The Language-Communication System of the Witu Grammar of Culture:  
Part I

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CHART A The four function primes of the primary-relationship system

<table>
<thead>
<tr>
<th></th>
<th>1) Autodependency</th>
<th>2) Interdependency</th>
<th>3) Independency</th>
<th>4) Symbiotic-dependency</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>source prime on which the others depend</td>
<td>conjunctive prime limitation</td>
<td>disjunctive prime extension</td>
<td>productive prime of re-integration of disjuncted parts</td>
</tr>
</tbody>
</table>

CHART B A preliminary definition of the nature of the four function primes of the Primary-relationship system

<table>
<thead>
<tr>
<th></th>
<th>1) The first function prime</th>
<th>2) The second function prime</th>
<th>3) The third function prime</th>
<th>4) The fourth function prime</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Autodependency</td>
<td>Interdependency</td>
<td>Independency</td>
<td>Symbiotic-dependency</td>
</tr>
<tr>
<td></td>
<td>the unitary, person-oriented prime of identification, the undifferentiated source of a monophyletic system, the prime cause, the source of all dependency relationships, the focal function prime</td>
<td>the binary, space-oriented prime of: division, continuity, isolation, disjunction, exclusive relationships, disassociation, detachment, extension disharmony, imbalance, competition, dominance, passive relationships, involuntary actions</td>
<td>the trinary, time-oriented prime of: division, discontinuity, isolation, disjunction, exclusive relationships, disassociation, detachment, extension disharmony, imbalance, competition, dominance, passive relationships, involuntary actions</td>
<td>the prime governing the neutralisation of the opposition between inclusive and exclusive relationships. The prime which governs the potentially open ended multiplication of numbers, which results in the break down of ordered binary relationships and leads to potential chaos. The prime which also governs the reordering of this chaos, so that out of the chaos of numbers comes a new system, still governed by binary principles. The antifocal function prime</td>
</tr>
</tbody>
</table>

Chart C The four primary proto iconic terms for the sun

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Encodes sun at the zenith at noon during equinox: linked iconically with the supreme high being Akolali who gives spirit life and governs the eternal present</td>
<td>Encodes the symbolic role of the sun rising to conjunct with the zenith at noon during the equinox: linked iconically with the two dream givers Yali and Pulu forecasters and governors of the eternal future</td>
<td>Encodes the symbolic role of the sun declining from the zenith during an equinox: linked iconically with Tu Aneta ‘Tu and Ane’ the givers of language linked with death for the Witu, who govern the eternal past</td>
<td>Encodes the symbolic role of the sun lying under the earth as if dead like a seed, ready to appear as new life: linked iconically with the fourth set of beings, mortal beings, the product of the symbiotic relationship of life and death:</td>
</tr>
</tbody>
</table>

Commented [H1]: This file was taken as the the file to be added to the Witu www site August 15th 2014 It was originally saved on 17/09/2013 10:19 AM 1.405 KB 5AN-LA-CD-ChartsMarch04B(9.d-g)-utdc-c-2011-id6-2012b-13c

Commented [K2]: The sun is the universal icon for eternal life and death. The four proto iconic terms for the sun that have been reconstructed from terms derived from them in the languages embraced by the Witu myth of the origin of language and death, and languages in Stocks contiguous to the East New Guinea Highland Stock. They give expression to the unity of the metalinguistic system common to them all, whose theme is creation, death and renewal of life.
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Chart D The bonding media through which the four function primes operate

<table>
<thead>
<tr>
<th>1</th>
<th>Person</th>
<th>2</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Time</td>
<td>4</td>
<td>Type</td>
</tr>
</tbody>
</table>

Chart E The two axes of the Basic-relationship system

<table>
<thead>
<tr>
<th>1</th>
<th>Source prime of the axis of generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Conjunctive prime of the axis of coordination</td>
</tr>
<tr>
<td>3</td>
<td>Disjunctive prime of the axis of coordination</td>
</tr>
<tr>
<td>4</td>
<td>Product prime of the axis of generation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
<th>Source prime of the axis of generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Conjunctive prime of the axis of coordination</td>
</tr>
<tr>
<td>3</td>
<td>Disjunctive prime of the axis of coordination</td>
</tr>
<tr>
<td>4</td>
<td>Product prime of the axis of generation</td>
</tr>
</tbody>
</table>

Chart F The Akolali Centric Interlocking Relationship Focused Schema

1] Akolali
The giver and sustainer of spirit life through every present moment
Communicates by lightning
Governor of the eternal present

2] Yali and Pulu
The givers of dreams, who communicate information by adeka <anda—ka> ‘symbols’, forecasting the future which they govern
They communicate through pule ‘dreams’ given to Witus sleeping in small lean-to tale yapu ‘dream houses’

3] Tu Aneta
‘Death and her husband’
Givers of language in time past.
Governors of the eternal past
They communicated with the Witu through agale ‘articulate language’ received through the kale kene ‘ear hole’

4] The obedient Kewa people group, representing the Kewa, Enga, Mendi, Ipili, and Huli people groups

3] The disobedient Witu, in isolation by themselves

4] The Witu Grammar of Culture which developed after the Witu’s reception of the gift of language (this subsystem is presented in detail in chapter 11.)

LA-CO Chart 1 The Witu Grammar of Culture

<table>
<thead>
<tr>
<th>1</th>
<th>Personal Identification System</th>
<th>2</th>
<th>Interpersonal Relationship System</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Embodiment (Realisation) System</td>
<td>4</td>
<td>Protective Recovering System</td>
</tr>
</tbody>
</table>

LA-CO Chart 2 The Witu Embodiment System

<table>
<thead>
<tr>
<th>1</th>
<th>Language Communication System</th>
<th>2</th>
<th>District Society System</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Land Life System</td>
<td>3</td>
<td>Religio Spirit System</td>
</tr>
</tbody>
</table>
The Language-Communication System of the Witu Grammar of Culture:
Part I

LA-CO Chart 3 The Witu Language-Communication System

| 1] Lexical-Term | The system of substitutionary paradigmatic relationships |
| 2] Grammatical-Situation | The system of interdependent sequential relationship of terms of open paradigms |
| 3] Phonological-Association | The system of sequential association of independent phonological units |
| 4] Sociolinguistic-Variation |

LA-CO Chart 4 The Witu Lexical-Term System

| 1] Nouns signifying entities, and free personal pronouns |
| 2] Verbs signifying processes, actions and states |
| 3] Space-time words signifying the settings of entities, processes and action |
| 4] Type-number words functioning as modifiers of nouns, and verbs, etc. |

LA-CO Chart 5 The Witu Noun Entity System

| 1] Group-membership |
| 2] Biological and classificatory kin |
| 3] Alienable possessions |
| 4] Pseudo possessions |

LA-CO Chart 6 The Witu Proprietary Possessions System

| 1] District of citizenship |
| 2] Body parts |
| 3] Typological possession |
| 4] Pseudo relationship |

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The four primary morphophonemic classes of verbs of the verb-classificatory iconic schema

<table>
<thead>
<tr>
<th>Type</th>
<th>MP class</th>
<th>Person-oriented</th>
<th>Space-oriented</th>
<th>Time-oriented</th>
<th>Type-oriented</th>
</tr>
</thead>
<tbody>
<tr>
<td>1]</td>
<td>MP class 1</td>
<td>A single verb 'to utter sound/speech' functions as a lexical verb and also grammatically as a 'desiderative' auxiliary verb and as the first stem formative -a (sf1)</td>
<td>A set of four systematically related verbs of directional movement. They function as lexical verbs, as auxiliary directional verbs and also as verb suffixes 'come' 'go'.</td>
<td>A set of four systematically related verbs of fixed posture and residence. Also function as temporal auxiliary verbs and verb suffixes 'to be standing up' 'staying' somewhere'</td>
<td>A single verb the proverb of general activity 'to do' 'to happen' 'to make' It functions as the 'numeric' auxiliary verb with all number-oriented verb expressions, and as the distinctive 'second stem-formative'. 'to be' (s-2) with the 2nd morphophonemic class of verbs, the verb-oriented class</td>
</tr>
<tr>
<td>2]</td>
<td>MP class 2</td>
<td>A set of four systematically related verbs of fixed posture and residence. Also function as temporal auxiliary verbs and verb suffixes 'to be standing up' 'staying' somewhere'</td>
<td>A set of four systematically related verbs of directional movement. They function as lexical verbs, as auxiliary directional verbs and also as verb suffixes 'come' 'go'.</td>
<td>A set of four systematically related verbs of fixed posture and residence. Also function as temporal auxiliary verbs and verb suffixes 'to be standing up' 'staying' somewhere'</td>
<td>A single verb the proverb of general activity 'to do' 'to happen' 'to make' It functions as the 'numeric' auxiliary verb with all number-oriented verb expressions, and as the distinctive 'second stem-formative'. 'to be' (s-2) with the 2nd morphophonemic class of verbs, the verb-oriented class</td>
</tr>
<tr>
<td>3]</td>
<td>MP class 3</td>
<td>They function primarily as lexical terms, but the verbal exponents of the first three grammatical iconic classes belong to this class, e.g. 1] na 'to eat'.</td>
<td>They have the canonical form CV(CV)tv-</td>
<td>They have the canonical form CV(CV)tv-</td>
<td>They have the canonical form CV(CV)tv-</td>
</tr>
</tbody>
</table>

**The Language-Communication System of the Witu Grammar of Culture:**

**Part I**

**LA-CO Chart**

1] MP class 1st largest class
Function only as lexical terms, never as suffixes or auxiliary verbs, etc.

**Distinctive features:**
- They have the canonical form CV(CV)tv-
- The initial consonant is a stop
- The root vowel(s) is/are nasalised

Verbs of this class signify actions or processes with a definite beginning and a definite end. This is why the verb wa 'to end/terminate' is in the class.

2] MP class 2nd largest class
Prototypically lexical in function, but the roots of some verbs also function as grammatical terms, e.g. me/mo- 'to give' whose root is formally and functionally related to the general agentive clitic -me, -mo and mo/to- 'to receive', whose root functions as a causative suffix, e.g. pi/mo.la (lie.let.imp) 'It lies there'.

**Distinctive features:**
- They have the canonical form CV(CV)tv-
- The terminal suffix, the second stem formative suffix -tv (sf2), with a variable vowel, occurs when the verb is inflected for present or past tense, but is absent when inflected for future tense.
- This stem-formative, -tv (sf2), is the distinctive feature of this class of verbs when they function in space-based evidential discovery constructions.

Verbs of this class signify cyclical actions or processes (e.g. atu pi/lí 'to go to sleep' -atu kamo/to 'to wake up'), reversible actions (e.g. me/mo- 'to give' -mo/to 'to receive') and actions which involve two way activity (e.g. welele 'to write back and forth', yóto 'to exchange goods'), etc.

3] MP class 3rd largest class

**Distinctive features:**
- They have the canonical form CsV(CV)-
- The initial consonant is a stop
- The root vowel(s) is/are nasalised

Verbs of this class signify actions or processes with a definite beginning and a definite end. This is why the verb wa 'to end/terminate' is in the class.

4] Four types

**Person-oriented**
- A single verb 'to utter sound/speech' functions as a lexical verb and also grammatically as a 'desiderative' auxiliary verb and as the first stem formative -a (sf1)

**Space-oriented**
- A set of four systematically related verbs of directional movement. They function as lexical verbs, as auxiliary directional verbs and also as verb suffixes 'come' 'go'.

**Time-oriented**
- A set of four systematically related verbs of fixed posture and residence. Also function as temporal auxiliary verbs and verb suffixes 'to be standing up' 'staying' somewhere'

**Type-oriented**
- A single verb the proverb of general activity 'to do' 'to happen' 'to make' It functions as the 'numeric' auxiliary verb with all number-oriented verb expressions, and as the distinctive 'second stem-formative'. 'to be' (s-2) with the 2nd morphophonemic class of verbs, the verb-oriented class
The Language-Communication System of the Witu Grammar of Culture:  
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LA-CO Chart 7

<table>
<thead>
<tr>
<th>1] Ego-centric spatial root</th>
<th>2] Personal spatial roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>i</td>
</tr>
<tr>
<td>Noun-centric:  individual centric</td>
<td>egocentric space</td>
</tr>
<tr>
<td>o yene (here group)</td>
<td>here, where I am</td>
</tr>
<tr>
<td>‘the rest of the group from which one has left’</td>
<td>there where you are</td>
</tr>
<tr>
<td>Verb-centric:  egocentric</td>
<td></td>
</tr>
<tr>
<td>o.to (ego.trajecory) ‘here to me’</td>
<td></td>
</tr>
<tr>
<td>o.to no ‘Come (here) to me’.</td>
<td></td>
</tr>
<tr>
<td>oto mon  `I will get it when I come back here’.</td>
<td></td>
</tr>
<tr>
<td>oto meteka ‘He gave it back to me.’</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3] Topographic spatial roots</th>
</tr>
</thead>
<tbody>
<tr>
<td>1] e near (proximal)</td>
</tr>
<tr>
<td>2] a up (superior)</td>
</tr>
<tr>
<td>3] kei down (inferior)</td>
</tr>
<tr>
<td>4] ku off there</td>
</tr>
<tr>
<td>wet at once already</td>
</tr>
<tr>
<td>not yet</td>
</tr>
<tr>
<td>wet at once earlier</td>
</tr>
<tr>
<td>3] pene about to, recently</td>
</tr>
<tr>
<td>4] wa again, instead</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1] today, now</th>
<th>2] tomorrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>2] in two days time</td>
<td>1] morning</td>
</tr>
<tr>
<td>3] next day</td>
<td>2] late after noon</td>
</tr>
<tr>
<td>4] later</td>
<td>3] night</td>
</tr>
<tr>
<td>4] night time</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2] long time ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>3] still, pointless, lacking something</td>
</tr>
<tr>
<td>4] still</td>
</tr>
</tbody>
</table>

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Part I

LA-CO Chart 8

<table>
<thead>
<tr>
<th>1) Biological age adjectives</th>
<th>2) Social age and status adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>we.ne new, alive, fresh, raw, uncooked</td>
<td>1) pe.ne half way through life cycle</td>
</tr>
<tr>
<td>*</td>
<td>2) epe.ne good, in prime of life (middle aged)</td>
</tr>
<tr>
<td></td>
<td>3) toto.no short (with respect to point of origin)</td>
</tr>
<tr>
<td></td>
<td>4) tigo.no short (with respect to destination)</td>
</tr>
<tr>
<td>2) pe.ne</td>
<td>3) weti.ne thoroughly mature, grown, growth has become woody</td>
</tr>
<tr>
<td>3) putu.ne ripe</td>
<td>4) pete.ne wide</td>
</tr>
<tr>
<td>4) weti.ne</td>
<td>5) ponope.ne worthless, without social status</td>
</tr>
<tr>
<td>5)</td>
<td>6) totono as a noun means 'stump' and 'customs'</td>
</tr>
<tr>
<td>3) Size-number adjectives</td>
<td>4) The four count systems</td>
</tr>
<tr>
<td>1) nate small in size or number</td>
<td>1) ludu long distance or time, high, tall</td>
</tr>
<tr>
<td>2) dede small in size, narrow</td>
<td>2) base-4 count system the lu set of four</td>
</tr>
<tr>
<td>3) tube large</td>
<td>3) upper body part count system 1-49</td>
</tr>
<tr>
<td>4) ludu</td>
<td>4) generic count terms</td>
</tr>
</tbody>
</table>

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### The Language-Communication System of the Witu Grammar of Culture:
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**LA-CO Chart 9: The Witu System of Count Terms**

<table>
<thead>
<tr>
<th>Count System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1] The base-4 count system</td>
<td>The seed which falls from the keruga pandanus fruiting body.</td>
</tr>
<tr>
<td>2] The two hands and two feet count system</td>
<td>Male oriented: conjunction with head.</td>
</tr>
<tr>
<td>3] The upper body part count system</td>
<td>The two hands are brought physically together for a count of ten; the two hands and two feet are brought physically together for a count of twenty.</td>
</tr>
<tr>
<td>4] The generic count terms</td>
<td>Encode the focal iconic function of the sun.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1]</td>
<td>odene “one”</td>
</tr>
<tr>
<td>2]</td>
<td>takuta “two”</td>
</tr>
<tr>
<td>3]</td>
<td>tebolo “three”</td>
</tr>
<tr>
<td>4]</td>
<td>tuyono “four”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1]</td>
<td>left hand</td>
</tr>
<tr>
<td>2]</td>
<td>right hand</td>
</tr>
<tr>
<td>3]</td>
<td>left foot</td>
</tr>
<tr>
<td>4]</td>
<td>right foot</td>
</tr>
</tbody>
</table>

- The two hands are brought physically together for a count of ten; the two hands and two feet are brought physically together for a count of twenty. A count of twenty is referred to as an all “man.”

<table>
<thead>
<tr>
<th>Count System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1]</td>
<td>kaina “many”</td>
</tr>
<tr>
<td>2]</td>
<td>mati “very”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1]</td>
<td>peya “all”</td>
</tr>
<tr>
<td>2]</td>
<td>pea “all”</td>
</tr>
</tbody>
</table>

- Peya in Kaugel means “all” and also “both.”

- Pea in Kewa means “to make, to do.”

- The Witu verb tv “to make, to do” is the auxiliary verb for all verb expressions which register number, e.g. winimu toko (hit-all he does) “he kills every one”; wikala toko (he hits many time), etc. The Witu proverb of general action, tv, is formally and functionally related to the first sublexemic constituent -ta of the “first totality” suffix -tape (tot1) of such a verb expression as potape.ko.l (go/tot1 pst.pol sb) “they all went.” In the symbolic logic of the Witu, totality represents perfection and is the product of conjunction of two mirror-image halves.
LA-CO Chart 10 The Witu Grammatical Situation System

<table>
<thead>
<tr>
<th>1) Lexical-Phrase</th>
<th>2) Verbal-Clause</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun-Phrase</td>
<td>Egocentric</td>
</tr>
<tr>
<td>Spatial-phrase</td>
<td>Subject-Centric</td>
</tr>
<tr>
<td>Type/Number-Phrase</td>
<td>Complement-Centric</td>
</tr>
<tr>
<td>3) Medial-Sentence</td>
<td>Acentric</td>
</tr>
<tr>
<td>Egocentric-Medial</td>
<td>Topic-marking</td>
</tr>
<tr>
<td>Subject-centric-Medial</td>
<td>Intersentence-linkage</td>
</tr>
<tr>
<td>Time-centred-Medial</td>
<td>Intra-sentence</td>
</tr>
<tr>
<td>Irrealis-medial</td>
<td>Discourse Genre</td>
</tr>
</tbody>
</table>

LA-CO Chart 11 The Witu Lexical-Phrase System

<table>
<thead>
<tr>
<th>1) Noun Phrase</th>
<th>2) Verb Modifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pro-nominal-Noun</td>
<td>Personal control</td>
</tr>
<tr>
<td>Phrase\textsuperscript{a}</td>
<td>poti do it carefully</td>
</tr>
<tr>
<td>no yatene 1 group</td>
<td>Spatial</td>
</tr>
<tr>
<td>Spatial-Noun Phrase</td>
<td>Type-Number</td>
</tr>
<tr>
<td>a yapu ‘the house up there’</td>
<td>Temporal</td>
</tr>
<tr>
<td>Noun Phrase</td>
<td>Teki temporary</td>
</tr>
<tr>
<td>odene ali ‘one man’</td>
<td>Type-Number</td>
</tr>
<tr>
<td>3) Spatial Phrase</td>
<td>4) Type/Number Phrase</td>
</tr>
<tr>
<td>keika kei ‘down in that general area’</td>
<td>Spatial</td>
</tr>
<tr>
<td>aka-mati ‘a long way up there’</td>
<td>4)</td>
</tr>
<tr>
<td>tube-mati very big</td>
<td>Tutu tutu wa hither and yon</td>
</tr>
<tr>
<td>nigli nagolo toa higgledy-piggledy</td>
<td>Tutu tutu wa hither and yon</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Appendix B: No group

\textsuperscript{b} Appendix B: No group
The Language-Communication System of the Witu Grammar of Culture: Part I

LA-CO Chart 12

The Witu Nominal Noun Phrase System

<table>
<thead>
<tr>
<th></th>
<th>Group membership</th>
<th>Possessed kinspersons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1)</strong> Group membership</td>
<td>no yatene the group of which I am a member</td>
<td>Biological parents of named person</td>
</tr>
<tr>
<td></td>
<td>I group my group ‘the group of which (I) am a member’</td>
<td>Yapeta’s father</td>
</tr>
<tr>
<td></td>
<td>The focal free personal pronoun no <em>‘I/me’</em> can be used by itself to signify ‘my group’, i.e. the group of which I am a member.</td>
<td>Kin of one’s nuclear family</td>
</tr>
<tr>
<td></td>
<td>no yatene</td>
<td>my biological father</td>
</tr>
<tr>
<td></td>
<td>I</td>
<td>Friends</td>
</tr>
<tr>
<td></td>
<td>group</td>
<td>my (man) friend</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Alienable possessions</th>
<th>Inalienable pseudo possession</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>3)</strong> Alienable possessions</td>
<td>District of citizenship</td>
<td>Animal offspring</td>
</tr>
<tr>
<td></td>
<td>anu ke ta my district of citizenship</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>one na his former (Poloko) ‘his former (district of Poloko)’</td>
<td>yapu kene inside of house</td>
</tr>
<tr>
<td></td>
<td>Proprietary</td>
<td>Natural relationships</td>
</tr>
<tr>
<td></td>
<td>anu kai my pig</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>my pig</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>anu na kai my former pig</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>Typical</td>
<td>Natural relationships</td>
</tr>
<tr>
<td></td>
<td>pseudopossession</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>Yapetane yagono ago</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>Yapera’s kind of man</td>
<td>yapu kene</td>
</tr>
<tr>
<td></td>
<td>Prototypically paired or linked end to end</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>ali lene eye of man</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>man eye man’s eye</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>Yapetane yagono ago</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>Yapetane yagono ago</td>
<td>Yapetane yagono ago</td>
</tr>
<tr>
<td></td>
<td>Yapetane yagono ago</td>
<td>Yapetane yagono ago</td>
</tr>
</tbody>
</table>

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The Language-Communication System of the Witu Grammar of Culture:  
Part I

LA-CO Chart 13\textsuperscript{iii} The Witu Verbal Clause System

<table>
<thead>
<tr>
<th>1</th>
<th>Ego-centric\textsuperscript{\textsuperscript{ii}}</th>
<th>2</th>
<th>Subject-centric\textsuperscript{\textsuperscript{ii}}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocative\textsuperscript{\textsuperscript{iv}}</td>
<td>Interrogative\textsuperscript{\textsuperscript{v}}</td>
<td>Reflexive\textsuperscript{\textsuperscript{vi}}</td>
<td>Reciprocal\textsuperscript{\textsuperscript{vii}}</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I cut myself\textsuperscript{\textsuperscript{viii}}</td>
<td>they fought among themselves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Declarative\textsuperscript{\textsuperscript{vi}}</td>
<td>Imperative\textsuperscript{\textsuperscript{vii}}</td>
<td>Exclusive\textsuperscript{\textsuperscript{viii}}</td>
<td>Default subject\textsuperscript{\textsuperscript{ix}}</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>I sat by myself and did it, (while he sat by himself and did it).</td>
<td>He rebuilt the spirit house himself when the others defaulted\textsuperscript{\textsuperscript{xii}}</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Complement-centric</td>
<td>4</td>
<td>Acentric</td>
</tr>
<tr>
<td>Speech/message\textsuperscript{\textsuperscript{xi}}</td>
<td>Directional\textsuperscript{\textsuperscript{xii}}</td>
<td>Mental process\textsuperscript{\textsuperscript{iii}}</td>
<td>Mental reaction\textsuperscript{\textsuperscript{xxx}}</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>a single verb v ‘to utter’ sound or speech</td>
<td>the four verbs of directional movement through space</td>
<td>‘to (know) something’</td>
<td>‘to (trust) in someone’</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>X wene tuku</td>
<td>X-ke wene tugako</td>
<td>X-in mind bump</td>
<td>‘to trust in someone’</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directional\textsuperscript{\textsuperscript{iv}}</td>
<td>Action/patient\textsuperscript{\textsuperscript{v}}</td>
<td>Involuntary reaction\textsuperscript{\textsuperscript{vi}}</td>
<td>Mental or physical\textsuperscript{\textsuperscript{viii}}</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>The four verbs of fixed posture and residence</td>
<td>a single verb tv ‘to happen, to do, to make’</td>
<td>mind-to pass-by ‘to come to mind’</td>
<td>State\textsuperscript{\textsuperscript{ix}}</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Wene-ke ponoko</td>
<td>piti toko</td>
<td>to be (afraid)</td>
<td>to (be) afraid</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>mind-to pass-by</td>
<td>piti.me tuku</td>
<td>‘I am afraid.’</td>
<td>‘I am afraid.’</td>
</tr>
</tbody>
</table>
The Language-Communication System of the Witu Grammar of Culture: Part I

LA-CO Chart 14 The Witu Medial Sentence System

<table>
<thead>
<tr>
<th>1] Egocentric Medial Sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td>E pikono,\textsuperscript{a}\textsuperscript{b} eneko-pe</td>
</tr>
<tr>
<td>There it is (i.e. it is lying there), do you see it?</td>
</tr>
<tr>
<td>E pikono, moa.</td>
</tr>
<tr>
<td>There it is (i.e. it is lying there), get it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2] Subject-Centric Medial Sentences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present situation 1]</td>
</tr>
<tr>
<td>Verb/k.(u).\textsuperscript{c}\textsuperscript{d}</td>
</tr>
<tr>
<td>Manika pukulu oko pe.</td>
</tr>
<tr>
<td>(Where I-am-going you-say—question) Where are you saying that I am going?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3] Temporal-Medial Sentence \textsuperscript{a}\textsuperscript{b}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medial-present \textsuperscript{e}\textsuperscript{f} 1]</td>
</tr>
<tr>
<td>Verb/a.ne</td>
</tr>
<tr>
<td>Wi/a.ne tu/ke.ko.u.</td>
</tr>
<tr>
<td>(I-hit I-caused-to-die)</td>
</tr>
<tr>
<td>I hit and killed him.</td>
</tr>
<tr>
<td>I killed (him) with a blow.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4] Irrealis Medial Sentence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medial-future \textsuperscript{c}\textsuperscript{d} 2]</td>
</tr>
<tr>
<td>Verb/a.de.(ne)\textsuperscript{e}\textsuperscript{f}</td>
</tr>
<tr>
<td>Atu pi/a.de.ne ka/w.o.o</td>
</tr>
<tr>
<td>(deep I-will-lie-down I-will-put-on)</td>
</tr>
<tr>
<td>When I am about to go to sleep I will put on (my pajamas)</td>
</tr>
</tbody>
</table>

| 1] I have used two systems of Tables for the following reason. I had incessant trouble from the time I bought my Pentium II computer in August 1998 which prevented me from editing the original file of Tables associated with the summary of the Witu symbolic system. Since I could no longer edit and add to the original file of Tables, I included additional tables in the body of the text describing the Witu symbolic system. Recently, a friend solved the computer problem. Since then I have upgraded the original set of Tables. I then extracted the tables I had incorporated in the body of the text dealing with the Witu symbolic system, and produced a separate set of Tables. To avoid confusion with the original set of Tables, I refer to this second set of tables as Charts. |

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It is interesting to note the following observation by the mathematician Godel (quoted in the
Scientific American June 1999 p. 68) in the article Gödel and the Limits of Logic, “Gödel … remarked
to his close friend, economist Oscar Morgenstem, that in the future it would be deemed a great oddity
that 20th-century scientists had discovered the elementary physical particles but had failed even to
consider the possibility of elementary psychic factors”. Note Collins English Dictionary (1995:1251)
definition of psychic: “2. mental as opposed to physical”

I am not suggesting that the function primes have anything to do with Godel’s elementary psychic
factors. But I do feel that the four function primes operating in Witu govern such a highly developed
system of natural relationships that they are extralinguistic, or perhaps more correctly, prelinguistic in
origin.

It is also interesting to note that the systems coming to light in this analysis of the Witu language
and culture in general are often characterised by recursion. Thus with the morphophonemic verb class
system (Table 13), the very last verb, the filler of subcell 4 of the primary cell 4 -- the proverb of
general action tv- ‘to happen’ (intr.) ‘to do’ ‘to make’ (tr.) -- leads us back to the fillers of the first cell,
the first morphophonemic class. Each of the verbs of this first morphophonemic class, with the
systematic exception of two pairs of verbs, signify both natural intransitive actions, e.g. kaup ‘to break
open’ as a hatching egg (intr.), and transitive cultural actions, e.g. kana ‘to smash’ something (tr.).

The process of the last term of a quadripartite system turning back to the beginning of the system
is a feature of the very highest level of interpersonal relationship, the primary system which embraces the
three sets of immortal high beings, and a fourth set of beings, mortal beings, represented by three
people groups (see Table 5). Akolali is the supreme high being, the only member of his set. He is
symbolically resident at the highest point of the universe, the zenith. This infinitely small point in space
is the birthing centre of the universe. It is encoded as the birthing centre of the universe in many ways.
E.g. by the focal temporal adverb of the first (the focal) set of four systematically related sets of
temporal terms. This term is the adverb opi which means ‘today’ ‘now’. It is the adverb linked
iconically with the focal point in space, the matai ‘zenith’. It is formally and functionally related to the
verb opi  which means ‘to beget’ as a man, and ‘to give birth’ as a woman. The zenith, the physical
begetting/birthing centre of the universe, is also the point in space-time from which Akolali attaches
the double helix psu ‘thread/twine’ of spirit life, so that a physical being becomes a conscious, moral
being.

The first cell of the Akolali Centric Relationship System of Table 5 is the cell of the immortal
supreme high being. He is the creator being, whose role as creator is iconised as the planter from the
zenith in the Zenith iconic schema (see cells 1 and 2 of Table 1). Cell 4 of the Akolali Centric
Relationship Schema is the cell of mortal beings. It is the cell of pro-creators. Their procreative
powers stem from the symbiotic relationship of mortal males and females. It is derivative from the
creative power of the supreme high being, and is an expression of his creative powers.

I drew the attention of Ivan Lowe -- a double first in maths from Cambridge -- to this feature of
recursiveness in the Witu systems coming to light in the analysis of the Akolali Centric Relationship
Schema (Tables 5 and 11) when he came out from Britain to work with me on the project in September
1998. (We had previously spent some 30 hours of intensive interaction following the SIL Semantics
Workshop in 1997.) He said that such recursiveness would be expected of the system coming to light.

All this stimulated me to read those few parts of the following book I could understand: Gödel,
Eischer, Bach. An Eternal Golden Braid. I was particularly fascinated by the concept of Strange Loops,
and the following comment about them (p.15). “Implicit in the concept of Strange Loops is infinity,
since what else is a loop but a way of representing an endless process in a finite way?”

We will find as the Akolali Centric Relationship Schema unfolds, that this schema is a system of
endless recursions which reflect the endlessness of the track of the sun around the earth day after day.
All four sets of systematically related count terms of the closed system of count terms in Witu encode
the cycle of the sun around the earth. The first and third count systems in particular encode the
endlessness of this cycle (see Charts I, and M). In the first count system, the base-4 count system, for
example, each item counted out in exchange bargaining is represented by a small piece of wood. When
the first four sticks are laid down they are tied together as a bundle with a circlet of psu ‘twine’. The
four sticks represent the four primary staging posts of the sun in its daily circle around the earth. The
circlet of twine is an icon for the daily circle. The bundle itself is referred to as a lu and becomes the
basic count unit of the base-4 count system. With this basic count unit, the Witu could keep track of a
potentially open ended number of wealth items in a bargaining session.

The Witu equate the open ended circling of the earth by the sun with purposeslessness (see the
endnote attached to the temporal term psu of subcell 4 of subcell 3 of cell 4 of Chart K).
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The Akolali Centric Relationship Schema is the system in which the language itself talks about itself, in the process encoding its understanding of the universal forces governing the sun, an icon for the symbiotic relationship of life and death and the binary organisation of the universe.

The language in talking about itself as the symbolic tool for encoding the laws which govern the universe also deals with the concept of truth (see section 13 in the file The Akolali Centric Relationship Schema 1). The opposite of truth is encoded by the following Witu verbal expression.

<table>
<thead>
<tr>
<th>kape</th>
<th>-ne</th>
<th>wa</th>
<th>-ka</th>
<th>-k</th>
<th>-o</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neck</td>
<td>relator-unit</td>
<td>chop-off</td>
<td>de2</td>
<td>pr</td>
<td>3sg</td>
</tr>
</tbody>
</table>

He is saying something without justification (i.e. without a basis for saying it).

The periphrastic verb expression kapene waka-literally signifies the act of cutting off something off from its source. The key to its underlying symbolic meaning is the focal role of the supreme high being, Akolali, at the focal point of space-time, the moment when the sun stands at the zenith at noon during the equinox. It is to this point in space that the conical roofs of the two main Witu spirit houses - the shorter round tapa and the very tall round timbu spirit houses -- point. (Cones by their very nature point to the zenith when they sit on their iconically significant circular base.)

The conical roof of a spirit house is referred to by the term kabe. This term prototypically means ‘neck’. It has become the term for the conical roof of the spirit houses by a systematic radial extension of function motivated by the symbolic system. A neck always presumes a head above it and attached to it. In the case of the conical roofs, the head is detached. The detached head is the sentient head of the universe, the supremebeing, Akolali, the giver of spirit life, resident at the zenith to which the conical roofs point. The conical roof, then, encodes the separation of the Witu from their source of spirit life. This was the consequence of their disobedience in not coming at once for their language when called by the third set of high beings, Tu Aneta ‘Death and her husband’. Because of this, when they finally came after the fourth call, they received the doom of death linked with their language. Their language, then, through its logical symbolism, encodes their separation from their source. It is a separation which encodes a pointless death-doomed existence, which is directly linked with the receipt of their language. Consistent with this, the Witu term kabe [kambe] ‘neck’ ‘conical roof’ is formally and functionally related to the root kambe of the Enga verb kambenge which means ‘to break in two’ and also ‘to break’ (in talk) (Lang 1973:33).

The Witu verb expression kapene waka ‘to say something without justification’, i.e. without a basis in fact, is the iconic complement of the verb expression kabe tei (neck cut) which means literally ‘to cut the neck’ but actually means ‘to cut off the head of a creature or person or the growing point of a plant’. The verbs of both Witu expressions, waka to chop off the end and tei ‘to cut an end off’, have fundamentally the same lexical function. The difference between the two expressions is determined then by the preverb terms kapene and kabe respectively. Both these terms have overtones of detachability. Consistent with this, the Enga term kape means ‘splitter’, and is synonymous with the Enga term keké. The term keké is formally and functionally related to the Witu and Enga terms for ‘tongue’, keke and keké respectively. Between them, these terms encode speech as the equivalent of splinters detaching themselves from the tongue. They also encode the fact that the content of an utterance may have no basis in fact, i.e. be disconnected from the truth.

We need to account for the nature of the formal and functional relationship of the two Witu terms kabe ‘neck’ -- the source of the voice -- which can be cut through, and kapene ‘an utterance which may have no justification’, i.e. be without any basis, and so detached from any governing principle.

It is reasonably certain that the two Witu terms kabe and kapene have a common origin and that the longer term kapene is a more transparent reflection of the original term than the shorter one. This presumes that the terminal suffix-like constituent -ne of the trisyllabic term kapene has become incorporated into the root sector as a prenasalised phonological constituent m proposed to the medial constituent p of kapene to yield the prenasalised stop mp of the resultant bisyllabic term kabe articulated phonetically as [ka³pe].

We are justified in assuming that the trisyllabic term kapene is a historically older term than the bisyllabic term kabe ‘neck’ and so the possible source of the bisyllabic term since the root kape of the trisyllabic term kapene is a more highly functional formal unit in languages of the region than is the bisyllabic term kabe. Being in existence longer than the form kabe, it has had more time to undergo systematic radial extensions of its original lexical function.

The term Witu term kabe [kambe] ‘neck’ is formally and functionally related to the root of the Enga verb kambenge which means ‘to break in two’ ‘to break (in talk) ’to shell’ (beans). This Enga
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verb kämbenge conflates the lexical function of both the nominal and the verbal constituents of the Witu periphrastic verb expression kabe tekene (neck cut) meaning ‘to cut off the growing point of a plant’ or the ‘head of an animal or person’. The Enga verb, in its function as the verb meaning ‘to break’ (in talk) reflects the role of the neck as the body part which houses the larynx, the source of the voice, a role captured by the pidgin English term nek which means ‘voice’. It is the key to the semantic feature common to the two Witu verb expressions kabe tekene ‘to cut off the growing point or head’ and kapene waka ‘to say something without justification’, i.e. cut off from any governing principle.

The probable derivation of the bisyllabic Witu term kabe ‘neck’ (which attaches the body to the sentient head) from an earlier trisyllabic term kapene ‘something detachable’ finds its parallel in the probable derivation of the Witu bisyllabic term teke ‘root’ and the Enga bisyllabic terms ténge ‘root/base of tree’ and tengé ‘reason, basis’ (i.e. governing principle) from the Witu trisyllabic term tekene ‘female genitals’. If this proves to be true, then the suffix-like constituent we of the trisyllabic Witu term tekene ‘female genitals’ has become incorporated into the root sector as a prenasalised phonological constituent 1 preposed to the medial constituent ke of tekene to yield the prenasalised stop [te] respectively.

In summary, then, we have the following

<table>
<thead>
<tr>
<th>Witu</th>
<th>Enga</th>
</tr>
</thead>
<tbody>
<tr>
<td>kabe tekene</td>
<td>tenge tekene</td>
</tr>
<tr>
<td>kabe</td>
<td>tenge</td>
</tr>
<tr>
<td>kapene tekene</td>
<td>rene</td>
</tr>
<tr>
<td>kapene</td>
<td>rene</td>
</tr>
</tbody>
</table>

We see in all this, the outworking of the Witu myth of the origin of language and death. The myth makes it clear that the iconic devices of Witu logical symbolism cannot be effectively decoded without reference to the languages of the other two people groups called to come for their language at the same time as the Witu received their call. The two obedient people groups, the Kewa (=Enga Family) and the Lai (=Hagen, Waghi, Chimbu Family) encode the consequence of the promise of perpetual renewal of life for their obedient response. The disobedient Witu, the odd group out, encode the consequence of the doom of death.

We now note that the formally and functionally related iconic pair of Witu terms kabe and kapene jointly encode the detachment of the Witu from their prime cause, the supreme high being, Akolali. They have become detached from the source of truth encoded by the seed formed at the zenith at noon during the equinox, as the special planting of Akolali (see examples *(2) to *(4) and cells 1 and 2 of Table 11). The perfection of this point in space-time and its product. This accounts for the fact that the Witu signed that they were speaking the truth by holding the index finger of their right hand along the ridge of the nose, pointing upwards. It pointed iconically to the zenith as the point of conjunction of the two mirror-image halves of the daylight period at noon during the equinox.

I did not realise the full significance of the Witu myth of the origin of language and death. The myth makes it clear that the iconic devices of Witu logical symbolism cannot be effectively decoded without reference to the languages of the other two people groups called to come for their language at the same time as the Witu received their call. The two obedient people groups, the Kewa (=Enga Family) and the Lai (=Hagen, Waghi, Chimbu Family) encode the consequence of the promise of perpetual renewal of life for their obedient response. The disobedient Witu, the odd group out, encode the consequence of the doom of death.

We now note that the formally and functionally related iconic pair of Witu terms kabe and kapene jointly encode the detachment of the Witu from their prime cause, the supreme high being, Akolali. They have become detached from the source of truth encoded by the seed formed at the zenith at noon during the equinox, as the special planting of Akolali (see examples *(2) to *(4) and cells 1 and 2 of Table 11). The perfection of this point in space-time and its product. This accounts for the fact that the Witu signed that they were speaking the truth by holding the index finger of their right hand along the ridge of the nose, pointing upwards. It pointed iconically to the zenith as the point of conjunction of the two mirror-image halves of the daylight period at noon during the equinox.

I did not realise the full significance of the Witu term kapene signifying detachment from the source of truth until told the following story by a good friend of many years Ms Margaret Bain. She had worked for many years among Australian Aboriginal groups. She said that she had told a group of Aboriginal friends she was going to visit Uluru, then called Ayers Rock, in Central Australia. They asked the reason for her visit. She replied that she just wanted to see it. To her dismay, they then said, ‘Falsely speaking’. She reacted as a category-governed Westerner, and presumed they were accusing her of lying. But her experience of many years came to her rescue. She soon realised what they really meant. They meant that she had no significant reason for visiting Ayers Rock. She had no significant relationship with Ayers Rock. If Aboriginals visit Ayers Rock, it is because of their space-time bond with it. They are a relationship-governed people. Because she had no such bond, her visit was essentially purposeless. She would be like a mere tourist who travels around looking at material things.

This story made it clear that I had radically misinterpreted the iconic meaning of the Witu verb expression kapene waka when I interpreted it as meaning ‘to tell a lie’. It did in fact mean ‘to tell a lie’. But the telling of lies was only one kind of utterance which encoded detachment of an utterance from a prime cause, i.e. from a governing principle or force. For example, I had told the Witus among
whom we lived that one of the JAARS (SIL) pilots would be coming to visit us. Bad weather made his visit impossible. Our Witu friends all knew this, so they could not accuse me of a deliberate lie when the visit was cancelled. The expression kapene waka in this context did not mean ‘(you) told a lie’. It meant that the original plans had become dislocated.

In a sense, then, the Witu and their language by virtue of their dislocation from their prime cause at the zenith – the supreme high being, Akolali – constitute something like the so-called Epimenides paradox (see page 17 of the book Gödel, Escher, Bach: An Eternal Golden Braid). The following is a relevant quote from Hofstadder’s Introductory chapter, A Musico-Logical Offering (p.15-17).

Gödel’s discovery “of a Strange Loop in mathematical systems had origins in simple and ancient intuitions. In its absolutely barest form, Gödel’s discovery involves the translation of an ancient paradox in philosophy into mathematical terms. The paradox is the so-called Epimenides paradox, or liar paradox. Epimenides was a Cretan who made one immortal statement: “All Cretans are liars.” A sharper version of the statement is simply “I am lying”; or, “This statement is false”. It is that last version which I usually mean when I speak of the Epimenides paradox.”

I am not a mathematician, though I have always wished I had this skill. My understanding therefore of anything couched in advanced mathematical terms is beyond me. Nevertheless I have been intrigued by the little I have been able to understand about Gödel. The following quote from the Scientific American explains my particular interest in him.

“Gödel proved that the mathematical methods in place since the time of Euclid were inadequate for discovering all that is true about the natural numbers. His discovery undercut the foundation on which mathematics had been built up to the 20th century. Stimulated thinkers to seek alternatives and generated a lively philosophical debate about the nature of truth….”

The following quote from the Scientific American article is relevant at this point about the Vienna Circle. “The Circle brought Gödel into contact with scholars such as the philosopher of science Rudolf Carnap and mathematician Karl Menger and helped to acquaint him with the literature of mathematical logic and philosophy. In particular, the Circle was immersed in the writings of Ludwig Wittgenstein, whose concern about the extent to which language can speak about language may have prompted Gödel to probe analogous questions about mathematics. Gödel did not, however, share the positivistic philosophical outlook of the Circle….”

The dilemma of the dislocation of the Witu from their prime cause and the consequence of a purposeless endless Strange Loop was resolved for the Witu by the message of redemption encoded by the zenith iconic schema (Table 1). It encodes the message of how the supreme high being, Akolali, enabled the Witu to regain their link with him, their prime cause. The Witu’s attempt to resolve this dilemma found expression in the activities associated with the great Timbu Spirit fertility cycle (the equivalent of the Kewa Ribu spirit cycle). The deeper symbolic meaning of this cycle is encoded by the very last system of the Akolali Centric Relationship Schema, the Protective-covering system. It is specifically encoded by the two pairs of verb expressions of cell 4 of Table 11. The verbs of one of the two pairs of verb expressions are uniquely irregular and by their shared irregularity focus attention on the fact that they are paired iconic devices of Witu logical symbolism whose principal theme is the irregularity of the intrusion of death into the domain of the immortal high beings, through the disobedience of the Witu in not coming for their language until called four times by the third set of high beings. Tu Aneta ‘Death and her husband’. The following is the irregularity. The verb wi ‘to build a house’ and ki ‘to make a ground oven’ are unique among Witu verbs in signifying benefaction by duplication of the benefactive suffix ka. The duplication encodes a double benefaction, the activity of the Witu directed towards reconciliation to the prime cause, and his own beneficent response.

I am indebted to Ivan Lowe for urging me to define the function primes as early as possible in such a way as this.

For an illustration of the systematic difference between the four function primes see the reference to the Reciprocal iconic schema in the endnote attached to Reciprocal constructions in subcell 2 of cell 2 of Chart Q.

For an example of the nature of the difference between the second and third function primes, interdependency and independency respectively, see section 2 of the endnote attached to the caption of
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Table 3 A. See also the difference between the second and the third sets of adjectives (cells 2 and 3) of Chart L.

17 The most fundamental exponent of the bifocal fourth function prime symbiotic-dependency is the symbiotic relationship between life and death. This symbiosis was the result of the disobedience of the Witu in not coming at once for their language when called by the third set of high beings, Tu Aneta. They did not come until called four times. As the third set of high beings waited for them to respond, they prepared four ground ovens at successive sites along a track beginning at Mount Gilue and ending in Witu territory. When the Witu finally arrived they were given their language, but penalised for their disobedience. Their language brought with it the doom of death. With this, they became mortal. By their disobedience, death became an irregular intruder into the domain of the three immortal sets of high beings.

18 The following is the way this neutralisation finds expression at the highest level of organisation of the system of interpersonal relationship encoded by the Akolali Centric Relationship Schema of Table 5. Cell 4, whose filler expounds the fourth function prime, symbiotic-dependency, is the cell of mortal, created beings. Their mortality is the product of i) life, adumbrated by the fillers of cell 2, the dream givers who forecast the future, Yali and Pulu, and ii) death, adumbrated by the fillers of cell 3, the givers of language, Tu Aneta ‘Death and her husband’.

The second pair of high beings, Yali and Pulu, jointly encodes the potential for life. This potential is matched by the symbolic function of the sun encoded by the second proto iconic term for sun, **andau (see Chart C). It encodes the sun rising to new life from the east to make conjunction with the zenith at noon during the equinox. It also encodes the oncoming future, which is iconised as the equivalent of a bird skimming up and over the crest of an intervening hill towards an observer, the equivalent of a person waiting to see the fulfillment of a dream. The intervening hill is the highest point of the universe, the matai ‘zenith’, which the sun will reach only twice a year, at noon during the equinox. The act of a bird skimming over the crest of a hill as it flies towards an observer is signified by the derived verb expression ta/te.ka (rise/der1.der2). The same derived verb means ‘to fulfil’ a dream forecasting the future. The verb root ta means ‘to raise’ one’s foot or hand in preparation for delivering a blow, or to raise a weapon above one’s head. It is one of the verbal exponents of the second gramma-icon **ta (see Tables 21 and 23). As an exponent of this second gramma-icon, it is formally and functionally related to the nominal term ta which means ‘homeland’ and also functions as the root of the vocative term of address for one’s biological father, a.ta.i (voc-1.biol-father.egocentric-affix) ‘Father!’ The paired sublexemic constituents <ya.ali> (sky,man) of the name of the first of the two dream givers, Yali, encode the fact that Yali is to be equated with the supreme high being, Akolali. The name of the second dream giver, Pulu, encodes a bird flying up towards the zenith, the symbolic residence of the supreme high being. The following is the evidence for this. i) The name Pulu is formally and functionally related to the nuclear constituent of the term for the high flying flock pigeon, puluma. ii) The highest ranking chief in the large Witu district of Poloko named two of his daughters after the two dream givers, calling one Yaliniu and the other Pulumanu. It is said that he was killed in interclan warfare not long after (shortly before we settled at Poloko) because he had so named his daughters. The names of the two dream givers, then, encode them as having a relationship of interdependence, Pulu, the equivalent of a bird flying up to make conjunction with Yali ‘the sky man’ at the zenith. This is a life-oriented process which has overtones of the husband and wife relationship. Consistent with this, the second proto iconic term for sun, **andau, which encodes this process, is the source of the nuclear constituent <ando> of the term for a husband and wife pair, adona, articulated phonetically as [andon].

