

Linked Nouns in Paamese: Grammatical Iconicity in Part-Whole Constructions

Terry Crowley
University of Waikato

1 Introduction

In Paamese,¹ there are basically two ways of expressing part-whole relationships between the referents of two nouns. With one set of nouns, two free form nouns are linked by the preposition *ten*, with the noun referring to the part coming before the noun referring to the whole (Crowley 1982:204):

(1) *asem ten vakili*
outrigger p/w canoe
'outrigger of canoe'

(2) *metareh ten eim*
door p/w house
'door of house'

¹ Paamese is an Oceanic language spoken by about 4000 people in Vanuatu. Fieldwork on which this study is based began in 1976-78 when I was a doctoral student at the Australian National University. More recently, since 1983, I have been resident in Vila, where my work has been able to continue. The following abbreviations are used in the examples:

p/w part-whole	sg singular	imm immediate future
1 first person	pl plural	poss possessive constituent
2 second person	real realis	neg negative
3 third person	fut future	

With a second set of nouns, an obligatorily bound noun referring to a part of something is directly attached to another noun expressing the whole,² in what I have elsewhere called the linked noun construction (Crowley 1982:91), e.g.,

(3) *aroe-teai*
 handle-axe
 'handle of axe'

(4) *sf-amol*
 juice-orange
 'juice of orange'

The linked noun construction involves greater structural proximity between the two nouns than is the case with prepositionally related nouns. This grammatical proximity is manifested in two distinct ways:

(i) A linked noun cannot be separately modified by any attributes, whereas the first noun in a prepositionally linked construction can be, e.g.,

(5) *asem hāu ten vakili*
 outrigger new p/w canoe
 'new outrigger of canoe'

(ii) A linked noun forms a single phonological unit with the noun to which it is bound in terms of stress placement and the potential for pause.

The categories of "free" and "linked" nouns are very rigidly defined in Paamese grammar, with little interchange in membership between the two. Thus, almost all nouns in the language fall exclusively into the class of either free nouns or linked nouns.³ In this paper, I propose to examine the distribution in the lexicon of Paamese

² In fact, the situation is somewhat more complex than this as there is sometimes an intervening *-i*-occurring between the underlying form of a linked noun and a following free form noun (Crowley 1982:103-104). Because it is not relevant to the discussion that follows, I do not propose to deal with this morpheme in the present paper, though readers will notice that some examples include it.

³ The discussion in this paper will largely avoid reference to a third category of nouns in Paamese, i.e., those which obligatorily take possessive pronominal suffixes. This construction prototypically expresses an inalienable possessive relationship between an animate noun and another noun. The grammar and semantics of inalienability in Paamese is described in detail in Crowley (in press).

free and linked nouns to determine the extent to which grammatical and semantic categories may coincide.

At first glance, the expression of part-whole relationships appears to be fairly randomly distributed in Paamese between the two constructions that I have referred to. For instance, the linked noun *uti-* ‘seed’ is obligatorily bound to another noun indicating what sort of plant the seed comes from, e.g.,

- (6) *uti-māgo*
 seed-mango
 ‘mango seed’

However, there is a separate lexical item in Paamese for the seed of a breadfruit, i.e., *oha*. This can only be related to the noun referring to the breadfruit of which the seed is a part by means of the prepositional construction, e.g.,

- (7) *oha ten vetāoi*
 seed p/w kind of breadfruit
 ‘*vetāoi* seed’

Deeper investigation, however, reveals that there is in fact much more of a semantic correlation between the membership of these two grammatical categories of nouns in Paamese than appears at first. This greater structural proximity between linked nouns and the nouns to which they are attached is mirrored in a greater degree of semantic proximity between the referents of nouns in the linked construction as against nouns that are related prepositionally. The precise nature of this semantic difference is the subject of the remainder of this discussion.

In Crowley (in press), I discuss the distribution of the formal class of pronominally suffixed nouns in Paamese. While at first only approximately seeming to correlate with the semantic feature of inalienability, the distribution of this category turns out in the end to coincide very closely indeed with inalienability if sufficient attention is paid to semantics (including also a certain amount of culture-specific information). A similar pattern emerges with respect to the distribution of linked nouns in the lexicon of Paamese. Rather than being somewhat randomly distributed throughout the lexicon as at first appears, I would like to argue that, with sufficient attention again being paid to semantics, there is considerable predictability in the distribution of this form class.

This possibly has implications for all of us. Grammatical categories which seem even after a fairly rigorous first examination to be subject to simple unpredictability (or mere general tendencies) may turn out, after much more careful attention is paid to meanings rather than just to the structures that express those meanings, to behave in a manner which is, if not completely predictable, then at least much more so than was initially thought. By accepting this, we are also opening ourselves up much more to the proposition that semantics has a major, even dominant, part to play in deciding the categories in any linguistic description.

