
<i>ivelakahina</i>	increase (of possessions)	(<i>lakahina</i>	great, large)
<i>ivelaube?una</i>	level a hilly area	(<i>laube?u</i>	flat land)
<i>ivemanavina</i>	tame	(<i>manavina</i>	pliable)

(h) Multiple use of single roots:

<i>boda</i>	close in, block		
<i>aiboda</i>	cover drum with skin		
<i>lubodana</i>	close book		
<i>kibodaboda</i>	rescue		
<i>kibodana</i>	blot out (sun), block (ears)		
<i>lauboda</i>	wait for		
<i>vealaboda</i>	cook to seal blood	(<i>ala</i>	fence)
<i>dobona</i>	break off		
<i>aidobo</i>	break off (of tree)		
<i>ludobona</i>	break on or by something		
<i>kidobona</i>	break firewood (with hands)		

APPENDIX 3: Dobu derivational prefixes

Material culled from J. W. Dixon (1970). General meanings are those supplied by Dixon.

(a) *e/?e*

<i>eqare</i>	to begin something	(<i>qare</i>	source)
<i>?ebotana</i>	become hungry (through fasting)	(<i>botana</i>	become hungry (normally))
<i>?eboda</i>	to place food in baskets	(<i>boda</i>	group)
<i>edebadebana</i>	to argue about who will go first (i.e. appoint a leader?)	(<i>deba</i>	head > (ADJ) <i>debadeba</i>)
<i>egagara</i>	to withhold something	(<i>gagara</i>	be barren)
<i>?egesi</i>	to miss mark	(<i>gesi</i>	(ADV) wrongly)
<i>enatuna</i>	to give birth to...	(<i>natu</i>	child)
<i>ebunina</i>	to capsize	(<i>buni</i>	to roll)
<i>?egesi</i>	to miss the mark	(<i>gesi</i>	wrongly)
<i>emanua</i>	become an animal	(<i>manua</i>	an animal?)
<i>edena</i>	cause to escape	(<i>dena</i>	flee)

(b) *lo*

<i>loaga</i>	debt	(<i>aga</i>	article got on credit)
<i>lobau</i>	replant yams	(<i>bau</i>	yam mound)
<i>lobelulu</i>	make 'pshaw' sound	(<i>belubelulu</i>	to roar) (of bullroarer)
<i>loboda</i>	knot for fastening fish through gills	(<i>boda</i>	group)
<i>lobware</i>	eye of needle	(<i>bware</i>	to pierce)
<i>lobu?una</i>	incestuous marriage	(<i>bu?una</i>	person of same totem)
<i>lodakadaka</i>	be rough to the touch	(<i>daka</i>	rough)
		(<i>dakadaka</i>	scratch something)
<i>lodobwadobwa</i>	speak language badly	(<i>dobwa</i>	cut food into pieces)
<i>loetana</i>	be above	(<i>etana</i>	place above)
<i>loguguya</i>	to exhort	(<i>guguya</i>	to exhort)

(c) *gi* – (1) by hand, (2) by sundry means

<i>giapwesa</i>	protrude from something	(<i>apwesa</i>	put something out)
<i>giata</i>	to do four things	(<i>ata</i>	four)
<i>gianua</i>	to repair house	(<i>anua</i>	house)
<i>gibaula</i>	pinch (and hold)	(<i>baula</i>	still)
<i>gibibi</i>	squeeze something	(<i>bibi</i>	squeeze something)
<i>gibuni</i>	invert, translate something to answer riddle	(<i>buni</i>	roll canoe)
<i>gibubu</i>	to prepare	(<i>bubu</i>	to make)
<i>gibwage</i>	break portion of pot	(<i>bwage</i>	spoil edge)
<i>gidari</i>	sexual abuse	(<i>dari</i>	sexual abuse)