The third pair of high beings, Tu Aneta ‘Death and her husband’, the givers of language, linked with death, to the Witu, encode the potential for death, though they themselves, like all three sets of high beings, are immortal. Death came through the disobedience of the Witu in not coming at once for their language. They only responded after being called four times. He doom of death is encoded by the very form of the term for ‘language’, agale, in Witu and Kewa. It has the following sublexemic structure (see example *(2b)).
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<table>
<thead>
<tr>
<th>agale (ənkanle)</th>
<th>ə</th>
<th>open mouth wide</th>
<th>ka</th>
<th>durative</th>
<th>le&gt;</th>
<th>activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;language&quot; word</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It means literally ‘the act of keeping the mouth open wide’. It encodes the falling of a kernel from the symbolic large spherical fruiting body of the karigua pandanus palm (see examples (5) to (7)). When the fruiting body dries out, if it is not harvested, the cells containing each kernel gape open like a mouth.

A seed then falls to the ground like a message falling from the mouth of a speaker. The durative suffix -ka (dur) encodes the governance of the Witu by time, so that they age as they travel along the ever extending track of life, and finally die. The term for ‘track’, ka, is formally and functionally related to the durative suffix -ka. Both are exponents of the third gramma-icon *ka, which expounds the disjunctive third function prime, independency, in the gramma-iconic schema (see Tables 21 and 23).

This process of moving towards death along the track of life is encoded by the third proto iconic term for sun. **angau. It encodes the downward movement of the sun towards its death below the western horizon after it has crossed the zenith at noon during the equinox. This process is also encoded by the irregular iconic expression keti yapu poko ‘he/she is going to the downward house’, a euphemism for impending death (see example (18)).

We now note the iconic complement of the derived verb expression ta/te.ka which encodes the oncoming future as the equivalent of a bird flying over the crest of an intervening hill towards an observer. Its iconic complement is the derived verb ka/te.ka (stand/der.1.der2), whose verb root ka is an exponent of the disjunctive third gramma-icon *ka. It means ‘to remove something from its place’. Consistent with this, when the vowel of the verb root ka is nasalised, the derived verb ka means ‘to fell’ a tree. Also consistent with this, the term for a ‘corpse’, yoto, is the same as the term for a log, the trunk of a felled tree. Its nuclear sublexemic constituent <yo> is formally and functionally related to the nuclear constituent of the term for a living tree, yomo. Consistent with this, the first of four systematically related descriptive terms for a headman is all yomo (man tree) ‘tree man’. When an all yomo ‘tree man’ dies, he becomes a yoto ‘log/corpses’, the equivalent of a felled tree.

The sun in going beyond the zenith and moving downwards towards its death after it crosses the zenith, encodes the movement of time into the past, the accumulation of an increasing number of days segmented (disjuncted) off from the present. The sun has been detached/removed from its place at the zenith, a process encoded by the derived verb ka/te.ka with the verb root ka. This verb root is formally and functionally related to the ‘past tense’ portmanteau morpheme tense suffix -ka. As noted elsewhere, in the study of the iconicity of the tense system of Table 15, this past tense suffix is highly irregular. By this irregularity it identifies itself as an iconic device of Witu logical symbolism, whose principal theme is the irregular intrusion of death into the domain of the immortal high beings. Death intruded when the Witu disobeyed and did not come for their language at once when called.

Principal theme is the oncoming future as the equivalent of a bird flying over the crest of an intervening hill towards an equivalent of a bird flying over the crest of an intervening hill towards an horizon after it has crossed the zenith at noon during the equinox. This process of moving towards death along the track of life is encoded by the third proto iconic term for sun. **angau. It encodes the downward movement of the sun towards its death below the western horizon after it has crossed the zenith at noon during the equinox. This process is also encoded by the irregular iconic expression keti yapu poko ‘he/she is going to the downward house’, a euphemism for impending death (see example (18)).

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The child is a (pro)created being, not an immortal being like the high being. Life, encoded by the second pair of high beings, Yali and Pulu — representing the life-oriented oncoming future — and death, encoded by the third pair of high beings, Tu Aneta ‘Death and her husband’ — representing the ongoing past — enter into a relationship of symbiosis. This symbiotic relationship generates a new form of life, mortal life, of whom the Witu are representative, since they were doomed to death for their disobedience. Life and death are now merged as part of a unified system, just as anabolism and catabolism, in the biological world, constitute the unified system of metabolic processes.

** Terms derived from the first proto iconic term for sun, *pa*

The nasalisation of the vowels of this proto iconic term for sun is attested by the following terms in Witu and in other languages of the region to which Witu belongs: Witu pa ‘sunlight’, Dadibi (also referred to as Daribi) we ai ‘water’, Fasu fa ‘light’, he ‘water’and hage ‘seed’, ‘egg’, and Folopa we ‘water’ ‘lake’ and fe ‘sap’ ‘juice’. The long vowel aa of Kewa, an iconically significant metalinguistic device, also indirectly reflects the nasalisation of an earlier short vowel a. According to Franklin (personal communication), the long vowel aa commonly reflects the loss of a feature present earlier in the history of that term, e.g. all ‘man’ → aa ‘man’. Consistent with this, the earlier form of the term for ‘sunlight’, pa, still retained in Witu, has become paa in Kewa. The long vowel aa of Kewa paa reflects the loss of the nasalisation of the vowel still retained in the Witu cognate term pa.
All these terms encode the iconic function of the sun in the meta-language of the region to which Witu belongs. The sun, the source of light in the sky, is the watery eye of the sky which dies underground like a seed, before -- like a seed -- coming back to life again.

First we note that the sound reconstructed as /p/ in this proto iconic term is reflected by a sound represented orthographically by the bilabial voiceless stop /p/ in daughter languages of the mother language to which this proto iconic term belonged. The reflex sound cannot properly be called a reflex, since the term reflex in orthodox comparative linguistics refers to a sound (phoneme) which is a direct descendant of the corresponding sound (phoneme) in a word in the mother language which had the same meaning as the word in the daughter language descended from it. The term reflex more correctly applies to the word in the daughter language which has been retained without change of meaning or function -- despite possible change in form -- from the mother term over many centuries and even millennia. The term reflex, however, is the most useful term for describing the relationship between a word in a daughter language which -- though it has changed its meaning from the meaning of the mother term -- can still be shown to be a direct descendant of that mother term. Since such words, particularly words encoding the symbolic function of the sun, are often, if not always, important iconic terms, I propose to use the expression iconic reflex when focusing on their their relationship to the mother term.

We turn now to one of the terms for sun reconstructed as **paa** from the evidence (the form) of derived terms retained in today’s daughter languages. It once meant sun, but has become the mother of a wide range of iconic reflexes (derived terms) which no longer mean sun but are the product of systematic radial extensions of the innate symbolic function of the sun. These systematic radial extensions of the mother term for sun reflect the fact that it is the entity which governs the growth of all plants and so the life of creatures which dependent directly or indirectly on them, and is the entity whose daily and seasonal cycles have given rise to a range of count systems which are among the most highly symbolic system of lexical terms in Witu. While, in referring to these terms, I will use the expression ‘derived from’ the mother term **paa**, it should be understood that such derived terms are what I call iconic reflexes of the mother term for sun. I will, however, consistently refer to the reconstructed term for sun, **paa**, as a proto iconic term for sun, and mark it and the other proto iconic terms for sun with a double asterisk (**`). I will do this to distinguish them from orthodox proto terms which are traditionally marked in comparative linguistic literature by a single asterisk (*), e.g. the proto Malayo Polynesian (= Austronesian) term for sun, *mata* ‘eye’.

The following explains how the first proto iconic term for sun, the term **paa**, has become the mother term of the daughter terms listed in cell 1 of Chart C. It is easy to account for it as the source of the Witu term for ‘sunlight’ **paa** and and its Kewa cognate **paa**. The long vowel of Kewa **paa** reflects nasalisation of a short vowel earlier in the history of the word (Karl Franklin, personal communication).

We now note that when the sun stands at the zenith at noon during the equinox it marks the central point in space, the point where ‘time’ becomes ‘times’. This accounts for the form and the iconic function of the Enga terms **paa** and **paa**, which appear to be freely fluctuating allomorphs paralleling the iconic function of the freely fluctuating pairs of allomorphs of the Witu Zenith iconic schema of Table 1. Both Enga allomorphs mean ‘times’. The allomorph **paa** ‘times’ is both formally and functionally related to the nuclear constituent **paa** common to the Witu clitics -pete ‘time’ and -pete ‘times’.

The counting of the passage of time by days and by years was important motivation for the development of the four systematically related sets of count terms in Witu (see Charts L and M). This accounts for the derivation of the Kewa numeral marker **paa** from the first proto iconic term for sun, **paa**. The change in position of the final vowel i of the proto iconic term **paa** encodes the fact that the sun moves from one side of the zenith to the other during the equinox. It is the equivalent of a
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satellite moving around its focus. This is consistent with the behaviour of modifying terms in Witu. They are the equivalent of satellites moving around a head (a semantically focal) word. The third set of Witu adjectives, the size-number adjectives of Chart I, may precede or follow the head noun they modify, e.g. tube ali (big man) and ali tubeya (man big-one) both of which mean ‘a big man’. This reflects the way the sun, perceived as bound to the world, moves from one side of the world to the other in its daily cycle. This also helps to explain why a derivative of the fourth proto iconic term for sun, **lau, the term lao of Enga, functions i) as a marker of adverbs, i.e. verb modifiers, e.g., kondaka lao ‘slowly’, wáne wáne láo ‘carefully’, and ii), as a marker -- in the form lao -- of the adjective root tumbí ‘big’ of the adjectival word tumblao ‘many’.

When the sun, encoded by the first proto iconic term **paí, stands momentarily at the zenith at noon during the equinox and divides the future from the past, it is also the moment when it stands in fullest view, from the highest mountain to the deepest and narrowest valley floor or sink hole in the ground. This toponographic position, the zenith at noon, becomes an icon for the topic of a conversation, something lifted up for particular attention, momentarily breaking the flow of the of the discourse. In this iconic function it has the source of the two Witu topic clitics i) paí the general topic clitic (top-gn), as in ipe ani (here.message.top-sp utter.prp.sb mon) ‘This is mine’, and ii) the special topic clitic (top-sp) paí as in nno paí ‘okो, (here.message.top-sp utter.prp.sb-mon) ‘Just listen to what he is saying’ (see Figure 1 in the file Seed-message-table1.doc). (The distinction between special and generic function is one of the most fundamental dichotomies in the language. Note i) the ‘special agentive’ clitic -yo (ag-sp) postposed only to personal names, and the term for one’s ‘biological father’ versus the ‘general agentive’ clitic -me (ag-gn) and ii) the ‘special exemplary’ clitic -lawe (ex-sp) also postposed only to personal names and the term for biological father versus the ‘general exemplary’ clitic -kiti (ex-gn). Note also again the special name for mountain, kati, preposed to the personal names of mountains, specifically mountains with a peak, which thereby point iconically to the mataul ‘zenith’, the symbolic location of the supreme high being, whose special (and hidden) name is YAWAY, and whose general name is Akolali.

The special moment when the sun stands at the zenith at noon during the equinox, encoded by the first proto iconic term for sun, **paí, is the point in space-time at which the special seed is formed which becomes the message sent to the world below to be incarnated by a person, the man of light (see cells 2 and 3 of Table 1). This accounts for the derivation – from the first proto iconic term for sun **paí – of the iconic tone-word pair of Enga terms wáni ‘seed’ and wai ‘message’ (see examples *(2) to *(4) and examples (5) to (7)). This, in turn, accounts for the origin of the nuclear constituent *pe* of the Witu term epe which means ‘good/perfect’ and also ‘middle aged’ (i.e., in the prime of life). This nuclear constituent *pe* has been transformed into a palindrome, epe. Palindromes by their very form, the combination of two mirror-image halves, are icons for perfection.

There is a logical explanation for the derivation of all these and other terms from this proto iconic term. The logic is the logic of the symbolic system encoded by the Akolali Centric Iconic Schema (Table 1) whose principal theme is the irregular intrusion of death into the domain of the immortal high beings when the Witu disobeyed the call to come for their language until called four times. They received the doom of death with the gift of their language when they finally came for it. The special seed/message formed at the zenith at noon during the equinox is Akolali’s response to the dilemma of death. It is the perfect product of the conjunction of the two mirror-image halves of the daylight period when the sun stands at the zenith at noon. (See examples *(2) to *(4) in the file titled The Akolali Centric Relationship Schema 1 and also examples (5) and (6) in the file titled The Akolali Centric Relationship Schema 2).

As already noted the first proto iconic term for sun, **paí, is the term which encodes the symbolic role of the sun when it stands momentarily at the zenith at noon during the equinox. This is the point in space-time when the special ‘seed’ (Enga wai) is formed which becomes the ‘message’ (Enga wai) to the world below. It is the epe ‘good/perfect’ product of the conjunction of the two mirror image halves of the day at the point in space-time (see examples *(2) to *(4) of the file The Akolali Centric Relationship Schema 1). This first proto iconic term for sun, then, encodes the zenith at the birthing centre of the universe (see also the endnote attached to the adverb opí ‘now’ ‘today’ of subsubcell 1 of subcell 1 of cell 4 Chart K).

All this points to the fact that the Enga verb roots wati and wasi ‘to create’ of the verbs watingi and wasingi respectively are derived from the first proto iconic term for sun, **paí. These verb roots mean both ‘to create’ and ‘to fix’. They are formally and functionally related to the Enga noun wáni ‘seed’ of the Enga periphrastic verb expression wail lyingi which also means ‘to create’ and ‘to fix’. The verb lyingi means both ‘to dance’ and ‘to injure oneself’. The message that this periphrastic verb expression encodes is dealt with in examples *(76) and *(77) of the file The Witu Meta-language 1.
At this point, we are most concerned to account for the formal relationship of the Enga term wáí of the Enga verb expression wáí linya'i ‘to create’ ‘to fix’ and the roots wati- and wasi- of the Enga verbs waling and wasing respectively. The medial phonemes t and s of these two verb roots reflect the proto glottal stop, represented as ‘ in the proto iconic term *pa:i. This proto glottal stop is limited to a very small set of terms in Witu. It is a feature of the special topic clitic -pa:i dealt with in section 5 of the file titled The Distinction Between Special and General. It is also a feature of the following iconic pair of utterances: q'eqi ‘No, I was wrong in what I just said’ and q'eq ‘No, you were wrong in what you just said’. The glottal stop is an icon for binary organisation, as the product of the division of a whole unit into two mirror image halves. The glottal stop ‘ of the proto iconic term for sun, *pa:i, encodes the matái ‘zenith’ as the point in space-time which divides the universe into two mirror image halves. This dividing point is marked by the sun standing there at noon during the equinox. The glottal stop in the negative utterances q’eq and q’eq just cited encodes the point of division between speaker and addressee.

The glottal stop results in a very tense articulation between the vowels on either side of it. It finds its complement in the tense articulation between the vowels a and u in such a verb as the verb kana, the prototypical verb of the first morphophonemic class of verbs (see cell 1 Table 15). It is also a feature of the nuclear constituent <kana> of the pair of bifocal kinship terms which signifies both grandparents and parents-in-law, kaua and kane (see cell 4 of Table 8). In Witu, the tense articulation between the vowels a and u of this root results in the articulation of non-phonemic (i.e. phonetic) transition sounds which vary from [ɡ] to [s]. These transition sounds have become phonemised in Kewa. Thus Witu kana ‘grandfather’ has for its cognate in Kewa the term kagna (Franklin and Franklin 1978:382). This Kewa term is formally and functionally related to the Kewa term akua ‘someone two ranks removed from ego’, among them father’s father, and wife’s father (Franklin and Franklin 1978:110). It is the product of kagna by deletion of its initial consonant, a common phonological change in Kewa. Most importantly, this Kewa term akua is formally and functionally related to the Kewa terms kagua and akua which mean ‘ridge pole of a house’, and are synonymous with the Kewa term kaasua (ibid 111). (The two sides of a house in meeting at the ridge pole point iconically to the sky, the domain of ancestral beings.) The same phonematisation of a transition sound [s] formed between the tense articulation of the vowel a and the following vowel u is also a feature of the Witu term for ‘brain’, aubua, and the Kewa term asubua ‘head’.

The glottal stop finds a somewhat unique expression in the Obura dialect of Tairora in the Eastern Family of the East New Guinea (ENGH) Stock of which Witu is a Family-level isolate. The following is a brief summary of the following feature dealt with in detail in the article Subject Morphemes in the Tairora Verb Complex: Obura Dialect (Kerr 1973b: see especially Tables 74,76, 78 and 79 of that article). (The data on which that paper was based was collected by Alex Vincent, the SIL member still working with his wife Lois among the Tairora people.) There is a triad of Obura verbs which register a fundamental dichotomy between regular verb root formation and irregular root formation. Regular verb root formation is a feature of the verb na ‘to eat’, a reflex of a proto term *na deriving from a language at least as old as the Trans-New Guinea Phylum of languages to which the East New Guinea Stock belongs. The irregular verbs are the verb ti ‘to say’ and bu ‘to go’. The verb ti ‘to say’ is a reflex of a proto Eastern Highlands term reconstructed by Foley (1986:257) as *s1. The verb bu ‘to go’ is probably a reflex of an even more remote proto term *pu, and a probable cognate of the pu ‘to go’ in Kewa, the verb pu ‘to go’ of the Ku Waru subgroup of the Hagen Sub-Family of languages of the Central Family of the ENGH Stock, and the verb pu ‘to go’ of Witu (see subsubcell 2 of subcell 2 of cell 4 of Table 13 of the file The Witu Meta-language: Tables 1).

Our principal focus of interest in the Tables which present the various paradigms of subject suffixes of the Obura dialect of Tairora is the irregular root formation of the verbs ti ‘to say’ and pu ‘to go’ with these paradigms of subject suffixes. A simple rule determines the replacement of the consonant of these two roots by the glottal stop. If the combination of the roots with the subject suffix results in a combination of the vowel sequence ai or au immediately following the consonant of the verb, then the consonant is replaced by a glottal stop. Thus the root bu ‘to go’ + the subject suffix sequence -a.na ‘1st plural’ (Table 78) yields the perfect inflection qianara. Similarly, the verb root ti ‘to say’ + the subject suffix sequence -a.na ‘1st plural’ yields the perfect inflection qianara. This rule operates without exception in all the many paradigms when the combination of the root ti ‘to say’ or the root bu ‘to go’ with a following subject suffix or subject suffix sequence results in the juxtaposition of the verb root vowel with a vowel a.

This irregular behaviour of these two verb roots is highly systematic, since it is the key to the systematic relationship between the following triad of subject categories, 1st singular, 2nd singular and 1st plural. It was the feature which highlighted for me that 1st person plural is the product of
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combination of the 1st person singular subject suffix and the second of two juxtaposed suffixes of 2nd person singular. In other words, 1st person plural was fundamentally a person pronoun encoding the same message as the pidgin English free personal pronoun youmi which means ‘you and me’, i.e. 1st person inclusive. This combination is one of the most geographically extensive features of bound subject pronoun systems of languages of the ENGH Stock. Wurm (1975:487) has reacted to it in his article Eastern Central Trans-New Guinea Phylum Languages, in which identifies it as a reflex of a proto language underlying the East, East-Central and Kalala Families of the languages of the ENGH Stock. It possibly traces back to the mother language of the Stock.

This proto system – which registered the special relationship between the speaker and his single addressee – is encoded in the Witu myth of the origin of language and death by the special relationship between the two obedient language groups, the Kewa (=Enga, i.e. West Central Family) and Lai (=Central Family) of the ENGH Stock. It is a relationship engendered by obedience which results in eternal life. By contrast, the Witu (a Family-level-stock of the Stock) were the odd group out, isolated from the other two groups by their disobedience. They received the doom of death with their language for their disobedience.

The glottal stop is an icon for the minuscule point in space-time, the zenith when the sun stands there and divides the universe into two mirror image halves at noon during the equinox. It is the point in space-time when the special seed is formed which became a message incarnated by the man of light, who spoke, lived and was the message (see the Zenith iconic schema Table 1). It is the centre which represents the point of conjunction of life and death. The second proto iconic term for sun, **andau, encodes the first mirror-image half, the period of time taken by the life-oriented movement of the sun to conjunct with the zenith at noon during the equinox. But the moment the sun sees beyond the zenith at noon during the equinox, it goes to its death down below the western horizon. This is encoded by the third proto iconic term for sun, **angau.

This, I believe, accounts for the function of the glottal stop in the paradigm of subject suffixes with the verbs ti ‘to say’ and pu ‘to go’. I could say more about this, but do not wish to spend more time on the Tairora material at this point.

In Witu and languages of the region embraced most immediately by the Witu myth of the origin of language and death, the vowel sequence ai and au reflects the influence of tight stricture between them in a number of ways.

In, for example, the Witu term of address for one’s biological father, Atai, is transformed in the speech of small children into Alita, articulated phonetically as [Aisa]. This utterance atai is almost certainly formally and functionally related to the Witu term for zenith, matai, the residence of the supreme Father being, Akolali, whose special name is YAWAY. Consistent with this, the Witu term matai is formally and functionally to such terms in the Enga Family of languages as Enga maïtâ ‘back’, and Kewa massaa ‘back of body’ and massa ‘mountain’. According to Karl Franklin (personal communication), a long vowel aa commonly reflects the loss of a constituent present in the same word earlier in its history. In this case, the lost constituent is the vowel i of an earlier form of the word matai following the metathesis which resulted in the intermediate stage maïta ‘back’ of Enga.

The vowel sequence ai becomes phonologically active when it occurs in the context of a preceding vowel a in words of the form CaCai. The vowel sequence in contiguous syllables also becomes phonologically active in the following context. A common type of spatial expression in Witu has the following morphemic structure.

\[ e\, -ni\, -ka\, e\, -ni\, -ya\]

Proximal off from focus le-gen proximal off from focus universal typological clitic the kind of things nearby

The proximal root e can be substituted by any of the other three topographic spatial roots (see Table 3 A). The two-word sequence elides to enikaniya by deletion of the duplicated spatial root of the second word. The last three suffixes ka.ni.ya (loc-gen-le-eg2.un-typ) have become separated from the nuclear spatial root to function as the plural number term kaina following a process of metathesis: kaniya \(\rightarrow\) kainya written as kaina and articulated phonetically as [kain‘a]. It means ‘many’ and usually occurs in combination with the universal intensifier clitic -mati in the expression kaina-mati ‘very many’ (see the generic number terms of Chart M). It is formally and functionally related to the Enga term kuná which means ‘center, middle and waist’ (Lang 1973:29). The Witu and Enga terms jointly encode the fact that a woman’s waist, her central body section, is the birthing centre of the woman. It is linked iconically with the male-oriented matai as the birthing centre of the universe (see the endnote attached to the adverb opii ‘now, today’ of Chart K cell 4)).

(Note how the Oksapmin term mutei, formally and functionally related to the Witu term for ‘zenith’, matai, encodes the zenith as the focal point in space-time of the universe. It means ‘here’. Note also...
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that its antonym atei ‘there’ is derived from it by an iconic process of deletion. The same iconic process of deletion is a feature of the following terms in Dobu kwabula - wabula widow (= ‘oahula) and kunata – ‘umata ‘widow’ (Dobu-English School Dictionary p 131). Note also the possible formal and functional relationship of Oksapmin atei ‘there’ to the Oksapmin terms atan(a) ‘sun’ and atem ‘mouth’

Note the following derivative of the first proto iconic term for ‘sun’, **pa’i, in Dobu: ewaiwai ‘win’ (Dobu-English School Dictionary p 131).

The metalinguistic role of the third function prime independency within the PQS system of four proto iconic terms for the sun is, the aga angau or a hole in the ground (see the mono focal subset of proto iconic derivatives). Note also the possible formal and functional relationship of Oksapmin atei ‘there’ to the Oksapmin terms atan(a) ‘sun’ and atem ‘mouth’

That is why one of the derivatives of all four proto iconic terms for the sun is either a house (see the monofocal subset of proto iconic derivatives) or a hole in the ground (see the derivativ

The first term angau Polynesian word for ‘sun’ and ‘day’ reconstructed by Dempwolff (1937:4) *andau. Note also the following proto Malayo Polynesian term reconstructed by Dempwolff (1937:5): [jadandac ‘upwards’ ‘ladder’ ‘look upward’ ‘to rise’.

This third proto iconic term for sun, **angau, encodes the symbolic role of the sun declining to its death immediately following noon during the equinox. It is the proto iconic term governed by the disjunctive third function prime independency within the PQS system of four proto iconic terms for the sun. Consistent with this, it is the source of the Witu term matai ‘zenith’, the symbolic residence of the supreme being, Akolali. He is the source of all thinking.

Compare the second proto iconic term for the sun **andau with the following proto Malayo Polynesian word for ‘sun’ and ‘day’ reconstructed by Dempwolff (1937:4) *andau. Note also the following proto Malayo Polynesian term reconstructed by Dempwolff (1937:5): [jadandac ‘upwards’ ‘ladder’ ‘look upward’ ‘to rise’.

The sun is a key constituent of the Track Iconic Schema, one of the most distinctive features of the Trans-New Guinea Phylum of languages. In this schema the terminals of a track or path, the door of a house or an animal hole, are identified as the same thing as the track or path itself that relates them. For the same reason the entity that makes or travels regularly along the path is part of the Track iconic schema. That is why one of the derivatives of all four proto iconic terms for the sun is either a house (see the monofocal subset of proto iconic derivatives) or a hole in the ground (see the derivatives of the fourth proto iconic term for the sun **laun)

The metalinguistic role of the third proto iconic term for the sun **angau is also encoded by the iconic function of the constituent <angau of the following pair of Enga terms i) yanga which signifies ‘a (coarse) string net bag’ and ii) yangama which signifies ‘a’ (sky) sun and encodes the message ‘sun in the sky’. The sublexemic constituents of the iconic pair of Enga terms yanga and yangama jointly encode the fact that the morning is born from the darkness of the womb of night (see the endnote attached to the adverb likonu-kama ‘morning’ of subsubcell 1 of subcell 2 of cell 4 of Chart K).

The correlation of a net string bag with the passage of time is also confirmed by the mythology of the Yali of Irian Jaya described by Zoller (1988:16). ‘The Yali notice that the sun swings from south to north . . and back. . . and sits’ at the extreme points. This is caused, the Yali believe, by the man Masamulun when he moves his small net a little on the wall of the hut each day.’
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The unending succession of new days in the linear flow of time ushered in by each new morning is encoded as a pointless process by the Witu verb which signifies the act of the sun going round the world, the derived verb puntu/puntu (work/dier/dr) ‘to go round in circles’. When it functions as an auxiliary verb immediately preposed to the primary verb, it functions as an adversial auxiliary, signifying the ‘pointlessness’ of the action specified by the primary verb. In the same way the adverb pa which signifies ‘a unbroken continuity’ of action, best captured by the gloss ‘still’, also signifies the ‘pointlessness’ of the verb it modifies, e.g. pa witi/ko/u (no-reason kill/s-I2,ps,l) ‘I killed (him) for no reason’. This Witu term pa is derived from the Witu term for ‘light from the sun’, pa, itself derived from the first proto iconic term for sun, **pa**), which encodes the symbolic function of the sun when it stands at the zenith at noon during the equinox, the point in space-time when the special seed was formed which encoded a special message incarnated by the special man of light of the Zenith iconic schema (Table 1).

Consistent with this, the Pole adverb meaning ‘for no reason’, pakama (Rule 1977:21), is the product of the paired sublexemic constituents <pa, kama>. Its first constituent <pa> is formally and functionally related to the Witu adverb pa ‘for no reason’, derived from the first proto iconic term for sun, **pa**. Its second sublexemic constituent <kama> is formally and functionally related to the Witu clitic kama which signifies an unbroken succession of entities or events.

The third proto iconic term for sun **angau** is probably also the source of the term ago of the Tauade language. The function of this Tauade term is explained in the following way by Hallpike (1970:256-274).

“The Tauade believe that long ago their country was inhabited by non-human beings of gigantic power who carved out the river valleys, established the traditional ceremonies, deposited sacred stones and the originals of animals and plants, and who were in some cases of immense fertility, often with penises ‘like horses’ or ‘forty-gallon drums’, to quote their standard similes, and who were also of extraordinary homicidal tendencies. These beings could burrow through the ground, or fly through the air like birds, and when the mood took them liked nothing better than to overturn a yard in a dance village as though it were a carpet and bury all the people underneath and wash away everything. They roared over the country raping and pillaging, smearing people with faeces, and shoving lengths of wood up people’s anuses or down their throats, and one of their favourite tricks was to fly up into trees from which vantage point they would urinate on people. They are supposed in most stories to have been white, and to have had very long hair, and in some cases pigs’ tusks or other animal characteristics. The Tauade refer to themselves, and other Papuans, as **vaen/ma, meaning ‘real human beings’, or ‘true human beings’. The culture heroes just described are agoevau (ago+tevi(e) (person+ann—plural suffix), and they are of a basically different nature from the Tauade and the other Papuans.”

111 It is interesting to note that the Hawaiian term for sun is la (Elbert 1970:226).

112 Note the Disconnection iconic schema (subcell 4 of cell 3 of Table 1) whose four terms encode the systematic relationship between person, space, time and type.

See also the table titled “The Witu Meta-language: Tables 2” summarising conjunctive and disjunctive relationships established through i) Person, ii) Space and iii) Time encoded by the suffixes -a (conjunctive) and -ke (disjunctive). This file is located in C:AAAA-Kerr-DOCS-UTDC2004-Feb-Transfer-ex-ACER-UTDC-docs/A-Witu-Logc-utdc/Witu-Meta-Lang-ako-cent-01-02-03-Final-utdc/Witu-Meta-Lang-2004-utdc/AM-Met-2-tab-01-Dec-04-utdc.doc Created on 1/0/1999 4:34 PM This section added 18th March 2006 2:50 PM.

113 There is a fundamental difference between person-based and space-based relationships on the one hand and time-based relationships on the other hand. Person-based and space-based relationships are more or less self evident relationships. They are the kind of relationships which even members of the non-human animal kingdom can recognise, when, for example, they beget offspring and mark out territorial boundaries. But no animal is capable of recognising time based historical relationships.

114 See sections 1 and 2 of the file titled The Iconic Function of the Four Topographic Spatial Roots in the Witu Meta-language.

115 This table summarises the most fundamental of all systems of interpersonal relationship in the Witu relationship-governed system. It is the system which establishes the interpersonal relationship between the three sorts immortal high beings on the one hand, and three mortal people groups on the other. It is the most fundamental exponent of the Basic relationship system with its four function primes presented in Chart A. It highlights the fundamental importance of triads as the bridge between closed systems governed by binary (paired) relationships, and the open ended product of the interaction
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between them. Both systems of trials, the system of three sets of high beings, and the system of three people groups resolve themselves into a dichotomy which sets the first two in each system in opposition to the third. It can be defined as the dichotomy of inclusive versus exclusive relationships. As we will see elsewhere, it is encoded by two unique pairs of suppletive verbs, the two suppletive verbs of telling and the two suppletive verb of giving of Enga and of Kewa. Inclusive telling and inclusive giving is directed towards 1st and 2nd persons, the two interdependent persons in all acts of conversation. Exclusive telling and exclusive giving is directed to another person, 3rd person, the independent person spoken about in the conversation between a 1st and 2nd person. This unique pair of pairs of suppletives verbs also encodes the fundamental relationship between the act of telling or speaking and the act of giving. It encodes the fact that the most fundamental gift of the high beings to mortal people groups was the giving of language. (Without language, they could not have generated their cultures.) But is also encodes the fact that this gift established a dichotomy between i) two obedient people groups, who received, in consequence, the promise of perpetual renewal of life with their respective languages, and ii) a third group, a single disobedient group, the Witu, who received, in consequence, the doom of death with the gift of their language. In such a way, the two pairs of suppletive verbs, encode the most fundamental of all relationships which govern the life of all mortal beings, the symbiotic relationship of life and death, the equivalent of the symbiotic relationship of i) anabolism, constructive metabolism, and ii) catabolism, destructive metabolism. These two mortality-governing processes bestowed on mortal beings the capacity to mate as pairs to produce a third person, an offspring. With this gift came the potential which differentiated them from the three sets of immortal high beings, the potential for unlimited increase in numbers and diversification. This is adumbrated by the inclusion of three people groups in the Witu myth of the origin of language and death.

This Witu myth also encodes the four media through which the four function primes of the Basic relationship system operate in their governance of the universe and the people groups within it (see Chart D). It encodes 1) the primary role of person, through persons identified by names, 2) the secondary role of space which unifies the three sets high beings within the heavens, and the three people groups on earth, while differentiating the three people groups as residents of three different, though neighbouring domains, 3) the tertiary role of time which differentiates the immortal high beings from the mortal people groups, and governs the death-doomed Witu so that they die, and 4) the quaternary role of type which establishes the high beings as different types of beings in opposition to the mortal people groups, themselves differentiated by their different response to the call to come for their languages into an obedient subgroup and a disobedient subgroup, which established a different future for each, the promise of perpetual renewal of life for the former subgroup, and the doom of death for the latter.

Akolali fixes the po ‘thread/twine’ of spirit life to every Witu at birth, determines at that moment how long that Witu will live, and holds the thread of life secure through every present moment of its life. The supreme high being also has a special name. It is a hidden name encoded by phonos-icons (see Table 2). It is YAYAW, the source of the term yaw in several Papua New Guinea languages, among them, the Witu (see section 2.1 of the file titled The Witu Meta-language 2). Its paired sublexemic constituents encode the message that he is the supreme ‘I’ (the IAwu), the one who sent the seed transformed into a message into the world, a message incarnated by the man of light who, having died, came back to life as the personal representative of his group, mankind (see examples *1(2) to *1(4), cells 1 to 4 of Table 11, and Figures 1 to 3). The Personal name iconic schema and the Yomim iconic schema of Table 11 encode the fact that this man of light is the perfect reflection of the Father being.

For an analysis of the way the three sets of high beings communicate or communicated with the Witu see the Introduction to the file titled The Shift from Lexical to Syntactic Function.

The message transmitted by the katiyapale ‘lightning’ is embodied in the palene ‘fragments’ of the trunk of the tree at which the lightning strike was directed by the supreme high being Akolali (see example *1(17) of the file titled The Witu Meta-language 1).
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xxiv For an analysis of the systematic relationship between the three primary divisions of time governed by the three sets of high beings, see the endnotes attached to Table 15, the Tense suffix system of sentence-final verbs, especially the endnote attached to the past tense portmanteau morpheme –ka of cell 3.

xxv (This endnote has been copied from the endnote dealing with neutralisation of contrast between inclusive and exclusive relationships in defining the nature of the fourth function prime, symbiotic-dependency, in cell 4 Chart B.)

The second pair of high beings, Yali and Pulu, jointly encodes the potential for life. This potential is matched by the symbolic function of the sun encoded by the second proto iconic term for sun, **andau (see Chart C). It encodes the sun rising to new life from the east to make conjunction with the zenith at noon during the equinox. It also encodes the oncoming future, which is iconicised as the equivalent of a bird skimming up and over the crest of an intervening hill towards an observer, the equivalent of a person waiting to see the fulfilment of a dream. The intervening hill is the highest point of the universe, the matai ‘zenith’, which the sun will reach only twice a year, at noon during the equinox. The act of a bird skimming over the crest of a hill as it flies towards an observer is signified by the derived verb expression ta/te.ka (rise/der.i-der.2). The same derived verb means ‘to fulfil’ a dream forecasting the future. The verb root ta- means ‘to raise’ one’s foot or hand in preparation for delivering a blow, or to raise a weapon above one’s head. It is one of the verbal exponents of the second gramma-icon #ta (see Tables 21 and 23). As an exponent of this second gramma-icon, it is formally and functionally related to the nominal term to which means ‘homeland’ and also functions as the root of the vocative term of address for one’s biological father, a.ta.i (voc-1-biol-father-egocentric-affix) ‘Father!’

The paired sublexemic constituents <ya.ili> (sky.man) of the name of the first of the two dream givers, Yali, encode Yali as the equivalent of the supreme high being, Akolali.

The name of the second dream giver, Pulu, encodes the second dream giver as the equivalent of a bird flying up towards the zenith, the symbolic residence of the supreme high being. The following is the evidence for this.

The name Pulu is formally and functionally related to the nuclear constituent of the term for the bronze wing pigeon, puluma. The highest ranking chief in the large Witu district of Poloko named two of his daughters after the two dream givers, calling one Yalinu and the other Pulumanu. It is said that he was killed in interclan warfare not long after (shortly before we settled at Poloko) because he had so named his daughters.

The names of the two dream givers, then, encode them as having a relationship of interdependence. Pulu is encoded as the equivalent of a bird flying up to make conjunction with Yali ‘the sky man’ at the zenith. This is a life-oriented process which has overtones of the husband and wife relationship. Consistent with this, the second proto iconic term for sun, **andau, which encodes this process, is the source of the nuclear constituent <ando> of the term for a husband and wife pair, adona, articulated phonetically as [andona].

Consistent with the above, the name of the second dream giver, Pulu, is formally and functionally related to the Kyaka Enga term pulyu, an adjective meaning ‘uphill’ (Draper 1993:96).

xxvi The Witu term for ‘symbol’ or ‘sign’ is adeka. It is the product of the paired sublexemic constituents <ada.ka>. Its first constituent <ada> is derived from the second proto iconic term for sun **andau. This is the proto iconic term which encodes the symbolic function of the sun as it rises to make conjunction with the matai ‘zenith’ at noon during the equinox. It encodes deliberate intention. Consistent with this, the second proto iconic term for sun, **adau, is the source of the 1st person imperative suffix sequence –a.da whose function is best captured by the gloss ‘I intend to’ ‘let me’ (see Table subcell 1 cell 1 Table 6B). Also consistent with this, the constituent <ada> of the Witu term for ‘symbol’ – adeka <ada.ka> – is also a feature of the Kewa term adakaru which means ‘intentions’. This Kewa term has overtones of sexual intent. This is encoded by the second constituent <karu> which is formally and functionally related to the Kewa term kaaru which means co-wife (Franklin and Franklin 1978:183). It is also formally and functionally related to the Witu term katu ‘male frontal pubic drapé’ – articulated phonetically as [kaaru] – which is used as a colloquial term for one’s own wife in the Witu expression anu katu ‘my frontal pubic drapé’.

The foregoing is consistent with the following. The moment of conjunction of the sun -- signified by the proto iconic term **ndau -- with the zenith at noon is the moment of production at the zenith of the special redemptive seed. This seed is encoded by the medial sublexemic constituent of the second pair of freely fluctuating allomorphs of ‘cardinal 2’, takuta and taguta, of the Zenith iconic schema (cell 2 Tables 1 A to 1 C). This seed became the special, the important, man of light encoded by the third pair of freely fluctuating allomorphs of the Zenith iconic schema. Consistent with this, the Witu
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equated with the seed as an icon for the promised redeemer. Thus where the Enga term *angi* ‘seed’ has for its iconic complement the term *angi* which means ‘true or genuine’, ‘eldest’ and ‘middle aged’ (see example *26* of the file already cited), the iconic function of the Enga term *kapa* ‘egg’ is complemented by the Witu term: *kapa*. This Enga term *kapa* means ‘sufficient’ and ‘enough’ as a single term and ‘equally’ as a duplicated term *kapa kapa*. The egg, like the seed, is the product of conjunction of the sun with the zenith at noon during the equinox. The sun at this point in space-time divides the daytime period into two equal, mirror image halves, the half before noon and the half following noon. It is the conjunction of these two (equal) halves which yields the seed and the egg, the seed from the akura pandanus palm (see example *(26)* of the file already cited) and and the egg from the bird, the *puluma*.

The sun -- at this productive moment in space-time, the zenith at noon -- has reached the mark to which it was aiming, the desired mark. The Enga term which encodes this is the adverb *kapa*, already cited, which means ‘enough’ ‘sufficient’. It is the functional equivalent of the Kewa term *manda* [manda] ‘enough’ which, in turn, is formally and functionally related to the Kewa term *mada* [mada] which means ‘on top of’ (Franklin and Franklin 1978: 171). This iconic pair of Kewa terms *mada* and *madaa* are the product of the following paired sublexemic constituents: <meta> and <meta> respectively. The second sublexemic constituent of both is derived from the second proto iconic term for sun, *<meta>*, which as already noted, encoded the upward movement of the sun to make conjunction with the zenith at noon during the equinox. At that moment it is like a ‘bird’ on top of the ‘sky’, both signified by the same Kewa term, the term *yaa* This Kewa term *yaa* is formally and functionally related to the medinal constituent *ya* of the Witu term *ofyakhe*, the product of combination of the root *of* ‘target-mark’, and the bound forms *ya* and *ke* ‘at’ which together mean ‘sufficient’, ‘able’ ‘equal to’.

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<sup>xxx</sup> The term *pule* is the product of the paired sublexemic constituents *<meta>* and encode the message ‘urine activity’. Urine is a potent life-force. The cognate of the Witu term *pule* ‘urine’ is *pu* in Kewa and *pu* in Enga. It is formally and functionally related to the term for ‘liver’ in Kewa, *pu*, and the root of the term for ‘liver’ in Enga, *pu*<sub>1</sub>. It is also formally and functionally related to the nuclear sublexemic constituent *<meta>* of the Witu term for ‘gall bladder’ and ‘urine bladder’, *punene*.

The Witu term for ‘liver’, *kolotini*, is an iconic term whose paired sublexemic constituents <meta> (many offspring) encode the message ‘many offspring’. The Witu term for liver makes an iconic word pair with the term for ‘lungs’, *konowane*. It is the product of the paired sublexemic constituents *<meta>*. The first constituent *<meta>* is the Witu term for ‘daughter’. The second constituent *<meta>* is formally and functionally related to i) the Kewa term for ‘daughter’, *wane*, and ii) the Enga term *wane* which means ‘boy’ and ‘child’. The paired iconic terms, then, for ‘liver’, *kolotini*, and ‘lungs’, *konowane*, jointly encode the message ‘the production of many offsprings, sons and daughters’. Consistent with this, these two iconically paired body parts, liver and lungs, are also morphologically paired. They are paired up within the chest cavity. The iconic significance of the chest cavity is encoded by the Witu term for ‘rib cage’ of a pig, *lunoti*. It is the product of the paired sublexemic constituents *<meta>* (fresh shoot clan) which encode the message ‘the clan as the equivalent of the new season shoots on a tree’. Consistent with this, the Enga term for ‘clan’, *taiti*, is formally and functionally related to the Witu term *tata* which means ‘leaf’ of a tree. Rib cages of pigs are used to cement relationships between two groups established by a bride marrying from one group into the other.

<sup>xxx</sup> The term *tale* is the product of the paired sublexemic constituents *<meta>* (district-of-citizenship act) and encodes the message ‘the activity associated with one’s district of citizenship’. This reminds me of the way Australian Aborigines often refer to their land, ‘this is the place of my dreaming’. The term *tale* is also the semantically distinctive particle of the following periphrastic verb expression *tale piti* (perch sleep) which refers to a bird or fowl roosting. Birds and fowls prototypically return to the same place to roost at night. This is also why a Witu in defining his citizenship may say the following, *Oindo Yatitipa piti.ku* (Oindo Yaririva phratry sleep’s-T2.pr.I) which means literally ‘I sleep as a member of the Oinda group within the Yaririva phratry’. In other words, a man would define what group he belonged to by where he slept. It was only safe in precontact days to sleep in one’s home territory.

In light of this we now refer again to the root *pu* of the term for ‘dreams’, *pule*, whose paired sublexemic constituents *<meta>* encode the message ‘urine activity’. The term *pu*
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means ‘urine’. In the animal kingdom, animals, particularly males, mark and lay claim to their territory by spraying their urine at strategic sites within it. They fight to maintain their claim on the territory.

“*” This endnote has also been copied from the endnote dealing with neutralisation of contrast between inclusive and exclusive relationships in defining the nature of the fourth function prime, symbiotic-dependency, in cell 4 Chart B. It deals with the symbiotic relationship between life and death governing the mortality of the Witu.)

The third pair of high beings, ‘Tu Aneta ‘Death and her husband’, were the givers of language to the Witu. They linked the language given to the Witu with death, though they themselves, like all three sets of high beings, are immortal. Death came through the disobedience of the Witu in not coming at once for their language. They only responded after being called four times. After giving the Witu their language linked with death in the remote past, the third set of beings have had no further active input into the lives of the Witu. Their current influence, the operation of death on the Witu, stems from and was limited to the past. They are governors, then, of the eternal past.

The doom of death pronounced on the Witu is encoded by the very form of the term for ‘language’, agale. in Witu and Kewa. It has the following sublexemic structure (see example *(26)).

\[ \text{agale} \rightarrow \text{[aŋkale]} \]

open-mouth-wide/duration/activity

The sublexemic constituents encode the message ‘the act of keeping the mouth open wide’. It encodes the falling of a kernel from the symbolic large spherical fruiting body of the karuga pandanus palm (see examples (5) to (7)). When the fruiting body dries out, if it is not harvested, the cells containing each kernel gape open like a mouth’. A seed then falls to the ground like a message falling from the mouth of a speaker. The durative suffix –ka (dur) encodes the governance of the Witu by time, so that they age as they travel along the ever extending track of life, and finally die. The term for ‘track’, ka, is formally and functionally related to the durative suffix -ka. Both are exponents of the third grammatical icon ka, which expounds the disjunctive third function prime, independency, in the grammatical icon schema (see Tables 21 and 23). This process of moving towards death along the track of life is encoded by the third proto iconic term for sun, *angau. It encodes the downward movement of the sun towards its death below the western horizon after it has crossed the zenith at noon during the equinox. This process is also encoded by the irregular iconic expression keti yapu po ko ‘he/she is going to the downward house’, a euphemism for impending death (see example (18)).

We now note the iconic complement of the derived verb expression ta/te.ka- which encodes the oncoming future as the equivalent of a bird flying over the crest of an intervening hill towards an observer. Its iconic complement is the derived verb ka/te.ka- (stand/der-1 der-2), whose verb root ka- is an exponent of the disjunctive third grammatical icon ka. It means ‘to remove something from its place’. Consistent with this, when the vowel of the verb root ka- is nasalised, the derived verb kg- means ‘to fell’ a tree. This verb kg- encodes the termination of the day when it co-occurs with the term for ‘tree cricket’, noe in the verb expression noe kg-. It refers to the high pitched call of the tree cricket at the end of the day calling people to quit their work and come home. The term for tree cricket, noe, is derived from the addressee centric plural form of the verb to come, noe ‘all of you come’. The verb kg- encodes the fact that the day is about to come to an end, chopped off like a felled tree.

Also consistent with all this, the term for a ‘corpse’, yoto, is the same as the term for a log, the trunk of a felled tree. Its nuclear sublexemic constituent <yoto> is formally and functionally related to the nuclear constituent of the term for a living tree, yomo. Consistent with this, the first of four systematically related descriptive terms for a headman is ali yomo (man tree) ‘tree man’. When an ali yomo ‘tree man’ dies, he becomes a yoto ‘log/corpse’, the equivalent of a felled tree.

The sun in going beyond the zenith and moving downwards towards its death after it crosses the zenith, encodes the movement of time into the past, one extra day added to an increasing number of days segmented (disjuncted) off from the present. The disjunction of the sun from the zenith is encoded by the derived verb ka/te.ka- with the verb root ka-. This verb root –ka is formally and functionally related to the ‘past tense’ portmanteau morpheme tense suffix –ka (see cell 3 Table 15). As noted elsewhere in the study of the iconicity of the tense system of Table 15, this past tense suffix is highly irregular. By this irregularity it identifies itself as an iconic device of the Witu meta-language, whose principal theme is the irregular intrusion of death into the domain of the immortal high beings. Death intruded when the Witu disobeyed and did not come for their language at once when called. The past tense suffix -ka is irregular in the following way. It is the only portmanteau morpheme in the language. It encodes the personalisation of time. Unlike the regular past tense suffix, -ko, which has no overtones of person, the portmanteau morpheme –ka signifies i) that the tense is past tense and ii) that the subject
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is a single non-speaker, i.e., a single 2nd person or 3rd person. Time becomes personalised when Akolali fixes the thread of life to a Witu at birth from his symbolic location at the zenith. The child born into the world begins its journey along a track, encoded by the term for track, _ka_. It begins to acquire a past. As he/she moves along this track as an embodied being, he/she ages and finally dies. This is the consequence of the doom of death pronounced on the Witu when they finally came for their language.

The filler of cell 4 of the Akolali Centric Relationship System, the Grand cultural organisation system of the Witu, is the product of the symbiotic relationship of life and death. It is in other words, the product of the symbiosis of: i) the promise of life given to the two obedient people groups of subcells 1 and 2 of cell 4, the Kewa (= the Kewa, Enga, Mendi, Huli Family of languages) and the Lai (= the Hagen, Wahgi, Chimbu Family of languages) and ii) the doom of death pronounced on the people group of subcell 3, the Witu (a small Family level isolate within the East New Guinea Highland Stock to which all three people groups belong).