2 Plants and Trees

By far the largest single semantic category of linked nouns in Paamese falls into the domain of terms related to plants and trees, referring to their constituent parts. The free form to which a linked noun is bound expresses the plant or tree of which the referent forms a part. Examples (4) and (6) above are illustrative of this type of relationship. The list in Table 1 includes all linked nouns in my corpus which belong in this set, along with an example of a noun to which each can be bound.

<i>tavoi-</i>	‘trunk’	<i>tavoi-māgo</i>	‘trunk of mango’
<i>lī-</i>	‘root’	<i>lī-avek</i>	‘banyan roots’
<i>ango-</i>	‘limb’	<i>ango-veta</i>	‘breadfruit limb’
<i>asi-</i>	‘branch’	<i>asi-veta</i>	‘breadfruit branch’
<i>mahoseke-</i>	‘fork’	<i>mahosekeāi</i>	‘fork of tree’
<i>hei-</i>	‘fruit’	<i>hei-māgo</i>	‘fruit of mango’
<i>hili-</i>	‘bark’	<i>hili-veta</i>	‘breadfruit bark’
<i>ou-</i>	‘leaf’	<i>ou-vamukin</i>	‘pumpkin leaf’
<i>tei-</i>	‘log’	<i>tei-āi</i>	‘ <i>Dendrocnide</i> log’
<i>meli-</i>	‘ripe fruit’	<i>meli-veta</i>	‘ripe breadfruit’
<i>mene-</i>	‘fallen fruit’	<i>mene-māgo</i>	‘fallen mango’
<i>hini-</i>	‘husk’	<i>hini-matou</i>	‘coconut husk’
<i>oke-</i>	‘pod’	<i>oke-ahis</i>	‘scraped out banana’
<i>ei-</i>	‘stem (of fruit)’	<i>ei-sedero</i>	‘pawpaw stem’
<i>sf-</i>	‘juice’	<i>sf-amol</i>	‘orange juice’
<i>hunge-</i>	‘flower’	<i>hunge-vāi</i>	‘hibiscus flower’
<i>uti-</i>	‘seed’	<i>uti-melen</i>	‘watermelon seed’
<i>eisaki-</i>	‘stem (of leaf)’	<i>eisaki-avek</i>	‘stem of banyan leaf’
<i>rere-</i>	‘unfurled new leaf’	<i>rere-ouha</i>	‘unfurled pudding leaf’
<i>vāhi-</i>	‘leaves on stem’	<i>vāhi-ateh</i>	‘leaves on sugar cane stem’
<i>uli-</i>	‘fibrous bark’	<i>uli-veave</i>	‘cottonwood bark’
<i>rī-</i>	‘sap’	<i>rī-māgo</i>	‘mango sap’
<i>vohi-</i>	‘rotten log’	<i>vohi-āi</i>	‘rotten <i>Dendrocnide</i> log’
<i>sili-</i>	‘sucker (of tree)’	<i>sili-ahis</i>	‘banana sucker’
<i>mari-</i>	‘section (of cane)’	<i>mari-ateh</i>	‘sugarcane section’
<i>sine-</i>	‘fuzz (on cane)’	<i>sine-avi</i>	‘wild cane fuzz’

Table 1: Linked nouns referring to parts of plants and trees

Contrasting with those parts of plants and trees in Table 1 expressed as linked nouns, we find a substantial number of parts of trees and plants which are expressed as free form nouns. Table 2 sets out those nouns in the corpus which behave in this way.

<i>vatiahul</i>	'pith inside breadfruit'
<i>oha</i>	'breadfruit seed'
<i>arom</i>	'young breadfruit leaf'
<i>apil</i>	'dry breadfruit sap'
<i>teipāh</i>	'fallen coconut frond'
<i>okāk</i>	'coconut bud'
<i>vāsil</i>	'branch from which coconuts hang'
<i>ahai</i>	'sprouting coconut'
<i>āun</i>	'cloth-like material that comes from top of coconut tree'
<i>ikul</i>	'stem of sago leaf'
<i>matou</i>	'dry coconut'
<i>voini</i>	'green coconut with hard flesh'
<i>ani</i>	'green coconut'
<i>ahus</i>	'green coconut with unsweet water'
<i>rehreh</i>	'green coconut without flesh'
<i>aheah</i>	'defective mature coconut without flesh'
<i>ahos</i>	'defective native almond with flat shell'
<i>asu</i>	'defective native almond with nut that has gone soggy inside'
<i>mērkavil</i>	'joint on sugarcane'

Table 2: Plant and tree parts expressed as free form nouns

In order to express the whole to which the referents of the free form nouns in Table 2 belong, Paamese makes use of the prepositional construction, in which the noun indicating the part is followed by the noun referring to the whole, with the preposition *ten* occurring between the two, as illustrated in (7), and also:

- (8) *vatiahul ten veta*
 pith of breadfruit
 'breadfruit pith'
- (9) *mērkavil ten ateh*
 joint of sugarcane
 'sugarcane joint'

It is in fact possible to invoke semantic criteria to explain the distribution of most of those nouns referring to plants and trees between the linked and free form sets of nouns in Tables 1 and 2. All of the items included in Table 2 have referents that can be considered to be more separable from the plant itself than is the case with the referents of nouns in Table 1, and are thus not expressed by the linked noun construction, which prototypically expresses part-whole relationships.