(d) *loe* – (1) to cause to be, (2) to become

<i>loegumwara</i>	finish task or something	(<i>gumwara</i>	be finished)
<i>loegogona</i>	band together	(<i>gogona</i>	gather weapons for fighting)
<i>loegesi</i>	do things wrongly	(<i>gesi</i>	wrongly)
<i>loemwawasa</i>	to kill	(<i>mwawasa</i>	die, faint)
<i>loeowana</i>	cause bewilderment	(<i>owana</i>	be bewildered)
<i>loeparu</i>	make straight	(<i>paruparu</i>	straight)
<i>loesae</i>	place food in pot	(<i>sae</i>	come ashore to lay eggs (of turtle))
<i>loesana</i>	suspend something	(<i>sanana</i>	be suspended)
<i>loesalutua</i>	happen suddenly	(<i>salutua</i>	grow rapidly)

(e) *gie* – (1) cause by hand or finger, (2) cause by other means

<i>giebaila</i>	to make dirty	(<i>baila</i>	be dirty)
<i>giebobo?ana</i>	repair, make good	(<i>bobo?ana</i>	be good)
<i>gieboi</i>	work morning till night	(<i>boi</i>	become dark/light)
<i>giedada</i>	force one's head back	(<i>dada</i>	stare up)
<i>giedau</i>	cause to flow	(<i>dau</i>	run (water))
<i>giededoni</i>	cause to cry	(<i>dedoni</i>	to cry)
<i>giegwamumu</i>	do something difficult	(<i>gwamumu</i>	render someone helpless)
<i>gienua</i>	to defecate	(<i>nua</i>	soft)
<i>gienuana</i>	waver in decision	(<i>nuana</i>	his mind)
<i>gietabe</i>	carry something suspended	(<i>tabe</i>	something to hang suspended)

(f) Multiple use of single roots:

<i>buni</i>	to roll
<i>gibuni</i>	to turn something over, to translate
<i>lobunibuni</i>	to cause to roll, to roll (transitive)
<i>ebunina</i>	to capsize
<i>ebunibuni</i>	to roll (intransitive)

APPENDIX 4: Mota verb prefixes

Data on possible derivational prefixes selected from Codrington (1885:282-284).

<i>va</i>	causative			
	<i>vaesu</i>	to make to live, to save	(<i>esu</i>	to live)
<i>vaga</i>	causative			
	<i>vagaqoqo</i>	to multiply	(<i>qoqo</i>	many)
<i>ge</i>	causative (lit. to make, do, act)			
	<i>me ge esua</i>	saved him	(<i>me vaesua</i>	saved him)
	<i>vat ge lot</i>	make a pestle	(<i>lot</i>	pestle)
	<i>ni we gege loloqou</i>	he acts like a fool		
<i>na</i>	causative (lit. to make)			
<i>va</i>	causative (lit. to go) ²			
	<i>vailo</i>	to visit		
	<i>vatutu</i>	to encounter		
<i>var</i>	reciprocal			
	<i>varvus</i>	beat each other		
<i>ma</i>	passive (Codrington means 'stative' not a true passive.)			
	<i>masare</i>	be torn	(<i>sare</i>	to tear)
	<i>malate</i>	be broken	(<i>late</i>	to break)
	<i>mawora</i>	to come apart	(<i>wora</i>	asunder)
	<i>maluqe</i>	folded	(<i>luqe</i>	to fold)
	<i>malakalaka</i>	to rejoice	(<i>laka</i>	kick up heels)
<i>ta</i>	be thought to have more the meaning of spontaneity			
	<i>tatitio</i>	to stagger		
	<i>taavaava</i>	to miss footing		
<i>sa</i>				
	<i>sasaroro</i>	to come or sink down		
<i>tava (tama)</i>	the condition has come about by itself			
	<i>tavaul</i>	to come untied	(<i>ul</i>	to untie rope)
	<i>tavamesu</i>	to fall down		
	<i>tavaroro</i>	to sink down		
	<i>tavaraka</i>	to rise up		
	<i>tavsare</i>	torn		

² Presumably Codrington distinguished this use of *va* from the first *va* causative on the semantic grounds of movement.