As noted again shortly, the joint obedience of the first two people groups is an icon for inclusive, life-oriented relationships. The disobedience of the third people group, who stood apart in isolation from the other two people groups, is an icon for exclusive, death-oriented relationships. To be isolated, unrelated to others, is to be doomed to death. The filler of subcell 4 of cell 4 is the product of the symbiosis of these two fundamental types of relationship, inclusive and exclusive. Inclusive relationships bond people together. Exclusive relationships govern the separation of people. It is the breaking up of larger bonded groups into smaller separated groups which lies behind the multiplication of variety consequent on the multiplication of numbers.

In the symbiotic relationship of life and death, life is the positive aspect and death the negative aspect of the relationship. In other words, death is the negation of life. This accounts for the overtones of negation which is a feature of many exponents of the bifocal fourth function prime, symbiotic-dependency, in the system to which they belong (see the endnote attached to the first generic number term _pa'de_ of subcell 1 of cell 4 of Chart M).

Such overtones of negation are even a feature of the bifocal phono-icon of the Phono-iconic schema of Table 2. There is only one filler of the bifocal cell 4 in the Phono-iconic schema. It is the systematically irregular phono-icon referred to as the glottal stop. It is irregular since it is the only phono-icon which is not expounded by a phoneme. By this irregularity it identifies itself as a device of the meta-language whose principal theme is the irregularity of the intrusion of death into the domain of the three sets of immortal high beings, when the Witu disobeyed the call of the third set of high beings, _Tu Aneta_ ‘Death and her husband’, and did not come for their language until called four times. They were penalised for their disobedience. When they were given their language, it was linked with the doom of death.

The glottal stop is an icon for death. While it is not expounded by a phoneme, it has to be given orthographic status since it is a feature of two of the most highly functional utterances in the language, both of them, negative. They are cited below.

- _pa'i_ No, You (sg.) were wrong in what you just said
- _pa'i_ No, You (sg.) were wrong in what you just said

The glottal stop not only encodes negation. It is the distinctive feature of two utterances which encode the dichotomy of speaker and addressee. It is an icon, then, for contrastive features which are prototypically paired.

The glottal stop, as an icon for paired contrastive features, finds further expression in the iconic function of the only other term of which it is a constituent, the special topic clitic _pa'i_ (top-sp). The special topic clitic _pa'i_ is the distinctive feature of two iconic pairs of verbal utterances. It is limited in its occurrence to these two pairs of utterances. One pair of utterances encodes the opposition of word and deed. The other pair encodes the opposition of hot and cold (see section 5 of the file titled The Distinction Between Special and General Function).

We now note that the negative overtones of the glottal stop of the first two utterances cited above are also reflected in the relationship between word and deed, hot and cold, keyed out by the special topic clitic _pa'i_.

The contrastive binary relationship between speaker and addressee, word and deed, hot and cold, also finds expression in the following way. The speaker-centric and addressee-centric utterances cited above are each the product of a lengthened vowel divided by the glottal stop into two segments of one more of length each. Consistent with this, the special topic clitic _pa'i_ is derived from the first proto iconic term for sun, _**pa'i_ (see cell 1 of Chart C). This is the proto iconic term which encodes the symbolic function of the sun when it stands momentarily at the zenith at noon during the equinox. At
this moment in space time, the position of the sun divides the whole daylight period into two equal halves, one the mirror-image of the other.

The conjunction of the two mirror-image halves of the daylight period at noon during the equinox is an icon for perfection. The perfection of this moment in space-time is reified by the special seed, formed at the zenith, which encoded a special message, and became incarnate in the special man of light (see the Zenith iconic schema Table 1, and section 1 of the file titled The Distinction Between Special and General Function).

The glottal stop occurs in only one other utterance, an utterance which combines the two negative utterances cited above. The combination ʔeʔu was the refrain of one of the most important chants chanted by a group of men in the tall round timbu spirit house during the climactic final four months of the great Timbu Spirit fertility cycle. This chant first named each of the important male ancestors, naming each as the product of combination of all their main bones, each bone coupled with the name of the male ancestor, e.g. little finger of X, second finger of X, etc. As each bone was named off, the chant was punctuated by the refrain ʔeʔu. On completion of the round of bones of the first individual, the chant proceeded to a second ancestor, until all the main ancestors had been named off, each as the product of all his main bones. On completion of the naming of the male ancestors, the chant then named off each of the named sites within the subdistrict specific for the timbu spirit house complex of that particular group of male chanters. Each site on which a residence had been built, or a farm made was named off, one at a time, and marked off by the refrain. On completion of all the spatial zones, the chant then proceeded to name off all the varieties of domestic animals and all the varieties domestic crops, one at a time, the naming of each marked off by the refrain ʔeʔu. In the final stage, stage 4, the chanters named off all the sites through which the timbu spirit ceremonial had progressed from its place of origin and on into Witu territory. This was the ultimate expression of the relationship-governance of the culture. The Witu could not be conceptualised as a group in isolation from the rest of the world. It had to be bonded to the outside world. Its bond with the outside world, at ground level, was articulated by this fourth and final phase of the chant of its most important ceremonial cycle. This was the only cycle which brought every member of a district together, male and female, young and old, as joint residents of the central ceremonial village and joint participants in the feasts and singsings.

The refrain ʔeʔu of the chant which articulated the bonding of Witu with the outside world articulated the fact that such bonding was essential for the multiplication of individuals and for the diversity of animals and crops on which they depended for their survival. The binariness of the refrain - two vowels, each divided into two segments -- encoded the binary organisation of the language, the culture, and the universe in general. Diversity is the product of paired contrastive features, one the mirror-image of the other. The vowel e, articulated at the front of the mouth with relaxed spread lips, is the mirror-image of the vowel o, articulated at the back back of the mouth with constricted rounded lips.

We are beginning to see from the above that the four function primes of the Basic relationship system (Chart A) are governed by an even more fundamental system of relationship, a system of binary relationships between mirror-image opposites. This most fundamental system of relationship governs the organisation of the system of four function primes into three different subsystems. In one of them, the first three function primes are classified together as being generically alike, and constitute the monofocal subsystem of function primes, in opposition to the generically different fourth function prime, the bifocal function prime. In another of the subsystems, the first two function primes constitute the axis of inclusive relationship in generic opposite to the third and fourth function primes which constitute the axis of exclusive relationship. The axis of inclusive relationship governs the relationship between natural intransitive processes and transitive cultural processes iconised by the verbs which constitute the first morphophonemic class of verbs in the Verb Classificatory iconic schema of Table 13. The inclusive relationship between intransitive natural processes and transitive cultural processes establishes the ergative system of relationship. It is specifically encoded by the interrelationship of the first two subtypes of verbs of the first morphophonemic class.

The three people groups are governed by the parameters of space-time established by the three sets of high beings. Their spatial governance is encoded by the geographic territory each of the three people groups occupy. The importance of their territory is encoded by the unique spatial suffix -da, articulated phonetically as ["da], postposed to the names of the three people groups, Kewa, Lai, and Witu, ‘the territory of the Lai’, and Witu, ‘the territory of the Witu’. This territorial suffix -da signifies the totality of the territory of a people group. It is formally and functionally related to the
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Witu nominal term *ta* which signifies ‘district of citizenship’, i.e. the homeland of a subgroup of people within the language group, living in one of the dozen or so named districts within Witu territory. This noun *ta* ‘district of citizenship’, is, in turn, formally and functionally related to the bound form –*ta* (*lc-sp*) which signifies a limited and well defined zone in space with spatial roots (see subcell 3 of cell 2 of Table 23).

The governance of the Witu by time is constrained by the systematically related time-governing roles of the three sets of high beings, 1) *Akolali* the supreme high being, the giver of spirit life who governs the eternal present, 2) the pair of dream givers, *Yali* and *Pulu*, who govern the eternal future, and 3) the pair of language-givers, *Tu Aneta* ‘Death and her husband’, who gave languages to the three people groups in time past, and from the past, through language, eternally govern the Witu, since they linked their language with death.

There were two obedient people groups and one disobedient people group in the Witu myth of the origin of language and death. The obedient Kewa and Lai groups represent two of the largest families of languages in Papua New Guinea, numbering many hundreds of thousands. They came at once when called to come for their language by the third set of high beings. They were rewarded for their obedience by the promise of perpetual renewal of life, encoded by the word-pair *pipite yagute*. The Witu did not obey. They did not join with the others, but stayed away in their home territory. They did not come until called four times. When they finally came, they received the doom of death with their language. This was encoded by the word-pair *komaye talaye*. This is a battle cry.

The number of people groups in the myth of the common origin of language and death, three groups, is very important. Two were alike and obeyed. Their joint obedience was an icon for harmony and balanced relationships which lead to life. The third group, the Witu, were the odd group out. To be the odd group out is to be isolated. To be isolated means not to be related to anyone else. This is an icon for disharmony and imbalance. It leads to death.

The importance of balance as an exponent of the second function prime, interdependency, is illustrated by the related function of the following pair of Enga verbs, 1) *singi* which means ‘to hear’ ‘to obey’ ‘to sense’, ‘to lay’, and ‘to be’ (neuter), and 2) *singi* ‘to carry on the shoulder’. They are an iconic tone-word pair. The key to the iconic relationship of this tone-word pair is the meaning ‘to obey’ of the first verb *singi*. As already noted in the endnote attached to the previous cell, the Kewa and the Lai people groups obeyed together and came at once when they heard the third pair of high beings, *Tu Aneta* ‘Death and her Husband’, call them to come for their respective languages. Their joint (paired) obedience was an icon for balanced, harmonious relationships between themselves and also between themselves and the high beings.

The key to the paired iconic function of these two Enga verbs, *singi* and *singi*, is balance. A long pole carried by a man on his shoulder is another icon for balance. In order to ease the carrying load, the pole is carried horizontally on the shoulder, with the pole so placed that the distance from the shoulder to either end is the same. When the length of the pole on either side of the shoulder is the same, the pole is properly balanced and easy to carry.

The balancing of a pole on the shoulder at the central point (fulcrum) is, then, the physical iconic equivalent of an act of obedience. The process of hearing is matched by the act of obedience which follows. To hear, then, is to obey. The balance of this duality is further iconicised by the joint obedience of the two people groups, the *Kewa* and the *Lai*.

We now make a self evident statement which is critical in accounting for the origin of the base root *si*—common to both of the above Enga verbs, *singi* and *singi*. This verb root is formally and functionally related to the dual number suffix –*s* of the language of the geographically contiguous Daribi of the Teberan Family of languages in the Eastern Central Trans-New Guinea Phylum. It is also formally and functionally related to the Wahgi coordinating term *si* postposed to the term for “2”, *rakl*, a cognate of Witu *takata* ‘2’, in the composite Wahgi term for “4”, *rakl si rakl si*, i.e., 2 and 2. In Witu, the dual number bound form –*ta* is formally and functionally related to the coordinating bound form –*ta* which coordinates two, and only two, nouns in a relationship which is always conjunctive (see cell 2 of Table 23).

We now suggest that the Enga base root *si* common to the two Enga verbs *singi* ‘to hear’ ‘to obey’ and *singi* ‘to carry on the shoulder’, Daribi dual number suffix –*s* and Wahgi coordinating term *si* take their origin from the first proto iconic term for sun, **pa₁.** This is the proto iconic term for sun which encodes the symbolic function of the sun when it stands at the zenith at noon during the equinox. This is the point in space-time which identifies the zenith as the focal point of the universe. At this point in space-time, the sun standing at the zenith divides the daylight period into two equal (mirror-image) halves. This is the point of universal balance. It not only divides the daylight period into two equal
halves. It also establishes the centre point in the seasonal cycle of the sun from one solstice to the other. At this point in space-time, then, the sun is exactly half way between the two solstices.

This point of universal ‘grace’ established at this point in space-time by the sun -- encoded by the first proto iconic term, **pa** -- gives formal geographic, biological and cultural expression to the perfection of the moment in the following way. A seed is formed as an explicit expression of the perfection of that moment. The seed is signified by the term wai, derived from the first proto iconic term for sun, just cited. The seed encodes a message, signified by the Enga term for ‘message’, the term waisi which makes a tone-word pair with the term for seed. The seed and the message are an expression of perfection. This is encoded by the very form of the adjective which means ‘good’ in Witu, Kewa and Enga. In Witu and Kewa it is **epi**, in Enga it is **epi**. It is a phonological palindrome. Palindromes are prototypically icons for perfection. More specifically they are icons for perfection expressed as balance. The nuclear constituent of this adjective **epi**, the constituent **pe**- is derived from the first proto iconic term for sun, **pa**. The perfection of the point in space-time when the sun stands at and marks the zenith at noon during the equinox finds expression in the two Enga nominal derivatives of this proto iconic, wai ‘seed’ and wai ‘message’. It is also encoded by another Enga tone-word pair, the words dina and dina, each produced by a single glottal stop. As a result, the term kaua is identified as the symbolic birthing centre of the universe (see the endnotes attached to the present tense suffix –k of Table 15 and to the adverb opi ‘now’/‘today’ of subsubcell 1 subcell 1 of cell 4 of Chart K). It is also the centre from which he communicates with the world through katiyapale ‘lightning’ (see example *(1) of the file just cited).

We now note that the first proto iconic term for sun **pa** functions as a generator of new sounds. First we note that the vowel a is a phonetically short vowel. There is a very tense transition from this vowel a to the vowel i, accentuated by the intervening glottal stop. The same thing is also a feature of the vowel sequence au of the pair of terms kaua and kaua which constitute the fillers of cell 4 of the Classificatory kinship system summarised in Table 8. The tense transition from the vowel a to the vowel i, of the pair of terms kaua and kaua is also a feature of the nuclear constituent of this adjective **epi**, encoded phonetically as kaua, and at other times as kayuwa or kagua. In Kewa, the transitional sound [e] has become phonemised, so that the cognate of Witu kaua in Kewa is the term kagua (Franklin and Franklin 1978:382). The tense transition between the first and second vowel of the sequence au has also resulted in the production of a sibilant transition sound [s] which has become phonemised in such a Kewa term as kaasua, whose Kewa synonyms are kakuka and akua. The last term akua also means ‘male ancestors’ and is also a synonym of Kewa kagua the term for Father’s father (among many other semantically related functions). The ridge pole of a house is the pole at which the two sides of the roof meet. It is also encoded by the term for sun standing momentarily at the zenith with, the heavens, the domain of the male ancestors. All this also accounts for the formal and functional relationship between the Witu term aubua which means ‘brains’ and Kewa asubua which means ‘head’. The tense transition from the vowel a and the immediately following vowel u of the mother term from which both Witu aubua ‘brain’ and Kewa asubua ‘head’ have been derived has resulted in the appearance of the transition sound [a] as a phoneme in its own right in the Kewa derivative asubua. This sound has not been phonemised in Witu and is no longer heard in the various phonetic articulations of the Witu term for ‘brain’, aubua.

This evidence has been presented to account for the appearance of the dual number term si in the region embraced by the Witu myth of the origin of language and death. We turn back at this point to the first proto iconic term for sun, **pa**, which encodes the sun standing momentarily at the zenith at noon during the equinox, and so marks the zenith as the focal point in the binary organisation of the universe. Some of the many terms derived from it in languages of the region embraced by the Witu myth of the origin of language and death are listed in Chart C. Among them is the Enga iconic tone-word pair wai ‘seed’ and wai ‘message’ already cited. When the first term wai ‘seed’ is combined with the Enga verb liyini, the resulting periphrastic verb expression wai liyini means both ‘to create’ and ‘to fix’ (see example *(14) in the file titled The Witu Meta-languages). It is synonymous with the Enga verb wasingi which also means ‘to create/make’ or ‘to fix’. We can safely conclude, then, that the stem waisi of the verb wasingi is formally and functionally related to the Enga term wai seed’.

We now have to account for the formal difference between the two terms just cited, the noun wai ‘seed’ and the verb stem waisi ‘to make/ create’. The medial phoneme /si/ of the verb stem wasisi constitutes the formal difference between them. I now suggest that this medial phoneme took its origin from a transition sound [s], the product of the tense transition from the vowel a to the vowel i of an
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The earlier term \textit{wai}, which was then articulated phonetically as \textit{[wasi]}. In other words, the history of the Enga term \textit{wasi} -- derived from an earlier term \textit{wai} -- is substantially the same as the history of the Kewa term \textit{asubaa} 'head' -- derived from an earlier term \textit{asuba} still retained in this form in Witu as the term for \textquoteleft brain\textquoteright{}.

We note finally that the Witu equivalent of the duality term \textit{si} of Daribi and Kaugel is the bound form \textit{–ta}. It functions as the dual number bound form with free personal pronouns and nouns, and as the closed coordinating clitic \textit{–ta} which coordinates the referents of two, and only two, nominal terms in a relationship which is always conjunctive. It is one of the exponents of the second gramma-phonologizedicon #\textit{ta}, the gramma-icon governed by the conjunctive second function prime, interdependency, the prime of balance and harmony, in the Grammo-iconic schema (see cell 2 of Table 23). The Witu bound form \textit{–ta}, then, encodes the conjunctive balanced relationship between the pair of obedient people groups who received the promise of the perpetual renewal of life with the gift of their respective languages.

All this probably accounts for the fact that the territory of each major subdistrict of a Witu district, such as the Poloko District, was prototypically the domain of a pair of dominant patri groups, with a varying number of minor patri groups. Legend prototypically traced the origin of the paired dominant patri groups to two brothers.

\textit{G.ka.le} (open-mouth-wide/dur.act), and encodes the message \textquoteleft the act of keeping the mouth open wide\textquoteright{} (see example *(26) of the file titled \textit{The Witu Meta-language 1}).

\textit{G.ka.le} is the product of the following sublexemic constituents, \textless \textit{g.ka.le} \textgreater{} (track.act) which encode the message \textquoteleft track activity\textquoteright{}. Articulate speech is interpreted as a message which moves along a track between two terminals, the mouth of the speaker and the ear hole of the addressee (see example *(21) in the file titled \textit{The Witu Meta-language 1}).

\textit{ka}--\textit{le} \textit{ear} is the product of the paired sublexemic constituents \textless \textit{ka.le} \textgreater{} (track.act) which encode the message \textquoteleft keep the mouth open wide\textquoteright{} (see example *(26) of the file titled \textit{The Witu Meta-language 1}).

The Witu, as the exponent of the third subcell of cell 4 of Table 5, the subcell governed by the disjunctive function prime, independency, stood apart from the two obedient people groups, the Kewa and the Lai and did not come at once for their language. Their standing apart was an icon for independence. They were unpaired. Being unpaired, they were not dynamically related to another people group. This encodes disharmony and imbalance. All this adumbrates death, the doom pronounced on the Witu by the third set of high beings, \textit{Tu Aneta} 'Death and her Husband' when the disobedient Witu finally came for their language.

Where, then, the joint obedience of the Kewa and the Lai was an icon for balanced and harmonious relationships encoded by the Witu conjunctive conjunctive coordinating bound form \textit{–ta}, the isolated disobedience of the one people group, the Witu, was an icon for unbalanced and unharmonious relationships encoded by the Witu disjunctive coordinating clitic \textit{–ka}. This coordinating clitic expounds the third gramma-icon #\textit{ka}, governed by the disjunctive third function prime, independency, in the Grammo-iconic schema (see subcell 4 of cell 3 of Table 23). In light of this we now note the difference between the construction of the term for cardinal 4 and cardinal 3 respectively in Wahgi, a language group embraced by the \textit{Lai} people group of the Witu myth of the origin of language and death.

First we note the following first four cardinal numbers of the Wahgi base-4 count system: 1) \textit{ede} \textquoteleft one\textquoteright{}, 2) \textit{rakl} \textquoteleft two\textquoteright{}, 3) \textit{rakl ede ka} (=2+1) \textquoteleft three\textquoteright{}, 4) \textit{rakl si rakl si} (= 2 + 2) \textquoteleft four\textquoteright{}.

Cardinal 4 is the product of 2 + 2. Since cardinal 2 encodes conjunctive relationships, the coordination of 2 + 2 is registered by postponing the duality term \textit{si} to the two occurrences of \textit{rakl} \textquoteleft 2\textquoteright{}. This reflects the fact, that \textquoteleft cardinal 4\textquoteright{} -- as the exponent of the fourth function prime symbiotic-dependency in this set of four terms -- encodes the balance of the symbiotic relationship between life and death. The balanced relationship of life and death governs the mortality of the Witu so long as they live.

By contrast, the coordinating term which governs the coordination of cardinal 2 and cardinal 1 to produce \textquoteleft cardinal 3\textquoteright{}, is the term \textit{ka}, formally and functionally related to the Witu disjunctive coordinating clitic \textit{–ka}. This is consistent with the fact that cardinal 3 expounds the disjunctive third function prime, independency, in the set of four cardinal terms cited above.
To understand why cardinal 3 encodes the imbalance of the third function prime, independency, we refer to the symbolic function of a pole carried on the shoulder. If the pole is two units long, and is so placed that one unit projects on each side of the shoulder, then the pole is balanced and stable. Similarly, if the pole if four units long, with two units projecting either side of the shoulder, the pole is balanced and stable. But if the pole is three units long, with two units projecting to one side, and one unit projecting the other side of the shoulder, the pole is unbalanced and unstable. The long section of two units will outbalance the section of one unit and tilt down. This encodes the process by which a patri group which grows to a substantial size by the birth of many male children into it, becomes progressively unstable. There is potential for disharmony and division within the group. When the divisions are too serious to be contained within a single cohesive group, the main group remains intact, but a small subgroup prototypically separates off and goes it own way.

The phonemes which make up a lexical term have no systematic, i.e. no meaningful relationship, with each other. They are independent units whose combination in a given word is the result of historical accident.

Nouns expound the first function prime autodependency since they prototypically signify entities in nature which exist of themselves. They do not presume any associated action, process or state signified by a verb. Consistent with this, nouns are morphologically unitary. They are never affixed, though they may take postclitics. Also consistent with the fact that they expound the first function prime, they are by far the largest class of lexical-terms. This is true of all Papsuan languages (see Foley 1986:77). Note the following extract from Foley (1986:111).

“Verbs contrast with nouns in that they are the word-classes associated with actions, events or states. Whereas objects exist in their own right, this is not true of events or states. Events as stated only occur by virtue of some object or objects undergoing or performing them. Thus, we may consider the set of verbs in a language as a script outlining the various modes by which objects may interact. Developing this metaphor still further, we may view a language as a play, with the nouns constituting the cast of characters, and the verbs, the lines, the means of interaction of the characters in the different scenes.”

Verbs expound the second function prime, interdependency. They signify actions, processes and states. The actions, processes and states signified by verbs do not exist in their own right, as do the entities signified by nouns. They exist by virtue of the entities signified by nouns. Their role as predicate verbs is to bring entities signified by nouns into relationship with each other and with the settings in which the actions or processes take place. Their lexical definition is determined principally by the noun entities which function as their subject and object. In other words, they contract a relationship of interdependency both lexically and grammatically with the nouns which function as their subjects and objects. These nouns and the entities they signify, together with the lexical terms which signify the space and time settings of the entities and the events, constitute what linguists call the arguments of the predicate verb.

This function of predicate verbs is encoded in the following way. All sentence-final predicate verbs of indicative utterances (questions and statements) obligatorily consist of two sectors, the root and what I refer to as the Tense plus Subject (TS) suffix sequence. The tense suffixes signify the time settings of action and processes being referred to by the speaker with respect to the time of his/her speaking. The subject suffixes encode the relationship of the person(s) or non-person(s) functioning as subject to ego the speaker, classifying the relationship as either monofocal or bifocal. The subject suffix -o signifies a monofocal relationship, the suffix -a a bifocal relationship (see Table 12 B also Table 12 C).

The sentence-final verbs of indicative utterances are, therefore, obligatorily morphologically binary, the product of a root and a suffix sector which is itself binary, the T+S suffix sector. This T+S suffix sector probably traces back to a mother language as old as that from which the East New Guinea Highland Stock of languages has developed.

The binary functional relationship between the subject noun entity and the predicate verb of a verbal clause reflects the governance of the verb by the conjunctive second function prime, interdependency. The subject and predicate exist in a relationship of interdependency the one with the other. Each presupposes the other. Both are core constituents of their clause, even though the free nominal subject has sometimes to be recovered (inferred) from the larger linguistic or situational context.
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The governance of the verb by the conjunctive second function prime interdependency also finds expression morphologically in the following way. Most predicate verbs are the product of two constituents. Verbal processes and actions are usually the product of two verbs in what is referred to as a co-temporal medial present constructional relationship (see subcell 1 of cell 3 of Chart R). Where, for example, the English verb ‘to kill’, typical of most verbs in English, is monomorphic, its Witu equivalent is the two-verb sequence \textit{witu tu/ka} (hit/mpr die/der2), which means literally ‘to hit and cause to die’. Similarly the English verb expression ‘to slop out of’ a container has only one verbal constituent. This process has to be signified by two verbs in Witu, \textit{agau/a pita} (reach-upper-limit fall-down), which means ‘to reach the top of the container and then fall over the edge’. The pairing of two verbs in a medial present, co-temporal relationship to produce a single complex verb is the solution to the problem of the relatively limited number of verbs in the language. This tends to be a feature of most Highland Papuan New Guinea languages according to Foley (1986:127). He makes the following comments: “Another common feature distinguishing many Papuan languages from more familiar languages is the comparative dearth of verb stems. This is found in an extreme form in Kalam…” The pairing of what might be called fundamental singular verbs to produce secondary binary verbs is an expression of the fact that in Witu the function of verbs is governed by the conjunctive second function prime, interdependency, in the Lexical-term system.

This feature of pairing finds expression in a systematically different way with verb expressions which signify mental processes, mental reactions, involuntary mental processes, and mental and physical states (see cell 4 Chart Q). All such verbs are the product of two constituents, an uninflected particle (the primary semantic constituent), and an immediately following verb, e.g. \textit{wene tv} (mind do) ‘to know something’. The verbal constituent is a somewhat limited set of verbs. The most highly functional verb of this limited set is the verb which functions in other contexts as the proverb of general action, the proverb \textit{tv} ‘to happen’ ‘to do’. It is the verbal constituent of most verb expressions signifying mental and physical states, e.g. \textit{piti tv} ‘to be afraid’, \textit{niti tv} ‘to be cold’, \textit{liti tv} ‘to be slippery’, etc.

We note finally that the role of verbs as exponents of the second function prime, interdependency, is consistent with the fact that the language and culture in general is relationship-governed, not category-governed. The consequence of this is spelt out by Hallpike (1977:78) in his study of another Highland Papua New Guinea language group, the Tauade of the Goilalan Family of the South-Eastern Trans-New Guinea Phylum of languages.

“Those societies which conceive actions and relationships between individuals as basic, and for which groups, in so far as they exist, are the product or precipitate of actions and relationships, I call Heraclitian. Those societies, on the other hand, which treat groups and categories as primary realities and actions and relationships as deriving from the nature of these groups and categories, I call Aristotelian”.

* * *  Space-time words expound the disjunctive third function prime independency. This finds expression in the following way. The space and time lexical terms which encode the settings of the entities and of the actions or processes concatenated by verbal clauses are not what might be said to be organically bound to the nuclear (the core) constituents of the clause, the predicate verb and its nominal arguments. They supply independent background information. If this information is left out of the utterance, the clause does not cease to be a properly formed clause. But if any of the core constituents, the predicate verb or its nominal arguments, are left out, the clause ceases to be a properly formed clause. Nominal entities may, of course, be omitted from a verbal clause. The natural and the linguistic context of the clause and the utterance in which it occurs enables the hearer to recover the information lost by the absence of the nominal lexical terms. But if the context does not permit this, the verbal clause will make no sense.

The governance of the three sets of spatial terms by the disjunctive third function prime, independency, finds expression in the following way.

The only spatial root of the first set of spatial terms, the root \textit{o} -- that signifies focus on ego as a person, rather than on the space he occupies -- occurs with only one nominal head word, the noun \textit{yene} ‘group’. The resulting nominal noun phrase \textit{o yene} signifies ‘the rest of the group from which one member has gone’, e.g. the rest of the disciples other than Thomas (who was absent) when Christ came to them in the inner room. This unique spatial noun phrase, \textit{o yene}, signifies the focal role of the individual in the group to which he belongs, but defines his relationship to this group by his separation (absence) from it.

In the second set of spatial terms -- the personal spatial terms -- ego is again the focal person, but the focus of attention is not on him as a person but on his location in space-time. His relationship to the...
other two persons of the set of three personal spatial terms is defined disjunctively by the suffix-like form -ni postposed to the addresser-centric spatial term wini and the referent-centric spatial term eni. This bound form -ni signifies their spatio-temporal separation from ego’s focal spatial zone.

The focal (the first) term of the third set of spatial terms -- the closed set of four topographic spatial root – registers the governance of this set by the disjunctive third function prime, independency, in the following way. While the focal root e is glossed ‘proximal’, it is more correctly glossed disjunctively as ‘a short distance away’. The disjunctive function of this proximal root e finds expression in its role as the root of the term for ‘little finger’, ege, which marks the first and the last of the 49 upper body part positions of the upper body part count system. This count system is the third count system, which encodes the disjunction of widows, orphans and pigs from their male head. (see Charts L and M).

Consistent with this, when a full cycle of body parts is counted off by this third count system, the little fingers of the two hands are not brought together to signify a full count. By contrast, when a count of two hands was completed in the second count system, the system which expounds the conjunctive second function prime, interdependency, the two hands were brought together into tight conjunction. So, too, when a full count of 20, two hands and two feet, was completed, the two feet were brought together along with the two hands. The Kyaka Enga did the same when counting by two hands and two feet according to Sheila Draper. Myron Bromley believed that the Dani of West Irian also did the same.

The first of the four topographic spatial roots also encodes the disjunctive overtones of the third set of spatial roots to which it belongs in the following way. The four topographical spatial roots encode the trajectory of the sun above and below the earth on those days of the year other than the two equinoxes. During an equinox in the tropical zone, the sun passes directly over the matai ‘zenith’. But on all other days the sun passes to one side of the zenith. On the first day following an equinox, then, it stands a little distance away from the zenith at noon, i.e. proximal to the zenith. It then moves incrementally a little extra distance from the zenith each day until it reaches one or other of the solstices. It then reverses its movement. This is why the focal topographic root is the root e, the proximal root, that basically signifies a little distance away from a primary focal point.

**xxxvi** Type words modifying nouns are adjectives. There are three systematically related closed sets of adjectives (see Chart K). Type-number lexical terms and expressions are the exponents of the bifocal fourth function prime within the system of four primary sets of Lexical-terms. This is consistent with the fact that the bifocal function prime is a generic function prime. Adjectives and numbers are generic in function. As generic terms their function is classificatory. Consistent with this, their classificatory function reflects the subjective values of the classifier. What seems big for example to one person (for example a small child) and signified by the adjective tube ‘big’ may not necessarily seem big to another person, an adult. By contrast when a person refers to an entity signified by the noun yomo as a ‘tree’ there is little scope for subjectivity in this identification. So, too, with actions, and processes, and also with space-time settings. The action or process itself, in a sense, selects the appropriate word. A speaker’s identification of a process of burning by the verb yoto is not subjective. Assessment of number is less subjective than the determination of adjectival type. But the bifocal fourth subtype of number terms, the generic number terms, points to the fact that number is most commonly used generically rather than specifically.

The first set of adjectives, the biological age set, encode the consequence of the doom of death imposed on the disobedient Witu. They came under the governance of time, so that they aged as they moved along the track of life, and so eventually died. Consistent with this, the first set of adjectives represent the point of clinal shift from i) the subsystem of temporal terms within the system of space-time lexical-terms, to ii) the subsystem of type (adjectival) terms within the system of type-number lexical terms (see Charts I, K and L).

The classification of nominal terms is determined from the noun phrase constructions in which they function, rather than from distinctive features of the entities they signify. This is a reflection of the fact that the language and culture in general is relationship-governed, not category-governed. The term which represents the class as a whole to which they belong is identified by bold type. Some classes are single class terms, e.g. the term yatene ‘group’ of the expression no yatene ‘the group of which I am a member’, and ta ‘homeland’ of anuketa ‘my district of citizenship’.

The expression anu yatene (my group) is ungrammatical. One does not own a group. One only belongs to it. A group is a paradigm of members born or recruited into it. No other term can substitute for the nuclear constituent yatene ‘group’ of this phrase type. The fillers of the dependent constituent
are drawn from the first set of free personal pronouns, the egocentric set (see Table 6A). The tight semantic link between the members of the group which constitute the group, and the group which assigns membership to each individual, finds expression in the following way. A person may speak of the group of which he/she is a member by using the term for himself, i.e., ego, no ‘I/me’. Similarly, the speaker may refer to the group to which his/her addressee belongs by the 2nd person singular free personal pronoun of the egocentric set as ne ‘thou/ thee’.

This most fundamental of grammatical constructions began to disappear from the grammar of the Witu after Witu territory was derestricted and younger Witus began to use pidgin English. Such a Witu expression as no yatene (I group) ‘the group of which I am a member’ soon began to be equated with the pidgin English expression lain bilong mi (line belong me) ‘the line belonging to me’, as if one owned the lineage to which one belonged, rather than been just a member of the lineage. They then substituted the pidginised Witu expression anu yatene (my group) for the original, and much more insightful, expression no yatene. In such a way, the relationship-governed Witu system began to yield ground to the category-governed pidgin English system modelled, in part, on category-governed English grammar, with its potential for major ambiguities of the kind often cited in linguistic text books, Myron’s statue, which could mean ‘the statue made by Myron’, ‘the statue owned by Myron’, or ‘the statue as a likeness of Myron’.

Had we not settled among the Witu before any other group, kiap or mission settled among them, bringing pidgin English with them, we might never have heard this phrase type. We would, then, have been unaware of the foundation of the grammar, the nominal noun phrase that encoded the nature of all people paradigms, the group of which they were members. This would have had the most serious consequences for our relationship-based analysis of the grammatical system.

The first function prime is expounded by personal names. This establishes the fact that relationship is between specific people, i.e. people with names. The distinctive function of the personal name in this context is signified in the following way.

One can refer to someone’s paternal grandfather, e.g. Yapera’s paternal grandfather, as his kaua. But this term is ambiguous (see Table 8). It also signifies ‘male ancestors in general’, and ‘father-in-law’. The term for ‘father’, etene, is similarly ambiguous. It signifies not only one’s biological father but also one’s classificatory father(s), e.g. father’s brother(s).

In order to be precise in referring to a person’s biological father one uses such an expression as Yapeta.tene. It is the product of a double abbreviation. The personal name lacks the usual possessive suffix -ne and the classificatory term for father etene is reduced to -tene.

If one wishes to refer unambiguously to someone’s paternal grandfather, another process of reduction operates. The expected fully lexicalised expression Yapeta.ne etena.ne etene (Yapera pos father.pos father) which would mean literally ‘Yapera’s father’s father is reduced to Yapeta.ta.tene. The underlined sequence of terms -ne etena.ne (pos.classificatory-father.pos) is replaced by a single root-term ta. This term ta is the root which signifies ‘biological father’. It occurs only in the most intimate of vocative of terms of adddress, vocative utterances addressed to members of one’s biological family.

A.ta.ta (voc-1, biological-father, egocentric-suffix) ‘Father!’

The root ta signifying ‘biological father’ is a nominal exponent of the second grammico-icon **ta (see Table 23). It is a nominal exponent of the second grammico-icon of Table 23, and is formally and functionally related to the term -ta of the closed set of terms which function as spatial suffixes with the closed set of four topographic spatial roots (see Tables 3A and 3B). These spatial suffixes also function as space-time clitics, number clitics, and coordinating clitics (see Table 23).

One can refer to someone’s grandmother by the term kaua. It is also ambiguous in the same way that the term for grandfather, kaua, is ambiguous. If one wishes to refer unambiguously to someone’s paternal grandmother, the same process of reduction operates as that which produced Yapeta.ta.tene from the expected fully lexicalised expression Yapeta.ne etena.ne etene. In this case, the fully lexicalised expression Yapeta.ne nina.ne nine (Yapera.pos mother.pos mother) ‘Yapera’s mother’s mother’ is reduced to the following.

Yapeta.na nine (Yapera.na classificatory-mother)

In this case the underlined medial sequence -ne nina.ne (pos.classificatory-mother, pos) is replaced by the single term na. This term is an exponent of the first grammico-icon *na of the grammico-icon schema of Table 23. It is derived from the proto term for ego, *na ‘I/me’ from a mother language at least as old as that underlying the Trans-New Guinea Phylum of languages.

The two types of formally and functionally related noun-phrases, then, which signify the relationship between a named person and that person’s paternal grandfather and maternal grandmother focus on the function of the medial person, i.e. the second of the three persons. The second person is encoded as the...
equivalent of a grammatical bond relating individuals in the first and third of the three successive generations. With both types, the relationship between the persons in the second and third generation, in what might be called the vertical axis, is a parallel sex relationship, father’s father and mother’s mother respectively.

This vertical parallel-sex relationship (between successive generations in a line of descent) is the functional equivalent of the within-a-generation relationship between parallel sex siblings (of the same generation), who refer to each other as wamene and address each other Ame (23-11-07).

There is a superficial difference between these two types of parallel relationship which hides a fundamental parallel between them. The following is the superficial difference.

The between-generation parallel sex descent relationship involves three individual persons, one in each of the contiguous generations. The within-a-generation parallel sex sibling relationship involves only two individual persons, brother related to brother or sister related to sister.

Both types of relationship, however, are fundamentally the same. We discover this by focusing on the within-generation parallel sex relationship (i.e. between a pair of parallel sex siblings). This is not a direct biological relationship. It is a mediated relationship. The parallel sex pair are related to each other biologically through their common parents, their male parent and their female parent. This is formally recognised by a relationship-focused society (cultural group) speaking a relationship focused language. In the two types of relationship under consideration, the role of both parents is the same. They are both pro-creators. The function of the father who begets is the same generic function as the function of the mother who gives birth. They are co-equal in their roles as pro-creators who actively pro-create new relationships.

The Witu verb root opi gives explicit expression to the fact that the Witu know this. It means both ‘to beget’ as a man, and ‘to give birth’ as a woman. The Witu show in this way that they ‘know what they know’. They are not unsophisticated members of what the so-called sophisticated Western world refers to as the specis homo sapiens ‘man who knows’. They are more than mere naive speakers of their language and naive operators within their culture. They show that they are members of a particular species more correctly identified as homo sapiens sapiens ‘man who knows that he knows’. For when the focus of a society is on the establishment and the recognition of relationship, that society is well on the road to the development of ‘scientific’ (explanatory knowledge, law-governed knowledge, rather than just descriptive identificational knowledge, the necessary precursor to the acquisition of explanatory knowledge.

The role of a pair of Witu spouses is to pro-create two children. That is why parents of only one child are referred to by the same term as that used for an unmarried person, tuaili if male and tuaito if female. This socially-deficient single-child status is equated with natural-world physical deficiency (under development). This is why such persons, whether married or single, may be referred to as a tiobagodi ‘physically deficient man’ (e.g. born with a deformed arm) if a male or tiobatoa ‘physically deficient woman’.

Married couples, then, must pro-create pairs of offspring, ideally a male and female child. In so doing, they are fulfilling the laws of nature. They give expression to this understanding with the following iconic pair of utterances.

*yagono kaita* <yagono kai ta>

‘a pair of piglets of the same litter’

*yagono inita* <yagono ini ta>

‘a pair of nestlings of the same nest’

We return now to the two superficially different types of parallel sex relationship between persons. While they are superficially different types of relationships, both are fundamentally the same relationships. Both embrace three individual persons. One is a vertical relationship, between three individual persons in three contiguous generations, e.g., between i) ego identified by personal name, ii) the father of ego, and iii) the father of the father ego. The other is what might be referred to as an up-and-down generational relationship.

The coordination of the grandson with the paternal grandfather is a coordination which bonds him to his paternal grandfather’s patri group and patri district, in a recruiting relationship which is entirely conjunctive. Consistent with this, the term which encodes this coordinate relationship is the form ta, the term for biological father, with overtones of well-defined spatial setting, dual number, and closed coordination.
By contrast, the term which encodes the coordinate relationship of a man to his mother’s mother, the term na has strong overtones of egocentricity. This reflects the fact that ego’s focal role in society is defined in terms of two complementary processes, i) the process of drinking from his mother’s breasts, a process signified by the expression adu na-(breast drink). The child later learns to eat solid food, a process also signified by the verb na-. This verb, like the proto term *na ‘me’ derives from a proto language at least as old as that underlying the TransNew Guinea Phylum of languages. Drinking and eating are essential for bodily growth, and, therefore, for ego’s survival as a self existing individual.

ii) the process of speaking by which ego becomes a social individual.

Both complementary processes are encoded by the Witu myth of the origin of language and death. The Witu did not come for their language until called four times by the third set of high beings, Tu Aneta ‘Death and her husband’. With each call, they moved progressively from Mt. Gilae, towards and finally into Witu territory. Each time they called the Witu, they prepared a ground oven. In this way, the gifting of language was linked with the preparation of ground ovens for a feast.

The bound form -na which coordinates the male with his maternal grandmother is formally and functionally related to all those other forms, root and bound, which expound the first gramm-ico

na of Tables 21 and 23. Among the forms which function as pure grammatical forms, forms whose function is syntactic rather than lexical, is the adjectival suffix -ne (see Chart L). The first set of four adjectives define four systematically related time-governed stages in the biological development of plant life. They encode the development of a child from birth to adulthood.

The coordinating term na, then, of such an expression as Yapeta.na nine ‘Yapera’s maternal grandmother’ has biological overtones as does the coordinating term ta of the expression Yapeta.tane ‘Yapera’s paternal grandfather’. But where the biological overtones of the coordinating term ta encode the role of one’s biological father as the one who bonds him to his grandfather, and so to his patri group and patri district, the biological overtones of the coordinating term na encode i) the giving and sustaining of life and ii) ego’s focal role as speaker. Consistent with this, another term which encodes ego’s role as speaker, has the same overtones of birthing. It is the bound subject suffix –u of sentence-final verbs in indicative utterances (questions and statements) (see Table 12B). This suffix is formally and functionally related to the root u- of the verb u/tu-, a member of the second morphophonemic class of verbs (see cell 2 Table 13 A). In its prototypical lexical function, the verb root u- means ‘to put something in a string net bag’. It encodes the process of being pregnant when coupled with the terms tine ‘offspring’ and yobo ‘roe’ in the following iconically complementary pair of verb expressions.

tine u -tu yobo u -tu

offspring put-in-bag sf2 roe put-in-bag sf2
to be pregnant as a pig to be carrying roe as a fish

This helps to explain why the combination of the two egocentric bind forms –u and –na are so widely distributed in combination as the bound suffix-sequence u-na of verbs in languages of the East New Guinea Highland Stock This suffix sequence or reductions of it are found in the following languages of the following Families: languages of the Eastern Family, among them Tairora (Kerr 1973b Tables 74 and 75); languages of the East-Central Family, among them Bena-Bena (Young 1964:48-59) and Gahuku (Deibler 1963:11-12); languages of the Kalam Family (Wurm 1975:487), and languages of the Central Family, among them the Kowaru dialect of the Hagen Subfamily of languages (Merlan and Ramskey 1991:329)

The noun phrase construction type represented by the iconically complementary expressions Yapeta.ta.tene ‘Yapera’s paternal grandfather’ and Yapeta.na.nine ‘Yapera’s maternal grandmother’, then, encode what might be called two lines of unbroken descent, descent through males and descent through females. They constitute the point of clinal transition from the social situation encoded by the only noun phrase construction of the first subsystem of nominal-noun phrases, the Group-membership nominal noun phrase, represented by the example no yatene (I group) meaning ‘the group of which I am a member’.

\[1\] The expression Yapeta.ne etena.ne etene (Yapera, pos father, pos father) ‘the father of Yapera’s father’s’ is incorrect. The possessive suffix -ne is not postposed to the personal name. The medial occurrence of the term etene is replaced by the term ta, the root of the term of address for one’s biological father, A.ta.i (vocative father.) ‘Father!’. This yields the expression Yapeta.ta-tene ‘Yapera’s father’s father’, instead of Yapeta.ne etena.ne etene.
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\[1\] In Gahuku, the term for a ‘companion’, and the term for an ‘age mate’ are members of a paradigm of kinship terms (see Deibler 1963:41 in Workshop Papers No 2 GRAMMAR December 1963 Summer Institute of Linguistics, Ukarumpa, Territory of New Guinea.

The clinal shift from the Biological and classificatory kinship system (cell 2) to the Alienable possessions system (cell 3) of the Witu Noun-entity system is encoded in the following way. The distinctive feature of the terms which expound the fourth subsystem of cell 2 is the term \(oi\). This term functions as the target term in Witu, as in the expression \(oi ke\) (target at) ‘it is sufficient,’ i.e. the target has been reached. It also functions as the distinctive particle in such expressions as \(oi vi\) (target utter) which means ‘to court, i.e. target, a young woman’. This Witu term \(oi\) is formally and functionally related to the term \(oi\) which means ‘a boundary’ in the Ku Waru dialect of the Hagen Sub Family of languages. The following accounts for the functional relationship between the Ku Waru term \(oi\) ‘boundary’ and the particle \(oi\) of the Witu expression \(oi vi\) which means ‘to court a young woman’. A young woman prototypically marries outside the ‘homeland’ into which she was born. In so doing she crosses the boundary between her natal district, and the district of the man who courted and married her. This is why male ego’s father’s sister is referred to by the term \(aarobo\). According to Karl Franklin (personal communication), this term is the product of the constituents \(aa\) ‘male’ and \(rebo\) ‘boundary mark’. From this we infer that a Kewa male ego considers that his father’s sister, prototypically a married female, has crossed the barrier of her natal group in going to her husband’s district. This, in turn, accounts for the formal and functional relationship of the following iconic pair of Witu terms, \(yogo\) ‘father’s sister’, and \(yoko\) ‘feral pig’. A feral pig is one which has crossed beyond the boundary of its owner’s domain and gone wild. This, in turn, accounts for the fact that the Kewa term for one’s cross cousins, (among them the children of one’s father’s sister), the term \(kai\), is formally and functionally related to the Witu generic term for ‘pig’, the term \(kai\). If male ego’s father’s sister is the iconic equivalent of a feral pig, her children are logically piglets.

We now note that the boundary of a male ego’s homeland, signified by the Witu term \(ta\), is signified by the boundary term \(oi\) of the Ku Waru dialect of the Hagen Sub Family of languages. This is the key to the clinal shift from the expression \(anu\ oi-ago\ ‘my male friend’ of cell 2 to the expression \(anu\ ke\ ta\ ‘my homeland’ of cell 3 of the Witu Noun-entity system of Chart J.

Consistent with all this, the term for a friend is encoded as part of the egocentric system of kinship terms in Gahuku of the East Central Family of languages of the East New Guinea Highland Stock to which Witu belongs as a family level isolate. This is encoded in the following way. Kinship terms are part of an egocentric system. The importance of ego as the focal point of reference of the relationship-governed language-communication system finds expression in what is referred to as the monofocal-bifocal dichotomy of the system of interpersonal relationships jointly encoded by the free personal pronoun systems and the bound subject pronoun systems of sentence-final verbs in languages of this Stock (see Tables 6 A to 6 E and Tables 7 A to 7 F of the file titled The Witu Meta-language: Tables 1). The monofocal bifocal dichotomy is also a feature of the Witu Classificatory kinship system (see Table 8 of the file just mentioned). While the expression \(oi-ago\ ‘friend’ is not formally identified as a member of the Witu Classificatory kinship system, the term for friend and also the term for age mate are quite explicitly encoded as terms of the egocentric Classificatory kinship system. This is encoded by the way certain terms which co-occur with them, e.g., possessive personal pronouns, reflect the monofocal-bifocal dichotomy (Deibler 1967 find the relevant reference @).

\[2\] Possession with temporal overtones. One can therefore speak of one’s former district of citizenship, or one’s former axe, etc. This is signified by postposing the ego-based term \(na\) to the free possessive pronoun, e.g. \(one.\ na\ kai\) (his former pig) ‘the pig he once owned’.

\[3\] Typological possession.

\[4\] One can leave one’s natal district of citizenship and become a member of another district. The district which confers citizenship is created. The verb meaning ‘to create’ a district is the verb \(lati\), which prototypically means ‘to make’ an object, e.g. a \(moyo\) ‘jaws harp.’

\[5\] The prefix \(ke\) is one of only three prefixes in the language, all of them egocentric. It is an egocentric referential prefix. Apart from the term \(ta\) signifying ‘homeland’/‘district of citizenship’, this prefix only occurs with the primary terms for members of one’s nuclear family. This confirms the fact that the term for district of citizenship, \(ta\), is formally and functionally related to the root \(ta\) of the term of address for one’s biological father, \(A.ta.i\) (vocative.father.I) ‘Father!’ This term \(ta\) ‘district of

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citizenship” constitutes the point of clinal shift from the system of possessed kinspersons to the system of alienable possessions. Ta as ‘district of citizenship’ is something prepared by human activity when land is cleared and settled. One has a proprietary relationship with it. One can leave one’s district of citizenship and move to another district, just as one can trade off something over which one has proprietary rights by manufacture (salt molds), trade (pearl shells), or raising (pigs), etc.

The terminal segment -ne expounds the possessed body-part term -nv (pos-bp). One cannot speak of a person owning a body part. One cannot, then, say all.ne tono (man.pos bone) ‘a man’s bone’. One can only speak of body parts typologically, e.g. all tono ‘the kind of bone recognisable as a man’s bone’.

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The same bound form is also a feature of the term for ‘bone(s)’, the term lati/ne. One cannot adopt a parent, a sister, a parent-in-law, etc.

Just as a male ancestor is named as the product of a unified set – a closed paradigm – of body parts, his bones, in this chant, so, too, the group to which he belongs is a paradigm of members who constitute the group. Where the paradigm of body parts expounds the first function prime, autodependency, within the fourth subsystem of the Witu Noun-entity system. Consistent with this they jointly encode a person, an autonomous being. The importance of an autonomous being as the sum of his/her body parts is also encoded in the following way. During the climactic final phase of the Great Timbu Spirit Fertility Cycle, a group of men joined together in a major chant in the tall round timbu spirit house by which the cycle was named. This chant encoded the key to fertility. First of all it recited the names of all the main male ancestors, then the names of all residential places and farm sites, and finally the names of all the places marking out the route by which the Timbu Cycle came into the Witu. The chant, as just noted, began with the naming of persons, the most important male ancestors from which the patri group had descended. Each ancestor was named as the sum of all his bones – those parts which survived him after death – beginning with the little finger, his name preposed to each bone.

The paradigm of body parts consists of the product of a unified set – a closed paradigm – of body parts, whose bones, in this chant, so, too, the group to which he belongs is a paradigm of members who constitute the group. Where the paradigm of body parts expounds the first function prime, autodependency, within the fourth subsystem of the Witu Noun-entity system (subcell 1 of cell 4), the Group-membership noun phrase expounds the first function prime, autodependency, at the highest level of organisation of the Witu Noun-entity system (cell 1).

We now note that the paradigm of body parts is the first of the four subsystems which together expound the fourth function prime, symbiotic-depending, within the Noun-entity system. This function prime is typically associated with the breakdown of relationships at any one level of organisation through the potentially open ended multiplication of the membership at that level of organisation. But paradoxically, as noted elsewhere, this is the prime whose exponents in any given system often give the clearest expression to the binary organisation that governs the entire language and the extralinguistic cultural systems it has begotten. This reflects the fact that the point of dissolution of relationships within any given system is also the point of reintegration of the breakdown products into a higher level system still governed by binary principles. This finds expression in the Pseudo-possession system in the following way. The body parts, while a potentially large set, particularly when the bones are included, are all systematically related to each other. This systematic relationship is encoded by the paired relationship of such body parts as the eye, the hands, etc. Such paired body parts typically carry the terminal bound form -nv, the shape of whose variable vowel is determined by the final vowel of the root of the body part term, e.g. le.ne ‘eye(s)’, yo.no ‘hand(s)’, wa.ne ‘cheek(s)’, etc. The same bound form is also a feature of the term for ‘bone(s)’, the term tono. In this case it encodes the end-to-end pairing of most bones. Such distinctively unpaired body parts as keke ‘tongue’, mugili ‘heart’, inu ‘stomach’ and kabe ‘neck’ do not carry this bound form. However, it is a feature of the terms as etene ‘penis’ and tekene ‘female genitals’, and as such encodes the role of these parts in sexual relationships. Consistent with this, the terminal bound form of pono ‘forehead’ encodes the forehead as the point of attachment of the po ‘thread’ of spirit life which links each Witu to Akolali, who fixes it in place at birth, and holds it until the death of each individual.

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\(^{aix}\) Only persons can possess things. Animals do not possess things. Because of this the expression kai ne yapu (pig pos house) ‘the pig’s house’ is incorrect. Pigs do not own houses. One can only say kai yapu which means ‘the kind of house pigs live in’. Similarly, the expression kai ne tine (pig pos offspring) is incorrect. Pigs do not own their offspring. One can only talk about kai tine, the kind of offspring pigs have.

\(^{b}\) Their equal status is the product of the wealth they created and own.

\(^{xiii}\) (See the last endnote attached to Table 3 A. See also the file VerbM-Pclasses.doc, if you have it.)

The relationship of the four primary morphophonemic classes of verbs to each other within the Verb classificatory system is congruent with the relationship of the four primary parts of speech to each other within the Lexical-term system (see Chart I). This finds expression in the following way.

The function of the first verb morphophonemic class is congruent with the function of the first class of the Lexical-term system, the class of nouns. Consistent with this, the definition of the lexical function of verbs of the first verb morphophonemic is, as we will see, noun-oriented.

The function of the second morphophonemic verb class is congruent with the function of the second class of the Lexical-term system, the class of verbs. Consistent with this, we shall see, the definition of the lexical function of verbs of the second morphophonemic verb class is verb-oriented.

The function of the third morphophonemic verb class is congruent with the third class of lexical-terms, space-time terms. Consistent with this, as we shall see, the lexical function of verbs of the third morphophonemic class is time-oriented.

The function of the fourth morphophonemic verb class is congruent with the function of the fourth class of lexical-terms, type-number terms. Consistent with this, the fourth morphophonemic class of verbs (see Chart I) is the classificatory system as an iconic device of the Witu meta-language, whose principal theme is the irregularity of the intrusion of death into the domain of the immortal high beings through the disobedience of the Witu in not coming at once for their language when called by the third set of high beings, Tu Anera ‘Death and her husband’. We will find, then, that the morphophonemic verb classificatory system encodes the doom of death imposed on the Witu for their act of disobedience. This is the particular function of the first and the largest morphophonemic class, the class whose roots have the canonical form CaVu(u). This is dealt with in section 4 of the file titled The Iconic Function of the Four Topographic Spatial Roots in the Witu Meta-language.

The verb roots of the first morphophonemic class encode the way in which the supreme high being both activates the doom of death pronounced on the Witu by the third set of high beings, and protects them against the consequence of that doom. The verbs of the third morphophonemic class, with the canonical form Ca-a (a consonant plus the vowel a) encode the governance of the Witu by space and time so that they age over time and finally die.

Consistent with the foregoing, the verb morphophonemic classificatory system is an iconic system. It is therefore referred to as the Verb-classificatory iconic schema.

All verbs of the first morphophonemic class have nasalised root vowels (signified by underlining of the vowels). This nasalisation is an iconic device of the Witu meta-language, whose principal theme is the irregularity of the intrusion of death into the domain of the immortal high beings through the disobedience of the Witu in not coming at once for their language when called by the third set of high beings, Tu Anera ‘Death and her husband’. We will find, then, that the morphophonemic verb classificatory system encodes the doom of death imposed on the Witu for their act of disobedience. This is the particular function of the first and the largest morphophonemic class, the class whose roots have the canonical form CaVu(u). This is dealt with in section 4 of the file titled The Iconic Function of the Four Topographic Spatial Roots in the Witu Meta-language.

\(^{b}\) Their equal status is the product of the wealth they created and own.

\(^{xiii}\) (See the last endnote attached to Table 3 A. See also the file VerbM-Pclasses.doc, if you have it.)

The relationship of the four primary morphophonemic classes of verbs to each other within the Verb classificatory system is systematically irregular. It is irregular in the following way. Only a limited number of Witu verbs function as verbs of the four primary morphophonemic classes. This limitation is irregular, and identifies the morphophonemic verb classificatory system as an iconic device of the Witu meta-language, whose principal theme is the irregularity of the intrusion of death into the domain of the immortal high beings through the disobedience of the Witu in not coming at once for their language when called by the third set of high beings, Tu Anera ‘Death and her husband’. We will find, then, that the morphophonemic verb classificatory system encodes the doom of death imposed on the Witu for their act of disobedience. This is the particular function of the first and the largest morphophonemic class, the class whose roots have the canonical form CaVu(u). This is dealt with in section 4 of the file titled The Iconic Function of the Four Topographic Spatial Roots in the Witu Meta-language.

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Consistent with the foregoing, the verb morphophonemic classificatory system is an iconic system. It is therefore referred to as the Verb-classificatory iconic schema.

All verbs of the first morphophonemic class have nasalised root vowels (signified by underlining of the vowels). This nasalisation is an icon for destruction. It signifies either i) the destruction of the
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morphological structure of an entity functioning as the patient of the action specified by the verb, e.g. 
**kau** ‘to crack open’ as an egg, or ‘to smash’ something, or ii) the destruction, the dislocation, of 
the bond (the relationship) between the entity functioning as patient of the action and a substratum 
in which it is growing, or a surface to which it is attached, e.g. **to** ‘to fall out’ or ‘to pull out’ as a tooth.

With two systematic exceptions, all verbs of the first morphophonemic class also begin with a stop 
consonant, the consonant **p** among them (see example *(7)). The stop-consonants are icons for the 
morphological integrity of the entities functioning as patients of the processes or actions signified by 
the verb roots. They are the exponents of what can be referred to as the barrier phono-icons, the phono-
icons of the third subset of phono-icons (Table 2). Their stop- articulation in impeding the flow of air in 
speech is the feature specific for their barrier function. As barrier phono-icons they are icons for the 
surface of entities signified by nouns. It is the constraining surface which gives an entity, an object, its 
physical integrity. A thing cannot be broken, nor its bond with a substratum dislocated unless it has a 
fixed three-dimensional form, a form enclosed by a surface. The surface is a barrier to the collapse of 
the entity. The root-initial stop-consonants -- signified as **C** in the canonical formula **C**\(V_u(i)\)-- is an 
icon for the constraining surface of the entity functioning as the patient of the actions signified by verbs 
of the first morphophonemic class.

The iconic function of the stop-consonant **C** is complemented by the iconic function of the 
nasalisation of the vowel(s) of the verb root. Every verb root of this class, without exception, has a 
nasalised vowelled pair or vowel. This nasalisation encodes destruction. It encodes either the 
destruction of the morphological integrity of the entity functioning as patient of the action specified by 
the verb, or the dislocation of the relationship between the entity functioning as patient and a surface on 
in which it is growing or to which it is attached.

The verb **kau** is the prototypical verb of the first morphophonemic class. It encodes the role of the 
supreme high being, **Akolali**, as the one who communicates with the Witu by smashing a tree with the 
**katiyapale** ‘lightning’, which he directs against it in the process of communication. The tree is 
smashed into fragments referred to a **yomo pale** (wood fragments). This expression elides to 
yobalene, articulated phonetically as **yombalene**. They embody his communicative act. Consistent 
with this, the terminal sublexemic constituent **-pale** of the word **katiyapale** ‘lightning’ is transformed 
formal and functionally into **mane** the term for ‘knowledge’ and ‘instruction’. God’s communicative 
act, then, encodes the fact that he can also destroy. This carries the overtones of Exodus 19:12 to 21.

The verb **kau** when it functions as an intransitive verb, encoding a natural action, signifies the act of 
an egg cracking as the new life inside it hatches out. The verb **kau** then, is an icon for new life.

The unnasalised equivalent of the verb **kau**, the verb **kau**. It means ‘to cover’ and by extension 
‘to protect’. In this way, the prototypical verb of the first morphophonemic class encodes the supreme 
high being as the great communicator of knowledge who can also destroy, and links his act of 
communication with the act of generation of new life, and the act of covering and protection. Just as 
the shell of an egg protects the new life within it, so the supreme high being protects his people. He 
covers them.

A second verb complements the iconic function of the prototypical verb **kau** with its non-nasalised 
equivalent **kau**. This verb is the verb **pa**. It means ‘to break open’, and occurs with the verb **kau**- in the 
following utterance.

**ama kime-me kau- o pa**

* pandanus-kernel teeth ag-gn smash mpr smash-open pres 3sg

We crack open kernels of the fruiting body of the karuga pandanus palm with our teeth.

The verb root **pa**- is formally and functionally related to the noun root **pa** which means ‘sunlight’, a 
derivative of the first proto iconic term for ‘sun’, **\(\text{pa}\)** (see Chart C cell 1).

We now note that the verb **pa** is irregular. It is irregular in the following way. Unlike the verb **kau** 
whose function as an intransitive verb (**‘to crack open’** as a hatching egg) is semantically related to its 
function as a transitive verb (**‘to smash something’**), the intransitive and transitive function of then 
verb **pa** do not seem to be semantically related. This irregularity highlights the fact that it is an icon 
device of particular significance in Witu logical symbolism, whose principal theme is the irregularity of 
the intrusion of death into the domain of the three sets of immortal high beings, through the 
disobedience of the Witu in not coming at once for their language when called by the third set of high 
beings, **Tu Aneta** ‘Death and her husband’. When the verb **pa** functions as an intransitive verb it 
means ‘to be covered all over with something’. This has overtones of the function of the non-nasalised 
form of the verb **kau** ‘to smash’, the verb **kau** ‘to cover’ ‘to protect’.

To decode the irregularity of the intransitive and transitive function of the verb **pa** ‘to be covered all 
over with something’ and **pa** ‘to smash’ (a kernel, etc.), we note the following again. This verb root is
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formally and functionally related to the noun \textit{pa} ‘sunlight’. Sunlight gives life to plants, but at the same time is something lost from the sun. This loss is encoded by the nasalisation of the noun root \textit{pa} ‘sunlight'. The complementation of life with loss is also encoded by the nasalisation of the vowel of the root \textit{k}u which means ‘seed’. It encodes the final phase in the seasonal life-cycle of a plant. It embodies new life, but is lost to the parent plant when it falls to the earth to die underground before germinating to new life. The two nominal terms, \textit{pa} ‘sunlight’ and \textit{k}u ‘seed’, are combined and constitute the paired sublexemic constituents of the Kewa term \textit{pa}\textit{ku} which means ‘sun’. It also means ‘pandanus which has born nuts twice’ and ‘a bunch of fruit’ (Franklin and Franklin 1978:192). Its iconic equivalent in Witu is the term \textit{pa}\textit{g}u, with the sublexemic constituent structure \textit{pa}\textit{ku} (sunlight,fruit). It signifies the ‘marita pandanus palm’. The marita pandanus palm has bright red long fruiting bodies which push out like the rising sun from between an enclosing sheath of leaves.

The fruiting body of both types of pandanus palm, the karuga pandanus palm, which grows at high altitudes, and the marita pandanus palm, which grows at lower altitudes, are icons for the sun, itself an icon for the supreme high being. This is consistent with the fact that the Witu term \textit{pa} ‘sunlight’ is derived from the first proto iconic term for sun (see cell 1 of Chart C). This term *\textit{pa}1* is the term which encodes the symbolic function of the sun when it stands momentarily at the zenith at noon during the equinox, the moment when the special seed is formed which becomes a message incarnated by the man of light (see cells 2 and 3 of the Zenith iconic schema, Table 1; see also examples *(2) to *4(4) of the file entitled The Akolali Centric Relationship Schema 1).

In determining the iconic significance of the dual lexical function of the verb \textit{pa} which means both ‘to crack open’ a kernel of the karuga pandanus fruiting body and ‘to be covered all over with something’, we refer back to the function of its iconic complement, the verb \textit{k}au ‘to smash’ and its non-nasalised equivalent \textit{k}au ‘to cover’ ‘to protect’. A seed has a hard protective covering which encloses new life. It is like the sun bursting out from the covering of the earth to shed new life on the world and promote new plant growth. The light itself, discharged from the sun, covers the earth. In effect, the world is clothed in light during the day. It is a light which encodes the brightness of the supreme high being, manifested in the fierce light of the \textit{katiyapa}le, whose terminal sublexemic constituent \textit{pa}ale becomes transformed into \textit{ma}ne ‘knowledge’ ‘instruction’, a term formally and functionally related to the term \textit{ma}na which means ‘son’ in Witu and ‘knowledge/instruction’ in Kewa and Enga. Where the sun gives light, the supreme high being, Akolali, gives enlightenment. We will see in the file entitled ‘The distinction between special and general function’, that the special, hidden name of the supreme high being Akolali, the name \textit{YA}AWAY, encoded by phono-icons (see Table 2), signifies the intimate relationship between the Father and the Son he sent into the world as his son. This is consistent with the fact that the Witu term \textit{k}u ‘sunlight’ is the term which encodes the symbolic function of the sun when it stands momentarily at the zenith at noon during the equinox, the moment when the special seed is formed which becomes a message incarnated by the man of light (see cells 2 and 3 of the Zenith iconic schema, Table 1; see also examples *(2) to *4(4) of the file entitled The Akolali Centric Relationship Schema 1).

The message encoded by the irregular Witu verb \textit{pa} of the first morphophonemic class of verbs is complemented by the message encoded by another Witu verb which is also an irregular member of the first morphophonemic class. This is the verb \textit{pa}i, another derivative of the first proto iconic term for sun. *\textit{pa}2*. This verb is irregular in the following way. It does not appear to signify any type of destruction. It means instead, ‘to be covered all over’ with something, like the verb \textit{pa} when it functions intrinsically. It is used in the following context.

\begin{center}
\textit{p}i\textit{g}i \textit{p}a\textit{p}ai \textit{p}ai \textit{ke} \textit{ne} \textit{ya} \rightarrow \textit{pa}gieneya \textit{p}ai\textit{g}keneya
\end{center}

\textit{edible-plant bright-blue-colour cover sf3 neutr universal typological clitic}

It is covered all over with the colour of the bright blue flowers of the pinggi vegetable plant.

The \textit{pinggi} vegetable plant grows like mint and has the same kind of small florets as mint. The florets are the deep blue colour of the sky.

The non-nasalised equivalent of the verb \textit{pa}i, the verb \textit{pa}i, means ‘to protect’, as with the wall of a house. Its function complements the function of the non-nasalised equivalent of the verb \textit{k}au, the verb \textit{k}au ‘to cover’ ‘to protect’ as in the following example.

\begin{center}
i \textit{ya}pu \textit{de} \textit{ko} \textit{a} \textit{ne} \textit{p}ai \textit{k}u \textit{u} this house press-close der3 mr3 I cover pres I
\end{center}

I am enclosing this house with a protective wall.

While the verb \textit{pa}i ‘to cover over’ seems to be an irregular member of the first morphophonemic class of verbs since it does not encode destruction, the following may indicate that it does have such overtones. It also functions in the following context.
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<table>
<thead>
<tr>
<th>kege</th>
<th>pai</th>
<th>-ke</th>
<th>-ne</th>
<th>-ya</th>
</tr>
</thead>
<tbody>
<tr>
<td>dirt</td>
<td>cover-over</td>
<td>s/f</td>
<td>neutal</td>
<td>universal-typological clitic</td>
</tr>
</tbody>
</table>

He is covered with dirt.

For the Witu, *kege* 'dirt' is now equated with sin. The removal of dirt is signified by another irregular member of the first morphophonemic class, the verb *ka*. This is the verb that the Witu have themselves chosen to signify the removal of sin. In precontact days it simply signified the rubbing off of dirt from an object or from the body. This was its transitive function. In its intransitive function it should have signified the natural process of dirt falling off of its own accord from something to which it is attached. Instead, in what is the closest equivalent to intransitive function, it means ‘to come down from a hill’ or ‘to come down from a tree’. For me, this has overtones of Christ dying for the sins of mankind on the tree (the cross) on the hill Calvary, from which his body was taken down for burial.

This may explain the formal and functional relationship of i) the Kewa term *paalu* ‘when the sun is directly overhead’ (Franklin and Franklin 1978:192) and ii) the Enga term *pala* which means ‘down’ (Lang 1973:81). The Kewa term *paalu* is the product of the paired sublexemic constituents <paa.lu> (sunlight; high) and encodes the message ‘the sun at the highest point of the universe, the zenith’. It reaches this focal point of the universe, the symbolic residence of the supreme being. Akolali, only twice a year, at noon during the equinox. It is the moment when the special seed is formed which falls down to the world as a message incarnated by the man of light, who is doomed to die as the personal representative of mankind (see cells 2 to 4 of the Zenith iconic schema Table 1). Once the sun has reached the zenith at noon during the equinox, it begins its decline to its death. In Witu, downward movement encodes death (see example *70(7) of the file entitled The Akolali Centric Relationship Schema 1).

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3v The interrelationship of the four primary morphophonemic classes of verbs to each other within the Verb-classificatory iconic schema is congruent with the interrelationship of the four grammatical icons to each other within the Grammatical-Iconic schema (see the endnote attached to the number of the Table-heading of Table 23).

3v This is the class which encodes the complementary relationship between nature and culture. See also the references to this morphophonemic class of verbs in section 15 of the file titled The Akolali Centric Relationship Schema 1.

3v There are only two exceptions to the rule. They are systematic exceptions, since they have the same generic metalinguistic function. They are the verb roots *a* meaning ‘to open the mouth wide’ and *g* meaning ‘to call pigs’ by vibrating the lower lip. They encode the symbiotic relationship between cultural communication (articulate speech) and natural communication, based on the sounds of nature.

The verb root *a* meaning ‘to open the mouth wide’ is the first SMC of the Witu and Kewa term for ‘language’ and ‘word’, *agale*, articulated in Witu as *[aŋkale]*. It is the product of the following SMCs <a.k.a.le>. The first SMC *a* is formally and functionally related to the Witu verb root *a* ‘to open the mouth wide’. The second SMC <ka> is formally and functionally related to the Witu ‘durative’ verb suffix. The third SMC <le> formally and functionally related to the Witu ‘general activity’ clitic -le. The three SMCs, then, encode the following metalinguistic information: ‘the activity of keeping the mouth open wide’. This is consistent with the form and function of the following Enga verb expression (Lang: 9).

<table>
<thead>
<tr>
<th>aŋgá lengé</th>
<th>&lt;aŋgá&gt;</th>
<th>lengé&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘to open mouth wide’</td>
<td>&lt;mouth/pandanus palm&gt;</td>
<td>speak&gt;</td>
</tr>
</tbody>
</table>

The first word *angá* is related to the generic term for the ‘karuga pandanus palm’, *ánga*, and the following pair of Kewa words (F&E: *ágaa* ‘mouth’ and *ágá* generic term for the ‘screwpine pandanus (karuga pandanus). The second word *lengé* is related to the Enga verb ‘to utter sound or speech’. The first two SMCs <a.k.a.l.e> (articulated phonetically as *[aŋkala]*) are formally and functionally related to the generic term for the ‘karuga pandanus palm’, *ágá* in Kewa and *ánga* in Enga. This palm is the axis mundi. It has a large fruiting body the size and shape of a soccer ball suspended on a strong stalk. Its surface is a compact mass of honeycombed like cells. Each holds a single kernel. If the fruiting body is not harvested, the cells dry out and begin to gape open like a small mouth. The seed finally falls from it to the earth below, like a message from the zenith. This accounts for the formal and functional relationship of the following iconic pair of Kewa terms: *wái* ‘seed’ and *wái* ‘message’. Both are derived from the first proto iconic term for the sun *<pāq>l*. This is the proto iconic term for the sun that encodes its symbolic function when it stands at the zenith at noon during an equinox. This was the
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point in space-time of the entry into the world of the son of the supreme High Being, to fix up what had gone wrong with the first creative planting.  

Consistent with this, the following is the Enga verb expression that means 'to open the mouth wide':  
\textit{angà lengé} (Lang 1973:165). The first constituent \textit{angà} is formally and functionally related to the Enga generic term for the ‘karuga pandanus palm’, \textit{anga}. The second constituent is the Enga verb \textit{lengé} that means ‘to speak’. The two constituents, then, encode the following metalinguistic information: ‘the karuga pandanus palm (fruiting body) speaks’.

Also consistent with the above, the root \textit{le} of the Enga verb \textit{lengé} meaning ‘to speak’ is formally and functionally related to the root \textit{le} of the Enga verb \textit{leŋe} that means ‘to bear seed’. There are four subclasses of verbs of this first morphophonemic class. They are differentiated from each on semantic grounds that reflect the metalinguistic role of this class of verbs. The fourth subclass consists of two iconic pairs of verb roots. One pair is the pair of roots \textit{g} ‘to open the mouth wide’ in articulate speech, and \textit{e} ‘to call pigs by vibrating the lips.’

The following is the other pair: \textit{tu} ‘to die down as fire’ and \textit{la} ‘to grow’ in size as an animal or person. This second pair of verbs is systematically irregular in the following way. The process or action signified by the verbs of the first three subclasses is prototypically brief and irreversible. The dying down of a fire, and the growth of an animal or person are complementary processes. Neither is momentary. Moreover a fire can be blown back into life again, and the growth of an animal or person may suffer a setback. Both processes then are potentially reversible. This irregularity is systematic in the following way. These two verbs stand at the point of clinal transition between i) the first morphophonemic class of verbs which signify brief and irreversible processes or actions and ii) the second morphophonemic class of verbs which prototypically signify reversible processes or actions, e.g. \textit{mete} ‘to give’ and \textit{moto} ‘to take’; \textit{atu piti} ‘to go to sleep’ and \textit{atu kamoto} ‘to wake up’.

Consistent with this, the production of articulate speech signified by the verb root \textit{g} ‘to open the mouth wide’ involves two-way (to and fro) communication, in which speaker and addressee interchange roles. Vibrating the lips to produce the sound to which pigs respond when called – signified by the verb root \textit{e} – involves an up and down movement of the lips. We will find later that the Witu know that articulate messages are superimposed on carrier waves produced by the larynx. They equate these carrier waves with the vibrating strings of the small two-stringed mouth bow, and with the ripples on the surface of a still lake.

\textit{iii} There are no exceptions to this rule. The vowel or diphong of all verbs of this class is nasalised. The nasalisation of the vowel(s) is indicated by underlining.

The root-initial stop consonant (Cc) and the vowel nasalisation are complementary metalinguistic features.

The stop articulation of the root-initial consonant encodes the surface of the entity functioning as patient of the process or action signified by the verb root. Without an enclosing, well-defined surface, an entity cannot function as the patient of the processes or actions signified by these verbs. However, water flowing from a spring and words issuing from a mouth are treated as entities with well defined borders in the meta-language. Consistent with this, water flowing from a spring is referred to by the following Witu expression \textit{ue lene} (water eye) ‘eye of the water’. Words are the metalinguistic equivalent of the seeds of the axos mundi, the karuga pandanus palm. They have a form that can be destroyed. Consistent with this, when a man of importance died, every word that began with the first syllable of his name had – at least in theory and for a certain period – to be deleted from the lexicon of his region, and replaced by synonyms. This process encodes the death of the first-born male of the supreme High Being. This was adumbrated by the obligatory killing at birth of the first child of every man. This practice continued for a year after the author and his wife settled among the Witu.

The vowel nasalisation encodes the potential destructibility of the shape of the entity or its bond to the substratum in which it is growing or the surface to which it is attached.

\textit{iii} The non-nasalised equivalent of the verb \textit{kau} ‘to hatch’ (break) (intr.) and ‘to smash’ (tr.) is the Witu verb root \textit{kau} that means ‘to cover’ and by extension ‘to protect’. It is more logical to derive the nasalised verb root \textit{kau} meaning ‘to break/hatch’ (intr.) and ‘to smash’ (destructive processes that destroy a protective covering surface) from the non-nasalised equivalent \textit{kau} ‘to cover’ ‘to protect’ than to derive the nasalised root from the non-nasalised root. I can be concluded that the non-nasalised verb root (\textit{kau}) has been co-opted into the first morphophonemic class of verbs to capitalise on its
metalinguistic significance as an icon for a protective covering that can be destroyed. This is consistent with the dominant theme of the metalinguage, the irregularity of the entry of death into the domain of the supreme High Being when the Witu disobeyed the call to come at once for their articulate language. As a result they were doomed to die. Death would destroy their bodies that had been meant to be immortal. Consistent with this, the Witu verb root kau is related to the Witu particle kau of the following unique pair of Witu periphrastic verb expressions.

<table>
<thead>
<tr>
<th>Witu Verb</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>toe kau</td>
<td>firewood, before it has been split up</td>
</tr>
<tr>
<td>tabe kau</td>
<td>sweet potato cooked in their jackets</td>
</tr>
</tbody>
</table>

The term kau encodes ‘wholeness’. More specifically, it encodes the wholeness of unbroken surface of a body. Consistent with this, the non-nasalised Witu verb root kau meaning ‘to cover’ ‘to protect’ is related metalinguistically to the following Fasu term (May and Loeweke:103).

kau ‘skin’ (person, animal) ‘bark’ ‘body’

Also consistent with the above, the wholeness of Witu society is encoded is encoded as the wholeness of coming together of the two primary subdivisions of kin, i) consanguineal and ii) affinal kin. It is encoded in the following way. Two kinship terms, kaua and kaue, that share the same initial constituent kau expound the bifocal fourth function prime, symbiotic-dependency, within the Classificatory Kinship system, the second subsystem of the Interpersonal Relationship System within the Witu Grammar of Culture. One term, the male term kana, signifies both ‘grandfather’ (a consanguineal kinsman) and ‘father-in-law’ (an affinal kinsman). The other term kaue, the female term, similarly signifies both ‘grandmother’ (a consanguineal kinsperson) and ‘mother-in-law’ (an affinal kinsperson). The term kau common to both the male and female terms kana and kaue respectively encodes the wholeness of society as the sum of both consanguineal and affinal kin. At the same time, the pair of male and female terms encode the wholeness of society as the sum of its male and female members, whose procrective powers ensure the survival of society, even though every individual member is doomed to die for the act of disobedience of the original society.

We now note that the lexical terms toe ‘firewood’ and tabe ‘skin’ that co-occur with the particle kau that encoded ‘wholeness’ in the unique pair of Witu nominal expressions cited above, toe kau and tabe kau, specifically encodes wholeness manifested by an all protective/covering skin or skin-like layer. The following is the key to this. The Witu term toe that means ‘firewood’ is related in the metalanguage to the Witu term toe that signifies the ‘old skin’ of an old man that flakes off from his body in old age. The old skin, however, does not encode the end of life. It is rather equated with the toe ‘old skin’ that a snake sloughs off as it grows from one cycle of growth to another, becoming in effect an icon for the permanent renewal of life, the equivalent of the bark of the pipi tree that renews itself if it is removed so that the tree continues to live, an icon for eternal life in the Witu myth of the origin of language and death. All this accounts for the very widespread myth in language groups of the Trans–New Guinea Phylum that tells of an old man who in extreme old age gets rid of his old skin and takes on a new skin, renewing his life in the process.

From this, then, we conclude that the Witu term kau and its Fasu equivalent kaua encode not only the wholeness of an entity protected by its surface skin or bark, but the unbroken wholeness of eternal renewal of life.

There is also a systematic metalinguistic relationship between the referents of the terms toe and tabe, ‘firewood’ and ‘skin’ (of sweet potato cooked in the fire) respectively. Sweet potato when cooked in their tabe ‘skin/jackets’ are cooked in the ashes of the toe ‘firewood’ in the fireplace.

Note the root ta and ka of the following iconic pair of Enga verbs (Lang:99) that mean to shell (split) open beans, coffee, pandanus. And also ‘to break’ (as eggs and ‘to hatch’ as eggs: fixed tone on first): tambenge kambenge

This is consistent with the fact that the second and third function primes, interdependency and independency respectively, are polar opposites in the PQS system of four function primes. Polar opposition is often associated with inversion of functions (cf the switch of the south and north magnetic poles).

This also points to the possibility that the verb root ka of the Enga verb kambenge is related metalinguistically to the Witu verb root kau that means ‘to smash’ (as for example an egg’ and ‘to hatch’ as an egg.

This, in turn, points to the possibility that both the Enga verb roots ka and ta of the verbs kambenge and tambenge are related to the proto iconic grammo-icons *ta and *ka respectively of the Witu Grammo-iconic schema.
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The following two verb roots are systematic exceptions to the rule that the roots of verbs of this class begin with a consonant, more specifically a stop consonant. These two systematically irregular verbs do, however, have nasalised vowels. They are icons for two complementary ways of communication.

The root me that means ‘to open ako to open mouth wide’ in preparation for speaking, as in the following example.

Yapetayo one ake oademe aoaone pade aline tigoa wete one agale kama ako. ‘When Yapeta is just about to open his mouth and say something another man consistently breaks in and interrupts him.’

The other verb e means ‘to call pigs by vibrating the lips’. It is an icon for inarticulate, phatic communication.

Similarly, the root yo of the verb yo/to is special in some way, e.g. a bride, a highly prized pearl shell referred to as a yobo mayo, and a cassowary traded off to men of the Mendi language group for their communication system are: 1] time-oriented, and 4] type-oriented classes respectively. The fourth MP class, the type-oriented class, is the class of lexico-grammatical verbs expounded by four systematically different types of activity, 1] speaking, 2] movement, 3] fixed location and 4] action. The verb root yo/to is formally and functionally related to special agentive clitic -yo (ag-sp). This clitic -yo is postposed only to personal names, the term for one’s biological father and the personal interrogative root te ‘who?’. The function of the verb yo/to parallels the function of the verb me/te ‘to give’. But where the verb me/te is essentially the generic verb of giving, the verb yo/to is the verb of special giving in a reciprocal exchange. The entity given as the object of the verb yo/to is special in some way, e.g. a bride, a highly prized pearl shell referred to as a yobo mayo, and a cassowary traded off to men of the Mendi language group for their cassowary races, etc.

The verb root me ‘to give things in general’ and the ‘general agentive’ clitic -me are themselves related to the verb root yo that means ‘to sit’ ‘to live at some place’, ‘to exist’ (as a person or as a lake) and ‘to be alive’. As the verb root that means ‘to exist’ (as a lake) it has the overtones of femaleness associated with lakes. Consistent with this, it is related to the clitic -me that transforms a male name into a female name, e.g. Adia/Andia ‘Adia’ the sister of the man Adia [Andia].

By contrast, the verb root yo to give a single special thing and the ‘special agentive’ clitic -yo have male overtones. Both are related to the root yo of the verb stem yoto that means ‘to flow as a river or a creek’. The flowing of a creek or river has male overtones, where the existence of a lake, restrained within its perimeter, has female overtones.

In order to understand the full significance of the function of this third morphophonemic class of verbs we have to note the significance of its place in the highest level of the system under, the system identified as the Akolali Centric Interlocking Relationship Focused PQS System. In this system, articulate language makes its appearance in cell 3 of the PQS system. This is the cell that deals with the role of the third set of Witu High Beings, Tu Aneta ‘Tu and Ane’ who called three people groups to
come to them at Mt Gilue to receive their language, two of them obedient and promised eternal life, the other, the Witu, disobedient so that their language was linked with the doom of death.

Articulate communication is distinct from the dynamic communication of i) Akolali by the blazing light of his katiyapale ‘lightning’ directed at a tree, and ii) the silent communication of the second set of High Beings, the pair of dream givers, Yali (alternate name for Akolali in this role) and Pulu signifying what was to befall receivers of dreams by showing them symbols without sound or speech. The feature that distinguishes articulate language given by the third set of High Beings from previous forms of communication by the High Beings, and from animal communication and other forms of human communication, is phonological, the capacity to communicate words with phonemic shape. Phonemes give form/shape to human thought. Animals are incapable of producing meaningful phonemicised thoughts. The role of phonemes in giving physical shape to words detectable by the ear is an embodying role. The Witu give expression to their capacity to recognise such embodied words by their ability to recognise the first syllable of every word. In fact, on the death of an important member of the region, prototypically a male, all lexical terms beginning with the first syllable of his personal name at death were proscribed. The recognition of words as distinct, isolatable entities, entities that had a recognisable (phonological shape) and internal syllabic structure was given expression by the term that adult monolingual men taught to read and write their own language before any schools had been opened in Witu territory coined the following verb expression to signify the act of reading.

Oi motoko.  <oi moto k o>

‘He is reading.’<count hold pres 3sg>

Very significantly, the count term oi derives from the root of the following Witu verb expression which means literally ‘at the mark’. Oiyake.  <oi ya ke>

‘(It is) sufficient.’ <boundary nominaliser at>

‘Sufficiency’ has strong space-time connotations. It encodes the sun reaching the highest mark it can reach during a year, when it stands directly overhead in the equatorial region, twice a year, during an equinox. The Kewa have a term paulu that means ‘when the sun is directly overhead’. The place it reaches at this point in space-time is the matai ‘zenith’, the symbolic residence of the supreme High Creator-planter of all things Akolali. From there he governs every present moment of time. This is the point aimed at when the sun, rising to reach the zenith, brings the oncoming future with it, with the embodiment of dreams. At the point of conjunction with the present, the oncoming future becomes the ongoing past when it crosses the zenith. This is encoded by formal and functional relationship of the three monofocal time suffixes, the tense suffixes of Witu: i) -k ‘present tense’ + ii) -ko ‘future tense’ which conflate to produce iii) -ko the ‘past’. The zenith, then, is the tipping point in space-time as the sun travels from one season governing solstice to the next and back again. This tipping point is the boundary point that segments time into countable periods of major significance when preparing for the terminal phase of their many years-long Great Timbu Spirit Fertility Cycle. The past, then, as the procreative product of the present and the future, encodes the embodiment of time. Consistent with this, there is another past tense suffix -ka which gives further expression to the embodiment of time. It, in fact, encodes the personalising of time: it substitutes for the regular default ‘past tense’ suffix -ko when the subject of its sentence-final predicate verb is a single person, other than the speaker, i.e. a single addressee or a single referent person. This suffix -ka is a highly irregular suffix. It is the only portmanteau morpheme in the Witu language. Its exceptional irregularity identifies it as an important device of the metalanguage whose dominant theme is the irregularity of the entry of death into the world through an act of disobedience by the Witu linked with language. Its irregular function has an equally irregular complement in the ‘present tense’ suffix, the suffix -k. It is the only morpheme in the language, free or bound, root, affix or clitic, that consists of nothing but a single consonant. The irregularity of this single consonant suffix is highly significant. It is the voiceless velar stop phoneme /k/. It is the only voiceless velar stop phoneme that is expounded only by a stop allophone both word initially and word-medially. The other two voiceless stop phonemes /p/ and /t/ are most commonly expounded by allophones that are not stop allophones word medially. There is a reason for this. The voiceless velar stop phoneme /k/ always articulated as a stop, a voiced velar stop /g/ word medially, by its momentary impendence in the flow of air through the mouth cavity encodes the momentary point in space-time when time is segmented and countable at the medial point in the trajectory of the sun, the matai ‘zenith’, during an equinox.

Consistent with the above, all three of the voiceless stop phonemes are expounded by aspirated voiceless stop allophones word-initially with two systematic exceptions. Their aspirated voiceless articulation word-initially encodes words as formally independent terms/entities that can be segmented
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from each other in the flow of speech. The two systematic exceptions to this are the following metalinguistic pair of Witu verb expressions.

\[
\begin{align*}
\text{Peya toko} & \quad \left[ p^{\text{y}} \text{ya rogo} \right] & \quad \text{peya} & \quad \text{to} & \quad k & \quad o \\
\text{Mena toko} & \quad \left[ \text{mena rogo} \right] & \quad \text{mena} & \quad \text{to} & \quad k & \quad o \\
\end{align*}
\]

‘It (the substance) is finished.’

\[
\text{<peya to k o>} \quad \text{<mena to k o>}
\]

In this irregular pair of verb expressions the phoneme /v/ of the verb root to ‘to do’ is expounded by the vibrant flapped [ɾ] allophone. Its sound is an icon for death. We will find that it encodes the death of the being whose death would be the solution to the doom of death pronounced on disobedient Witus. He would enter the world from the zenith at noon during an equinox, the equivalent of a seed falling from its parental source and the embodiment of his father’s mana ‘knowledge/wisdom’. He would be the mana son born from between mana ‘thighs’ of an earthly mother. For the Enga his role is encoded by the following iconic pair of Enga words, both derived from the first proto iconic term for the sun, the term **[p][g][i]** that encodes the symbolic function of the sun when it stands at the zenith at noon during an equinox.

\[
\text{wai} \quad \text{‘seed’} \quad \text{(Lang:110)}
\]

\[
\text{wai} \quad \text{‘message’}
\]

We now note that the phonological PQS subsystem of the Language-Communication system is governed by the third function prime, Independency. This is the function prime that is expounded by the role of the third set of Witu High Beings Tu and Ane, the givers of articulate language.

We now note that the third set of verbs of the Verb Classificatory Iconic Schema, the class that expounds the third function prime, Independency, is a very small class whose identification is determined entirely by its phonological canonical form Ca. a consonant plus the vowel a.

Consistent with all this is the metalinguistic function of the third set of verbs within the fourth primary system of verbs of the Verb Classificatory Iconic Schema. It is a PQS system of four verbs of fixed posture and residence. The monofocal subset of this PQS system are the verbs of fixed posture i) pi ‘to be lying down’, ii) me ‘to be sitting down’, and iii) ka ‘to be standing up’. This is their primary lexical function. But they also function grammatically as temporal auxiliary verbs. In this role they encode the governance of mankind by time, so that they age with the passage of time and finally die at the end of their ka ‘track’ of life, at a time which had been predeterminated by Akolali when he fixed the po ‘double helix twine’ of spirit life to their matai ‘top of their head’ from his focal residential point in space-time, the matai ‘zenith’.

The word initial consonant of these four verb roots i) pi ‘to be lying down’, ii) me ‘to be sitting up, iii) ka ‘to be standing up’, and iv) tu ‘to stay at some place’ are stop phonemes, the bifocal lateral phoneme /L/ among them made by terminal stopping of the flow of air by the tip of the tongue and lateral release around the tongue. These four stop phonemes encode the trajectory of the sun through space as it measures (counts off) the passage of time that causes disobedient mankind to age and finally die. The three voiceless stop phonemes /p/, /t/ and /k/ encode the sun rising from its prone (sleeping) position at dawn, rising half way up towards the zenith half way through the morning, like a man sitting in a typical two-dimensional posture, feet folded under the erect trunk of the body, and then finally standing in its full glory at the top of its trajectory at noon, when it is referred to by the following verb expression: lou tigini kako (sun body it stands). From this point it reverses its trajectory to a mirror image downward trajectory. It finally enters the earth like a seed falling to its death in a lou ‘hollow in a tree’ (F&F:166) at the end of its journey through the sky (Karl Franklin personal communication).

Death for the Witu was linked with their gift of articulate language when they failed to come at once for their language when called by the third set of High Beings, the language-givers Tu Aneta Tu and Ane, Tu and Ane had to call the Witu four times before they finally came for their language. They made their first call at Mt Gilue to the west of Witu territory. They made their fourth and last call inside Witu territory. At each stage as they moved east to Witu territory, stopped and called the Witu, they made a ground oven as they waited for the Witu to come. The four ground ovens marked a ka ‘track’ through space-time. These ground ovens encoded the metalinguistic relationship between food they were to have shared with Tu and Ane, and language which Tu and Ane were to give to them.

Consistent with this, the monofocal verb roots signifying fixed posture -- i) pi ‘to be lying down’, ii) me ‘to be sitting up’ and iii) ka ‘to be standing erect’ – that encode the passage of time which governed the mortality of the embodied mortal mankind, are related metalinguistically to the terms for their phonologically embodied ‘languages’ in the following languages.
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The fourth verb of this PQS system, the verb lu -- with its irregular bifocal root-initial lateral stop phoneme, that means 'to reside at some place' -- fits into the above schema in the following way. It functions as the verb of the following Witu verb expression.

**mane hiku** which means literally 'he/she is inserting **mane**'.

It has two (a pair of) paradoxically different but complementary functions. It means both i) to feed food to offspring' as a parent bird, and ii) 'to pass on one’s cultural knowledge/wisdom to one’s offspring as a father to his son, prototypically the eldest son.

Consistent with the binary relationship-focused organisation of the Witu language and culture in general, the meaning and function of the above Witu verb expression is complemented by that of the following Witu verb expression.

**peku laweteko** that means literally 'he is feeding seed to special selected guests’

It also has two (a pair of) paradoxically different but complementary functions. It means both i) to feed food to offspring' as a parent dog, and ii) 'to pass on one’s cultural knowledge to one’s offspring' as a father to his son, prototypically the eldest son.

This complementary pair of Witu verb expressions encodes the following metalinguistic information. Articulate language used to build up relationships between individual persons by phonologically embodied words is the equivalent of solid food used by a parent creature (bird or dog) or parent human to nourish its offspring so that physical growth is accompanied by social integration.

This, then, is an important key for understanding (explaining) why the four verbs of the third PQS subsystem of Lexico-Grammatical Verbs, the verbs of fixed posture or residence, are related in the metalanguage to terms for ‘language’ in language groups of the region embraced by the Witu myth of the origin of language and death.

This is where the Fasu term for ‘language’ and ‘voice’, the term **mé**, is of particular explanatory value. It makes a metalinguistic tone-pair with the following Fasu term cited with it below (May and Loeweke:153).

**mē** (with a high tone) ‘language’ ‘talk’ ‘voice’ ‘sound’
**me** (with a mid tone) ‘taro’

The generic term for ‘taro’, the Fasu term **me** (with a mid tone) is a reflex of a proto term for ‘taro’, reconstructed as **mai** that probably dates back to the time of origin of the Trans New Guinea Phylum of languages. It is the source of the following generic terms for taro in the following languages.

**mi** Witu **maa** Kewa **mia** Enga

Taro is an icon for mankind’s exclusion from the Garden of Eden stage in the history of mankind. This is encoded by the following unique irregular pair of Kewa and Enga verbs, whose shared irregularity marks them as icons of particular significance in the metalanguage whose dominant theme is the irregularity of the entry of death into the world. They are irregular in the following way.

Each of the irregular pair of Kewa and Enga verbs, and only these verbs, has a pair of suppletive roots, i.e. is roots with very different form but fundamentally the same lexical function/meaning. The following are the corresponding pair of suppletive verbs in Kewa.

**gi** ‘to give s.t. to any 1st or 2nd person’
**lagia** ‘to tell s.t. to any 1st or 2nd person’
**kala** ‘to give s.t. to any 3rd person’
**lakala** ‘to tell s.t. to any 3rd person’

The following are the corresponding pair of suppletive verbs in Enga.

**dingi** ‘to give s.t. to a 1st or 2nd person’
**langingi** ‘to tell s.t. to a 1st or 2nd person’
**maingi** ‘to give s.t. to a 3rd person’
**lamaingi** ‘to tell s.t. to a 3rd person’

These two corresponding pairs of Kewa and Enga suppletive verbs encode the following metalinguistic information.

Firstly, giving things to others is the most fundamental of all activities. Telling things to others is a derivative and secondary activity, but nevertheless very fundamental, since it is linked derivatively in a special binary relationship to the most fundamental of all activities that generates relationships between individuals, the activity of pure giving.

We now note that these two pairs of suppletive verbs in Kewa and Enga encode a fundamental binary difference between 1st and 2nd person recipients of gifts and information on the one hand and 3rd persons on the other hand. This encodes the fact that the most fundamental of all interpersonal relationships is that between a speaker, a 1st person, and an addressee, the 2nd person. The relationship between these two roles, 1st person and 2nd person, is ultimately a speech-generated relationship.

Secondly, the pair of Enga suppletive verbs roots **dingi** and **maingi** of the verbs of giving s.t. to a 1st or 2nd person **dingi** and ‘giving to a 3rd person **maingi** respectively are related to the following pair of terms.