APPENDIX 5: Arosi verb prefixes

Definitions according to Fox (1978) with examples culled from dictionary.

<i>?a</i>	prefix forming adjectives and verbs; rarely past participles		
<i>?a?ahi</i>	incline towards	(<i>?ahi</i>	bank up earth)
<i>?ahiro</i>	keep coming and going	(<i>hiro</i>	go to and fro)
<i>ha</i>	prefix to verbs and adjectives		
<i>haroro</i>	tight, taut (of line)	(<i>roro</i>	pull tight)
<i>hanguru</i>	chatter	(<i>nguru</i>	hum a song or chorus)
<i>ha?a</i>	causative prefix, forming causative verbs, adverbs and adjectives. Not all verbs can take it; and often the meaning appears to be unaltered by the prefix, but in other cases the meaning of the verb is considerably altered. In the remaining cases the meaning is causative.		
<i>ha?a?a?ahi</i>	make incline	(<i>?a?ahi</i>	incline towards)
<i>ha?a?adu</i>	to rake	(<i>?adu</i>	rake garden)
<i>hari</i>	reciprocal prefix...but in some cases the sense is altered...		
<i>harimarumaru</i>	rest in shade	(<i>maru</i>	shade)
<i>haripwari?i</i>	spread false tales	(<i>pwari?i</i>	deceive)
<i>ma</i>	(reduplication <i>maa</i>) conditional prefix often forming a past participle (cf. <i>mwa</i> and <i>mai</i>)		
<i>maangia</i>	be distressed	(<i>angia</i>	cry, sound off)
<i>maagari</i>	to go and see	(<i>gari</i>	to go)
<i>tai</i>	prefix of condition with adjectives and verbs (cf. <i>ta</i>)		
<i>taihiro</i>	to stir up (water)	(<i>hiro</i>	go to and fro (water))
<i>taiduruduru</i>	to be entangled	(<i>duru</i>	tie a knot)
<i>tari</i>	a prefix to adjectives and verbs		
<i>tarihisia</i>	be narrow, confined	(<i>hisi</i>	fish trap, shutting in fish with coconut leaves)
<i>tariho?a</i>	take lone strides	(<i>ho?a</i>	sit with legs apart)
<i>tata</i>	a prefix of condition or continuous action		
<i>tatarahi</i>	to sweep	(<i>rahi</i>	take/pick up from)
<i>tatarau</i>	creep along branch etc.	(<i>rau</i>	leaf)
<i>wai</i>	a prefix to nouns, adjectives and verbs		
<i>waiasinga</i>	to fish or hunt	(<i>asinga</i>	to fish or hunt)
<i>wai?atenga?i</i>	to drive away	(<i>atengi</i>	to send)

APPENDIX 6: Duke of York verb prefixes

Material culled from Brown and Danks (1882). General meanings supplied from the dictionary.

(a) *wa* causative particle

<i>wabalamati</i>	comfort, control the passion	(<i>balamat</i>	restful, lazy (ADJ))
<i>wabaraga</i>	look kindly upon	(<i>baraga</i>	friendly (ADV))
<i>wabenbeni</i>	to lead	(<i>benbeni</i>	to lead)
<i>wadaraka</i>	to lift up the face	(<i>daraka</i>	look up, lift up head)
<i>wadokoi</i>	to kill	(<i>dokoi</i>	dead (ADJ))
<i>wagagai</i>	to hasten	(<i>gagai</i>	quickly (ADV))
<i>wagap</i>	to wound	(<i>gap</i>	blood)
<i>wagarop</i>	to joke, deceive	(<i>garop</i>	characterless, soft)
<i>wagoi</i>	strike a drum	(<i>goigoi</i>	dance)
		(<i>goi</i>	strike)
<i>wagopi</i>	to clothe	(<i>gopi</i>	bind, clothe)
<i>wakaka</i>	to spread/increase	(<i>kaka</i>	creep, crawl)