**dii** ‘seed’ ‘fruit’ (Lang:16)
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*a*mai the proto TNG term for ‘taro’ reflected by the Kewa term *maa* and the Enga term *maa*. The irregular long vowel of the Kewa reflect *maa* encodes the loss of a phonological constituent present earlier in its history, e.g. East and South Kewa and Witu, *ali* ‘man’, West Kewa *aa* (F&F:112).
The root *di* of the Enga suppletive verb *dingi* meaning ‘to give something to a 1st or 2nd person, the primary persons of speech activity, links such giving with the gift of *di* ‘seed/fruit’. This is consistent with the fact that Lang identifies giving to a 1st or 2nd person as inclusive giving. This encodes the giving of seed and fruit as a free gift to obedient people in an inclusive relationship with their creator-planter. The recipients were still in their ‘Garden of Eden’. They did not have to work for their sustenance. They only had to go and collect it from the seed/fruiting bearing trees as they came into production with the progressions of the seasons. But once mankind became disobedient they were excluded from the ‘Garden’ and had to work for their sustenance. This is encoded by the suppletive root *mai* that means ‘to give to a 3rd person’ the excluded person. This accounts for the fact that it is the metalinguistic equivalent of the generic TNG term for ‘taro’, **mai*, the very ancient original subsistence crop that they had to work hard to produce, forming a huge ditching system in the Highlands.

lxvi Consistent with the fact that the verb *v* ‘to utter sound or speech’ expounds the first function prime, autodependency, in the subsystem of four sets of lexico-grammatical verbs, it is ego-centric. The second set of verbs, the four verbs of directional movement, expound the second function prime, interdependency, within this subsystem of four sets of lexico-grammatical verbs. It gives expression to this in the following way. Its monofocal subset of verbs, the verbs ‘to come’ ‘to go’ and ‘to pass by’ are both ego and addressee centered, e.g. *nv* means both ‘to come to where ego is’ and ‘to come to where the addressee is’. This second set of verbs, then, the verbs of directional movement, reflects the interdependent relationship of the speaker and addressee established by the verb *v* ‘to utter sound or speech’.

lxv The verbs of the fourth morphophonemic class constitute the lexico-grammatical class of verbs. It is the type-oriented class. There are four systematically related subclasses (types) of lexico-grammatical verbs. The four subclasses represent four systematically different types of verbs, 1) utterance or speech, 2) directional movement, 3) fixed posture or residence and 4) action. Together they constitute the type-oriented morphophonemic clausal class of verbs.

As a unified class, the fourth morphophonemic class, they expound the bifocal fourth function prime, symbiotic-dependency. Consistent with this, they expound the symbiotic relationship of lexicon and grammar. The verbs of all four subsets function both i) as primary lexical terms and ii) as grammatical terms, auxiliary verbs and verbal suffixes.

The lexico-grammatical class of verbs are characterised by variable root vowels, with the systematic exception of i) the bifocal fourth verb *ya* - of subset 2 verbs of directional movement, and ii) the four verbs of fixed posture or residence of the third subset. The fixed root vowels of subset 3 verbs of fixed posture or residence encode the fixity of their physical posture or residence. By contrast, the variable vowel(s) of the verbs of directional movement encode the non-fixed state which results from movement, with the systematic exception of the fourth verb of directional movement, *ya* - ‘to wander about’. The verb *ya* does not signify motivated directional movement, towards or past a target, as do the first three verbs of its subset (the three monofocal verbs of directional movement). It signifies movement with no specific target. It represents the point of clinal shift from the set of directional movement verbs to the set of four verbs of fixed posture or residence. Consistent with this, its vowel is a fixed vowel, not a variable vowel.

lxvi Consistent with the fact that the verbs of directional movement expound the second function primes interdependency, the three monofocal verbs are both ego and addressee centered. The verb *nv* ‘to come’, for example, means ‘to come to me’ or ‘to come to where you are’. Also consistent with this, the act of coming is the complement of the act of going. They are interdependent movements.

The monofocal subset of directional movement verbs function as verb suffixes. The bifocal verb is systematically different. It does not function as a verbal suffix. It functions instead as the universal typological clitic -ya. It is a feature of the following example.

**Ke -ni -ya -mene ya ya to -a n -a -mene**

Down off un-typ period wander wander do mpr come sfl delayed-imperative
Wander off down there for a time and then come back.

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The verb ya signifies movement that is neither specifically towards the speaker or addressee nor away from the speaker or addressee. It is acotrnic.

(Information added 16th November 2012 Anindilyakwa from Julie Waddy )

come/go - lik- (alika = foot) secondary root for ‘footy’ = -rukw-)
e.g. come from, go to

take/bring/fetch - -yik-

Produce/collect (in something that is mass produced, e.g. eggs, seed = arrang-

Give birth (female) [male -
collect/throw/spend = -erikb-

hunt/collect = enguurkw = sec. root for mouth/opening/hole

fetch fire = -akarng-

fetch water = kakarrng-kak = sec root for light source, incl fire

Note also Yele of Rossel Island PNG

\footnote{It also means ‘to go from a place independent of where the speaker or the addressee is’.}

In the following extract from an e-mail from Rebecca Punupo the verb pwaŋ has an impersonal subject, the passing of funds from us into her account at Ukarumpa. An amount of money had been transferred to her personal account from the Witu Fellowship Fund for her daughter’s High School fees. She had been anticipating its coming. A few weeks after it had gone into her account Marie had emailed her to see if it had in fact finally arrived. Rebecca responded as follows 09 March 2006 20:03

\textit{Ena kue oyake tone account ponadeka: ‘Yes, truly, that money you were talking about had passed into (arrived in) our account.’}

\footnote{The first three verbs of this class, the monofocal subset, all function as temporal auxiliary verbs, and as temporal verb suffixes.

\footnotetext{Consistent with the fact that the verbs of fixed posture and residence expound the third function prime, independency, within the fourth morphophonemic class of verbs, the first three verbs, the monofocal subset, signify three independent postures. Also, consistent with the fact that the three monofocal verbs also function as temporal auxiliary verbs, i.e. verbs which encode the unilinear movement of time, the arrow of time, the first three verbs register a systematic progression from lying down to sitting up to standing erect, a unilinear movement.

The bifocal fourth verb of this class is systematically different from the three monofocal verbs. It signifies fixed residence over a prolonged period of time, captured by such glosses as ‘to remain at’ ‘to stay at’. It registers the fact that it is the bifocal verb of its set in the following way.

Consistent with this, the verb \textit{ya} signifies fixed residence over a prolonged period of time, the arrow of time, the first three verbs register a systematic progression from lying down to sitting up to standing erect, a unilinear movement.

The bifocal fourth verb of this class is systematically different from the three monofocal verbs. It signifies fixed residence over a prolonged period of time, captured by such glosses as ‘to remain at’ ‘to stay at’. It registers the fact that it is the bifocal verb of its set in the following way. It not only means ‘to stay/reside’ somewhere. It is also the primary verb of a verb sequence which means ‘to live under the authority of X at some place’, X being the head man of the place of residence.

\footnote{The fourth verb of this set, as expected, is systematically different in its function from the first three verbs, the monofocal subset, which signify temporary postures. As the bifocal verb of its set, it not only means ‘to live/stay at some place’ for an extended period of time, but also ‘to live under the authority’ of the headman of that place.

\footnotetext{This verb which closes off the morphophonemic verb classificatory system leads us back to the first morphophonemic class, M-P1. The verbs of the M-P1 class can function both as intransitive verbs (signifying natural processes) and as transitive verbs (signifying cultural actions), e.g. kau ‘to break open’ as an egg hatching (intr.), and kau ‘to smash’ something fragile, as a person (tr.). Paralleling this, the verb tv functions as the proverb of intransitive processes, and its function is then captured by the gloss ‘to happen’. It also functions as the proverb of transitive actions, and its function is then captured by the gloss ‘to make’ or ‘to do’. When I drew Ivan Lowe’s attention to the fact that this proverb of general action, in closing off the system, pointed back to the beginning of the system, he was not surprised. He said that this was what one should expect of a dynamic system. We have, in effect, overtones of the Alpha and Omega. Consistent with this, the verb kau is the prototypical verb of the first morphophonemic class. It is the verb which signifies the consequence of Akolali’s communicative act with the Witu, when he strikes and smashes the trunk of a tree with \textit{katiyapale} ‘lightning’. The egg which breaks open to release new life is an icon for the perpetual renewal of life. Consistent with this, the term for the ‘egg albumen’, tiũu, is formally and functionally related to the Witu term for ‘sky’, tiũu (tĩmbu), the domain of Akolali. The term for the ‘egg yolk’, kakai, is formally and functionally related to the Witu term for ‘yellow clay’, earthy material. The term for the ‘shell’, yene, is formally and functionally related to the term yene signifying ‘a group of people’.}
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See the endnote attached to the space-time sector (cell 3) of Chart I for the evidence which shows that the system of space-time lexical terms and expressions expounds the disjunctive third function prime, independency, within the higher level Lexical-term system of Chart I.

Within the PQS system of four sets of spatial and temporal terms, the three sets of spatial terms constitute the monofocal subsystem, and the temporal set constitutes the bifocal subsystem. The temporal subsystem is bifocal, since the sun that governs the passage of time governs two universal primary temporal systems. One is the diurnal passage of time, one day and night at a time. This is the system that governs the daily subsistence and survival activities of people. The second system governs the seasonal cycle of the sun as it moves from one solstice to the other and back again. It governs the fruiting/seed cycle of plants and the breeding cycle of birds and some other creatures. HBK 0205 06

The chart for the system of verbs signifying actions, processes and states should have followed Chart I. It is not presented in this set of charts since it has been summarised in Table 13 A. The three sets of spatial terms of this chart, chart K, constitute the monofocal subsystem. This reflects the fact that distinctions of space are prototypically egocentric and so monocentric. By a radial extension of their monocentric (egocentric) function they become person-centric. Distinctions of time, by contrast, are bifocal. Distinctions of time have two focal points of reference, i) the time of ego’s speech act, and ii) the position of the sun. The first set of temporal terms are egocentric (see subcell 1 of cell 4). The second set of temporal terms reflect distinctions of time determined by the sun (see subcell 2 of cell 4)

The cognate of Witu o ‘here’ is the adverb o in Fasu (May and Loweke 1981: 173) and o in Ipili, a language of the Enga Family. The spatial root o -- as the single exponent of the first function prime, autodependency, in the system of space-time lexical terms -- encodes ego as a person in his/her own right. It encodes the noun-oriented role of ego, as a unique individual. The spatial root o, then, when coupled with the directional suffix -tv (dir) in the adverb oto ‘here’ means ‘here to me as a person’, not ‘here to the space I am occupying’. The personal focus of the first spatial root o, the only member of its set possibly accounts for the form of the following Ipili term.

( ) o ali > ‘here’

The first SMC <o ali> is formally and functionally related to the Ipili spatial root o that means ‘here’. The second SMC <ali> is probably formally and functionally related to the term ali that means ‘man’ in Witu and Kewa.

By contrast, with the second set of spatial terms, the focus of attention is on the spatial zone occupied by the person, i.e. ha ‘here in this specific place where I am’. The function of the second set of spatial terms, the personal spatial terms, is verb-oriented. The focal spatial pronoun of this personal spatial set, i, signifies a moment in space-time determined by ego’s action, the verbal act of speaking. The spatial term i -- whose lexical function is usually glossed ‘here’ -- shifts the focus of attention from ego as a person, to ego’s location in space, and to the moment in time at which he/she is speaking. Consistent with this, the activity clitic -ye can be postposed to the three personal spatial roots i (egocentric), wini ‘addressee centric’ and emi ‘referent centric’, e.g. ile ‘this way’ ‘the way I am doing it’.

Consistent with this, the third set of spatial terms, the set of four (impersonal) topographic roots, defines ego’s relationship to other entities, persons or non-persons, through space without reference to either his/her existence as a being in his/her own right, or his/her verbal act of speaking.

We have moved systematically from 1) a person centred noun-oriented definition of egocentricity signified by the spatial term o, to 2) a verbal definition of egocentricity, signified by the personal spatial term i, to 3) a purely (impersonal) spatial definition of egocentricity. These three lexical categories, 1) noun, 2) verb, and 3) space, constitute the monofocal subsystem of lexical classes in the Lexical-term system of Charts H and I.

The spatial phrase o yene ‘the rest of a group of people from whom one individual has gone’ is the functional equivalent within its system to the Group-membership noun phrase within its system (cell 1 of Chart I), represented by the example no yatene (1 group) ‘the group of which I am a member’.

The nominal noun phrase (no) yatene ‘the group of which (I) am a member’ is the most fundamental exponent of the first function prime, autodependency, within the nominal-noun phrase system. It gives expression to the fact that the first function prime is the prime governing paradigmatic relationships, linguistic and extralinguistic, in the Grand-cultural organisation system of Table 11. Of the numerous paradigms, the person-based set encoded by this nominal noun phrase is the most fundamental in the system of interpersonal relationship governed by the four function primes.
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Consistent with this, the free personal pronouns which fill the secondary slot of the Group-membership phrase (no) yatene ‘the group of which (I) am a member’ are drawn from the first of the four free personal pronoun systems, i.e. the egocentric system which expounds the first function prime, autodependency, among the four sets of free personal pronouns.

By contrast, the focal spatial noun phrase o yene ‘the rest of the group from which one member has gone’ encodes a paradigm of people as individuals, any one of which may separate from the group. This disjunctive definition of a group is consistent with that fact that spatial noun phrases expound the disjunctive third function prime, independency, within the system of Lexical-phrases, 1) nominal noun-phrases (see Chart , 2) verbal noun-phrase (noun modified by a verb or verb expression, e.g. tuane ali (dead man), 3) spatial noun-phrase, and 4) type-number noun phrases (see Charts J, N and O).

Consistent with this, spatial terms expound the disjunctive third function prime in the system of four classes of lexical terms of Chart I. Space-time lexical terms and expressions expound the disjunctive third function prime, independency, in the system of four classes of lexical terms since they signify the settings of the entities and the processes and actions about which ego is speaking. The setting of entities and events is not of fundamental importance in the lexical definition of these nominal entities, and verbal processes and actions. This is because the settings are functionally independent of them. They are, in consequence, non-core (non-nuclear) features of verbal clauses, i.e. they are optional features of the clause.

I believe that the focal spatial root o is formally and functionally related to the future tense suffix -o of Table 15. This would be quite consistent with the fact that space and time are complementary aspects of the more fundamental generic category, location (in space-time). The following is the evidence from Witu and Kewa which points to the link between the focal spatial term o and the future tense suffix -o.

We begin by noting that one of the two adverbial equivalents of the future tense suffix -o is the Witu temporal adverb podolio ‘tomorrow’ (see subcell 2 of subcell 2 of cell 4 of Chart K). It has the sublexemic constituent structure <podolio> (twine. anticipatory. pull/f preferable), which encodes the message ‘It is anticipated (it is hoped) that the twine will pull’. It encodes the fact that each new day is conceived of as symbolically pulled into the present from the future by a length of rope. This is consistent with the fact that in the closed set of four temporal terms of Table 15, the past tense suffix -ko is the formal and functional product of the future, signified by the suffix -o, coming into conjunction with the present, signified by the suffix -k. Consistent with this, the future is encoded as the equivalent of a bird flying up and over (skimming) the crest of an intervening hill towards an observer on the other side (see the endnote attached to the name of the second dream giver, Pulu, who - with the first dream giver Yali - gives dreams forecasting the future and so governs the eternal future). A viewer observing time flying like a bird over the crest of the hill towards him could speak of it in the following terms.

O -o to pe -a ta -te -ka -k -o
here dir move mpr rise der1 der2 pr 3sg
It is moving here to me skimming up and over the intervening ridge.

The medial verb otopea, articulated phonetically as [oropea], is formally and functionally related to the first word oropena of the Kewa expression oropena adaalu which means ‘into the future’ (Franklin and Franklin 1978:298). It encodes the fact that the future arrives as a single day from the future, like one person separating himself from the group he belongs to, signified by the spatial noun phrase o yene ‘the rest of the group from whom one member has gone’.

The second term adaalu of this Kewa expression oropena adaalu is specific for the matai ‘zenith’ which the future has to crest. It is the product of the paired sublexemic constituents <adaalu> (sun, high) and encodes the message ‘the sun at the highest point of its trajectory’. This is why the Kewa term adaalu [andaal] means not only ‘long’ but also ‘tall’. The highest (tallest) point of the universe is the zenith. The first constituent <adaa> of the Kewa term adaalu is a derivative of the second proto iconic term for sun, *andau, which encodes the symbolic function of the sun rising to make conjunction with the zenith at noon during the equinox (see cell 2 Chart C). Along with the other three proto iconic terms for sun, it constitutes the Track iconic schema which encodes the system of interpersonal relationship governing the Land-life system of subsistence and survival activities (see subcell 3 of cell 3 in Table 11). In the Track iconic schema, the track is equated with the two terminals it links and with the entity which travels along the track, and so makes the track. As a result, the term for the track is commonly the same as or very similar to the term for the terminals of the track (the door of a house or the the hole of an animal’s refuge), e.g. Kewa pora which means both ‘path’ and ‘door’.

It may even be the same as or similar to the term signifying the entity travelling the track, e.g. Enga...
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kaitíní ‘path’ ‘door’, whose paired sublexemic constituents, <kai.tíni> (pig.offspring), are formally and functionally related to the Witu terms kai ‘pig’ and tine ‘offspring’, and encode the message ‘piglets’ which follow their mother along the track on their way home. This is why the sun, the ada ‘old man’ of the sky, the sun, is signified by a term in Witu which is the same as the term for ‘house’, ada, in languages of the Enga family.

The second constituent <sh> of the Kewa term adaalu of the expression oropena adaalu ‘towards the future’ is formally and functionally related to the first constituent <lū> of the Witu adjective ludu which means ‘tall’ ‘high’ and ‘long’ (see the endnote attached to this adjective in subcell 4 of cell 3 of Chart I).

The final segment <na> of the first term oropena is easy to account for. I believe that it is formally and functionally related to the egocentric term no ‘I/me’, a reflex of a proto term *na. This Witu free personal pronoun is the most fundamental exponent of the first gramma-icon (see subcell 1 of cell 1 of Table 23). Among its many exponents is the spatio-temporal bound form –na of such a Witu temporal word as pade.peta.na (a.time.other-of-the-two) which means ‘on the previous occasion’. It is also expounded by the temporal clitic - na which is postposed to free personal pronouns to signify prior association, e.g. one.na kai (his.former pig) ‘the pig he formerly owned’. In this function it encodes the potential disjunctiveness of proprietary possession. Consistent with the fact that the gramma-icons are prototypically coordinating terms, another exponent of the gramma-icon *na occurs in combination with the pro-number term pade ‘a’ in the word pade.na which means ‘the other of a pair of entities than the one just mentioned’.

The occurrence, then, of the form na in the Kewa term oropena of the Kewa expression oropena adaalu ‘into the future’ may very well reflect the fact that time is encoded as paired cycles. Consistent with this, in many Highland PNG languages the term for tomorrow is the same as the term for yesterday, while the term for in 2 days time is the same as 2 days ago. Tomorrow (into the future), then, is paired with yesterday.

lxxv In this expression oto mou only ego can be the subject. The expression oto moo ‘he will get it when he comes back’ is ungrammatical.

lxxvi The terminal suffix -ni signifies the spatio-temporal independence of the addressee and referent vis-à-vis the focal person, ego the speaker, in referential conversational situations. Thus wini nu.uk.u (addressee-space come/pr.I) means ‘I am coming there to where you are’.

The root addressee centric spatial root wi is related to the verb root wi that means ‘to drive a post into the ground’ or ‘place a feather in one’s hair, and that functions as the root of the verb witi meaning ‘to strike’ ‘to kill’ with overtones of the upward movement that precedes the downward strike.

See cell 2 Table 31.

lxxviii The set of four topographic roots have a high metalinguistic functional load. They encode the movement of the sun around the world on those days other than an equinox. On such days, the sun does not pass over the zenith but passes to one side of it at noon. The gap between the sun and the zenith at noon becomes progressively greater as it moves towards either of its solstices. This is why the focal topographic spatial root, the ‘proximal’ spatial root e, does not mean ‘here,where I am’, but ‘a little distance away’.

The four topographic spatial roots also encode the life cycle of a plant ending in the ‘distal’ stage, signified by the distal root ku. This is why the ‘distal’ spatial root is formally and functionally related to the Witu term for a ‘seed’, the term ku. A seed or fruit, in particular the fruiting body of the karuga pandanus palm, is also an icon for ‘language’.

The first and the second topographic spatial root e ‘proximal’ (a little way off) and a ‘superior’(up) are also icons for speech. The nasalised root e encodes inarticulate communication. It is the root of the verb e that means ‘to call pigs by vibrating the lower lip’. It has overtones of the sounds of nature. Articulate speech is signified by the nasalised verb root a. It means ‘to open the mouth wide’, and is the nuclear SMC of the Witu and Kewa terms for ‘language’and ‘word’, agale. This word has the following sublexemic structure *<ka.kale> ‘open mouth wide durative activity’. The SMCs encode the message ‘the activity of keeping the mouth open wide’. They also encode the individual cells of the fruiting body of the karuga pandanus palm, the axis mundi -- signified by the term aga [aŋka] in Kewa and Enga – which gape open like a small mouth when they dry out. They then release the kernel they contain, which falls to the earth below as an icon for a message from the supreme High Being.
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The bifocal function of the temporal terms finds expression in the following way. Time is bifocal. In other words it has two focal points of reference. It is reckoned i) egocentrically from the present moment of ego’s speech act, and ii) it is also reckoned from the position of the sun during the daytime period. In addition, the temporal terms reflect the fact that the sun governs two complementary cycles: i) the daily up and down cycle of the sun around the earth, and ii) the seasonal cycle between the two solstices. This probably accounts for the fact that the focal system of temporal terms, whose focal member opu is the adverb meaning ‘now’ and/or ‘today’, measures off the daily movement of time in segments of two days. In some Highland Papua New Guinea languages this results in the term for ‘tomorrow’ being the same as the term for ‘yesterday’, while another term means both ‘in two days time’ and ‘two days ago’. In Witu, this binary cycle of time is encoded as follows. The first three daily divisions of time, the monofocal subsystem of time, are each registered by two terms. Thus there are two terms meaning ‘today’—’now’—’yesterday’, opu and opa, two terms for the future, podello—’tomorrow’ and patepeo—’the day after tomorrow’ and two terms for the past, abela—’yesterday’ and ikono—’the day before yesterday’. There are no new terms for any further divisions of time either in the future or the past. Thus the term for ‘in three days time’ is a modification of the term for ‘in two days time’, eko patepeo (on the other side of the day after tomorrow). Similarly, the term for ‘three days ago’ is a modification of the term for two days ago, eko ikono (the day on the other side of the day before yesterday).

Paralleling this, the first two terms of the third set of temporal terms have dual functions. The term wete, according to its constructional, context can refer to a period in the future or a period in the past; ‘a long time ago’, or a long time to come’. As the focal term of the third set it also means ‘at once’. Similarly, the second term of this third set, pene, can, according to its constructional context, mean either ‘recently’ or ‘shortly’.

This may also account for the fact that the timbu spirit house complex—built by each subdistrict of a District on the edge of their men’s village and enclosing a tall round timbu spirit house by which the great Timbu Fertility Cycle was named—was used for two successive cycles, and then moved to a new site. (The cycles extended over a period of four or so years.)

The key to the iconic function of this most focal of all temporal terms, the adverb opu—‘now’—‘today’, is its functional relationship with the present tense suffix -k, the only term in the language, root or bound form, which consists of nothing but a consonant. The iconic function of this suffix is dealt with in detail in the endnote which deals with the iconic function of the portmanteau past tense suffix -ka in Table 15. But the following should be noted at this point.

The present tense suffix -k signifies ‘time now’. It is functionally the same as the most focal of all the temporal terms of the four sets of systematically related sets of temporal terms. This most focal of all temporal adverbs is the adverb opu which means ‘right now’ in a short time span, and ‘today’ when considering a longer time span. It is the first of the four sets of temporal terms of the first set of temporal terms (see subcell 1 of cell 4 of Chart K). The two terms -k—‘present tense’ and opu—‘now’ are part of the gestalt involving i) the zenith, the symbolic location of the supreme high being, Akolali, who governs the eternal present from the zenith, and ii) the sun signified by the first proto iconic term for sun, *pg*. This proto iconic term for sun encodes its symbolic function when it stands momentarily at the zenith at noon during the equinox.

The sun standing at the zenith at noon during the equinox codes the zenith as the miniscule point in space-time when a special seed is formed which becomes a message embodied in the man of light (see examples *(2) to *(4) and cells 2 and 3 of Table 1). It encodes the zenith as the birthing centre of the universe, from where Akolali, the planter (see cell 1 of Table 1) fixes the po ‘thread/twine’ of spirit life to each Witu at birth. He holds it secure through every present moment of their life until the time he had then predetermined they should die. Consistent with this, the adverb opu—‘now’ is formally and functionally related to the verb opu which means ‘to beget’ as a man, and ‘to give birth’ as a woman.

The most focal of temporal terms, opu—‘now’, gives expression to the fact that the system of temporal terms expounds the bifocal fourth function prime, symbiotic-dependency, within the space-time system of lexical terms in the following way. Through its formal and functional relationship to the verb opu—which means ‘to beget a child’ as a man, and ‘to give birth to a child’ as a woman, it adumbrates the symbiotic relationship between man and woman. It encodes the focal point of the universe, the matai ‘zenith’ as the point of conjunction of male and female. The full iconic significance of this symbiotic relationship between male and female is encoded by the fourth palindrome, the social palindrome ali atoa ‘people’ of the Palindrome iconic schema of cell 1 Table 11.

The focal temporal opu—‘now’ also gives expression to the fact that the system of temporal terms expounds the bifocal fourth function prime, symbiotic-dependency, within the space-time system of
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lexical terms in the following way. It is also formally and functionally related to an irregular verb *opi* which means ‘to accompany’, i.e., to be the single co-participant with the primary participant in a common action or process. It is irregular in the following way. It only functions as an auxiliary verb, and never as a sentence-final verb. It immediately precedes the primary verb it thus modifies as an auxiliary verb. Its positional and its semantic function are thus congruent. As the verb which means ‘to accompany’, it accompanies (immediately precedes) the verb it modifies. It is also irregular in the following way. The primary verb with which it co-occurs as the verb of accompaniment is limited to just two verbs, the verb *me* ‘to sit’ and the verb *pv* ‘to go’. Both these verbs expound the second function prime, interdependency, in their respective systems. The verb *me* is the second verb in the closed set of four verbs of fixed posture and residence of subcell 3 of cell 4 of Table 13. The verb *pv* ‘to go’ is the second verb in the closed set of four verbs of directional movement of subcell 2 of cell 4 of Table 13. In effect, these two verbs encode the fact that (i) the procreation of the human race is the result of the productive symbiotic sexual relationship between a man and a woman, and that (ii) the woman accompanies her husband through life, sitting (living) with him, and travelling (going) with him. (See also the endnote attached to the second number term *peya* in the system of generic number terms (subcell 2 of cell 4 of Chart M).

Consistent with this, the Kaugel bound form -kine that functions as the ‘accompanyment’ term also means ‘today’ (June Head p. 91.1, 82.4). Added August 14th 2006 ki’ne kepe (now even) ‘even now’ -kepe also means ‘and’ and ‘even’

-kepe also means ‘and’ and ‘even’

Note that the first temporal adverb of the second set of temporal adverbs, likou -kama ‘morning’, also has overtones of birthing, the birthing of a new day from the dark womb of the night. The quadripartite organisation of the first and second sets of temporal terms was established on formal and functional evidence long before I had started work on the logic of Witu symbolism. It was only this year, 1999, that I realised that likou -kama ‘morning’ in encoding the birth of a new day from the womb of the night paralleled the iconic function of the first adverb *opi* ‘now’ ‘today’ of the first set. What I am saying is that the organisation of the data in these lexical charts was not determined by my discovery of the symbolic system. It was well in place before I began to major on the study of the symbolic system. The structural analysis of the language system summarised in Charts G to R was virtually complete before I began the study of the symbolic system.

The Oksapmin term *matei* ‘here’ encodes the zenith as the focal point in space-time of the universe (Oksapmin Dictionary Marshall Lawrence p. 66). The Oksapmin term *matei* ‘here’ is formally and functionally related to the Witu term for ‘zenith’, *matai.*

The following was added 13th May 2005

The Fasu term meaning ‘now’, the term *yumo*, is the product of the paired SMCs *yu.mo*.

The first SMC *yu* is related metalinguistically to the Enga term *yuu* that means ‘day’ or ‘time’. It is co-occurs with the Enga word *gi* that also means ‘time’ in the two-term expression *yuu gi* that also means ‘day’ and ‘time’.

The second SMC *mo* is related metalinguistically to the Witu ‘message/information’ clitic *mo*, as in *i-mo* (here now -message) ‘this information I am now telling you’.

From this, then, we deduce that the second SMC *pi* of the Witu term *opi* ‘now’ is related metalinguistically to the Enga term *pi* that means ‘talk’ ‘speech’ ‘language’ (Lang:85).

We now note that the Witu temporal adverb *opi* ‘now’ is related to the Witu verb *opi* that means both ‘to beget’ as a man, and ‘to give birth’ as a woman. We also note that the terminal SMC *pi* of both the adverb *opi* and the verb *opi* is derived from the first proto iconic term for the sun, **(paj).** This proto iconic term encodes the symbolic function of the sun when it stands at the zenith at noon during an equinox. This identifies the zenith, the symbolic domain of the supreme High Being, Akolali, the governor of the eternal present (the eternal ‘now’) and the creator-planter of all things. He is in effect the one who fathered all living things.

Consistent with this, the Enga term *gi* that means ‘time’ and that co-occurs with the Enga term *yuu* meaning ‘day’ and ‘time’ in the two-term Enga expression *yuu gi* meaning ‘day’ and ‘time’ is synonymous with the following Enga term (Lang:23).

*matei* ‘time’

This Enga term is related metalinguistically to one of the two allomorphs of the Witu verb ‘to plant’, the allomorphs *mata* and *mate*. Both allomorphs are derived from the Witu term for the ‘zenith’, the term *matai*.

All this is the key to the metalinguistic information encoded by the paired SMCs *yu.mo* (day/time/message) of the Enga term *yumu* that means ‘day’ and ‘time’. It encodes the zenith as the source of current (now-time) information.
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All this also points to the likelihood that the Bena-Bena temporal adverb yatai meaning ‘now’ is related metalinguistically to the Witu term for the ‘zenith’; matai.

(*x) This temporal adverb is the product of the following sublexemic constituents <podo.limo> (rope.con-2.pull.f) which encode the message ‘it is anticipated that the rope will pull’. In other words, this temporal adverb encodes the arrival of each successive day (each tomorrow) as time pulled from the future into the present. The constituent <do> is formally and functionally related to the second of a closed set of four conditional clitics, the anticipatory clitic do whose function is usually best captured by the gloss ‘if only’. This suggests that they can not be certain of the arrival of a new tomorrow.

(*x) This term represents the point of cinal shift from egocentric time, to sun-based time. Note the ‘continuity’ clitic, -kama, common to both podoli-kama ‘next day’ and likonu-kama ‘morning’. The root term likonu is the product of the following pair of sublexemic constituents <liko.nu> (it is dark.string-net-bag:) and encodes the message ‘the womb of the darkness’, i.e. of the night. The enclosing womb is specifically encoded by the constituent <nu> formally and functionally related to the Kewa term for ‘string net bag’, nu. The morning is born from the womb of the likonu ‘night’ in a constant succession. Consistent with this, the Oksapmin term ung(a) means both ‘string net bag’ and ‘womb’. Also consistent with this, the root term liko of the expression likonu is itself the product of the following pair of constituents, i) the verb root <li> which means ‘to be dark’ and ‘to be black’ and ii) the light-activity + subject suffix sequence <k, o> (present. 3sg) which jointly encode the message ‘it is dark’. This accounts for the meaning encoded by the fourth temporal adverb of this set, likonu ‘right time’. It is probably significant that the verb root li- also means ‘to pull’, and probably complements the iconic function of the verb root li- ‘to be dark’. The second and the fourth term of the first set of temporal adverbs, podoli ‘tomorrow’ and podoli-kama ‘next day’ hold the key to this.

Just as the first adverb of the first set of temporal terms, the adverb opi ‘now’ has overtones of birthing (see the endnote attached to it), so, too, does the adverb likonu-kama ‘morning’. It encodes the morning as the birth of a new day from the dark womb of the night.

The Enga terms yanga and yangama encode the same message as the constituents of the Witu expression likonu-kama ‘morning’. The first Enga term yanga signifies ‘a string net bag’ of the coarse kind. The second term yangama signifies ‘morning’ (Lang 1973:118). Its terminal constituent <ma> is formally and functionally related to the terminal constituent <ma> of the Witu ‘continuity’ clitic -kama which signifies an unbroken succession of entities or events (see the endnote attached to the adverb wete of subsubcell 1 of subcell 3 of cell 4 of that Chart). The first SMC <yangama> of the Enga term yangama ‘morning’ is the product of the paired sublexemic constituents <ya,anga> (sky.sun) and encodes the message ‘sun in the sky’. The second constituent <anga> is derived from the third proto iconic term for sun; **‘angau. This is the term which encodes the symbolic function of the sun as it declines to its death immediately after it has crossed over the zenith at noon during the equinox. This is consistent with the fact that the primary constituent <li> of the Witu adverbs likonu ‘night’ and likonu-kama ‘morning’ is formally and functionally related to the Witu verb root li- ‘to be dark’. It highlights the fact that the coming of a new day each morning is the equivalent of birthing from the darkness of the womb. Consistent with this, as already noted, the most focal adverb of the four subsystems of temporal terms, the adverb opi ‘now’ ‘today’, the first term of the first subsystem, is formally and functionally related to the the verb opi- which means ‘to beget’ as a man, and ‘to give birth’ as a woman.

Consistent with the above the following additional Enga term for ‘morning’ panapèle is the product of the following pair of SMCs.

( ) panapèle <pana. pele> ‘morning’ <seed branch of pandanus light activity>

Its first SMC <pana> is formally and functionally related to the Enga term paná that means ‘seed branch of pandanus’ and ‘leaves covering pandanus seed, i.e. covering the fruiting body. (Lang 1973:81). The long large red fruiting body of the marita pandanus palm emerges from the tight terminal sheath of leaves on the branch bearing a fruiting body like the sun emerging from the womb of the night.

The second SMC <pele> is formally and functionally related to the terminal SMC <pele> of the following Enga term for ‘lightning’ (Lang 1973:158).

( ) yúpele <yu pele> ‘lightning’ ‘day light activity>

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Its first SMC is formally and functionally related to the Enga term yiu that means ‘day’ or ‘time’ (Lang 1973:121). Its second SMC <pole> is formally and functionally related to the terminal SMC <pale> of the Witu expression for ‘lightning’ cited below.

( ) Katiyapale <kati a pale>
   ‘lightning’ <special mountain. ligative vowel a light activity>

The following extract from Dáithí Ó Hógáin quoting Julius Caesar (1999:55) is relevant. “The Gauls all assert their descent from Dis Pater and say that it is the druidic belief. For this reason they count periods of time not by the number of days but by the numbers of nights; … their unit of reckoning is the night followed by the day”.

Ó Hógáin also notes “This system of counting of nights before days was known to other early European people also, and terminology reflecting it survives still in Irish and other Celtic languages”. With the Witu, however, while a new morning begins as a birth from the womb of the night each day, the most fundamental relationship-governing segmentation of time occurs at the highest point of the sun’s trajectory. The zenith is the highest point of the universe. It is crossed over by the sun only twice a year, at noon during the equinox. It is this twice-a-year crossing of the zenith which governs the binary organisation of time, as distinct from the open-ended segmentation of the linear continuum of the arrow of time into independent days by the coming of night which leads to a termination of each day’s activities. The relationship-governing segmentation of time occurs only twice a year when the sun stands momentarily at the zenith at noon during the equinox. This is the point in space-time when the daylight period is divided into two mirror-image halves, whose conjunction at the zenith yielded a special birth, the birthing of a special seed, encoding a special message which was incarnated by a special man, the man of light (see the Zenith iconic schema Table 1). This is also the point in space-time when the sun is exactly half way in its season-governing movement between the two solstices. Above all, this is the point in space-time which marks the symbolic residence of the supreme high being, Akolali, whose special hidden name is YAWAY. He is the planter of seeds in general and of the special seed in particular. He is the equivalent of what Caesar referred to as the ancestral deity of the Celts, Dis Pater.

It is the binary segmentation of time at this focal point in space-time which is encoded by the three regular tense suffixes of Table 15. The formation of the special seed at this point in space-time is encoded by the highly irregular portmanteau past tense suffix -ka, the only portmanteau morpheme in the language (see the associated endnote attached to it in cell 3 of Table 15). It is formally and functionally related to the Witu term for a ‘string net bag’, ka. It encodes the personalising (i.e. the embodiment) of time, and, in particular, its embodiment by the special seed of the equivalent of Dis Pater, i.e. of YAWAY, formed at noon during the equinox.

\textsuperscript{xxxi} This temporal adverb is a near palindrome, reflecting the fact that the sun is moving up towards the centre point of the universe, the zenith, at noon each day but does not quite reach it. It only reaches the zenith twice a year, during the equinoxes. During the equinox, the sun at noon divides the daylight period into two equal mirror-image halves. This is a celestial palindrome.

\textsuperscript{xxxi} The term ikono ‘day before yesterday’ is the third of the closed set of four terms that constitute the Alienation iconic schema that encode the four types of disconnection of the Religio-Spirit system. It is the third of the three monofocal members: (i) ipono ‘permanently disembodied spirit’, (ii) ilono ‘ground’ encoding land alienated from the district for the use of particular families or individuals of the district, (iii) ikono ‘two days ago’, time separated from the present by a full day, abela ‘yesterday’.

Each of these three monofocal terms have the canonical sublexemic structure <i\textsuperscript{Co}.no> The consonant C stands for a stop phoneme. No other Witu terms have this sublexemic canonical. The fist and the last SMC’s <i\textsuperscript{o} and <no> encode disjunction, and reflect the governance of the Alienation iconic schema by the disjunctive third function prime, independency. Within this set, the third term ikono ‘day before yesterday’ reflects its own governance by the disjunctive third function prime, independency, within the Alienation iconic schema. This reflects the fact that time is the ultimate exponent of disjunction. Days are cut off into disjuncted segments by the passage of days and nights governed by the movement of the sun around the world.

Consistent with this the innate disjunctiveness of time is quite explicitly recognised by the lexical antecedents of the English term \textit{time}. It is “derived - via the Latin \textit{tempus} - from the Greek verb (first person singular) \textit{temno} (\textit{τεμνω}) \textit{to cut off, to divide, to limit}” (Schuster 1990:10). Time, then, is the ultimate expression of the innate disjunctiveness of the lexical-term category space-time within the matrix system of four primary subsystems of lexical terms, 1) noun-entity, 2) verbal-process,
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The validity of this equation of the focal temporal term of set 3,\( wete \), for the ‘now’ and 2] \( likomu-kama \) ‘morning’.

\[ \text{x} \]

Akolali

\[ \text{x} \]

The Enga expression for ‘late afternoon’ is \( \text{olege} to/k.o \) (partition dopldr:sh-mon) ‘to divide up with a partition or partitions’. The late afternoon, then, is encoded as the end of the day which partitions the daylight period off from the night period.

\[ \text{x} \]

Note the function of the proto Malayo Polynesian term \( ['kalam/ari'] \) glossed as ‘night’ by Dempwolff (1937:8), which is interpolyed into the Melanesian reflex \( kari \) of the proto Malayo Polynesian term for the ‘sun’ \( vapîl \) in the Melanesian word meaning ‘yesterday’ \( kalam/ari \) Dempwolff (195). This encodes the ‘night’ as the barrier between successive suns = days, thus separating off the present day, today, from yesterday.

\[ \text{x} \]

See the last endnote attached to Table 3 A

3) space/time-setting and 4] type/number-modifier. It represents the point of clinal (i.e. systemic) shift to type/number, the point at which \( \text{time} \) becomes \( \text{times} \). Events can only be counted off as ‘times of occurrence’, when there is a discrete interval between them, i.e. a temporal disjunction between them.

This accounts for the metalinguistic relationship between the following iconic pair of Witu temporal clitics: \( \text{peta} \) ‘general time’ clitic and \( \text{peta} \) ‘times’ clitic. The terminal SMC \( <k.e> \) of the ‘general time’ clitic \( \text{peta} \) is related metalinguistically to the trajectory suffix \( t.e \) (with a variable vowel) of the topographic spatial terms as \( k.e \) ‘away’, \( a.te \) ‘upwards’, \( k.e \rightarrow k.e \) ‘downwards’ and \( kкупuru \) ‘backwards’. The terminal SMC \( <a.e> \) of the ‘times’ clitic \( \text{peta} \) is metalinguistically related to the Witu ‘dual number’ suffix/clitic \( -ta \).

The Enga term for ‘late afternoon’ confirms the fact that the Witu term for ‘late afternoon’, \( \text{ogopono} \), expounds the disjunctive third fun-

The late afternoon, then, is encoded as the end of the day which partitions the daylight period off from the night period.

\[ \text{x} \]

Note the function of the proto Malayo Polynesian term \( ['kalam/ari'] \) glossed as ‘night’ by Dempwolff (1937:8), which is interpolyed into the Melanesian reflex \( kari \) of the proto Malayo Polynesian term for the ‘sun’ \( vapîl \) in the Melanesian word meaning ‘yesterday’ \( kalam/ari \) Dempwolff (195). This encodes the ‘night’ as the barrier between successive suns = days, thus separating off the present day, today, from yesterday.

\[ \text{x} \]

See the last endnote attached to Table 3 A

\[ \text{x} \]

The terms of this third subsystem of temporal terms expound the disjunctive third function prime, independency, within the system of four sets of temporal terms. Their function within this system of four sets of temporal terms is congruent, then, with the function of the exponents of the third function prime in the system of tense terms of Table 15, the regular past tense suffix \( -ku \), and the irregular and iconically highly important portmanteau past tense morpheme \( -ka \) which encodes the embodiment of time. Past tense is the tense which encodes the disjunction of the sun from the zenith immediately after it has stood momentarily at the zenith at noon during the equinox, the moment when the special seed is formed which becomes the message sent from the Coriolis to the world below incarnated (embodied) by the man of light (see cells 2 and 3 of the Zenith iconic schema, Table 11). Consistent with this, each of the four temporal terms of the third set of temporal terms has overtones of ‘past-ness’. Thus, the first term \( \text{wete} \) among its various lexical functions means ‘already’. The second term \( \text{pene} \), according to the context in which it occurs, means both ‘about to’ and ‘recently’. The third term \( \text{koto} \) predictably is exclusively past in its function. It signifies ‘a long time ago’. The bifocal fourth term \( \text{pa} \) ‘still’ signifies that the action of the verb it modifies began in the past, is currently still going on, and will continue into the future.

The disjunctive function of this third set of temporal terms, governed by the disjunctive third function prime, independency, within the system of four sets of temporal terms also finds expression in the following way. The first member of this third set, \( \text{wete} \), is formally and functionally related to the root of the derived verb \( \text{wete}+\text{ka} \) (separate/dear) which means ‘to accompany a person part way along a journey, and then separate from them, sending them off by themselves for the rest of the journey’. We have the overtones of the type of relationship encoded by the spatial root \( o \), the only member of the first set of spatial terms, in the spatial noun phrase \( \text{o yene} \) ‘the rest of the group from which one person has left’ (see cell 10f Chart K).

The validity of this equation of the focal temporal term of set 3, \( \text{wete} \), with a very of accompaniment is consistent with the function of the focal temporal terms of the first and second set of temporal terms 1] \( \text{opi} \) ‘now’ and 2] \( likomu-kama \) ‘morning’. 

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The adverb **opi**, as already noted, is formally and functionally related to the irregular, and so iconically significant verb **opi** which only functions as an auxiliary verb immediately preceding the semantically primary verb. It means ‘to accompany’ and signifies the act of one person jointly involved with one other person, the primary person, in the same action at the same time and place. The primary verb is limited to two verbs *pr* ‘to go’ and *me* ‘to sit’ (live). The secondary verb **opi**, the auxiliary verb of accompany and the primary verb jointly encode the relationship between a husband and wife who go (travel) together and live together. This is consistent with the fact that the adverb **opi** ‘now’ is also formally and functionally related to the **opi**- which means ‘to beget’ as a man and ‘to give birth’ as a woman.

The adverb **likonu-kama**, encodes another kind of accompaniment. This feature is specifically encoded by the clitic -**kama** postposed to the term for ‘darkness/night’, **likonu**. This clitic is one of a closed set of two clitics which share the same initial constituent <**ka**>, the repetitive clitic -**kala**. The clitic –**kala** encodes repeated actions or events which are disjunctively related to each other, e.g. the recovery of the bodies of two men drowned in a lake which floated to the surface at different times. By contrast, the clitic -**kama** signifies an unbroken succession of entities or an unbroken succession of events, as in the following examples.

### Yapu-kama

<table>
<thead>
<tr>
<th>House constant</th>
<th>Stand</th>
<th>SF3</th>
<th>Neutral</th>
<th>Universal-typological clitic</th>
</tr>
</thead>
<tbody>
<tr>
<td>There was a solid row of houses, one beside the other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Kati

<table>
<thead>
<tr>
<th>Scratch</th>
<th>Durative</th>
<th>MPR</th>
<th>Constant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>-ko</strong></td>
<td><strong>-a</strong></td>
<td><strong>-kama</strong></td>
<td><strong>-o</strong></td>
</tr>
</tbody>
</table>

The clitic -**kama** in the context of the adverb **likonu-kama** is encoding the fact that the morning accompanies the **likonu** ‘night’ without a break, and that the dawning of a new day (morning) occurs in an unbroken succession, one day accompanying the next.

The process whereby the focal terms – 1) **opi**, 2) **likonu-kama** ‘morning’ and 3) **wete** ‘at once’ ‘already’ – of the first three sets of temporal terms (the monofocal subsystem of temporal terms) becomes, by a systematic radial extension of function, the source of terms of accompaniment encodes the following fact. Mortal man is the product of time. He is the embodiment of time, a fact specifically encoded by the highly irregular past tense portmanteau morpheme -**ka** (see the endnote attached to this morpheme in Table 15). This embodiment is adumbrated by i) the temporal function of the fourth topographic spatial root **ka** ‘distal’, the last term of the monofocal subsystem of the three sets of spatial terms (cells 1 to 3 of Chart K), and ii) its formal and functional relationship to the term for ‘seed’ ‘fruit’, **ku**, the distinctive feature which encodes the formation of the special seed at the zenith at noon during in the equinox (see cell 2 of Table 1 and see also section 1 of the last endnote of Table 3 A).

For mortal man to become embodied in time, and so the fruit of time, male and female must enter into the conjugal relationship of husband and wife, living and travelling with each other as a couple. The child born to them from the darkness of the woman’s womb is like the new day, the morning, born from the darkness of the womb of night. Consistent with this, the terminal constituent of the word **likonu** ‘night’ ‘darkness’, the constituent -**no** is formally and functionally related to the term for ‘string net bag’, **nu**, in most if not all languages of the Enga Family of languages to which Kewa belongs. The string net bag is an icon for pregnancy (the pregnancy of land and water creatures). Pregnancy is encoded by the verb root **u**- of the Witu verb **u/tu** ‘to put something in a string net bag’, which functions as an icon for pregnancy in the following iconic pair of periphrastic verb expressions in Witu.

### Tine

<table>
<thead>
<tr>
<th>Offspring</th>
<th>Put-in-net-bag</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>u</strong></td>
<td><strong>-tu</strong></td>
</tr>
<tr>
<td>to be pregnant as a sow</td>
<td>to be carrying roe as a fish</td>
</tr>
</tbody>
</table>

The pregnancy of women is encoded by the verb **ka** in the following periphrastic verb expression.

### Mati

<table>
<thead>
<tr>
<th>Child</th>
<th>Stand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ka</strong></td>
<td>to be pregnant as a woman</td>
</tr>
</tbody>
</table>

The verb **ka** of this expression is formally and functionally related to the Witu noun **ka** which means ‘a string net bag. It is also formally and functionally related to the irregular portmanteau past tense suffix -**ka** of Table 15.
In Kewa, a string net bag encodes pregnancy (the pregnancy of animals) in the following way. The verb *madia* which means ‘to carry inside of something as a net bag’ (Franklin and Franklin 1978:171) is formally and functionally related to the term *madia* of the Kewa periphrastic verb expression *madia pia* (*madia* shoot) which means ‘to be pregnant’ as an animal.

Consistent with all this, the first term of this third set, *wete*, articulated phonetically as [were], is formally and functionally related to the Kewa term *were* (Franklin and Franklin 1978:381). The following is the key to the formal and functional relationship of the Witu temporal term *wete* and the Kewa term *wife*.

Several of the Kewa terms for wife and woman are formally and functionally related to Witu spatio-temporal terms. The Kewa term *winya* ‘woman’ is formally and functionally related to the Witu vocative utterance *wina*. Witu *wina*, articulated phonetically as [winya] is one of the second subset of vocative utterances. It is addressed to an addressee within view to notify him that he, the speaker, is about to throw something to him, or that some animal, e.g. a pig, is rushing past him, the speaker in the direction of the addressee. The Kewa term *ona* ‘woman’ is formally and functionally related to the Witu spatio-temporal modifying term *ona* with the morphemic structure *o.na* (here previously) signifying someone who belonged previously to egos group. Compare this with the function of the focal spatial root *o* in the utterance *oyene* (of cell 1 Chart K) which means ‘the rest of the group from which one person has gone’.

An important key to the formal and functional relationship of these Witu spatio-temporal terms and Kewa terms for ‘woman’ and ‘wife’ is the message encoded by the paired sublexemic constituents of the Kewa term for male ego’s Father’s Sister, *aurobo*. According to Karl Franklin (personal communication), this word is the product of two Kewa terms *aa* ‘man’ and *robo* ‘boundary’, encoding the message ‘boundary man’. The Witu term for Father’s Sister, explains why Father’s Sister is equated with a male boundary. The Witu term *yogo* ‘father’s sister’ is formally and functionally related to the Witu term for a ‘feral pig’, *yoko* (see example *(39) of the file entitled The Akolali Centric Relationship Schema 1). Its paired sublexemic constituents *yo.ko* (ejection barrier) encode the message ‘the pig which has ejected itself across the boundary of its owner’s territory’. One’s father’s sister has left the patri district of her father and her male siblings to marry a man in another district. Consistent with this, the Kewa term her children use for their cross sex cousins (the children of her male siblings) is the term *lai*. This is the generic Witu term for ‘pig’. In other words, male ego refers to his Father’s sister’s children (his cross sex cousins) as if they were piglets. Consistent with this, the Witu term for such cross sex siblings is *pewe*, the term for another category of wild animals, wallabies.

All this is consistent with the messages encoded by the names of the pair of obedient people groups in the Witu myth of the origin of language and death. The two obedient groups, the Kewa (representative of the Enga Family of languages), and the Lai (representative of the Hagen-Wahgi-Chambu Family of languages) came at once for their respective languages when called by the third set of high beings, *Tu Aneta* ‘Death and her husband’. They received the promise of the perpetual renewal of life for their obedience. The Witu were the odd group out. They did not come for their language until called four times. They were penalised for their disobedience by the coupling of their language with the doom of death.

The names of the pair of obedient people groups are iconically significant. The name *Lai* is formally and functionally related to the root of the Witu term of reference for one’s cross sex siblings, *laine*. A male, then, will refer to his sisters by the term *laine*, i.e. *anu laine* (my sister). The Lai group, then, is equated with sisters of Witu males.

The name *Kewa* is the product of the paired sublexemic constituents *ke.wa*.

The second constituent *wa* of the term *Kewa* is formally and functionally related to the Witu medial verb *wa* which precedes the verb *v* ‘to utter inarticulate sound articulate speech’ and transforms it into the expression *wa*v (say utter) ‘to say something articulate’. It implies a face-to-face communication situation between the speaker and addressee. Consistent with this, the second constituent *wa* of the term *kewa* is formally and functionally related to the nuclear constituent *wa* of the term of reference used by parallel sex siblings for each other, e.g. *anu wamene ago* (my parallel-sex male) ‘my brother’. Male parallel sex siblings (unlike female parallel sex siblings) prototypically live their lives together from infancy to old age in the same district. They live in what is, in effect, a conjunctive face-to-face relationship with each other.

The first constituent *ke* of the term *Kewa* is formally and functionally related to the root of the verb of indirect reference *ke* ‘to talk about someone’. Consistent with this, it is also formally and functionally related to the term of reference a Witu male will use in referring to his sister’s husband,
For two persons to be considered alike, they must share some common quality. Kewa brothers share a common ruru membership. Whether they are true or classificatory siblings, brothers have a common ruru name, which may be put in front of their individual ones, as in Yetipa Yawi, Yetipa Punuma. This attests to the sentiment that ruru brothers are all ‘one man,’ whether or not they are able to trace a common ancestry. But there is quite another way in which persons or things can be the same; they may share the same difference from somebody or something else. For instance, if Yawi and Punuma think of themselves as both different from or opposed to Walsuapaerpa Pu, this makes them alike. Then Yawi and Punuma need not have any real quality in common. Of course, the strongest sense of commonality will arise when two men are unified both positively and negatively. This is when the dialectic of self and other is experienced most sharply:

In Kewa land, and throughout much of Papua New Guinea, a number of social categories serve to constitute the other. Enemies are one. The presence of hostile men on the other side of the ridge or the valley, ‘men cut off by fighting (yada ruguli ali, lore ali), poses a threat to a group’s existence, but at the same time unifies it, constitutes it as a “we.” So do those other non-men, ghosts, ghosts of the dead (remo), euphemistically identified in lidi as ‘bush men’ in contrast to human “village men.” But what distinctively defines brothers and their fraternal ideal is neither the living nor the dead ancestor. It is, less dramatically, the brother-in-law. This will not come as a surprise to anyone familiar with alliance theory or with New Guinea Highland ethnography (Wagner 1967), Forge 1972). The argument rests on the fact that fraternal equivalence takes on practical significance in terms of the daily give and take of goods and services. It has meaning in terms of specific types of giving and taking: the sharing of wealth and co-operation, in which ego and alter are both alike, ‘one man.’ But there is quite another mode of give and take which interrelates a different category of men and which negatively defines fraternal equivalence. This is the exchange of wealth between affines, persons who are fundamentally unlike and who transfer wealth partially in order to offset that difference. Brothers-in-law typify this relation. Brothers (anne) and brothers-in-law (pase) define one another contrastively. Brothers are those with whom one shares wealth and ruru membership, while brothers-in-law are either those who give wives and through them give offspring, taking away wealth in return, or those who take away sisters and sister’s children, giving wealth in return.

These two oppositions, brother/brother-in-law and sharing/exchange, are fundamental to the Kewa social order. In practical terms they are oppositions between types of men, but Forge notes they rest on the opposition of gender. In egalitarian New Guinea society it is only the men who are equal in the sense of being potentially the same or identical. Women are different...[and] he differences are those of complementarity. Basically men related to each other through women cannot be equal to each other and they cannot therefore carry on equal exchange [sharing]. Relations between men through women can, of course, only be created by marriage, and marriage in New Guinea is everywhere the start of a relationship of unequal exchange (Forge 1972: 536)

The idea here is that the equivalence of brothers must be understood in terms of complementary nonequivalence deriving from marriage..." If in a lidi there are two men they cannot then be true brothers. "The audience is meant to understand that these siblings exist outside society and that consequently their fraternal status is in jeopardy. Thus, the lidi brothers become nonequivalent, and they develop a gender-like complementarity. One of them hunts and the other gardens--a division of task that distinctly resembles the husband-wife relationship...

True brothers can only exist in a community of men in which there are their non equals, their brothers-in-law. "When this community and these men are absent, brothers become unequal."

For the male Witu, then, the Lai people group are equated with their cross sex siblings, their laine. Their brothers-in-law are equated with the Kewa, who marry their sisters.

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1xxx The temporal term wete is also formally and functionally related to the root of the Enga verb wetengë which means ‘to complete’ or ‘to finish’ (Lang 1973:114).
When the term wa means 'instead' it prototypically has overtones of danger or misfortune. This is consistent with the fact that exponents of the fourth function prime, symbiotic-dependency, often have overtones of danger within the PQS system to which they belong. This finds particularly clear expression at the highest level of organisation of the Akolali Centric Relationship System. In this system, the exponents of the three monofocal function primes are the three sets of immortal High Beings. The fourth function prime is expounded by the three people groups of the Witu myth of the origin of language and death which accounts. The symbiotic relationship between the three groups, two encoding life and the third, the Witu, encoding death, results in a new kind of being, mortal beings who are doomed to die, but who survive as a group by procreation. The symbiotic relationship between male and female essential for procreation has pronounced overtones of danger. The female is dangerous to the male in most world cultures.

This temporal adverb expounds the disjunctive third function prime, independency, within its set of four terms. Consistent with this, it is formally and functionally related to the derived verb koto/ka which means 'to remove an item of clothing' or 'to detach a rope' from a pig, etc. There is a simple logic to this. As noted elsewhere, the past is encoded as time detached from the eternal present. Past time extends in a potentially open ended succession of detached days into the remote past. The detachment process is encoded by the portmanteau past tense morpheme -ka, an exponent of the third gramma-icon **-ka, itself an exponent of the disjunctive third function prime, independency, in the gramma-iconic schema (Tabl 23).

Consistent with the disjunctiveness of the Witu temporal term koto, it is formally and functionally related to the particle koto which specifically encodes 'a break' in the Enga periphrastic verb expression koto katengé (break stand/stay) which means 'to take a break' (Lang 1973:46).

Pa meko (still he-sits) means 'He is still alive.' Pa piti ko (Pa he-sleeps) means 'He is sleeping without eating' or 'He is sleeping without a blanket,' etc.

The term pa of this example derives from the term for 'sunlight', pa 'sunlight', itself a derivative of the first proto iconic term for sun, **pa. The nasalisation of the vowel of pa 'sunlight' is specific for the process of ejection of light from the sun. It is, therefore, also an icon for loss, disjunction of the light from the sun. This sets the stage for the radial extension of function of the term 'sunlight', pa, into the term pa functioning as the adverb pa 'still', signifying an unbroken continuation of a process or act. In this extended function it is an icon for the eternal present, the time domain governed by the supreme high being and giver and sustainer of spirit life, Akolali, resident at the zenith. By a further transformation, it becomes the adverb pa which, when coupled with the verb piti- 'to sleep' signifies a 'lack', i.e. sleeping without the benefit of first eating something or sleeping without benefit of the warmth of a blanket By yet another extension of function, it functions as the root of such terms as the pa.le (common.aci) 'pointless activity', and pa.mo (common.information) 'worthless news', etc. There is a simple logic to this extension of its lexical function. It is dealt with in the analysis of the iconicity of the term louyo, the product of the term lou ‘sun’ and the personal-name ejective term yo. The combination louyo means 'daytime', but also functions as an adverb signifying that the activity it modifies is not connected to any significant cultural occasion, and is therefore culturally pointless. The loss of personalised energy -- the energy of the sun emitted in pa ‘sunlight’, encoded by the paired sublexemic constituents <lou,yo> -- is a permanent loss. It does not return to its source. It is entropic, detached.

Consistent with this, a process or action which goes on for ever is a process or action which ultimately has no goal. Since it is not directed at an ultimate goal, the process or action becomes pointless, without purpose. Consistent with this, the verb pupu/tu- derived from the Witu term for ‘work’, pupu, has a twofold function. As a sentence-final verb, it signifies the action of the sun going round and round the earth. It also functions as an auxiliary verb immediately preceding the semantically primary verb, and in this function signifies that the action specified by the primary verb is pointless or unmotivated. This second function of the derived verb pupu/tu- (work/der1) is illustrated by the following example.

\[\text{pa \ pupu} \ tu \ -u \ -ne \ wi \ -ti \ -ko \ -u\]
\[\text{just go-round-in-circles der1 mpr I hit sf2 ps I}\]
\[\text{I hit him for no reason.}\]

The term which means 'for no reason', pakama, in Pole, very closely related to Kewa, is the product of the paired sublexemic constituents <pa,kama>. The first constituent <pa> is formally and
functionally related to the Witu term which means both ‘still’ (continuous) and ‘pointless’. The second
c constituent <kama> is formally and functionally related to the Witu clitic – kama which signifies an
unbroken succession of houses or actions, as in the following examples.

<table>
<thead>
<tr>
<th>yapu</th>
<th>kama</th>
<th>katiko -a -kama</th>
</tr>
</thead>
<tbody>
<tr>
<td>house</td>
<td>constant</td>
<td>scratch</td>
</tr>
<tr>
<td>an unbroken succession of houses</td>
<td>to scratch without ceasing (a dog with fleas)</td>
<td></td>
</tr>
</tbody>
</table>

The term meaning ‘for no reason’ in the Ku Waru dialect of th Hagen subfamily of languages is we
(Merlan and Rumsey 1991:372). Like the Witu term pa, which has the same adverbial function, it also
is derived from the first proto iconic term for ‘sun’, *pa1.

The Witu, the Pole and the Ku Waru terms meaning ‘for no reason’ or ‘pointless’ which derive from
the first proto iconic term for sun encode the fact that the doom of death pronounced on the Witu for their
disobedience in not coming at once for their language. The Witu, as a group, are an icon for all acts of
disobedience and their consequence. At the same time, these terms derived from the first proto iconic
term for sun encode the fact that the doom of death pronounced on the disobedient Witu resulted in a
new type of life, mortal life, endowed with the capacity to multiply virtually without number. Where
where the three sets of high beings were special beings, who though immortal could not multiply themselves,
and so remained immutable, the Witu both multiplied and changed. But this potential for open ended
multiplication and diversification would be reduced to the pointlessness of the open ended cycling of
the earth by the sun. This is signified quite explicitly when the nominalising universal typological clitic
–ya (un-typ) is postposed to the term pa. The product pa.ya means ‘worthless things’. They are
worthless because there are so many of them. In other words, the greater the membership of a group,
the more insignificant the place of any one individual within it.

The first proto iconic term for sun *pa1, then, which encodes the symbolic role of the sun when it
stands at the zenith at noon during the equinox, the point in space-time when a special seed is formed to
come a message to the world, is also the term which adumbrates the doom of death pronounced on
the disobedient Witu and its long term consequences, one generation following another in open ended
multiplication of numbers and diversification.

For the location of the system of Type-number lexical terms in the higher level system of Lexical-
terms, see cell 4 of Chart I. The terms referred to under the rubric Type are adjectives. Three sets of
adjectives constitute the monofocal subsystem within the system of Type-number lexical terms. They
complement the function of the number terms which constitute the bifocal subsystem. Type and
number stand in the same relationship to each other, monofocal versus bifocal, within the system of
Type-number lexical terms as do space and time within the third subsystem of Lexical-terms, Space-
time lexical terms (see Chart K).

Adjectives are systematically different from verbs in form and function in several ways. One of the
simplest means of differentiating them is illustrated by the following examples.

<table>
<thead>
<tr>
<th>Epe</th>
<th>Po</th>
<th>It is good. (Adjectival)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ne</td>
<td>-a</td>
<td>bad sfl neut un-typ</td>
</tr>
<tr>
<td>-ya</td>
<td>-ya</td>
<td>It is bad. (Verbal)</td>
</tr>
</tbody>
</table>

The root epe ‘good’ is an adjectival root. Since it is an adjectival root, the suffix –ne is immediately
postposed to it, followed by the universal typological clitic –ya (un-typ). The combination is a static
adjectival construction. The root po is a verb root meaning ‘to be bad’. Since it is a verb root, when the
two-suffix sequence –ne.ya is postposed to it, the first stem-formative suffix –a (sf1) is obligatorily
interposed between the root and the suffix sequence –ne.ya. This is typical of all verbs inflected as
stative verbs. The first stem-formative suffix –a (sf1) is never postposed to an adjectival root.

The key to the difference in class function of the two roots – epe ‘good’ (adjective) and po ‘bad’
(verb) – is their complementary iconic function in the Akolali Centric Relationship Schema. Goodness
(an adjectival state) is linked iconically with the sun coming (rising) up to the zenith at noon during the
equinus, a life-oriented and life-producing process. This accounts for the formal and functional
relationship of the Enga adjective epe ‘good’ and the verb root epe of the Enga verb epengé ‘to come’.
Goodness is encoded in this way as a permanent natural state, the way things were meant to be before
the Witu brought death into the world by not coming at once for their language when called by the third
set of high beings, Tu Aneta ‘Death and her husband’.

Goodness and badness are bound together in the psyche of each Witu. This is encoded by the double
helix of the po ‘thread/twine’ of spirit life fixed to each Witu at birth by the supreme high being,
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Akolali, symbolically resident at the zenith. ‘Twine’, po, is made by women rolling two thin strands into one strong strand on their thighs.

Being bad (a verbal process) is linked iconically with the sun goi, beyond the zenith immediately following noon during the equinox. The overtones of badness associated with this process of goi, beyond the zenith are encoded by the formal and functional relationship of the Witu verbs pv ‘to go’ and po ‘to be bad’.

From the moment the sun goes beyond the zenith at noon during the equinox, it begins to decline to its death. The death-overtones of the act of going downwards are encoded by the euphemistic Witu verb expression keti yapu po/k.o (downward house go/pr.sb-mon) ‘he is going to his downward house’ which means ‘he is dying’ (see example *(70)).

The iconic link between badness and the sun going beyond the zenith at noon during the equinox is also encoded by Enga nominal term pókó which means ‘a cross piece (parallel to the ground)’ (Lang 1973:87). It also functions as the semantically primary particle pókó in the periphrastic verb expression pókó píngi which means ‘to cross’. And consistent with this, it is formally and functionally related to the Enga nominal term pókó which means ‘mountain range’.

We now note how the the supreme high being, Akolali, resolved the problem of the doom of death imposed on disobedient people, so that their thread of life was an indissoluble combination of good and bad. It is encoded by the pair of constituents of the Enga verb expression pókó píngi ‘to cross’. The first term pókó encodes a cross piece of wood. The verbal constituent píngi when it functions as a free verb means ‘to hit’ or ‘to kill’. The two constituents of the Enga periphrastic verb expression pókó píngi ‘to cross’ encode the hidden message ‘the killing associated with the cross piece of wood’. Given that the term pókó is formally and functionally related to the Enga term pókó ‘mountain range’ we can now decode the hidden message as ‘the killing of someone on a cross on a mountain top’.

This encodes essentially the same message as the Witu Zenith iconic schema of Table 1, the schema which deals with the death of the man of light who incarnated the message which took its origin as a special seed formed at the zenith (the equivalent of the top of a mountain range) at noon during the equinox. This man of light came back to life from the dead as the personal representative of his group, mankind. He was the special planting of the supreme high being (see cell 2 of Table 1), where mortal beings were the general planting of the supreme high being (see cell 1 of Table 1). In light of this, we now note that the Enga terms pókó ‘parallel cross piece of wood’ and pókó ‘mountain range’ are formally and functionally related to the particle pókó of the Enga periphrastic verb expression póko lengé which means ‘to grow’ (of plants) (Lang 1973:87). The verb lengé of this expression means ‘to utter’. It co-occurs with the noun wáí ‘seed’ in the Enga verb expression wáí lengé which means ‘to bear seed’ and is formally and functionally related to the verb of the Enga verb expression wáí lengé (message speak) which means ‘to send a message’. In the Witu Zenith iconic schema the seed was Christ, encoded by the Son sublexemic constituent <WAY> of the special hidden name of the supreme high being, YAWAY. He was sent into the world with the message of redemption -- to be himself the means of redeeming sinful men on the cross -- by the Father, encoded by the first sublexemic constituent <YAW> of the special hidden name YAWAY (see section 1.2 of the file titled The Distinction Between Special and General Function).

From the above, we begin to see that the Witu adjectives are key terms of the Witu meta-language, the hidden language which encodes messages about the laws governing the universe, and in particular the laws governing the symbiotic relationship of life and death. There are only 13 Witu adjectives. They are organised into three sets which are systematically related to each other and systematically formally and functionally different from each other.

The first of the three sets of adjectives constitute the point of clinal shift from the preceding set of lexical terms, the Space-time lexical terms (see Chart K). They are the biological age set, and encode the governance of nature, plant-life and creature-life, by time. With the exception of the third adjective of this first set, putume ‘ripe’, this set of adjectives do not function as the roots of verbs.

The second set of adjectives, the social age and status adjectives may -- with the systematic exception of the bifocal fourth adjective -- be transformed into derived verbs by the postposition of the first derivational suffix -tv (der1) to the adjectival root, e.g. epele (good,der1) ‘to be good’ (epe ‘good’ \rightarrow epele ‘to be good’).

The third set of adjectives, the size-number adjectives, with the systematic exception of the bifocal fourth adjective, ludu, may also be transformed into derived verbs by the postposition of the first derivational suffix -tv, e.g. tulte (big,der1) ‘to be big’. All four of these adjectives also function as the particle-constituent of periphrastic verb expressions in combination with the proverb of general action tv ‘to happen’ ‘to do’ ‘to make’, e.g. ludu tv (long do) ‘to be long/tall’. None of the adjectives of the first two subsets have this second option.
We note in particular at this point, the significance of the fact that the monofocal subset of adjectives of set 2 can be transformed into verb by the postposition of the first derivational suffix -tv (der1), while the monofocal subset of adjectives of set 3 can be transformed into verbs in either of two ways. The third set can be transformed into verbs by the postposition of the first derivational suffix -tv, like the second set of adjectives. In addition, unlike the second set of adjectives, they can be transformed into verbs by becoming the semantically nuclear particle of a two-term verb whose second term is the proverb of general action tv, e.g. tube tv (big do) ‘to be big’.

The following is the most significant feature of this difference between the second and the third set of adjectives. It is a difference which reflects the fact that the second set of adjectives is governed by the conjunctive second function prime interdependency, while the third set of adjectives is governed by the disjunctive third function prime independency within the system of Type-number lexical terms. In order to highlight the nature of this difference it will help to refer to the coordinating clitics which expound the second and the third gramma-icons within the Grammo-iconic schema of Table 23. The second gramma-icon **ta, governed by the conjunctive second function prime, interdependency, is expounded by the conjunctive coordinating clitic tv (see subcell 4 of cell 2 of Table 23). It coordinates the referents of nominal terms in a relationship which is always conjunctive. By contrast, the third gramma-icon **ka, governed by the disjunctive third function prime, independency, is expounded by the coordinating clitic -ka which coordinates the referents of nominal term, verbal terms and spatio-temporal terms in a relationship which can be either conjunctive, and so glossed ‘and’, or disjunctive, and so glossed ‘or’.

This difference between the the coordinating clitics which expound the gramma-icons **ta and **ka is matched by the difference between their nominal exponents. The nominal exponent ta signifies ‘district of citizenship, the homeland which bonds patri groups to each other conjunctively within a well defined zone. The nominal exponent ka signifies a ‘track’, an entity which branches into disjunctive arms, and in the process of ongoing disjunctive branching establishes a network of roads linking a potentially open ended number of terminals to each other. For travellers travelling along a ka ‘track’ to a point of branching, the point of branching allows two options. If a group is moving along the arm to the point of branching, they may split (disjunct) into two groups at the point of branching, each subgroup going its own separate way, one along one arm, the other along the other arm. But if two subgroups are approaching the same junction from the opposite direction and travelling independently of each other along the separate arms, they will meet (conjunct) at the point of branching.

We now note that the two options by which an adjective of the third set can be transformed into verbs parallels the dual function of the coordinating clitic -ka, the exponent of the third gramma-icon. In option 1, the derivational form -tv (der1) is bound to the adjectival root. This is physically a conjunctive bond. In option 2, the adjective and the proverb tv which verbalises it are physically separate from each other. The bond between them is physically disjunctive.

We now note that the stem formative -tv of tube tv (big do) ‘to grow’ and the proverb tv of the expression tube tv (big do) ‘to be big’ are one and the same term. The adjectives of set 2 governed by the conjunctive second function prime, interdependency, only have the option of of being transformed into verbs by their physical conjunction with this term, which then functions as the suffix -tv. By contrast, the third set of adjectives, governed by the disjunctive third function prime, independency, have two options, one conjunctive, the othr disjunctive. They may be transformed into verbs by either i) their physical conjunctive with the bound form -tv, or ii) their physical disjunctive bonding with the free form tv.

The systematic difference in the way the second and third set of adjectives can be transformed into verbs reflects the fact that the function of the third set of adjectives within the system of Type-number lexical terms is congruent within this system with the function of the set of four topographic spatial roots within the system of Space-time lexical terms. The set of four topographic spatial roots encode the physical three dimensionality of space. Parallelling this, the third set of adjectives, the set of four size-number adjectives, encodes the three dimensionality of growing things. And since entities with spatial dimensions are material entities whose very form sets them apart from other forms as independent entities, they are countable entities, and so also entities with the twofold option of entering into conjunctive or disjunctive coordinate relationships with each other.

Where the first set of adjectives, as already noted, constitute the point of clinal shift from the system of Space-time lexical terms and expressions, the second set of adjectives gives expression to its governance by the second function prime, interdependency, in the following way. The first adjective tv for ‘good’, as noted elsewhere, is a palindrome. As a palindrome, it is an icon for the perfection which is the product of the conjunction of two mirror-image halves (see example *(2).and the Palindrome
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iconic schema of cell 1 Table 11). Consistent with this, the term epe in Witu and Kewa means ‘middle aged’, i.e. half way through one’s life cycle. The governance of the fillers of cell 2 of the second set of adjectives give expression to their governance by the conjunctive second function prime, interdependency, in the following way. There are two semantically complementary adjectives, both meaning ‘short’. One signifies shortness with respect to the remaining distance to a destination. The other means shortness from a point of beginning or origin. The third term of this second set reflects the governance of the conjunctive second function prime in the following way. The term petene ‘wide’ is formally and functionally related to the term pete which means ‘the four (deboned) quarters of a pig, a pair of forelegs and a pair of hindlegs. The fourth term of the second set of adjectives is governed by the bifocal fourth function prime, symbiotic-dependency, and is predictably systematically different from the terms of the first three cells of this set. It is the lexical opposite of the first term. Where the term epene.ago (good.man) signifies a man in his prime, the term ponopene.ago signifies a man with no social status. It reflects the doom of death imposed on the fourth set of beings of the Akolali Centric Relationship Schema of Table 5, the set of mortal beings.

Of the four primary sets of terms, the first three are adjectives, type terms, and the fourth set are count terms, number terms.

The three sets of adjectives constitute the monofocal subsystem. The number terms constitute the bifocal subsystem. There are four subsets of number terms.

There is the following systematic difference in the form and the function of the exponents of the first three sets, the sets of adjectives.

i) the first set of adjectives encode the life cycle of plants, and adumbrates the life cycle of people. They consist of a root plus an adjectival suffix -ne that is an obligatory component of the adjectives, e.g. wene ‘new’ ‘fresh’. None of the roots of the first set of adjectives co-occurs with the ‘first derivational’ verb suffix -tv (der1) with a variable vowel, or the proverb of general activity, tv also with a variable vowel.

ii) the second set of adjectives encodes the social life cycle of people. They consist of a root to which the adjectival suffix -ne may be postposed, but is not obligatory as it is in the first set. The root epe of the first member of this set occurs with the adjectival suffix -ne in the form epele meaning ‘good works/activities’. The adjective epene meaning ‘to be good/well’ also means ‘to be in mid life’, i.e. in the prime of one’s social life as a person.

The roots of the monofocal subset of the second set of adjectives co-occur with the first derivational suffix, e.g. epe-te ‘to be good’ ‘to do good/well’. The roots, however, do not co-occur with the ‘proverb of general activity’, tv. There is, for example, no such expression as epe toko ‘it is good/well’.

iii) The third set of adjectives is the set of size-number adjectives which encodes the movement of the sun through the sky during an equinox. These adjectives function simply as roots without an adjectival suffix. Its first member is nate ‘little in size or number’. It is pronounced phonetically as [naare]. It is formally and functionally related to the Witu term used for the ‘sun’ during certain important ceremonial cycles, and that functions as the regular term for the ‘sun’ naare in Kewa. The adjectives of this set co-occur with the ‘first derivational’ suffix, e.g. Nate-te-ka (small’der1’-der2) ‘to make small’. They also co-occur with the ‘proverb of activities in general’, tv, e.g. nate toko ‘it is small/little’.

The adjectives of all three sets co-occur with the word-final ‘universal typological clitic’ -ya (untyp) that prototypically nominalises the stem to which it is postposed, e.g. weneya ‘it is something new’, as also yapu-ya (house ‘universal typological clitic’ ‘things used to build houses’).

The first three members of each of the three sets of adjectives constitute the monofocal subsystem of their set, and are systematically different from the fourth member of their set, the exponent of the bifocal function prime.

In the first set, the fourth member wetini substitutes the bifocality-marking vowel -i for the vowel e of the adjectival suffix -ne used with the three monofocal adjectives.

In the second set of adjectives, the fourth member, ponopene means a ‘person with no social status’, a poor person. This adjective is the polar opposite of the first adjective of its set, epene meaning ‘good’ and ‘to be in the prime of life’, i.e. a person of significant social standing. The fourth adjective ponopene has a trisyllabic root, unlike the three monofocal members of its set that have bisyllabic roots. It is also the product of paired SMCs ponopo that encode social disadvantage. The first SMC is formally and functionally related to the nuclear SMC of the term ponopo that signifies the ‘headband’ worn by all men, in particular men of status. The second SMC spe is formally and
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functionally related to the Witu verb root pe that means ‘to remove s.t.’ such as the slats from the door of a house and also functions as a ‘removal’ verb suffix, e.g. pukape ‘to blow something away’ with a blast of one’s breath.

In the third set of adjectives, the fourth member ludu ‘long in space or time’ ‘tall’ does not co-occur with the first derivational suffix -ta as do the first three adjectives of its set. In addition, when it co-occurs with the ‘universal typological’ clitic -ya the bifocal suffix -ki with the high front vowel i, is interpolated between the root and the clitic, e.g. ludu -ki -ya (long -bifocal marker -untyp). The ‘bifocal’ suffix -ki is formally and functionally related to the fourth of the four Witu number clitics, the plural number clitic -kiti, and to the root ki that signifies a ‘hand’ in languages of the Enga family, and encodes the set of four fingers that fold into the palm of the hand as the basic counting unit of four in the most basic count system of the region to which Witu and the Enga Family of languages belong, the basic nuclear SMC <ludu> of the fourth Witu adjective ludu ‘long’ ‘tall’ is formally and functionally related to the term lu that signifies a set of four sticks bound together by a circle of po ‘twine’ to form the basic counting device when counting off wealth exchange items by the base-4 count system. This reflects the fact that the adjective ludu ‘long’ also functions as a noun meaning a ‘length’ of wood or twine.

Consistent with this, the fourth term ludu of the third set of adjectives, the set of size-number adjectives, represents the point of clinal shift from i) the monofocal subsystem, the set of three adjectives of the system of type-number lexical terms to ii) the system of number terms, of which there are four systematically related subsystems.

The first set of adjectives, the biological-age set, constitute the point of clinal shift from the preceding set of lexical term, the space-time lexical terms (see Chart K). The space-time system of lexical terms consist of three systematically related sets of spatial terms and a fourth set of temporal expressions. The three sets of space terms constitute the monofocal subsystem, and the temporal terms constitute the bifocal subsystem. There are four systematically related subsystems of temporal terms. They encode the governance of the Witu by time, so that they die. Within the Lexical-term system (asee Charts H and I), the subsystem of temporal terms are immediately followed by the three sets of adjectival terms.

The first of these three sets of adjectival terms, the biological age set, encodes the governance of nature, plant-life and creature-life, by time.

4. The podl of the spirits

Podl means “platform,” in combinations with another term it may be modified to mean “shelf,” “path,” “bridge,” or “ladder.” All spirits, whether they are spirits of the dead or nature, need one or more podl as somewhere to stay and to help them move around. It will be recalled that the min, once the individual who was its bearer has died, uses “young water” as its “everlasting way,” and this is similar to the way in which all spirits need podl as somewhere to stay and as a sort of “springboard” to enable them to move around from one place to another. It is “young water,” too, which is regarded as the preferred podl of the spirits, but many plants, trees, stones, types of soil, etc. also fulfill this function. Such podl must always be transmitters of the forces of life, however, for transmitters of the forces of death could be dangerous even to spirits. The way the Mbowamb see these podl of the spirits is a perfect illustration of the fact that even the spirits do not draw on their power from within themselves, but are just as dependent as humans are on having access to the hidden power. For the Mbowamb, this power is divided into two categories, comprising on the one hand transmitters of the life-force, the power to beget children, to multiply and grow, the power of the soul and other benevolent forces, and on the other transmitters of the forces of illness, bad luck, disaster, destruction, and death.

The roots we and pe of the first two adjectives of this first set are derived from the first proto iconic term for sun, ** (see cell 1 of Chart C). This is the proto iconic term for sun which encodes the symbolic function of the sun when it stands at the zenith at noon during the equinox. At this point in space-time, the special seed is formed at the zenith, which embodies a message, the message of redemption, for the death-doomed disobedient Witu (see Table 1).

The terminal sublexemic constituent spē of the Fasu adjective hitafē is probably formally and functionally related to, i) the root we of the Witu adjective wene ‘fresh’, ‘living’, ‘raw’, ‘uncooked’ and ii) the root pe of the Witu adjective pene ‘half way through growth cycle. The Fasu adjective
hitafé has the following lexical functions: ‘living’, ‘raw’ or ‘uncooked’, ‘alive’ and also ‘not ready yet’ (May and Loeweke 1981:67).

Note the use of the Enga term wené in the expression signifying ‘blue/purple’ which is equated in Witu with the blueness of the flowers of the pingi plant, and equated with the blueness of the sky.

Note the vowel -i of the adjectival suffix -i is replaced by the bifocal vowel i in the fourth adjective if this set, the adjective wefini. Paralleling this, when the universal typological clitic -ya (un-typ) is postposed to the bifocal fourth adjective, ludu ‘long/tall’, of the third set of adjectives, the bifocal bound form -ki is interposed between it and the adjectival root to yield the term ludu.ki.ya ‘it is long/tall’. This form -ki is formally and functionally related to i) the bifocal root -ki- of all four free personal pronoun systems (see Table 6A), and ii) the nuclear constituent <ki> of the bifocal fourth number clitic -ki.ti. The fourth size-number adjective ludu also functions as the term meaning ‘a length’ as in the expression yomo ludu (wood long) ‘a length of wood’. Short lengths of wood are used for counting objects. Consistent with this, the nuclear sublexemic constituent <lu> of the fourth size-number adjective ludu functions as the term lu which signifies a set of four short lengths of wood tied together by a circlet of po ‘twine’. This constitutes the basic counting unit associated with the first of the four systematically related systems of counting terms, the base-4 counting system. This last adjective of the set of three adjectives constitutes the point of clinal shift, then, from the monofocal subsystem of adjectives to the bifocal subsystem of number terms.

This last adjective represents the point of clinal shift from i) the second system of adjectives that encode the system of social relationships between people to ii) the third system of size-number adjectives that encode the cycle of the sun travelling along its track through the sky during an equinox. This adjective ponopene means ‘to be lacking in social status’ ‘to be socially worthless’. The first adjective of the third set, the adjective nate ‘small’ articulated phonetically as [nare] functions as the modifier of the Witu term ali ‘man in the following Witu noun expression.

\( \text{nate ali} \rightarrow \text{natali articulated phonetically as [narali]} \)

’small man’ ‘a small group of men’
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As the term for a ‘small group of men’ it usually means a fugitive group living in the district of a major group. The term for a major group of men is pitikali, the product of the verb pitiki that means ‘they sleep’ and ali ‘man’. The term pitiki in this context signifies that people prototypically sleep in their own district, not in potentially enemy districts, hence the expression no Oido pitiku ‘I sleep Oindo’ meaning ‘I am a member of the major group known as Oindo’.

The adjective nate of this expression is formally and functionally related to the Kewa adjective naara that means ‘poor man, without material possessions’.

The Witu adjective nate also means ‘small/few in numbers’. It signifies a small group of people. A small group is commonly a refugee group that has lost its homeland, has fled to another district and survives there as a relatively minor group.

The four adjectives of this set are the size-number adjectives. They encode the life cycle of the sun during its track through the sky during an equinox.

The root de also means ‘they sleep’ and ali ‘man’. The term pitiki in this context signifies that people prototypically sleep in their own district, not in potentially enemy districts, hence the expression no Oido pitiku ‘I sleep Oindo’ meaning ‘I am a member of the major group known as Oindo’.

This adjective is the product of duplication of the nuclear constituent na is formally and functionally related to the root de of the Enga term dengé that means ‘corner’. The corner is the corner of a man’s house at blind end, were the two sides progressively narrow towards each other.

The root de of dede ‘small in size’ ‘narrow’ is formally and functionally related to the Witu ‘discovery’ verb suffix -de as in the following example.
( ) piadeko <pi -a de -k -o>
Here it is, lying here.’ <lie -sfl -discover -pres -3sg>
This accounts for the functional relationship between i) the Witu term 
tukuno for the ‘corner end, the narrow blind end of a men’s house’ and ii) the Enga term depea that means the same thing.
A narrow corner end is the pointy end of the men’s house, and by extension the pointing end. If the floor plan were to be turned through 90 degrees to that it stood vertical, the blind end would point up towards the zenith, as an icon for the men of the house searching for the missing head. The missing head is the supreme High Being, from whom the Witu became disjuncted by their disobedience in not coming for their language until called four times. This also explains why the conical roof of the tall round timbu spirit house is referred to by the term kabe that means ‘neck’. The conical roof points to the zenith, the domain of the disjuncted head. This accounts for the formal and functional relationship of the Witu term kabe [kambe] ‘neck’ and the root kambe of the Enga verb kambenge that means ‘to break in two’ and ‘to break’ (in talk) i.e. to break in communication.

Consistent with all this, the nuclear SMC <tuku> of the Witu term tukuno that signifies ‘the narrow blind end of a men’s house’ is the formally and functionally related to the first constituent of the following Witu verb expression.
( ) tuku toko <tuku to -k -o>
‘to look for something’ <elbow do -pres -3sg>
The first constituent tuku is formally and functionally related to the Witu term tuku that means ‘elbow’ the metalinguistic equivalent of the bend at the blind (corner) end of a men’s house. When a Witu man goes hunting for game he takes his tue ‘dog’ with him to follow the scent trails. A dog in looking for a scent trail will elbow back and forth along the anticipated line of the scent track the animal leaves.

The second adjective dede ‘small’ ‘narrow’ gives expression to the fact that it expounds the conjunctive second function prime interdependency within its set in the following way. Its nuclear SMC de is formally and functionally related to the root de of the derived Witu verb stem deke that means ‘to press firmly together’, as between the two hands. Consistent with this, it is also formally and functionally related to the derived Witu verb stem edete that means ‘to be squeezed together’ and ‘to braid two strands of twine into a braid’. This accounts for the formal and functional relationship of the duplicated constituent <de> of the Witu adjective dede ‘small’ ‘narrow’ and the root de of the following Kewa verb depea whose Witu synonym is dedepea.
( ) depea <de pea>
‘to braid’<squeeze together make>
The second SMC of this Kewa verb pea is itself the product of the following paired SMCs.
( ) pea <pe a>
‘make/ create’ <sun at zenith stem formative>
The first SMC <pe> is derived from the first proto iconic term for the sun ‘pa’ that encodes the symbolic function of the mate ‘sun’ when it stands at the zenith at noon during an equinox, the point in space-time of the embodiment of the special seed-person sent into the world to fix up what had gone wrong with the first general creative planting of all things by the supreme High Being. This proto iconic term for the sun is also the source of i) the regular form pa of the Kewa verb meaning ‘to make’, and ii) the root pi of the Enga verb pingi that means ‘to make’.
The paired SMCs of the Kewa verb depea ‘to braid’ encode the making of the double helix po ‘twine’ of spirit life that the supreme High Being fixes to every Witu at birth from his residence at the zenith.

See cell 1 Chart M.
The base-4 count system, while a hand-based count system, differs systematically from the other two monofocal hand-based count systems. As the system that expounds the first function prime, autodependency, it is the focal count system among the four count systems. As the focal count system it encodes the focal role of nature in all systems of relationship. It encodes the fact that man himself is a natural being.
The base-4 count system encodes itself as the nature-based count system in the following way. The first pair of count terms, the terms for cardinal 1 and cardinal 2, encode the place of in the natural world. More specifically the plant world is represented by seeds, the first stage in the life cycle of a plant. All plants grow originally from seeds, even those that can also be propagated vegetatively. (14th 2 2005)
The second pair of terms in the Base-4 count system encode the animal world, rats and the generic group of creatures signified by the Pidgin English term kapul that includes possums and wallabies.
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The representatives of the plant world occur first, followed by the representative of the animals world. This encodes the fact that all creatures ultimately depend for the survival on the plant world (14th 2005).

The first term odene ‘one’, articulated phonetically as [o:dene], is derived from the Enga term for the seed of the karaga pandanus palm, the term kondé, by deletion of its initial consonant k, and postposition of the body-part term -ne.

The second term, ‘cardinal 2’, is represented by a pair of freely fluctuating allomorphs, takuta and tagata. This pair of allomorphs expounds the second cell of the Zenith iconic schema (Tables 1 A to 1 C of the file titled *The Witu Meta-language 1*). In the Zenith iconic schema, they jointly encode the formation of a special seed at the mutai ‘zenith’ at noon during the equinox.

The third term, tebolo ‘three’, articulated phonetically as [təbolo], is formally and functionally related to the term tepolo which signifies a ‘rat’. A rat leaves triadic footprints. (Check information from the Wailbirri Australian Aboriginal language group to see if rat footprints are represented as triadic marks in the sand.).

The governance of the third count term of this system by the disjunctive third function prime finds particular clear expression in the language of the neighbouring Dadibi people group in the following way. The Dadibi term sele that means ‘three’ is the distinctive primary constituent word (particle) of the following adjunct verb expression (Whitby, Sisinama and Aseani (1990:21). (14th 2 2005)

`sela sabo` ‘to remove’ ‘to subtract’

The verb sabo by itself means ‘to receive’. Its functional equivalent in Witu is the verb stem moto that means ‘to receive’ ‘to take’ and ‘to hold’. In its wider function, as the second constituent verb of a complex verb stem it signifies disjunction in the following way.

*Ue yomotawako*  
\(<ue yo -moto-a wa k-o>\)

‘He lets the water flow unchecked.’

\(<water flow -hold -m-pr neg -pres -3sg>\)

The auxiliary-like verb moto postposed to the semantically primary verb root yo ‘to flow’ signifies that though the subject of the co-referential two-verb sequence is within reach of the activity specified by the primary verb, he dissociates himself from it (stands off from it) and does not intervene.

The disjunctive function of the Witu verb meaning ‘to receive’, the verb moto, also contracts a disjunctive function in the following grammatical context.

*Lobomotokempitako*  
\(<l-o -moto-k-o -me pita k-o>\)

“It breaks off and falls.”

\(<crack -hold -mps -3sg fall -pres -3sg>\)

This verb expression signifies a branch cracking and then letting go of its hold on the tree on which it formed, so that it falls away from it. In this and other such relationship-governed Papuan languages the act of falling must be decomposed into two stages. The first stage is the attachment (holding) of the entity to its source, followed by the seconds stage, its separation from that source.

Consistent with this, the Dadibi verb sabo, the equivalent of the Witu verb moto, is the common constituent of the following semantic pair of verb expressions.

*Sela asobo*  
\(<sela go>\)

‘take when coming’ i.e. ‘take and come’

The particle sele in these two verb expressions implies the removal of something from its location.

The two verb expressions could, then, be translated more literally, ‘to take-remove, then come or go’. (14th 2 2005)

Consistent with this, In the corresponding pair of Witu verb expressions the verb moto with the root mo meaning ‘to take’ ‘to hold’ and ‘to receive’ takes the place of the Dadibi term sele, as illustrated below.

*Moa namene*  
\(<moa namene>\)

Take (it) and go.

\(<taking go>\)

*Moa namene*  
\(<moa namene>\)

Take it and come.

\(<take come>\)

The fourth term, tuyono ‘four’, is the product of paired sublexemic constituents which encode the message ‘hand of a marsupial’.

When this count systemis used to count of wealth items in arranging the reciprocal exchange of wealth items between the bride and the groom’s patri groups that will seal the negotiations for a marriage, a small piece of yomo ‘wood’ referred to as a yohalene ‘wood fragment’ is laid down for each wealth item. When the first four items had been counted off, the four sticks representing them were bound into a set of four with a circlet of po ‘twine’. This set of four sticks with a circlet of twine encoded the movement of the sun through its four primary staging posts, three above ground, and one below ground, during its track around the world during an equinox.
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The term for this set of four sticks was the term lu. It is formally and functionally related to the initial SMC <lu> of the fourth term of the third set of adjectives, the set of size-number attaches that constitute the point of clinal shift from the monofocal subsystem of adjetival terms to the bifocal subsystem of number terms. The fourth adjective ludu ‘long in space or time’ and ‘tall’ is the particular point of transition from the monofocal adjectival to the bifocal number system.

Since the adjective ludu is the fourth and so the last, adjective of the third, and so the last, of the three sets of adjectives, it has overtones of completion. This would account for the derivation of the term lu signifying a set of four sticks from the first SMC <lu> of the adjective ludu. When the fourth stick has been laid down, it completes the count of four in the base-4 system of counting.

In light of this, the Witu term lu could be formally and functionally related to the initial constituent luú of the Enga verb expression luú pingí (luú make) that means ‘to finish’ a talk or singing.

This, in turn, could account for the name given to a certain species of palm tree signified by the name lu. The trunk of this palm was used in the following way during the terminal phase of the great Timbu Spirit Fertility Cycle. During this cycle, the patri groups of each sub district built a 20’ tall round timbu spirit house inside a circular complex just beyond the edge of the men’s village of the sub district. This complex was used for two cycles, each cycle lasting prototypically for four years. After two cycles of use, the complex was closed down, and a new complex was built at a new site in the sub district. This move was adumbrated by cutting down two lu ‘palm trees’ and splitting their trunks down the centre. The two halves were then hollowed out, joined together again and buried under the ground floor of the tall round timbu spirit house. They then functioned as drums used during the chanting of the most important chants during the terminal climactic four months of the Fertility Cycle. In effect, they signified the completion of the two cycles of activities associated with the timbu spirit house complex in which the tall timbu spirit house was erected.

The second count system encodes the fact that it expounds the conjunctive second function prime interdependency in the following way. A count of ten, two hands and two feet, is signed by bringing the two hands physically together. The same is done in the corresponding count system of the Enga (Sheila Draper personal communication) and of the Dani of West Irian (Myron Bromley personal communication). Similarly, a full count of 20 may be signed by bringing the two hands and the two feet into physical conjunction. If the count goes beyond 20, the overtones of interpersonal relationship this second count system encodes is signified in the following way. The counter who has been counting off the digits of his own hands and feet, then points to a man immediately beside him and will say, for example for a count of 40, ‘your two hands and feet’.

Consistent with the fact that the third set of adjectives is the set of size-number adjectives, the adjective tumbilao [tumbi] ‘big’ is formally and functionally related to the initial SMC <tumbi> of the Enga adjective tumbilao that means ‘many’. Its second SMC <lao> is a derivative of the fourth proto iconic term for the sun **lan, from which has also been derived i) the initial SMC <lu> of the fourth adjective of this set, ludu meaning ‘tall’ (=high) and also ‘long in space or time’ and ii) the term lu that signifies a bundle of four small pieces of wood tied together by a circlet of po ‘twine’ to function as the basic counting device for counting off numbers of entities by the base-4 count system.

The terminal SMC <lao> of tumbilao ‘many’ is the marker of the relationship between adverbs and their head noun, in such Enga terms as the following: altilao ‘good’, moo láo ‘slowly’, kondaka láo ‘slowly’, gumi paí láo ‘quickly’, wae láo ‘gently’, and koteka láo ‘every day’ ‘all the time’. We now note that the first, the focal adjective of this set, nate ‘small in size or numbers’ is pronounced phonetically as [naare] and is formally and functionally related to the Kewa adjective naara that means ‘poor man with few material possessions’. This Kewa term is synonymous with the following Kewa term:

() ‘ribu aa <ribu around> ‘poor man’ ‘rich man’

This points to the fact that the Witu adjective tumbi [tumbi] is formally and functionally related to the following iconic pair of Witu terms i) tibu [timbu] ‘sky’ and ii) tibu [timbú] ‘timbu spirit’ associated with the 20’ tall round timbu spirit house whose kape ‘neck’ ‘conical roof’ points to the matai ‘zenith’, the highest point of the sky, the domain of the supreme High Being.

Note that this Witu adjective is related to the following adjectives meaning ‘short’ in the following Trans-Fly languages:

Inversion in function of size terms

Kewa rudu ‘small’

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Witu lu'du 'long' cf Kewa dulu aj group of something animate F&F 128b cf Witu lu luta a lot of flies all massed on a lu'du 'length' of twine-like material hanging from the clothes line.

Huli lu long

Note Kewa adalu is almost certainly related to PMP 5'an'd'ang (ng = velar nasal) 'to be long' p.5 The reflex of this proto term in Malay means 'to be long and small'. This meaning probably stems from the proto term and is still reflected in the parallel difference between Witu lu'du 'long', and Kewa rudu 'short'
big and short

Witu tube (tumbe) 'big'

Trans-Fly languages

Eastern Trans-Fly Languages of Trans-Fly Stock of the Trans-New Guinea Phylum (Wurm 1971) Fleischmann and Turpeinen

Surveys in Five P.N.G. Languages Workpapers i

Fleischmann and Turpeinen: Trans-Fly Languages

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Cxi The bifocal function of this adjective finds expression in the following way. It functions as an adjective with spatial overtones meaning 'tall' or 'long'. It also functions as a verb modifier with both spatial and temporal functions. In this function it signifies both 'a long distance' and 'a long time'.