(b) *ta* prefix making some verbs passive

<i>tabanot</i>	finish (ADJ)	(<i>banotoi</i>	to finish)
<i>taboro</i>	to be broken	(<i>bori</i>	to break)
<i>tabongi</i>	cover with smoke	(<i>bongi</i>	to cover)
<i>tadaraka</i>	openly (ADV)	(<i>daraka</i>	look up)
<i>tadoko</i>	to die (polite term)	(<i>dokoi</i>	dead)
<i>tagago</i>	crawl (snake), be swift	(<i>gago</i>	swift (ADJ))
<i>takaba</i>	to split	(<i>kaba</i>	a cluster)
<i>takado</i>	straight, be straight (passive of <i>kado</i>)	(<i>kado</i>	straight (ADJ))
<i>takudul</i>	broken	(<i>kudul</i>	broken? (ADJ))
<i>takuop</i>	capsized, keel up (ADJ)	(<i>kuopi</i>	upside down)

(c) *we* (1) reciprocal particle prefixed to verbs, (2) nominaliser

<i>wedokoi</i>	choke by twining around	(<i>dokoi</i>	dead)
<i>webarat</i>	meeting place	(<i>barat</i>	in place of)
<i>webolo</i>	carry stick between two	(<i>bolobolo</i>	cross to other side)
		(<i>boloi</i>	across anything)
<i>webukula</i>	to crowd upon	(<i>bukulai</i>	crowd together)
<i>webuta</i>	carry on the back	(<i>buta</i>	carry child on back)
<i>wedaun</i>	one on top of another (ADV)	(<i>dauni</i>	be on top of something)
<i>wedok</i>	payment	(<i>dok</i>	repayment?)
<i>wekalik</i>	tickle each other	(<i>kalik</i>	to tickle)
<i>wekoro</i>	assemble in a place	(<i>koro</i>	assemble)
<i>welapang</i>	(1) give betel nut to visitors (2) exchange betel nut	(<i>lapanga</i>	give betel nut to visitors)

(d) *pam* work, do, hold, take hold of

<i>pam a kabangpai</i>	whiten	(<i>kabang</i>	white)
<i>pam a kotoi</i>	hold fast	(<i>kotoi</i>	hold fast)
<i>pam a pulatai</i>	blinded	(<i>pula</i>	blind person)
<i>pam ruai</i>	finish	(<i>ruai</i>	finish)
<i>pam banotoi</i>	make complete, finish	(<i>banotoi</i>	finish)
<i>pam kadoi</i>	make straight	(<i>kadoi</i>	stretch out)
<i>pam kadopi i</i>	try to do	(<i>kadopoi</i>	try)
<i>pam kingera</i>	catch	(<i>kingera</i>	be caught)
<i>pam kopoi/kopotai</i>	leave some undone	(<i>kopo/tai</i>	miss something)
<i>pam lukun i</i>	bend	(<i>lukun</i>	bend, close)

(e) *pet* about to do

<i>pet bati</i>	enclose	(<i>bati</i>	espouse)
<i>pet biling</i>	go or do slowly	(<i>bilbiling</i>	slow (ADV)
<i>pet garanai</i>	backbite/slander	(<i>garanai</i>	backbite, slander)
<i>pet gati</i>	cause to be taken out	(<i>gati</i>	pull up)
<i>pet lele</i>	bother/importune woman	(<i>lele</i>	good)
<i>pet lukani</i>	have a grudge	(<i>lukan</i>	hold a grudge)
<i>pet paling</i>	rich person	(<i>paling</i>	have property)
<i>pet papai</i>	be able to do	(<i>papai</i>	able (ADV))
<i>pet pilaka</i>	redeem	(<i>pilakai</i>	wrench open the hand)

(f) Multiple meanings with a single root:

<i>dokoi</i>	dead (ADJ)
<i>wadokoi</i>	to kill
<i>wedokoi</i>	to choke by twining around
<i>pam doko</i>	kill, extinguish
<i>takoko</i>	to die (polite term)

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