Cxi This adjective is the product of the paired sublexemic constituents <lu'du>. The initial constituent <lu> is formally and functionally related to the term which signifies the basic count unit of the first of the four systematically related sets of count terms, the base-4 set. In the base-4 system of counting – when for example negotiating the items to be exchanged between two groups in a bride price exchange – each item is represented by a small piece of wood. When four items have been counted off, the four sticks are bound together as a single unit by a circlet of wood. When five items have been exchanged they are bound together in two single units.

Also consistent with this, the initial constituent <lu> of the Witu number adjective lu'du 'long' 'tall' etc. is related to the extender constituent <lu> of the following Kewa terms: aaraalua 'family', whose root aaraa is the Kewa referential term for 'father'. It is also the terminal segment of the following Kewa word amela which means 'several brothers' as distinct from 'two brothers or friends' signified by the Kewa word amelu (F&F:113). It is also related to the terminal segment <lu> of the Witu word yapulu that means 'an unbroken succession of houses-side by side') whose root yapu means 'house'.

The fourth adjective of the third set of adjectives, the size-number set, the adjective lu'du, then, constitutes the point of clinal shift from the monofocal subsystem of adjectives to the bifocal subsystem of count terms. Consistent with its function as the exponent of the bifocal fourth function prime in its set of four size-number adjectives, it co-occurs with the bifocal suffix sequence –ki:ya in the following stative adjectival expression, lu'du.ka:ya. The first suffix –ki is formally and functionally related to the

Note Kewa amelu 'several brothers' as distinct from 'two brothers or friends' signified by the Kewa word amelu (F&F:113). It is also related to the terminal segment <lu> of the Witu word yapulu that means 'an unbroken succession of houses-side by side') whose root yapu means 'house'.

The incumbent symbolizes clan mana as the repository of myth and genealogical information relating to the socio-historical origins of people and land. In this respect, and indeed the remarkable depth of genealogies (see D.1), the Huli do not conform to the 'big-man' systems described for other Highland s culture.
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nuclear constituent <kl> of the fourth of the closed set of four number clitics, the plural number clitic – kiti. The vowel i of this suffix is a consistent icon for bifocal function. (Note the bifocal root ki- of the Witu free personal pronoun systems of Table 6 A, and the bifocal bound subject pronoun suffix –4 of Table 6 C.)

See also the file Vungi & dungi seeds-utdc.doc in C:\AAAA-Kerr-DOCS-UTDC\2004-Feb-Transfer-ex-ACER-UTDC-docs\A-Witu-Logc-utdc\Witu-Meta-Lang-AKO-CENT-01-02-03-Final-utdc\Witu-Meta-Lang-2004-utdc\lindu & dungi seeds-utdc.doc These two Enga terms signify ‘fruit stems’ (Lang:59). The stems are the equivalent of the empty seat/place left when a seed falls from its husk to the world/ground below. The product of the combination of the nuclear constituents <kl> and <du> is the virtual term lundu = Witu lundu the metalinguistic equivalent of the bifocal adjectival (type) term of the third subsystem of Type-number terms. This virtual term is related metalinguistically to the nuclear constituent <ludu> of the Enga term lundutá that means ‘whole’ (thing), ‘entire’. In this way they reify the bifocal fourth function prime, symbiotic dependency, that they expound in the subsystem to which they belong, i.e. the third set of type-number terms.

cxiv This system expounds the disjunctive third function prime, independency. This finds expression in a number of ways. The two body part count positions, 1 and 49, signaled by the ege ‘little finger’ of the left hand and of the right hand respectively are not brought together physically when a full count of 49 positions is completed. In addition, the cross over position between the two divisions, the left and the right hand side, occurs at the ridge of the nose, position 25. In crossing over at this position, the count system bypasses the matai ‘the crown of the head’, an icon for the matai ‘ce nth’ of the sky, from which the supreme high being, Akolali ‘the male who is higher than all’, fixes the thread of spirit life to each Witu at birth. The disjunctivenss of this act of bypassing the symbolic location of Akolali is encoded by the derivation of the verb ege/te- ‘to feed’ from the term for ‘little finger’, ege, the marker of the first and last positions in this count system. The derived verb ege/te- (little finger/der1) means ‘to feed widows, orphans and pigs’. Widows, orphans and pigs have one thing in common. They are separated (disjuncted) from a male head. Widows have lost a husband. Orphans have lost both father and mother, but suffer most socially from the loss of a father. Pigs never know their father and only follow their mother.

According to Karl Franklin “The body-part system seems to be distributed throughout Central New Guinea – from the Bismark range to the centre of [what was called] Netherlands New Guinea and from Teleomini south to Kiunga.” (Franklin and Franklin:401) (entered 28th September 2012).

cxv The four sets of count terms expound the bifocal fourth function prime, symbiotic-dependency. At the highest level of organisation of the Akolali Centric Interlocking Relationship Focused Schema, this function prime is expounded by Life and Death Interrerelationship Schema. The monofocal subsystem of this schema is expounded by the three people groups of the Witu myth of the origin of life and death, representing three geographically contiguous language families within the East New Guinea Highland Stock. The representatives of two of these geographically extensive and numerically very large families, the Kewa representing the West Central Family and the Lai representing the Central Family, encode life. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages. The third group, the geographically limited and numerically small Witu language group, a family level isolate, encode death. They were promised the perpetual renewal of life by the third set of High Beings, Tu Aneta ‘Tu and Anc’ for their obedience in coming at once for their respective languages.

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first of all within society, and then to society. Everything he does is determined by the society, and is
looked at and judged by the society. Man can hide in the society, he is protected by the society, and
thus feels safe in it.

A linguistic indication that there is no isolated "self" is the fact that in the pronominal system of
Yagaria there is ambiguity with regard to the non-singular persons: as in many other Papuan languages,
the person-number marker denoting the subject of verbs is invariably identical for the second and third
person dual and plural: havidae means 'they knew' as well as 'you (pt) knew', .... The Move dialect,
which has served as the basis for grammatical description (fn78), distinguishes between the two
persons in dual and plural, but even there, the terms used for the second persons can, by their form,
easily be recognized as compound words, made up of morpheme particles taken from the first and third
person pronouns: the first person / plural is lagaea, the third person plural is pagaea, and the second
person plural is denoted by the combined form lapagaea. A similar situation is evident in the dual. The
first person is lagaea, the third person pagaea. The second person is a combination of the two:
latagagea. Thus it is quite obvious that also in this dialect there were originally only two persons each in
dual and plural".. (fn 79)’ (bold font has been added)

The pronominal system thus shows that in effect the individual cannot be eliminated from the society,
and there is no true distinction between a speaker and the group to which he belongs. The original
status is that in the non-singular there are only two persons: we and non-we. The speaker can
understand himself simply as part of the "we", and does not have to face society as a separate entity
which he would have to address with a separate term. Everyone not belonging to "we" belongs to
"they". On a smaller scale, the same holds true for the dual forms. ...

Man, then, is what he is only in the framework of society...’

In the following four charts the exponent of the third function prime (in cell 3) is the product of
conflation of the exponents of the first two function primes (in cells 1 and 2).

Person, Space, Time and Number are the prima

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1+2=3</td>
<td>2+1 = 3</td>
<td>1+2=3</td>
<td>1+2=3</td>
</tr>
<tr>
<td>(the three primary roles a person can expound in a speech situation)</td>
<td>(movement through space)</td>
<td>(movement through time)</td>
<td></td>
</tr>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>1] k present tense</td>
<td>1] Base-4 count system</td>
</tr>
<tr>
<td>2+1 = 3</td>
<td>1+2=3</td>
<td>1+2=3</td>
<td></td>
</tr>
<tr>
<td>(movement through space)</td>
<td>(movement through time)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>1] k present tense</td>
<td></td>
</tr>
<tr>
<td>3] one he/him</td>
<td>4]</td>
<td>3] k past tense</td>
<td></td>
</tr>
<tr>
<td>2+1 = 3</td>
<td>1+2=3</td>
<td>1+2=3</td>
<td></td>
</tr>
<tr>
<td>(movement through space)</td>
<td>(movement through time)</td>
<td></td>
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</tr>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>1] k present tense</td>
<td></td>
</tr>
<tr>
<td>3] one he/him</td>
<td>4]</td>
<td>3] k past tense</td>
<td></td>
</tr>
</tbody>
</table>

1° person no + 2nd person ne → none followed by reduction (deletion) of the first consonant → one 3rd
person

Person, Space, Time and Number are the primary media through which the four function primes
1) autodependency, ii) interdependency, iii) independency, and iv) symbiotic-dependency respectively
operate.

1] PERSON

<table>
<thead>
<tr>
<th>1</th>
<th>Person</th>
<th>2</th>
<th>Space</th>
<th>3</th>
<th>Time</th>
<th>4</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>3] one he/him</td>
<td>4]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>3] one he/him</td>
<td>4]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1] no I/me</td>
<td>2] ne thou/thou</td>
<td>3] one he/him</td>
<td>4]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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The term kodé in Enga means ‘the individual pandanus nut.’

The term lu is derived from the first sublexemic constituent <lu> of the term ludu, the fourth adjective of the third set of adjectives, the size-number adjectives (see subcell 4 of cell 3 of Chart L).

The term lu is a reduction of the Witu term ludu which means ‘long in time and/or distance’ ‘tall/high’ and also signifies a ‘length of wood or twine’, usually a small length of. It is the product of the following pair of SMCs.

\[ \text{ludu} \quad < \text{lu} \quad \text{du} > \]

‘length of wood’ ‘fruit stem’

The SMCs <lu and du> are roots of the following iconic pair of terms that have the same meaning (Lang 1973:59).

\[ \text{lungí} \quad \quad \text{dungí} \]

‘fruit stem’ ‘fruit stem’

They icons for the relationship between a seed or fruit and its mother plant. They are the functional equivalent of the po ‘twine’ of spirit life fixed to every Witu by the supreme High creator being, Akolali, at their birth. This twine of life is the functional and equivalent of the po ‘twine’, a double helix produced by women rolling two thin strands of twine into one strong strand. This accounts for the two terms for ‘fruit stem’. It encodes the duality of the twine of spirit life fixed to every Witu at birth. This accounts for the form and function of the following Enga term whose root is the metalinguistic equivalent of the Witu term ludu that signifies a length of wood or of twine.

\[ \text{lundutá} \quad < \text{ludu} \quad \text{tá} > \]

‘whole’ (thing), ‘entire’ ‘length dual number’

Consistent with this, in a relationship-governed Papuan society such as Witu, wholeness is the product of conjunction (pairing) two mirror-image halves.

According to Shiela Draper (personal communication), the Kyaka Enga also brought the two hands together physically to sign a count of 10. Myron Bromley, when asked if the Dani of West Irian did the same thing, said he believed that they did so.

The term for ‘twenty’, oloto, is the term for ‘male’ in Tawala, a language of the Papuan Tip Cluster of the four clusters of Western Melanesia (Ezard 1991:422). A count of ‘twenty’ in languages of the Eastern Family of the East New Guinea Highland Stock is also signified both by a term specific for ‘twenty’ and referred to as ‘one man’ (McKaughan 1973:727 item 91).

It is significant that this count system counts off 49 positions. This is the product of 7 years times 7 years, whose conclusion in the Jewish calendar ushered in the Jubilee year of freedom of the slaves and remissions of debts, etc. See also the endnote attached to the filler of subcell 3 of cell 4 of Chart L, the upper body part count system.

See Franklin and Franklin:401) for the wide distribution of the body-part count system in PNG

Generic number terms represent the break down of the specific number system encoded by the monofocal subsystem of count terms, the first three sets, which count off number by discrete units, one at a time. But at this point of potential break down of individuation, where the number system has to cope with the chaos of potentially open ended number, the bifocal fourth function prime, symbiotic-dependency, which governs the function of this fourth set of number terms, the generic set, asserts the governance of all count systems by the binary principle which governs all levels of organisation of the language and cultural in general. Each of the terms encodes the importance of dual organisation in a systematically different way, as indicated in the following endnotes.

But before dealing with the overtones of duality encoded by the fourth set of number terms, the following is relevant. The fourth function prime, symbiotic-dependency, which the set of generic terms, the fourth set, expounds with the system of four sets of count terms has overtones of negation. This reflects the fact that the most fundamental exponent of the fourth function prime, symbiotic-dependency, is the symbiotic relationship between life and death encoded by the three people groups who expound the fourth function prime in the highest level system of interpersonal relationship, the Akolali Centric Relationship Schema of Table 5. Three sets of immortal high beings expound the first
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three function primes, the monofocal subsystem of function primes, in opposition to the three mortal people groups which expound the bifocal fourth function prime. The Witu myth of the common origin of language and death indicates that two of the three people groups — the Kewa (=Kewa-Enga-Huli Family of languages) and the Lai (=Hagen-Wahgi-Chimbu Family of languages) — were obedient and came at once for their language. They were promised the perpetual renewal of life for the obedience as they were given their respective languages. They would share in the immortality of the high beings. The third people group, a small family level isolate, the Witu, disobeyed, and did not come for their language until called four times by the third set of high beings, Tu Aneta ‘Death and her husband’. They were given their language linked with the doom of death. The three people groups, two obedient and one disobedient, encoded the symbiotic relationship between life, consequent on obedience, and death, consequent on disobedience. Life is positive. Death is negative. Together they operate like anabolism, constructive (positive) metabolism, and catabolism, destructive (negative) metabolism.

We now note the way the first two terms, pade ‘a’ ‘another’ and peya ‘all’, of the generic set of terms reflect the overtones of negation associated with the fourth function prime. The term pade functions as the distinctive particle signifying emphasis of negation in the following type of negative verbal clause.

No pade to -a -mo -ko -u  
I  a  do  sfl  neg  ps  1  
I certainly did not do it.

The overtones of negation carried by the term peya ‘all’ finds expression in the following iconically important impersonal periphrastic verb construction which makes an iconic pair with another periphrastic verb construction.

Peya to -k -o  
all  do  pr  3sg  
lt (the work) is ended.

The impersonal periphrastic verb expression peya toko ‘lt (the work) is finished’ makes an iconic pair with the periphrastic impersonal verb expression, mena toko ‘lt (the substance) is finished’ (there is no more or it left). For the iconic significance of this pair of impersonal periphrastic verb expressions see examples *(89) and *(90) in the file titled The Witu Meta-language 1 and example (ix) in the file titled The Distinction Between Special and General Functions.

The negative overtones, then, of both the first and second terms of the fourth set of count terms, pade ‘a’ ‘another’ and peya ‘all’ respectively, reflect the death of the special man of light of the Zenith iconic schema (Table 1).

The term pade is the initial constituent of the expression padago which freely fluctuates with the term panago both meaning ‘a certain male’ of the Zenith iconic schema (see cell 3 of Table 1). The formal and functional relationship of the primary allo term padago to the secondary term panago, derived from it, encodes the death of this certain man, who is identified by the sublexemic constituents of the secondary term as ‘the man of light’. The term pade almost certainly derives from an earlier term pado which retains in Enga as the term for ‘place’, ‘room’ ‘space’. It is, in turn, probably the product of the paired sublexemic constituents <pa,anda>, whose first constituent is derived from the first proto iconic term for sun, **paf1, and whose second constituent <anda> is derived from the second proto iconic term for sun, **andau (see Chart C). These two proto iconic terms are terms of the Track iconic schema of the Witu Grand cultural organisation system (see subcell 3 of cell 3 of Table 1). They encode the role of the sun as the unique, universal entity which makes a daily trek from a house on one side of the world to another house on the other side of the world each day, and ii) as an icon for the governance of the disobedient Witu by time so that they age as they travel along the track of time, after birth, and finally die (see the endnote attached to the iconically important past tense portmanteau morpheme -ka in cell 3 of Table 15). In the Track iconic schema, a track functions as the relator of two terminals at either end (a door, home or hole). The term for track, then, is commonly similar to or identical with the term for ‘door’ (e.g. Kewa pora which means both ‘track’ and ‘door’).

By extension, the schema which embraces the track and its terminals also embraces the entity which makes it in the first place and then travels along it when formed. The sun is the single most important entity which travels along from one terminal to another each day. Without it, no plants would grow to sustain the life of creatures, man among them. Consistent with this, the second proto iconic term for sun, **andau, is the source of the Kewa and Enga term for ‘house’, anda, and the Witu term for ‘old man’, ada (articulated as [anda] (an icon for the old man of the sky, the sun).
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The Witu ada [anda] ‘old man’ as an icon for the old man of the sky, the **andau, in the context of a ‘house’ signified by the term ada [anda] in Kewa and Enga, is encoded in the following context which more than any other encodes the sun as an icon for the supreme high being of the universe. Akolahi, whose special hidden name is YAWAY. It is encoded by the term for the large stones placed at the four corners of the ground fireplace ‘needle spirit house’ where new sacred emblems were made and damaged old emblems fixed up for the forthcoming climactic final four months of the great fertility Timbu Spirit Cycle. The four stones encoded the four discrete staging posts of the sun around the world each day. Each was referred to by the term ada ‘old man’, and given the name of an old man still alive in the district. Consistent with this, the ‘old skin’ which sloughed off from the body of an old man was signified by the term toe, formally and functionally related to the term for ‘firewood’ and ‘fire’, toe, which makes an iconic tone-word pair with it. It is identical with the term for the sloughed off skin of a snake, toe, an icon for the perpetual renewal of life. Consistent with this, the paired sublexemic constituents <kaya> (track-un-typ) of the generic term for ‘snake’, kaya, encodes the message ‘the track entity’.

The encoding of the movement of the old man of the sky through four primary staging posts represented by four stones finds its complement in the term for the basic counting unit of the first of the four count terms of the first count system, the base-4 count system (Chart M). This is the term lu which signifies four small lengths of wood tied together by a circlet of po ‘twine’. The lu functions as the iconic device for the base-4 count system (see cell 1 of Chart M and the endnote attached to the adjective ludu ‘tall’ ‘long’ of subcell 4 of cell 3 in Chart L). The four small sticks encode the four discrete primary staging posts of the sun as it treks around the earth each day. The circlet of po encodes the perpetual cycle of the sun around the earth.

It is relevant now to note that the first number term in the first set of four terms of the base-4 count system is the term odene ‘one’. Its first nuclear sublexemic constituent <odene> is, is formally and functionally related to the Enga term kondé, the term for an individual ‘kernel’ of the karuga pandanus palm (glossed as the pandanus screw pine by Mihalic (1971:107)) and identified as the “pandan spiral-palm, Pandanus” by Dempwollff (1937:127). Dempwollff identified its reflex in Polynesia, Tonga, Futuna and Samoa as fala It may be significant, then, that the Kewa Pandanus language term for ‘tree, firewood and fire’ is palaa.

As noted elsewhere, the large spherical fruiting body of the karuga pandanus palm, an icon for the orbit of the sun, is the symbolic source of the special seed formed at the zenith at noon during the equinox in the Zenith iconic schema (see Table 1). The generic term for the karuga pandanus palm in Kewa and Enga, aga and ánga respectively, is formally and functionally related to the primary nuclear constituent of the Witu and Kewa term for ‘language’ and ‘speech’, agale (see example *(26) of the file titled ‘The Witu Meta-language 1’)

In summary, the Witu language came linked with the doom of death for the disobedience of the Witu in not coming for their language until called four times by the third set of high beings, Tu Aneta ‘Death and her husband’. The Witu agale ‘language’ by which the Witu generated their unique culture, is, then, a cultural icon for the symbiotic relationship of life and death. The seed which falls from the large spherical fruiting body of the karuga (screw) pandanus palm must die and come to life again to produce the next generation of plants (see example (p) of the file titled ‘The Special Mountain and the Asking of Special Questions’). It and its parent plant are also both icons, natural icons, for the symbiotic relationship of life and death. And consistent with this, the sun -- which moves through four primary staging posts in its daily track around the earth each day -- is a universal icon for the symbiotic-relationship of life and death.

On the basis of the above evidence, I think, then, that it is worth checking out the possibility, however, unlikely, that the Enga term panda ‘room’ ‘place’ ‘space’, formally and functionally related to the Witu term pade ‘a’ ‘another’, is itself formally and functionally related to Dempwollff’s (1937:127) proto Malayo Polynesian term for the pandanus spiral-palm, “panda.

The possibility that there is such a relationship is strengthened i) by the iconic significance of the range of lexical function of the Hawaiian term for ‘pandanus’, hala which also means ‘to sin, pass by or on, miss’; and ii) by the formal and functional relationship of this Hawaiian term to the Hawaiian term hale ‘house’ (Elbert 1970:222).

The following is relevant at this point. Twice a year the sun reaches the zenith. Its does so at noon during the equinox. This process of aiming to reach the zenith is encoded by the second proto iconic term for sun, **andau, formally and functionally to one of Dempwollff’s (1937:4) proto terms for ‘sun’ and ‘day’, **ainudav. The symbolic role of the sun at the moment of reaching that mark at noon during the equinox is encoded by the first proto iconic term for sun, **padi, formally and functionally related,
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I believe, to another of Dempwolff’s (1937:194) proto terms for ‘sun’ and ‘day’, the term *yaabu*. This moment in space-time is a moment of perfection. It is the moment when the special seed was formed which encoded the special message of redemption for the death-doomed Witu, which was incarnated by the special man of light of the Zenith iconic schema (Table 1). The perfection of this moment is encoded by the term for ‘good’ in Witu and Kowa, the adjective pepe, whose very form, a palindrome, is an icon for perfection (see subcell 1 of cell 2 of Chart L).

On all other days of the year than the two equinoxes, the sun misses the mark (i.e. the zenith). This missing of the mark has moral overtones. It is encoded by the nuclear verb tete of the verb expression matai tete/pono (zenith cross-over/pass-by) which means ‘to cross over the zenith’ during its track from its house in the east to its pade yapu (other house) ‘other house’ in the west during the equinox. The verb root tete of this verb expression also functions as the root of the derived verb tete/ka which means ‘to cross over’ (a fence) and -- by a systematic radial extension of this lexical function -- ‘to transgress’.

The link between the sun and a house in this particular manifestation of the Track iconic schema is encoded by the formal and functional of the Witu term for ‘house’, yapu, articulated phonetically as [yaabu], with the following terms in other languages of the region embraced by the Witu myth of the origin of language and death, or the languages of people geographically contiguous to them. They are the following terms.

Kewa yapu ‘bridge’ (the functional equivalent of a track linking two terminals)

Maprik and associated languages yaabu ‘path’
Fore yapu ‘sun’

All this also makes me interested in the possible formal and functional relationship of the term balay of Cotabato Manobo, and the Witu term balai ‘platform’ ‘floor’. The houses of the Cotabato Manobos (among we worked in 1955 and 1956) were little more than covered ‘floors’ or ‘platforms’. This Cotabato Manobo term balay is a feature of the expression balay kopoh (house spider) meaning ‘a spider’s web’, and balay wayeg (house water) meaning ‘the dewlap of cattle’. It is related to the regular term for ‘house’, balay, in many other Philippine languages. The Cotabato Manobo term for the residential house of people is dalesan, formally and functionally related to the term for ‘path’ or ‘track’, dalan.

The overtones of duality of the term pade finds expression in the following way. When it follows a head noun such as the general term for ‘man’, ali, in the number phrase ali pade it means ‘a man’ or ‘a certain man’. When it precedes the head noun in the corresponding number phrase pade ali it means ‘another man’. Consistent with this, when it occurs with the special male term, ago, in the expression pade.na.ago (other alternate male) it means ‘the other of the two men than the one just mentioned’.

The pro number term pade also has overtones of negation. This is consistent with the fact that it is the first (the focal term) of the set of generic number terms which together expound the fourth function prime, symbiotic-dependency, within the higher level system of four sets of count terms (cell 4 of Chart L), which in turn expound the fourth function prime within the still higher level system of Type-number terms (cell 4 of Chart M). The Type-number terms, in turn, together expound the fourth function prime symbiotic-dependency within the still higher Lexical term system (cell 4 of Chart I).

The focal generic number term pade, then, is governed by the fourth function prime, symbiotic-dependency, at three levels of organisation within the system of Lexical-terms. In other words, it is a major exponent of the bifocal fourth function prime, symbiotic-dependency within the ‘Lexical-term system.

The most fundamental exponent of the bifocal fourth function prime symbiotic-dependency is the symbiotic relationship between life and death which resulted from the disobedience of the Witu in not coming for the language until called four times by the third set of immortal high beings, Tu Aneta ‘Death and her Husband’ (see cell 4 of the Akolali Centric Relationship System Table 5). Death is the negation of life. By virtue of this, exponents of the fourth function prime, symbiotic-dependency, often given expression to the negative relationship of life by death in the particular system to which they belong.

In the case of the first generic number term, its overtones of negation feature in the following type of construction.

<table>
<thead>
<tr>
<th>No pade to -a -mo -ko -u</th>
</tr>
</thead>
<tbody>
<tr>
<td>I emphasis do sf1 neg ps I</td>
</tr>
<tr>
<td>I most certainly did not do it.</td>
</tr>
</tbody>
</table>
The Language-Communication System of the Witu Grammar of Culture: Part I

The overtones of negation of the generic number term pade are also a feature of the following type of construction.

\[
\begin{array}{l}
\text{No -pala pade -le to a -me -ne -ya} \\
\text{I. with some -act do sf1 neg nt un-typ}
\end{array}
\]

Nothing at all (adverse) happened to me.

\[
\begin{array}{l}
\text{Pade -mo w -a -mo -ko -u} \\
\text{some. message utter sf1. neg. ps I}
\end{array}
\]

I said nothing at all.

We now note, however, that, the negative relationship between life and death is a productive binary relationship. It matches the productiveness of the binary relationship of the metabolic processes of (positive/productive) anabolism and (negative/destructive) catabolism. This is illustrated by the following example in which the term pade is the nuclear constituent of a duplicated sequence.

\[
\begin{array}{l}
\text{Pade -le pade -le to -ko -u} \\
\text{some. -act some. -act do -ps. -I}
\end{array}
\]

I did many things.

In such ways, then, the Witu meta-language encodes the fact that the symbiotic relationship of life and death governs the binary organisation of the language and the culture of the Witu, and nature in general.

Only one other lexical term outranks the generic number term pade in its governance by the bifoic fourth function prime, symbiotic-dependency within the Lexical-term system. It is the universal intensifier clitic -mati (un-int), whose place in the Lexical-term system is not presented in any of the charts of this file. Its function is usually best captured by the gloss ‘very’. It functions as a modifier of all parts of speech, 1) nominal terms, 2) verb expressions, 3) space-time terms, and 4) type-number terms. As noted elsewhere, it is formally and functionally related to the generic term for ‘child’, mati, which also functions as the specific term for a ‘male child’. It encodes the fact that the first child of any man was doomed to die (see section 15 of the file titled *The Witu Meta-language 1* and example *(88)* with -mati, while also encoding the fact that the multiplication of mortal beings is the product of children born to spouse couples. Consistent with this, it is formally and functionally related to the verb root mati -which signifies the getting of the meat of pigs killed at a major pig feast, and its carriage by women in string net bags back to their husbands’ districts. The women who carry the meat prototypically are natal members of the group organising the pig feast. The meat of slaughtered pigs they carry back to their husbands’ districts cements the social relationship between different districts.

The cognate of Witu peya ‘all’ in the neighbouring Kaugel subgroup of the Hagen Sub-Family of language means ‘all’ and also ‘both’. It encodes the fact that a totality is the product of two complementary halves. Consistent with this, the Witu term peya ‘all’ is also formally and functionally related to the term peya which means ‘together’ in the neighbouring Ku Waru subgroup of the Hagen Sub-Family of languages. Note the following example from Merlan and Rumsey (1991:331).

```
nu tela-d pulkuna-ja na peya pulkubula
you Tela-Dat go-Syv-2sg-if I together go-Syv-1sg
If you had gone to Tela, I would have gone with you.
```

Like the first generic term pade, the second generic term peya also has negative overtones. This is illustrated by its function in the following verbal clause.

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

It (the work) is finished. There is nothing more to do.

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

\[
\begin{array}{l}
\text{Peya to -k -o} \\
\text{All do pr 3sg}
\end{array}
\]

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kaina-mati both have the same meaning. Note how this parallels the way the bifocal fourth category of free personal pronoun, e.g. kiwi of the egocentric system of Table 6A, involves the same neutralisation of contrast. With the free personal pronoun kiwi, the contrast between addressee and referent is neutralised. Kiwi means both ‘you all’ and ‘they/Them all’.

cxix Note that the term mati, the universal intensifier clitic (un-int), is the very last term in the system of Lexical-terms. We will discover this when we write up the expanded form of Type-number modifying terms. As the very last term of the Lexical-term system, the clitic –mati, articulated phonetically as [maari], is the ultimate exponent of lexical totality. Consistent with this, it is formally and functionally related to the Kewa term maari which means ‘complete, full’ as in, for example, akua maari ‘full moon’ (Franklin and Franklin 1978:170). It also reflects the fact that in the cycle of life and death, the ‘child’, signified by the Witu term mati, is the product of conjunction of male and female which completes their life cycle, just as the ku ‘seed’ is the final stage in the life cycle of a tree or grass. As the last stage in the life cycle of one generation, it is the point of origin of a new life cycle, in a perpetual cycle of death and renewal.

cxii The vowel v of the proverb tv- is prototypically determined by the subject suffix.

cxxx Consistent with this, the second sublexemic constituent <pe> of the Witu totality term -tape ‘all’ is formally and functionally related to the nuclear constituent <pe> of the Witu adjective epe which means both ‘good’ and ‘to be in one’s prime’, i.e. middle aged in Witu and Kewa. The adjective epe ‘good’ is a palindrome. As a palindrome, it is the product of conjunction of two mirror-image halves which share the same medial phoneme /p/. It encodes ‘perfection’, as does the special name of the supreme high being YAWAY, the product of two mirror-image constituents <YAW> and <WAY> which share the same medial phoneme **W (see section 1.2 of the file titled The Distinction Between Special and General Function).

cxiv See Chart Q

cxv See cell 2 of Chart Q.

cxvi See Chart R

cxvii See Chart P

cxviii See Chart M0

cxix See the reference to term loutyo in the endnote attached to the temporal term pa ‘still’ of subsubcell 4 of subcell 3 of cell 4 of Chart K.

cxx This chart is the same as Chart J with a little less explanatory detail. There is some repetition of explanatory information.

cxxi The four subtypes of alienable-possessed constructions are both functionally and formally distinct from each other.

cxxii Unmarked for possession. The paired body part terms, however, have a terminal suffix-like bound form -nv (with a variable vowel) which marks the relationship between the paired body parts, e.g. lawene ‘kidneys’, kabunu ‘lips’, yono ‘hands’, or the relationship between body parts which articulate end to end, e.g. tono ‘bones’.

cxxiii The district of citizenship is land which has been cleared for settlement, and is, therefore, possessed by right of the work to establish it. The verb signifying ‘to clear land’ is the same as the root of the derived verb lati/ka (make/der2) ‘to adopt a son or daughter’, one mana moa latikaka (his son take make) ‘He took and made him his son’. This possessive construction represents the point of clinal shift from the ‘possessed kin’ to the alienable ‘possessed possessions’ construction type. The egocentric referential prefix ke- is interposed between the possessive pronoun and the term ta. This prefix is one of only three prefixes in the language, all of them egocentric. It is limited to this construction type, and
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to terms of reference for biological kin, e.g. anu.ke.tai (my egocentric biological father) → agetai [anškerai].

- One can leave the district of citizenship which one created, or into which was born. It then becomes one’s former district of citizenship.

- The terms for son and daughter are not kinship terms. They are the equivalent of alienable possessions, and so can be adopted out. Parents have a proprietary relationship with their children since they begot and gave birth to them. One cannot, by contrast, adopt out a brother or sister, or father, or mother, etc. These are kinspersons.

- It is grammatically incorrect to say anu lene nako (my eye bites) ‘My eye aches’. The correct expression is lene nako (eye hurts) ‘The eye hurts’.

- Alienable possession is also signified by the suffix of alienable possession -nv3 (pos-al) attached to noun roots signifying the person owner, e.g. Yota.ne kai (Yora.pos-al pig) ‘Yora’s pig’, Kepu.no yapu (Kevu.pos-al house) ‘Kevu’s house’. Possession is always personal. Creatures are not credited with owning anything, even the lairs they make. Thus the possessive noun phrase kai ne yene (pig pos-al lair) ‘pig’s lair’ is semantically incorrect. One can only talk of a kai yene (pig lair) meaning ‘the kind of lair a pig lives in’.

- Prototypically the same kind of man by virtue of the way he works, i.e. very hard.

- It might be justified to say that the Witu verbal clause system presented in this chart (Chart Q) is encoded by the function of the four subsets of lexico-grammatical verbs presented in cell 4 of Table 13 A. Table 13 A presents the four primary morphophonemic classes of verbs. The first three classes (the monofocal subset) are prototypically lexical in function. The bifocal fourth class is systematically different from them and is lexico-grammatical in function.

- This fourth morphophonemic class is expounded by four systematically related subsets of lexico-grammatical verbs. These four subsets, the function prime each expounds and the verbal clause construction type each equates with are cited below.

1] The single verb of the first subset, the verb v ‘to utter sound or speech’, equates with the first subsystem of verbal clause grammatical situations, the egocentric system of (verbal) conversational situations.

2] The second subset of lexico-grammatical verbs, the set of four verbs of directional movement, equates with the second system of verbal clause grammatical situations, subject-centric verbal clauses. The following accounts for their congruence. With the exception of reflexive constructions – in which the subject and the goal are one and so subject-centric – subject-centric verbal clauses involve a sometimes unstated system of interdependent relationship between two subject persons, or two groups of subject persons. The interdependent relationship of two subject persons or two groups of subject persons is most obvious with reciprocal subject-centric constructions, but is equally true of the other three types of subject-centric clause constructions. This finds its parallel in the interdependent lexical function of the first two verbs of directional movement, nv ‘to come’ and pv ‘to go’ (one the semantic complement/opposite of the other). Consistent with this, these three verbs of directional movement also reflect the interdependence of ego and addressee in conversational situations. Thus the verb nv means ‘to come where ego or the addressee is’. The verb pv means ‘to go from where ego or the addressee is’. The verb prv means ‘to pass by a location’ or ‘to go from a place independent of ego or the addressee. All three monofocal verbs of directional movement are, then, both ego and addressee-centric. The relationship between ego and his/her addressee is a two-way interdependent relationship in which these two interdependent persons interchange roles. In the subject-centric system of verbal clauses, two subject persons or two groups of subject persons are interdependently involved in the same action at the same time and place.

3] The third subset of lexico-grammatical verbs, the four verbs of fixed posture or location, equates with the third system of verbal-clause grammatical-situations, complement-centric grammatical
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situations. The following explains how this is so. Complement-centric verbal clauses involve actions which have the potential for being benefactive, i.e. done for the benefit of other people. Underlying all benefactive actions is the act of giving or handing over something to another person. Consistent with this, all four verbs of fixed posture or location function are formally related to terms which encode benefaction of some kind. The first verb pi ‘to be lying down’ also functions as a ditransitive verb which means ‘to place something somewhere’, or ‘to place something in the possession of another person’. The second verb me ‘to be sitting down’ is formally and functionally related to the root of the verb me-return ‘to give s.t. to s.o.’. The third verb ka ‘to be standing up’ is formally and functionally related to the verbal benefactive suffix -ka. The fourth verb lu ‘to stay somewhere’ is formally and functionally related to the verb of the periphrastic verb expression mana lu (knowledge insert) which means ‘to give (pass on) one’s knowledge, prototypically to one’s oldest son.

4) The fourth subset of lexico-grammatical verbs of Table 13 A is a single verb set. Its verb is the proverb of general action tv ‘to happen’ ‘to do’ ‘to make’. It equates with the fourth system of verbal clause grammatical situations, acentric grammatical situations. Acentric grammatical situations embrace 1] mental processes (‘to think something’, ‘to know something or someone’, etc.), 2] mental reactions (e.g. ‘to be attracted to someone’), 3] involuntary mental reactions (‘to come to mind’, etc.), and 4] mental and physical states (to be afraid, to be cold, etc.). Each subtype of acentric verbal clause construction is formally and functionally different from the other three, but all four are systematically related to each other. The majority of verb expressions signifying acentric grammatical situations are periphrastic verb expressions whose verbal constituent is the proverb tv-, e.g. wene tv ‘to know’, piti tv ‘to be afraid’, nili tv ‘to be cold’, etc. Verbal constructions encoding such grammatical situations are acentric since they encode situations which are not grounded in space-time, as are situations encoded by the first three types of verbal clauses, the space-time based monofocal subsystem of verbal clauses, 1] egocentric, 2] subject-centric, and 3] complement centric.

dii Each of the four egocentric systems of communicative relationship established by ego’s interaction with one or more addressees is expounded by four formally and functionally different subtypes of construction.

div The four types of subject centric construction are alike and unique in the following way. If the verb selects a free personal pronoun as subject, it is selected from the second set of personal pronouns, which function not only as subject of these subject centric constructions, but also as possessive personal pronouns (see Table 6A cell 2). The four types of subject centric construction are also both formally and functionally different from each other.

dv There are four systematically related subtypes of vocative utterances distinguished both by their form and their function. They are the following.

1] a set of four vocative utterances addressed to a member of one’s biological family standing close by.

   A.ta.i ( voc-1.biological-father.egocentric-suffix) ‘Father!’

2] a set of three vocative utterances whose nuclear constituent is one of the three personal spatial roots, plus the egocentric clitic ni: addressed to someone within easy speaking distance.

   i. na (here.egocentric) ‘Here! This thing is for you. (Come and get it.)
   i. no.e (here.egocentric.pl) ‘Here ‘You all, this is for you. (Come and get it.)

3] a set of vocative utterances consisting of

   ii) the closed set of four topographic roots

   iii) the disjunctive egocentric prefix yv- or y- preposed to the spatial root
   iv) the disjunctive egocentric suffix -y or -l postposed to the spatial root

   v) the dual number suffix -ta postposed to the personal terms ago, atoa, mati and akoma.

   y.a.lago (ego-centric-prefix.up.ego-centric-suffix.male) Hey! You (sg) up there.
   yu.ku.y.ago.ta (ego-centric-prefix.distal.ego-centric-suffix.male.dual) Hey! You 2 men back off there

The four topographic roots are a feature of this vocative type of utterance since it is addressed to a person, or at most two persons (who must be close together), and sufficiently far away that the caller needs to indicate his topographic spatial relationship to them, and also needs to disambiguate a situation in which others in other topographic zones with respect to his focal position might think by mistake that they were being called. This type of vocative utterance, then, gives expression to the fact that it expounds the disjunctive third function prime, independency, in the closed system of four
different types of vocative communication situation by the fact that the addressee is some (disjunctive) distance away, and needs to be distinguished (disjuncted) from others who may hear the call.

4] a call addressed to someone who is out of sight and considerable distance away, whose attention can only be attracted by calling them by name.

Yota yo ‘Hey! Yora, wherever you are’.

If the addresser does not respond after one or two such calls, then the caller may heighten the urgency of the call by switching the vocative term to the beginning of the call.

Ya Yota ‘Hey’ Yora, Please respond

This switching of positions is typical of a construction, etc., governed by the bifocal fourth function prime.

... For the clearest expression of the interdependence of question and response note example (f) of the file titled The Special Mountain and the Asking of Special Questions.

Interrogative conversational situations embrace both the question and the response to a question. Declarative utterances (see cell 3) are not to be confused with responses to questions. Note the following extract from Strauss (1989:10-11), which is consistent with the fact that interrogative conversational situations, involving question and response, in Witu expound the second function prime, interdependency, within the system of four subsystems of Egocentric conversational situations.

“Why do the Mbowamb not list individual groups, but always take a pair as the basic unit? ....The Mbowamb cannot help but see anything that stands alone as having “another half” somewhere, which it needs to complement it and make it whole. Not until something that stands alone alone receives this complement is it fully valid. This concept of complementation can be traced throughout their language and thus throughout their perception of reality. In my opinion, this is not a “principle” – not even a “male and female principle” .. but a vital experience of the need for complementation, of the way in which all things, living and dead, require something else, a complement of fulfillment, without which the individual or thing is “out of its place” or “out of line,” is removed from the center which all things, living and dead, require something else, a complement of fulfillment, without which the individual or thing is “out of its place” or “out of line,” is removed from the center which all things, living and dead, require something else, a complement of fulfillment, without which

There are three systematically related interrogative roots in Witu. They are the following

1] te-
  ‘who?’ ‘whom?’
  the person-oriented (nominal) interrogative root

2] ede-
  ‘what?’ ‘how?’ ‘how many?’
  the verb-oriented interrogative root

3] mani-
  ‘where?’ ‘when?’ ‘what kind of?’ ‘which of the two?’
  the space-time-oriented interrogative root.

There are four systematically related subtypes of interrogative utterances distinguished both by their form and their function. The following is a simplified summary of the four primary types of interrogative conversational constructions.

1] Interrogative utterances with the first interrogative clitic -mo (int-1). This clitic is a feature of both verbal clauses and non-verbal clauses.

<table>
<thead>
<tr>
<th>Mani</th>
<th>ka</th>
<th>po</th>
<th>-ko</th>
<th>-i</th>
<th>-ya</th>
<th>-mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interrogative lgc gn</td>
<td>go</td>
<td>ps</td>
<td>2pl.</td>
<td>un-typ</td>
<td>int-1</td>
<td>personal- interrogative pos</td>
</tr>
</tbody>
</table>

| Where have you been to? |
| Whose is it? |

2] Interrogative utterances with the second interrogative clitic -tv (int-2) postposed to verbal clauses, signifying joint involvement of speaker and addressee as observers of the current or past situation under question.

<table>
<thead>
<tr>
<th>Te</th>
</tr>
</thead>
<tbody>
<tr>
<td>personal-interrogative</td>
</tr>
<tr>
<td>come pr.</td>
</tr>
<tr>
<td>3pl</td>
</tr>
<tr>
<td>int-2</td>
</tr>
</tbody>
</table>

| Who are these two people (we can see) coming? |

<table>
<thead>
<tr>
<th>Mani</th>
</tr>
</thead>
<tbody>
<tr>
<td>-ka</td>
</tr>
<tr>
<td>ka</td>
</tr>
<tr>
<td>-ka</td>
</tr>
<tr>
<td>to</td>
</tr>
<tr>
<td>interrogative</td>
</tr>
<tr>
<td>lgc</td>
</tr>
<tr>
<td>stand</td>
</tr>
<tr>
<td>ps-3sg</td>
</tr>
<tr>
<td>.</td>
</tr>
<tr>
<td>int-2</td>
</tr>
</tbody>
</table>

Whereabouts was it standing (the tree we saw the other day)?

This clitic -tv (int-2) is also a feature of the repeat statement, in response to a question. If the addressee has not heard what the speaker has said, and asks what he/she has just said, the speaker him/herself may repeat what he/she has just said, adding the complex clitic -kutu meaning ‘I just “X”’. A third
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person may respond in place of the original speaker, adding the complex clitic -koto meaning ‘He/she just said “X”’. The complex clitics -kutu and -koto are the product of the following morphemes.

\[\begin{align*}
X & \quad k \quad u \quad tu \\
X & \quad k \quad o \quad to \\
\end{align*}\]

\[\begin{align*}
1 \text{ just said “X”} & \quad \text{He/she just said “X”}
\end{align*}\]

There are no plural equivalents of these singular complex clitics. Thus X-ki.lti (present-tense sb-pol.int-2) ‘They just said “X”’ is ungrammatical. This highlights the fact that a conversational situation is prototypically between the speaker and a single addressee.

3) Interrogative utterances with the interrogative clitic sequence -mo.ka.to (int-3), a combination of three bound forms which function independently of each other in other contexts. Such utterances may be responded to by the addressee repeating the question, signifying that the addressee has no more idea of the answer to the question than the speaker.

Opi -mokato

today int-3

(Did she say we were to go) today?

4] Interrogative utterances with the general interrogative particle pe (int-4). It can be postposed to verbal and to non-verbal clauses. It is also used with rhetorical questions, questions which are fundamentally strongly negative declarative utterances.

Ede -le ti -k -i -pe

interrogative-root act do pr 2pl int-4

What are you all doing?

Edo -a t -moto -a pe

interrogative sf1 die let. sf1 int-4

What do you mean it (the fire) will die out? (It won’t.)

cviii Reflexive constructions are signified by verbal affixes. There are four systematically related subtypes of reflexive situations encoded by four sets of suffixes. In addition, there is a unique reflexive construction illustrated by the following example.

Pinali anu wa teji -ko -u

owner I instead cut ps I

I cut myself (by mistake/accident).

This type of reflexive construction prototypically signifies an accidental reflex action, i.e. an action directed at something else which turns back on the subject with adverse consequences to the subject person.

cviii The first SMC ‘na’ of the reflexive marking clitic –nali identifies a reflexive verbal clause as a self centred construction. This is consistent with the fact that the focal Witu free personal pronoun no ‘l/me’ of the egocentric free personal pronoun system is a derivative of the proto free personal pronoun *na that traces back to the mother society of the Trans-New Guinea Phylum. This free personal pronoun identifies the mother society as a relationship-governed society. It is not so much the term for ego, the speaker, as a term that signifies the interdependent relationship between ego and a single addressee who exchange roles with each other. It also functions as the term by which ego makes reference to him/herself, and to him/herself alone. It is a co-referential, self-referential, term, ego referring to him/herself. This is why the proto term *na ‘l/me’ is related metalinguistically to the proto term *na that means ‘to ingest food or fluid’. It is a self-focused/egocentric activity. Ego feeds himself in order to survive. This also accounts for the function of the the first SMC ‘na’ of the term for the ‘sun’, nate, in Kewa, used by the Witu as the term for the sun during the timbu yapu cycle. The sun self ingests itself, like burning wood to produce light and heat. Hence also the Witu expression po na (life-line eat) meaning ‘to suicide by hanging’, i.e. to eat/ingest one’s life-line’ (March 17th 2005)

cix Reciprocal constructions, like reflexive and independent subject-centric clauses, constitute a matrix system of four systematically related subtypes.

The bound form -nali is the systematic marker of the three monofocal subtypes of subject-centric verbal clauses. Note the following:
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1) **pi** nali **anu** wa **tej** -ko-u

I cut myself

I am sitting by myself.

(Reflexive)

2) **agale** **te** nali **yo** -ti-k-i

They are arguing strongly with each other.

(Reciprocal)

3) **anu** kide **nali** **me** -k-u

I sit by myself.

(Independent)

In these subject-centric functions, the bound form *nali* is an iconic device of the Witu metalanguage whose principal theme is the irregular intrusion of death into the domain of the immortal high beings through the disobedience of the Witu in not coming at once for their language. Consistent with this, it is not a feature of all constructions of these three monofocal subtypes of subject-centric constructions. It is rather a feature of subtypes within each of these construction types — reflexive, reciprocal and independent — that encode the doom of death pronounced on the Witu. Consistent with this, the bound form *nali* is formally and functionally related to the nuclear constituent <nali> of the term *nalipu* that signifies 'left over fragments of food', in particular scraps of sugar cane. Such fragments, like other fragments in general, never lose their bond with their source. This, as noted elsewhere, accounts for the fact that the closed set of conditional clitics all take their origin from terms for fragments, e.g. the first conditional clitic, the general conditional clitic -pa 'if' takes its origin from the term for 'sunlight', *pa*, whose nasalised vowel encodes the fact that it is a fragment ejected from the sun. Since *nalipu* 'fragments of food' always maintain their bond with their source, they were potentially dangerous. A sorcerer could operate on them to destroy the person who was eating the food. The overtones of danger associated with the term *nalipu* carries over to the function of the bound form *nali* as a marker of subject-centric constructions. It becomes an icon, then, for the consequences of the doom of death imposed on the Witu when they received their language. As we will see elsewhere eating food and speaking words are complementary functions in the logic of Witu symbolism. This complementation first finds overt expression in the myth of the origin of language and death.

The marker of the subtypes of subject-centric constructional situations which encode the doom of death for the Witu, the bound form *nali*, has both egocentric and person centric functions. This is encoded by its two sublexemic constituents <*na,nali>* (ego.man). The first constituent <*na>* is formally and functionally related to the first free personal pronoun *no* 'I/me' of the first free personal pronoun system, the egocentric system of subcell of cell 1 Table 6A. This pronoun is derived from a proto term *‘na ‘I/me’. The second term *ali* is the generic term for 'male creatures' and is most commonly used as the specific term for a male person. These two complementary functions underly the iconic function of the term *nali* in the expression *nalipu*. It signifies a headrest made from wood. The term *nali* in this context encodes the fact that the *yomini* ‘living spirit’ of a person leaves him at night during dreams but always returns to its source before the person wakes.

Reciprocal subject-centric constructions are prototypically signified by i) duplication of a free personal pronoun drawn from the second set (the subject-centric set) of free personal pronouns and by ii) the dual-number clitic -ta which may be postposed to any clause-level or sentence-level constituent, as in the following example.

**Kini kini a**me -a -ta ibini a -ke -ne -ya

They they parallel-sex-sibling utter -mpr -dual name utter -s3 -state -un-typ

They (the men) called each other brothers.

Within the system of reciprocal constructions, there is a subsystem of four systematically related subtypes of reciprocal constructions, one of whose distinctive feature is the subject-centric bound form -nali. This bound form, as already noted, identifies this subsystem of reciprocal constructions as a constructional iconic device of Witu logical symbolism with its principal theme, the irregular intrusion of death into the domain of the immortal high beings. This subsystem of reciprocal constructions also encodes the irregularity of the doom of death on the Witu. It constitutes what is referred to as the Reciprocal iconic schema.

The first three subtypes of the Reciprocal iconic schema are systematically irregular in being expounded by only one example each. For example, no other verb can be substituted for the semantically primary verb *auape* in the second subtype, cited below. The doom of death is also encoded by the first three subtypes of reciprocal constructions marked by the bound form *nali* in the following way. They are the product of a pair of juxtaposed verbs, whose second verb *yo/to* to engage
in reciprocal activity’ expounds the first lexico-icon \*\*yoto (see Tables 20 and 22). The nominal exponent of this lexico-icon, is a ‘corpse’. The first verb is semantically the primary verb. The subject-centric bound form -nali, with its incidental overtones of the doom of death, is postposed to it. The second verb, yoto-, already referred to, is a member of the second morphophonemic class of verbs. In this context, it functions as the verb of ‘reciprocal action’ (see cell 2 of Table 13 A).

1) Two reciprocal constructional situations expound the first of the four iconic subtypes of subject-centric reciprocal constructions marked by the subject-centric bound form -nali is the following.

<table>
<thead>
<tr>
<th>Agale p*</th>
<th>-nali</th>
<th>yo</th>
<th>-ti</th>
<th>-k</th>
<th>-i</th>
</tr>
</thead>
<tbody>
<tr>
<td>talk</td>
<td>pull-out,</td>
<td>subject centric</td>
<td>reciprocate</td>
<td>sf2</td>
<td>pr</td>
</tr>
<tr>
<td>They are arguing vehemently with each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kabe pu</th>
<th>-nali</th>
<th>yo</th>
<th>-ti</th>
<th>-k</th>
<th>-i</th>
</tr>
</thead>
<tbody>
<tr>
<td>neck</td>
<td>join</td>
<td>subject centric</td>
<td>reciprocate</td>
<td>sf2</td>
<td>pr</td>
</tr>
<tr>
<td>They are wrestling with each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The following accounts for the relationship between this iconic pair of expressions. The Witu did not fight with their fists, but fought by wrestling each other around the neck. The neck is known to be the source of the voice, and so of language. This knowledge is encoded by the sublexemic constituents of the term for ‘voice’, totaboto. The duplicated constituent <toto>, articulated phonetically as [tu\*no], is the elided product of the paired sublexemic constituents <tomo,po>, formally and functionally related to the nominal expression tomo po, the term for the ‘throat’. The expression tomo po signifies both i) the soft ‘oesophagus’ down which food moves to the stomach and ii) the hard ‘trachea’ morphologically paired with it, up which air moves from the lungs to be vibrated by the vocal cords, to produce the carrier waves on which articulate messages produced in the mouth are superimposed (see section 12 and examples *(95) to *(97) of the file titled The Witu Meta-language 1).

This first subtype of reciprocal construction encodes the fact that language was linked with death for the Witu. The word pair, koma,ye tala, ye’ koma and tal\*a uttered by the third pair of high beings when they gave language to them encoded this doom. It is a battle cry.

Also consistent with this, the term tomo of the expression tomo po, when it functions in isolation means ‘poison’ in Witu, though it means ‘food’ in Huli, and functions as the stem of the Witu word tomom\*nya which signifies ‘the food of the high beings’.

Also consistent with this, a situation in which two people are arguing with each other is encoded by combining the free 1st and 2nd person singular personal pronouns no ‘I/me’ and ne ‘theou/thee’ in the expression ne no i/k.i (I thou utter/pr.3pl) ‘they are arguing with each other’ (see cell 1 Table 6A).

Consistent with the functional relationship between the oesophagus and the trachea encoded by the expression tomo po, the term for ‘addressess’, ne ‘theou/thee’, articulated phonetically as [nee], makes an iconic tone-word pair with the term for ‘food’, ne articulated phonetically as [nee].

The iconic link between speech and eating was encoded by the Witu myth of the common origin of language and death. While the third set of high beings, Tu Aneta ‘Death and her husband’, waited for the disobedient Witu to respond to their four calls to come for their language, they prepared four ground ovens. In this way, the myth encoded the fact that where language establishes interpersonal relationships through conversations, eating food prepared in ground ovens establishes social relationships between individuals and groups of people attending the feast.

2) The second of the four subtypes of construction of the Reciprocal iconic schema, as the exponent of the conjunctive second function prime, interdependency, encodes conjunctive cooperative reciprocal activity (see Chart A and cell 2 of Chart B).

<table>
<thead>
<tr>
<th>Anu</th>
<th>-a</th>
<th>-pe</th>
<th>-nali</th>
<th>yo</th>
<th>-ti</th>
<th>-k</th>
<th>-i</th>
</tr>
</thead>
<tbody>
<tr>
<td>carry-on-shoulder</td>
<td>sf1</td>
<td>remove</td>
<td>subject centric</td>
<td>reciprocate</td>
<td>sf2</td>
<td>pr</td>
<td>3pl</td>
</tr>
<tr>
<td>They are helping each other.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cooperative reciprocal activity paradoxically also encodes the doom of death pronounced on the Witu. It does so in the following way. The verbal constituents of the primary verb anape- encodes burden bearing. The primary verb encodes the message ‘the removal of a load someone else is carrying on their shoulder’. It therefore encodes burdening bearing. This burden-bearing can however be alleviated by reciprocal burden-bearing activity. This is specifically encoded by the number-oriented exponent of the lexico-icon \*\*yoto in the following noun phrase, al\* yoto (man log), which means literally ‘a man log’. It actually refers to a group of men walking single file along a track sharing the burden of carrying a heavy load by moving the load or loads from one to another along the line and back again.
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The governance of the second subtype of reciprocal activity, conjunctive reciprocal activity, by the second of the four function primes, interdependency, the conjunctive function prime, is given expression in the following way. The verb specific for this second subtype of reciprocal activity, cooperative (conjunctive) reciprocal activity, is expressed by the obligatory tight knit conjunction of a pair of verbs, ana and pe. We know that these two verbs constitute a single indivisible unit, and not two independent verbs since the phoneme /p/ of the second verb pe is articulated phonetically as a fricative, a bilabial fricative allophone. Had the verb pe been an independent verb, its initial phoneme /p/ would have been pronounced as an aspirated voiceless stop [pʰ] allophone, since the phoneme /p/ is always articulated as an aspirated voiceless stop allophone, the voiceless bilabial stop, when it is word initial.

3] The third of the four iconic subtypes of subject-centric reciprocal constructions, as the exponent of the disjunctive third function prime, independency, encodes competitive reciprocal activity (see Chart A and cell 3 of Chart B).

<table>
<thead>
<tr>
<th>Mo</th>
<th>a</th>
<th>patu</th>
<th>-ka</th>
<th>-nali</th>
</tr>
</thead>
<tbody>
<tr>
<td>yo</td>
<td>ti</td>
<td>-k</td>
<td>-i</td>
<td></td>
</tr>
</tbody>
</table>

They are competing with one another.

This third iconic subtype of reciprocal construction means literally ‘to reach, i.e. catch up with someone and then go beyond them’. The disjunctiveness of this competitive process is further encoded by the form of the second verb, patu/ka. Its root patu is an exponent of the third lexico-iconic **patu, which expounds the disjunctive third function prime, independency, in the lexico-iconic schema (see Tables 20 and 22). The nominal exponent of this lexico-icon patu means ‘a branch’, i.e. a single base which splits into two separate arms which do not join up again. There are two verbal exponents of this lexico-icon. One is the peripheral verb expression patu tv (branch do) which signifies among other things, the formation of two thumbs on the one hand, i.e. a single thumb branching into two. The other verbal exponent is the derived verb patu/ka (branch/der2) which means ‘to pass over the top of or through a barrier’ from one side to the other. It connotes the process of overpowering someone and breaking through a barrier. Consistent with this, the derivational suffix -ka postposed to the verb root patu- expounds the third grammo-iconic **ka, the grammo-icon which expounds the disjunctive third function prime, independency, in the grammo-iconic schema (see Tables 21 and 23).

The governance of the third subtype of reciprocal activity, disjunctive reciprocal activity, by the third of the four function primes, independency, the disjunctive function prime, is given expression in the following way. Two independent (disjuncted/ separate) verbs moa and patu specify this type of disjunctive (competitive) reciprocal activity. The two verbs are always juxtaposed. But the second verb patu identifies itself as formally independent of the first verb moa. We know that these two verbs are two independent verbs, since, in this context the phoneme /p/ of the second verb patu is articulated phonetically as an aspirated voiceless allophone, the bilabial aspirated voiceless allophone [pʰ].

The formal relationship of the two pairs of verb anape (ana pe) meaning ‘to cooperate’ and moa patu meaning ‘to compete’ refines the nature of the conjunctive and the disjunctive relationship-focused function primes, interdependency and independency respectively. One is the polar opposite of the other. Thus, exponents of the conjunctive second relationship-focused function prime, interdependency, in a given PQS system, prototypically have overtones of physical conjunction, By contrast, exponents of the disjunctive third relationship-focused function prime, independency, in a given PQS system, prototypically have overtones of physical disjunction. Cooperative reciprocal activity is conjunctive. It signifies a working together. Competitive reciprocal activity is disjunctive, for example two men racing each other, one going faster than the other and placing a progressively greater distance between them.

4]] The fourth of the four iconic subtypes of subject-centric reflection constructions marked by the ‘subject-centric’ bound form -nali encodes the doom of death pronounced on the Witu in the following way. It signifies destructive fighting activities. It is systematically different from the three monofocal subtypes. It is different in the following ways. i) Unlike the first three subtypes (the monofocal subset), it consists of only one verbal constituent, not two. ii) The constituent to which the subject-centric bound form -nali is postposed is not limited to a single lexical term or expression. Several, nominal terms can expound this first constituent. They signify fighting instruments. The following is a typical example.
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The four iconic subtypes of reciprocal constructions, then, are formally and functionally both systematically alike and systematically different from each other. They encode four systematically different types of reciprocal relationship between two subject persons or groups of subject persons.

We now note the way the four subtypes of construction of the Reciprocal iconic schema encode the nature of the function prime each expounds.

First we note that the first and the fourth subtypes are systematically like each other in a way which makes them systematically different from the second and third subtypes, which are, in turn, systematically like each other.

The first and fourth subtypes are systematically alike in having for their first constituent a nominal term. In the first subtype, the nominal term is a single noun, the noun agale which means ‘language’ and ‘speech’. In the context of this subtype of reciprocal construction as already noted, the noun agale ‘language’ specifically encodes the doom of death imposed on the Witu with the gift of their language for their disobedience in not coming at once for their language. In the fourth subtype, the nominal term may be one of any of the instruments used in a fight, e.g. tue 'axe', layo 'fighting stick', kege "dirt/mud" (which two people may throw at each other).

We now note that the first and the fourth cells of the Basic-relationship system of four function primes constitute the axis of generation of the Basic-relationship system (see Chart E). The two function primes of the axis of generation govern the relationship between the first and the fourth subtypes of reciprocal constructions marked by the subject-centric bound form -nali. The first subtype of reciprocal construction, agale tonali yotiki, encodes the single source of death for the Witu. It was language. The gift of agale ‘language’ was the source of death for the Witu since they did not obey and come at once when called to come for it. By virtue of this, language became the source of contentious communication. It would generate a potentially open ended range of hostile acts between people, encoded by the different instruments of war. These hostile acts are encoded by the fourth subtype of reciprocal constructions, represented by the example tue-nali yotiki ‘they are fighting each other with axes’.

The fillers of the second and third cells of the Basic-relationship system constitute the axis of coordination of the Basic-relationship system. The two function primes, interdependency and independency, which constitute the axis of coordination govern the relationship between the second and third types of reciprocal activities, cooperative and competitive reciprocal relationships. With the activation of the doom of death the Witu would have to learn how to cooperate with each other to share the burdens which would come upon them. This sharing of burdens is encoded by the second subtype of reciprocal construction. It involves the establishment of close-knit conjunctive relationships between people sharing each other’s burdens. At the same time, the consequences of the doom of death would stimulate competitive activity between people. This would result in disjunctive relationships between people, since competition, however well regulated, leads to divisions and hostilities.

It is important to note how the very form of the verbs which encode cooperative and competitive reciprocal activity gives physical expression to the nature of the function primes which govern them. First we note that the first verbal constituent of both subtypes of reciprocal activity, cooperative and competitive, is the product of two verbs. The two verbs which encode the cooperative subtype of reciprocal activity are the pair of verbs au ('to carry on the shoulder') and pe ('to remove') of the single complex verb ana.pe. The two verbs which encode the competitive subtype of reciprocal activity are the two separate verbs moa and patu/ka of the verb expression moa patu/ka ('to catch up' and 'to pass').

The conjunctive second function prime, interdependency, governs the cooperative subtype of reciprocal activity. This is given formal expression by the physical conjunction of the two verbs which encode the act of cooperation, the verbs au and pe of the complex verb ana.pe. They are not two separate clause-level constituents. They are a single complex verb. The tight-knit semantic relationship between the two actions specified by these two verbs is encoded by the suffix -a interpolated between them. It is the first stem-formative suffix (sf1). There is not time to deal with the iconic function of this suffix at this point other than to note i) that it systematically encodes conjunctive interdependent relationships, ii) that it is formally and functionally related to the second toponigraphic root a ‘up’ of the closed set of four toponigraphic roots (see Table 3 A), and iii) that this spatial root is the nuclear sublexemic constituent of the name of the supreme high being, Akolali, resident at the centre point of the universe, the zenith, the bonding point of the universe.

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The disjunctive third function prime, independency, governs the competitive subtype of reciprocal activities. This is given formal expression by the physical disjunction of the two verbs which encode competitive activity. They are, as just noted, the verbs mo ‘to take’ and patuka ‘to branch’. They do not constitute a single complex verb like the cooperative verb auape. They are two separate verbs.

It is not uncommon for the exponents of the conjunctive second function prime, interdependency, to be paired terms which are physically bound to each other, where the exponents of the disjunctive third function prime, independency, in the same system are pairs of terms which are physically separated from each other.

In summary, the difference between the exponents of the second and third relationship-focused function primes, interdependency and independency respectively, cooperative and competitive reciprocal constructions, is closely paralleled in the Numeric PQS subsystem of the higher level Type-number PQS system of lexical terms. There are four systematically related PQS subsystems of numeric terms.

The exponent of the conjunctive second relationship-focused function prime, interdependency, is the second numeric PQS system, the two hands and two feet count system, yielding a total of 20 digits. When ten items are counted off by this system, the two hands are brought together physically, i.e. they are brought into a close conjunctive physical relationship. Consistent with this, a full count of 20, two hands and two feet, is referred to as an ali ‘man’. Men stay together to form cohesive patri groups.

The exponent of the disjunctive third relationship-focused function prime, independency, is the third numeric PQS system. It is the upper body part count system. It counts off 12 body parts from the ege ‘little finger’ of the left hand, to the elbow position, position 12, of the left hand (the arm), and 12 more body parts beyond this body part to body part 24, the nostril position, on the left hand side of the face, before crossing over the medial position, the ‘ridge of the nose’ body part, body part 25. It then counts off the same 24 body parts as those counted off upwards but in the reverse order, to the final body part position padeka ege (other-side little-finger) body part 49. The ege ‘little fingers’ of the left and the right hand side of the body are not brought together physically at the of a full count of 49. They are kept physically apart from each other. Consistent with this, a full count of the corresponding 48 body parts of the Kewa upper body part count system is referred to as a paapu. It is formally and functionally related in the metalanguage of the region to the Witu verb root papu (paapu) of the derived Witu verb stem papuka that means ‘to make a parting’, as when a line of men standing transversely across a track make a parting for someone walking along the track to pass through. Consistent with this, the third count system, the upper body part count system, can proceed through several cycles of 49 body parts. This is referred to as ege egeta kadukako (little finger little finger-dual chew off) that means to count off (chewoff) a continuous succession of 49 body parts.

Also, just as the second numeric system, a full count of 20, ‘two hands and two feet’, is identified as an ali ‘man’, the third numeric system, the upper body part count system, is its polar opposition. It has strong overtones of femaleness. This is given expression in the following way. The noun ege ‘little finger’ functions as the root of the derived Witu verb stem egeteka that means ‘to take care of and feed widows, orphans and pigs’. Widows, orphans and pigs have the following in common. They have each become disjuncted from a male head. A widow has lost her husband. An orphan has lost both parents, but suffers most socially from the loss of a father who would normally help a boy to obtain his bride price. A pig never knows its father, the boar, but only follows its mother, the sow.

Consistent with all this, the female siblings of a patri group prototypically do not stay together in the patri group and patri district of their male siblings and father. They leave their patri group to marry into other (independent) patri districts,

The disjunctive overtones of the third count system, governed by the disjunctive third function prime independency, also finds expression in the following way. The upper body part count system does not move from the left hand side to the right hand side of the body at the highest part of the body, the matai ‘crown of the head’. It crosses over instead at the ‘ridge of the nose’, body part 25. In other words, the upper body part count system in bypassing the matai ‘crown of the head’ encodes the sun bypassing the matai ‘zenith’, the symbolic domain of Akolali ‘the Creator-Planter’ of all things. This, in turn, encodes the disjunction of the disobedient Witu from their supreme male head, Akolali, by their disobedience in not coming at once for their language when called.

The four subsystems of Declarative clause constructions encode four systematically different but related types of space-based evidential relationship between an observer-speaker and the situation he/she is speaking about with the addressee. These four subtypes of evidential relationship are space-based relationships. They are congruent with the four subtypes of time-based relationship between the

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actions of the sentence-medial and the sentence-final verb of co-referential two-clause sentences. (The term co-referential means that the subjects of the two verbs refer to the same person or group of persons. In other words, it means that the two clauses of the sentence have the same subject.)

The following are the four subtypes of space-based evidential relationship and the forms which encode them:

1] na (egocentric-clitic) action in process situation, as in the following example.

<table>
<thead>
<tr>
<th>a</th>
<th>po</th>
<th>-k</th>
<th>-o</th>
<th>na</th>
</tr>
</thead>
<tbody>
<tr>
<td>up</td>
<td>go</td>
<td>pr</td>
<td>3sg.</td>
<td>na</td>
</tr>
</tbody>
</table>

There is goes, up there’. Encoding an observed action still in process

2] a.de (sf1.disc) discovery situation, as in the following example.

<table>
<thead>
<tr>
<th>Pi</th>
<th>-a</th>
<th>-de</th>
<th>-k</th>
<th>-o</th>
</tr>
</thead>
<tbody>
<tr>
<td>lie</td>
<td>sf1 disc</td>
<td>pr</td>
<td>3sg</td>
<td></td>
</tr>
</tbody>
</table>

Here it is, lying here. Encoding an on the spot discovery

3] ko ...tv (mps ...do) barrier situation, as in the following example.

<table>
<thead>
<tr>
<th>pi</th>
<th>-ko</th>
<th>-me</th>
<th>to</th>
<th>-k</th>
<th>-o</th>
</tr>
</thead>
<tbody>
<tr>
<td>lie</td>
<td>mps</td>
<td>3sg</td>
<td>do</td>
<td>pr</td>
<td>3sg</td>
</tr>
</tbody>
</table>

It is lying there (out of sight). Encoding a barrier to direct viewing

4] a.ne.ya (sf1.nt.un-typ) unwitnessed situation, as in the following example.

<table>
<thead>
<tr>
<th>Tu</th>
<th>-a</th>
<th>-ne</th>
<th>-ya</th>
</tr>
</thead>
<tbody>
<tr>
<td>die</td>
<td>sf1 nt un-typ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

He is dead’, ‘He died’

The unwitnessed evidential inflection signifies among other things the death of someone who died in the historical past, and was not therefore observed or observable by anyone still living. It also signifies natural states which require no verification by a witness, e.g. ki/a.ne.ya It (the flower) is red’. The flower of the plant is seen to be red, and known from experience to be red. Its redness is general knowledge.

The difference between the discovery evidential situation and the barrier evidential situation is encoded by the very form of the inflections specific for them.

Discovery evidential situations are situations in which ego, the speaker-observer, is right at the site of the discovery. He/she is in a physically conjunctive relationship with the site. This is encoded by the physically conjunctive relationship of the pair of suffixes which encode the discovery situation. They are the suffix-pair a.de (sf1.disc). Both suffixes are obligatory, and they are always juxtaposed. The suffix -a is formally and functionally related to the second topographic root a ‘up’ of the closed set of four topographic roots of Table 3 A. The second suffix -de is formally and functionally related to the root of the derived verb de/ka which means ‘to press close together’ and also ‘to hold tight’.

Barrier evidential situations, by contrast, are situations in which there is a barrier to direct observation. The barrier may be the separation of ego, the speaker, from the situation he/she is talking about by a considerable distance, well beyond his/her line of vision. But the barrier may be nothing more than something covering an object close by the speaker. The disjunction to direct vision is encoded by the physical disjunction of the pair of terms which encode the barrier evidential situation. The two terms are i) the medial-past suffix postposed to the semantically primary verb, and ii) the following auxiliary verb, which functions in other contexts as the proverb of general action tv-.

(Consistent with this, the medial past suffix encodes a disjunctive temporal relationship in time-based coreferential sentence-medial constructions, and is formally and functionally related to the third topographic spatial root kei ‘down’ of the set of four topographic roots of Table 3 A (see example (18)).

See Table 6 B.

Note the following example.

<table>
<thead>
<tr>
<th>Neke</th>
<th>neke</th>
<th>me</th>
<th>-ke</th>
<th>t</th>
<th>-a</th>
</tr>
</thead>
<tbody>
<tr>
<td>you</td>
<td>-sg</td>
<td>you</td>
<td>-sg</td>
<td>sit</td>
<td>mps</td>
</tr>
</tbody>
</table>

You sit by yourself and do it.

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This construction type is encoded as a subject-centric construction type by the duplication of the subject-centre free personal pronoun neke (of Table 6A cell 2). It is encoded as the disjunctive category of subject-centric constructions by the two-verb sequence meke ta. This is actually a complex single verb expression. It is not a combination of two separate predicate verbs. This two-verb sequence meke ta is the same type of verbal construction as that which encodes the third type of space-based evidential situation, the barrier situation, of declarative verbal clauses of subcell 3 of cell 1 of Chart Q (see attached endnotes). In the independent situation signified by the utterance neke neke meke ta ‘you sit by yourself and do it’, this barrier construction encodes the fact the subject person is separated from another person or group of subject persons performing the same act at an independent site.

This is the relevant Witu expression.

Anu po-me to -ko -u
I go I do ps I
I went and did it myself

The following are the verbs that expound this subsystem:

1. wene pi (thought place) ‘to believe s.t.’ ‘to think that s.t. has happened’ opi nokono wene piku ‘I think/believe he is coming today.’
2. wene tv (think do) ‘to understand’ ‘to known s.t./s.o’ ‘to know how to do s.t.’
3. matakome toatekole wene toko ‘he knows how to plant (it)’.
4. wene kibuto (thoughts place end to end) ‘to think about s.t.’ ‘to think about doing s.t.’
5. wene agopa tv or agopa tv (thoughts covered do) ‘to not know/understand’ (impersonal)

The term agopa that specifically signifies ‘ignorance’ ‘lack of understanding/knowledge’ is the product of the following paired SMCs agopa <ago pa> not know <sun declining from zenith. sun at zenith>

The term agopa means ‘covering’ as in agopa ta -ka (cover do -transitive) ‘to hide from view’. Note that the root matai of the Fasu verb meaning ‘hidden from view’, matairaka is formally and functionally related to the Witu term for the ‘zenith’, matai (May and Loeweke 1981:320).

Note also the verb expression agopa motoko meaning ‘not to be concerned to learn’ (e.g. one’s father’s lore 2004)

[c- kile with static, mental process agopa motikile toameneya. agopa Moameneya. Agale muno pewe kakoa oo kakago Tul 21 7 70 a learned man c'mu mufi first, top, chief ali muno the chiefman, muno top of tree (kabe alosa possible for top i.e. neck) (tigini middle section of tree, pine base) Yota 14.7.67 timini muno piko give full attention to instructions. To give ones full allegiance to task in hand, don't forget pade agale oo welekakete ekete eina agale kayapeono timini muno pianea pa wa .... P 19.10.67 (20th October 2011)

These mental reaction verbs expound the second function prime, interdependency, because such mental processes as trust are engendered by the character of the person who is the object of trust, etc. Such a mental reactions, then, are two-way processes.

Trust, love, etc. are two-way mental reactions. They are the reactions of someone responding to the nature or character of another person. This is why this subtype of acentric constructions expounds the second function prime, interdependency, within the acentric system of mental processes and states and physical states. (Note also the verb expression X-ke wene mekako ‘to love someone’.

2004 Note also that the expression piti motoko ‘to fear s.o. ‘also belongs to this subclass. It is derived from the impersonal verb expression piti toko ‘to be fearful’. With this verb expression fear is not necessarily reaction to a person. It may be reaction to s.t. one is fearful of doing, as in the expression pamene piti toko ‘to be afraid to go’. If we assign the piti motoko type of derived verb to this subclass of verb expressions we note the following. The impersonal verb expression agopa toko ‘to be ignorant’ that is the fourth exponent of the first subclass of verb expressions within which the verb expression wene pi ‘to believe’ is the first, is the source of the the personalized verb expression agopa motoko that means ‘He does not wish to know’, e.g. his father’s lore. It represents the point of clinal shift from the first to the second subclass of Acentric verb expressions.)
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1. All four verbs of this PQS system of verbs also have extended grammatical benefactive functions, and are therefore implicitly agentive. The verb pi ‘to lie prone’ also functions as the verb pi meaning ‘to place something somewhere’. In this function it is used in the context of culturally important feasts to signify ‘the placing of food before guests’ i.e. to give food ceremonially to guests. The verb me ‘to sit’ ‘to live at some place’ is related to the root me of the verb of ‘generic giving’, mete. The verb ka ‘to stand’ at some place is related to the Witu ‘benefactive’ suffix -ka. Consistent with its relationship with the verb ka ‘to stand’ at some place, the ‘benefactive’ suffix -ka behaves as if it were a root term rather than a suffix. Thus, when it is part of a verb inflection it overrides the function of the verb root to which it is postposed in determining the tone word contour of the inflected verb. Only one other Witu verb suffix behaves the same way as the ‘benefactive’ suffix -ka. It is the Witu ‘negative’ verb suffix -mv (with a variable vowel). Consistent with this, a benefactive act prototypically implies giving away something one possesses an activity with negative overtones (May 2008).

The following probably explains the functional relationship between posture-residence and benefaction. The monofocal verbs of posture imply occupying a given position in space for a definite period of time. Consistent with this, all three of these monofocal verbs also function grammatically as temporal auxiliary verbs signifying that the ‘activity signifies by the primary verb they immediately follow is extended through time. The third of these monofocal verbs ka ‘to stand’ implies occupying a certain position for a particularly extended period of time. Consistent with this, it is related to the verb ka in the verb expression mali kalo (child stands) that means ‘She (the woman) is pregnant’. Pregnancy is an extended process. Consistent with this, the growth of sweet potato in a field is also signified by the verb ka ‘to stand’. All of this explains why the Witu postural verb ka is related to the Witu noun ka that signifies a ‘track’, that extends for an indefinite length through space, and why it is related to the Witu ‘durative’ verb suffix -ka. Consistent with all this, the Witu ‘benefactive’ suffix -ka extends a two-argument transitve verb construction into a three-argument benefactive construction. In the same way, the ‘transitivising’ suffix -ka extends a single argument intransitive verb construction into a two argument transitve verb construction, e.g. tubete ‘to grow big’, tubeteka ‘to make grow big’, i.e. ‘to raise a pig, etc.’

The proverb of general activity, tv with a variable root vowel, means ‘to happen’ ‘to do’ and ‘to make’. It functions as the proverb for the following syntactic PQS system of verbs.

<table>
<thead>
<tr>
<th>1) intransitive</th>
<th>2) transitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>3) ditransitive</td>
<td>4) atransitive</td>
</tr>
</tbody>
</table>

The acquisition of knowledge is signified by the verb wene tv (mind do) meaning ‘to know’, the second verb of the PQS system of mental process verbs. One acquires knowledge in Witu and in the neighbouring Kaugel subgroup of the large Hagen group of languages(amongi others) by seeing and hearing. Hence the following pair of two-term verb expressions in Witu.

- enoa moto (see-and hold) ‘to know by seeing’
- yakoa moto (hear-and hold) ‘to know by hearing’

1] Intransitive verbs are one-argument verbs. When represented by the proverb tv, its proverbial function is typically best glossed ‘to happen’.
2] Transitive verbs are two-argument verbs. When represented by the proverb tv, its proverbial function is typically best glossed ‘to do’.
3] Ditransitive (giving, etc.) verbs are three argument-verbs. When represented by the proverb tv, its proverbial function is typically glossed ‘to do’.
4] Atransitive verbs are systematically different from the other three types of verbs. There are only two of them, and they encode the symbiotic relationship between the sentient processes of acquiring knowledge by seeing and by hearing.

They are represented by the proverb tv in the following unique verbal clause construction.

- Enekelepa tokou. <ene -ki -le -pa to -ko -u>
  - ‘I happened to see (him). <see -open set -activity -topic do past -I>

This can be glossed literally as, ‘what I was doing was seeing/looking’.

The suffix -ki of this unique verbal clause is related metalinguistically to the first SMC <ki> of the fourth of the four number clitics, the ‘plural number’ clitic -kki. This plural number clitic also functions as the ‘general exemplary’ clitic, identifying the clause-level or sentence-level term to which it is postposed as representative of the class of other terms that can be substituted for the term to which
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it is postposed. Consistent with this, the verb suffix -ki of the above unique verbal construction encodes the potentially open ended list of other verbs that could be substituted for the verb root/stem to which it is postposed.

The two atransitive verbs ene ‘to see’ and yate/yaka ‘to hear’, that signify the two primary processes by which knowledge is acquired, constitute the logical (clinal) interlocking bridge between

i) the first three verbs of this PQS transitivity system, and

ii) the first subsystem of Acentric verbal clauses, i.e. the subsystem of mental process verbs, i) to think wene pi (mind place) ii) to know wene tv (mind does), iii) wene kibutu (mind put-end-to-end) ‘think about’, and iv) wene agopa tv (mind obscure do) ‘to not know’.

There is the following systematic progression from the third set of verbs, ditransitive verbs, to the fourth set of verbs, the verbs of hearing and seeing. There are two types of ditransitive verbs, i) verbs like mete the verb of ‘general giving’ and yoto the verb of ‘special giving’ which are not marked as benefactive verbs by the addition of the benefactive suffix -ka, and ii) transitive verbs that have been transformed into benefactive verbs by the addition of the ‘benefactive’ suffix -ka that extends the two-argument case-frame of the transitive verb into a three-argument case frame. The second type of verb, specifically marked for benefaction are the most common type of ditransitive verb.

The ‘benefactive’ suffix -ka that transforms a transitive into a ditransitive verb is generically the same as the ‘durative’ verb suffix -ka that signifies the ‘extension through time’ of the activity signified by the verb root. Both are exponents of the third grammo-icon **ka of the Grammo-iconic schema (see the GoC Chart 3-1-2 IS-2 Grammo-iconic schema encoding ego at the centre of language). Exponents of this grammo-icon prototypically encode disjunction and extension. The durative verb suffix -ka that signifies ‘extension of an activity through time’ -- and that is generically related to the ‘benefactive’ suffix -ka that extends the two-argument case-frame of a transitive verb into the three argument case frame of a ditransitive (benefactive) verb -- has a particular affinity with the two atransitive verbs ene ‘to see’ and yaka/yate ‘to hear’. These are the only two Witu verbs to which the ‘durative’ suffix -ka can be postposed without the further addition of the ‘temporal auxiliary’ verb ka which by itself means ‘to be standing erect’ (another exponent of the grammo-icon **ka). This is illustrated by the following two examples.

Enekako. <ene -ka -k -o>
‘He keeps looking.’ ‘He watches.’

If see , durative -prex -3sg?

Yakeko. <yaka -ka -k -o>
‘He keeps hearing.’ ‘He listens.’

If see , durative -prex -3sg?

Durative extension of an activity is prototypically signified by postposing the ‘temporal auxiliary’ verb ka to the primary verb, to which the durative suffix -ka may be postposed followed by the ‘medial present’ suffix -a as in the following example.

Ue yokoo kako. <ue yo -ka -a -ka -k -o>
‘Water keeps flowing (from the hole).’

The ‘durative’ verb suffix -ka always becomes ko when it is followed by the ‘medial present’ suffix -a that prototypically signifies that the activity specified by the verb of which it is a constituent is co-temporal with the activity signified by the following verb in the sentence. (2007)

The atransitive verbs ene ‘to see’ and yaka ‘to hear’ also share another distinctive feature that establishes them as a systematic pair of verbs filling the fourth cell of its PQS system governed by the bifocal number focused function prime symbiotic-dependency. This is illustrated by the following example.

... pokome enekale kokedkapan toto ludo keika wianeyia kakele enekome ... he went, looked (and) off-down- there (a) column-of-smoke tall down-there emerging standing he-saw (and) ... ‘He went and looked and saw a tall column of smoke rising down ... All this establishes the fact that the acquisition of knowledge is the product of the symbiotic relationship between the function of the eyes in seeing and the function of the ears in hearing. All this suggests that the Witu verb root ene ‘to see’ ‘to look’ could be a reduction of the Witu term for ‘eye(s)’, the term ene. This could also point to a further understanding of the second submorphemic constituent <ke> of the Witu term for the ‘ear’, kakele, whose first SMC <ka> is related to the Witu term for a ‘track’, the term ka, along which a message travels from the mouth of a speaker to the ear of the addressee.

*kb* Mental and physical states are prototypically signified by two-term periphrastic verb expressions, consisting of a periphrastic particle, functioning as the primary semantic constituent, and a verb that carries the tense and subject suffixes. The verbs are virtually without exception the verb v ‘to utter
Physical and mental states are signified by two complementary types of construction, i) impersonal with the verb tv 'to happen' 'to do', e.g., no piti toko (fear.agn die/pr.I) 'I am cold' and ii) personal with the verb bu 'to be' 'to die', e.g., pitime tuku (fear.agn die/pr.I) 'I am dying/sick from fear'. The terminal segment -no is formally and functionally related to the focal free personal pronoun, no 'I/me,' of the focal free personal pronoun system. It is the distinctive feature of this type of medial sentence; ego, the speaker, is controlling the addressee’s response or reaction through this type of medial sentence, either asking for a vocal response or an action response. I became aware of this as a sentence medial construction under the following circumstances. One of our Witu co-workers, Ita Puka, whom Marie had taught to touch type and use a computer, was transcribing to his computer text I had previously typed onto 3x5 cards. In the text cited in this cell, I had put a full stop (a period) following the bound form -no of the first verb. Ita, after initially typing it as I had typed it, then made the following spontaneous comment, “There should not be a full-stop after -no. It should be a comma”.

The vowel of the subject-coordinating suffix, -iv is prototypically determined by the vowel signifying the subject of the medial verb to which it is postposed. The subject suffix always immediately follows the tense suffix in what is called the Tense + Subject (TS) suffix sequence.

The formula in each cell represents the inflected canonical form of the medial verb, e.g Verb/a.ne (verb-root/sf.1.I). The construction type illustrated by the example in each cell is actually an example of one of four systematically related subtypes of construction. It represents, in other words, a matrix system of construction types. There is not time or space to justify dealing with them at this point. They will be dealt with in a monograph dealing specifically with the grammar of the Language-communication system.

With sentence-final verbs, the tense and subject suffixes constitute a tight-knit paired sequence referred to as the Tense plus Subject (TS) suffix sequence. The fillers of the subject and tense slots are egocentric sets of suffixes. There is a systematic formal and functional relationship between the three monofocal tense suffixes of Table 15. The third tense -ko 'past tense' is the product of the first tense -k 'present' tense and the second tense -o 'future tense'. This finds its parallel with the space-oriented verbs of directional movement (subcell 2 of cell 4 of Table 13 A). The third verb psvv 'to pass by a spot' or 'to go from a place independent of where ego or the addressee is standing' is the produce of the second and first verbs pv 'to go' and nv 'to come'. This is consistent with the fact that space and time are not independent categories but complementary aspects of a more fundamental category, location in space-time. This is a further expression of the fact that Witu culture, typical of most, if not all, Highland Papuan New Guinea cultures, is relationship-governed. Space and time, in other words, are related. The exponents of the four gramma-icons of the gramma-iconic schema also give expression to the fact that space and time are complementary aspects of a more fundamental category, location in space-time (see Tables 21 and 23).

The action of the medial and the final verb are effectively co-temporal, i.e. essentially occur simultaneously, at the same moment. In the medial-present co-referential construction, the subject suffix is limited to the 1st person singular (ego-speaker as subject actor) suffix -ne. This limitation encodes the universal focal role of the speaker in determining the moment of ‘time now’ from which the time bearings of all other activities talked about by the speaker take their bearing.

The action of the medial verb lies in the future with respect to the time of the action of the final verb in medial future co-referential sentence constructions. The action of the medial verb will come into conjunction (merge) with the action of the final verb. This act of conjunction (merging) is encoded...
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in the following way. If the final verb is the first or second verb of directional movement -- *nv* 'to come' or *pv* 'to go' respectively -- then the directional verb may become physically conjuncted with the medial verb and attach to it as a directional suffix. This is illustrated by the following examples.

<table>
<thead>
<tr>
<th>Kai mo -a -de -ne pu -k -u.</th>
<th>Kai mo -pu -k -u.</th>
</tr>
</thead>
<tbody>
<tr>
<td>pig get</td>
<td>pig get</td>
</tr>
<tr>
<td>sf 1 mf</td>
<td>go pr</td>
</tr>
<tr>
<td>I am going (in order)</td>
<td>I am going to get a pig.</td>
</tr>
<tr>
<td>This particular temporal coreferential medial construction, the medial future, can also be expressed in another form without any change in lexical/semantic content. It is best illustrated by the following two examples.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Po -a -de -ne u -k -u</th>
<th>P -o -u -ke -ne u -k -u</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go sf1 mf -l utter -pr -l</td>
<td>go f -l -m-ps -l utter -pr -l</td>
</tr>
<tr>
<td>I want to go.</td>
<td>I want to go.</td>
</tr>
</tbody>
</table>

These two types of medial future coreferential construction expound the same function prime, the conjunctive second function prime, interdependency, within the closed set of four systematically related types of temporal coreferential medial sentences. This is consistent with the fact that the second function prime is commonly expounded by forms or pairs of forms or constructions which give formal expression to the conjunctive binariness of the second function prime. See the endnote attached to the second cardinal number, takuta, in subcell 2 of cell 1 of Chart M).

This also is an expression of the interdependent relationship between the first relationship-focused function prime, autodependency, and the second relationship-focused function prime, interdependency. It is also an expression of the interdependent relationship between the two primary media through which these first two relationship-focused function primes operate, person and space. This, in turn, is an expression of the fact that a person’s identify is determined primarily by his citizenship, his homeland. In human society this is prototypically determined by one’s paternity. The bond between a person and his homeland is so strong that most individuals, especially males, will fight to the death to protect their homeland and their co-members. The universality of this bond is consistent with its origin in the animal kingdom. The males of many of the smallest species of creatures will fight to the death to protect their homeland and their co-residential wives and children. Those living on land will also commonly mark out its boundaries with urine. This finds its metalinguistic expression in the Witu term for dreaming, *pule*. It is a combination of the noun root *pu* ‘urine’ and the ‘general activity’ clitic –*le*, encoding the metalinguistic information, ‘urine activity’. Consistent with the foregoing, human males had heir dreams in small lean-to ‘dreaming houses’ they built in the forest. This little house was referred to as a *tale yapu* (tale house). The semantically most salient term tale is the product of the noun root *ta* that means ‘homeland’ ‘place of citizenship’ and the ‘general activity’ clitic –*le*. It encodes the metalinguistic information, ‘homeland activity’. This is consistent with the way Australian Aboriginal language groups referred to their homeland, ‘this is the place of my dreaming’. The root *ta* ‘homeland’ of the Witu term tale of tale yapu ‘dreaming house’ is the root signifying “one’s biological father”. People in referring to their father will usually omit the free personal pronoun my. It is unnecessary to be so specific and say ‘my father said ….. ’. It is natural for English speakers to just say ‘Father said ……’. Similarly, Australian Aborigines do not usually say “my country’. They say just “Country”. It has the same socio-linguistic status as one’s father. (added 29th September 2011).

**Exhibit** The conjunctive overtones of a medial future constructional situation is also encoded by the physical conjunction of the pair of suffixes -*a.de* which signify the temporal relationship between the action of the medial and the final verb. The second suffix -*de* (m-f) is the medial future suffix. The first suffix -- with which it is obligatorily bound -- is the ‘first stem-formative’ suffix -*a* (sf1). It is formally and functionally related to the second toponigraphic root a ‘up’ (see Table 3 A). In the Akolali Centric Relationship Schema, upward movement is conjunctive movement and encodes the life-oriented upward movement of the sun coming to conjunct with the zenith at noon during the equinox.

By contrast, the ‘medial past’ suffix -*ke* of the medial-past constructional situation of cell 3 is formally and functionally related to the third toponigraphic spatial root *kei* ‘down’. In the Akolali Centric Relationship Schema, downward movement is disjunctive movement, and encodes the death-oriented downward movement of the sun after it has crossed the zenith at noon during the equinox (see example (18) of the main file).

The complementary iconic function of the affixes which signal the medial future and the medial past temporal relationship medial constructions finds its parallel in the Declarative subsystem of Egocentric conversational grammatical situations (see subcell 3 of cell 1 of Chart Q). The Declarative subsystem of Egocentric constructional situations encodes four systematically related types of space-based relationship between an observer-speaker and the situation he/she is talking about. The
space-based relationship is referred to as an evidential relationship. We are particularly concerned with the second and third subtype of evidential situation, the discovery and the barrier evidential situation respectively. The space-based discovery situation is signified by the same suffix sequence -a.de as that signifying the time-based medial future relationship between the actions specified by a medial and a following sentence-final verb. Both the time-based relationship between two actions (the medial and the final) and the space-based relationship between an observer-speaker and the situation he/she is speaking about involve the same generic type of relationship, a conjunctive relationship. As already noted, the conjunctive aspect of a conjunctive relationship is encoded physically by the tight-knit juxtaposition of the two suffixes -a.de. Consistent with this, a discovery situation is a situation in which the speaker-observer is at the very site of the entity or the situation he has discovered, as in the following example.

Pi -a -de -k -o
lie sf1 disc pr 3sg
Here it is, lying (right) here (in plain view).

By contrast, the space-based barrier evidential situation is one in which the observer-speaker cannot actually see the entity or situation he is speaking about. The barrier to direct observation may be as trivial as a piece of paper lying on top of an entity close by the speaker. But however trivial the barrier, such a situation must be encoded as a barrier situation. It is signified by the physical disjunction of the pair of terms which encode the fact that there is a barrier to direct viewing. The pair of terms are i) the suffix already identified as the medial past suffix -ke — which has an alternate form -ko — postposed to the primary verb, and ii) the proverb tv- functioning as a dummy auxiliary verb. This is illustrated by the following example.

i mete -kene -ke pi -ko -me to -k -o
here container space at lie mps 3sg do pr 3sg
It is lying (currently out of sight) inside this container.

The medial past suffix has two forms, -ke and -ko. Of the two, the primary form is the first form -ke. The secondary form -ko only substitutes for it if the subject of the verb is a single non-speaker, i.e. 2nd person singular or 3rd person singular.

The secondary form -ko of the medial past suffix is formally and functionally related to the regular past tense suffix of sentence-final verbs -ko (see Table 15). It is also formally and functionally related to the ‘break’ (barrier) particle of such a periphrastic verb expression as the following.

ko me -k -o
break sit pr 1
I am sitting taking a break (from work or from journey)

The secondary form of the medial past suffix -ko is also formally and functionally related to the unique past tense morpheme -ka, the only portmanteau morpheme in the language. All three forms encoding past temporal relationships in sentence-final and sentence-medial verbs, -ke, -ko and -ka, share the same generic function. They encode a break of some kind. The past tense encodes a break with the present. It encodes the separation of the sun from the earth after it has crossed the zenith at noon during the equinox.

The two suffixes -a and -ke — distinctive features of i) the time-based medial future and medial past constructions respectively, and of ii) the space-based discovery and the barrier evidential situations respectively — are also formally and functionally related to the initial constituent of the following two kinship terms, used reciprocally as terms of address. They are a.me used between parallel sex siblings, and ke.me used between two brothers-in-law. The relationship between two parallel sex siblings, in particular two male parallel sex siblings, is a spatially conjunctive relationship. They live in the same district as members of the same nuclear family and patri group. By contrast, the relationship between two brothers-in-law is spatially disjunctive. They prototypically live in separate districts. Consistent with this, parallel sex siblings are biologically related kin. Brothers-in-law are affinally related kin.

This is paralleled by the corresponding function of the prefixes a- and ke- in the following context. When, for example, a speaker addresses his biological father face-to-face, this conjunctive face-to-face vocative relationship is encoded by the prefix a-. When, however, the speaker is referring to his father, who will prototypically be at a distance from him, and probably out of sight, the egocentric disjunctive prefix ke- replaces the egocentric conjunctive prefix a- in the appropriate noun phrase, anu.ke.tai (my.egocentric-reference.biological-father) which elides to agetai (articulated phonetically as aŋkerai)).
Consistent with the above, the suffix -de of the conjunctive time-based medial future temporal constructions and of the conjunctive space-based discovery evidential constructions is formally and functionally related to the root de of the derived verb de/ka which means ’to hold tight’, ’to bring close together’. It is not surprising, then, that the suffix -ke of disjunctive time-based medial past temporal constructions and of disjunctive space-based barrier evidential constructions is formally and functionally related to the verb root ke which means ’to undo’.

These very different, but nevertheless systematically related functions of i) the forms a and de which together jointly encode conjunctive relationships in time and space and ii) the form ke which encodes disjunctive relationships in time and space illustrate how closely the linguistic and the symbolic systems are interrelated. It is impossible to understand the organisation of the one without reference to the organisation of the other. Nor is it possible to understand the organisation of the extralinguistic cultural systems (the District-society, the Land-life and the Religio-spirit systems of Table 9, the domain of anthropology) without reference to the organisation of the Language-communication system, and the symbolic system. Behind it all, lies the focal role of the supreme high being, Akolali, at the highest, and so focal point of the universe, the zenith, the point up to which the sun rises conjunctively to full life at noon, and from which it declines disjunctively to death following noon during the equinoxes.

The systematic radial extension in function of such forms as the topographic roots a ’up’ and kei ’down’ reflects the fact that all the systems in which they function are governed by the four function primes of the Basic-relationship system (Charts A and B). Every system then is ultimately congruent in one way or another with every other system. This means, in a sense, that we cannot know the whole system until we know all its parts, nor come to terms with the parts until we know the whole system. The discovery of Mendeleev’s periodic table of the elements gives us some kind of analogy. The following quote from Basic Inorganic Chemistry by Cotton and Wilkinson (1976:43) is somewhat helpful at this point.

“More than a century ago chemists began to search for a tabular arrangement of the elements that would group together those with similar chemical properties and also arrange them in some logical sequence. … these efforts culminated in the type of periodic table devised by Mendeleev, in which the elements were arranged in horizontal rows with row lengths chosen so that like elements would form vertical columns. …

It was Moseley who showed that the proper sequence criterion was … atomic number. It then followed that not only did the vertical columns contain chemically similar elements, but electronically similar atoms.”

Earlier in the development of the periodic table there were many gaps, presumed to represent elements yet to be discovered. From the position of such a gap in the periodic table it was possible to predict, with moderate accuracy, the properties of the relevant element before it was discovered. In other words, the nature of the first elements to be discovered led to the discovery of the periodic table. The periodic table in turn helped towards the discovery of previously unknown elements.

cxxx The action of the medial verb is completed, and so lies disjunctively in the past, however briefly, before the action of the final verb is initiated.

cxxx The subject of the medial verb may be either the same as or different from the subject of the final verb.

cxxxii