Many of the items in Table 2 are viewed primarily as things to eat rather than as parts of the tree or the plant itself, and so are considered separately from the plant or tree. Young breadfruit leaves called *arom* are cooked and eaten and are not expressed as linked nouns, whereas the inedible mature leaves would be referred to by the noun *ou-* 'leaf' linked to the free noun *veta* 'breadfruit', i.e., *ou-veta* 'breadfruit leaf'. The *oha* 'breadfruit seeds' are also eaten, while the inedible seeds of other fruits would be expressed by the linked noun *uti-* 'seed', e.g., *uti-amol* 'orange seed', *uti-māgo* 'mango seed' etc. Dry coconuts (*matou*) are primarily used on Paama for squeezing cream for use in cooking (as well as for the production of copra in the cash economy), and for this reason are considered separately from the tree that produces them. *Ani* 'green coconut' refers to the stage of the fruit at which it provides a refreshing drink. The sprouting coconut (*ahai*) also has inside a white spongy substance which is very tasty.

A number of other nouns in Table 2 do not refer to parts of trees that are edible; rather, they explicitly refer to products of trees that are actually inedible. In most cases, these inedible parts of plants are things that are not usually discovered to be inedible until they have been removed from the tree and cut open. The *voini* is a green coconut that one drinks and finds has developed too long and the water has gone fizzy. The *ahus*, *rehreh* and *aheah* are all coconuts that one has cut open and tried to drink, but found unsatisfactory because they are at various wrong stages of development. Some of the nouns in Table 2 also refer to parts of the edible products of trees and plants that are discarded and not eaten. Thus, the *vataihul* is the pith of the fruit of the breadfruit which must be thrown away and the *mārkaivil* is the joint of the sugarcane that is too tough to chew and is generally discarded.

Some of the parts of the coconut tree that are included in Table 2 are most commonly encountered in everyday life not as part of the tree itself, but as things on the ground that have fallen down from the top of the tree. In any coconut plantation, the area is

littered with *teipāh* ‘fallen coconut fronds’, *okāk* ‘coconut buds’, *vāsil* ‘branches from which coconuts hang’ and *āun* ‘cloth-like material from top of coconut trees’ which have become separated from the tree and fallen to the ground. The noun *apil* ‘dry breadfruit sap’ refers to something that is also commonly removed from the tree as it is traditionally used as glue.⁴ Finally, we have *ikul* ‘stem of sago leaf’, which is often cut from the tree and used as a surface for mashing breadfruit.

While there is clearly a fairly consistent semantic distinction between free form nouns which refer to parts of plants and trees that are more likely to be considered separately from the plant or tree itself, and linked nouns which refer to parts that are not ordinarily removed, the correspondence here between grammatical category and semantic category is not completely consistent. Thus, *hei-* ‘fruit’, *meli-* ‘ripe fruit’, *mene-* ‘fallen fruit’ and *sɔ-* ‘juice’ all refer to commonly separable edible (or drinkable) parts of plants and trees, yet they are expressed as linked nouns rather than as free form nouns. I have no explanation to offer for the behaviour of these four anomalous nouns.

3 Minor Classes of Linked Nouns

In addition to nouns relating to parts of plants and trees, there are also some smaller sets of linked nouns in Paamese which fall into a number of different semantic fields.

3.1 Artefacts

Linked noun constructions can be used to indicate a part of some kind of artefact or something that we make for use in our daily lives for some particular purpose, as set out in Table 3.

<i>aroe-</i>	‘handle’	<i>aroe-teai</i>	‘axe handle’
<i>ane-</i>	‘blade’	<i>ane-teai</i>	‘axe blade’
<i>ramule-</i>	‘tassles (on mat)’	<i>ramule-sūvon</i>	‘tassles on pandanus mat’

Table 3: Linked nouns referring to parts of artefacts

⁴ In fact, this word has as one of its secondary senses the meaning of introduced glue that has been manufactured and which is sold in stores.

Although the semantic connection between parts of trees and parts of artefacts seems obvious, the greatest majority of nouns referring to parts of manufactured artefacts are not expressed as linked nouns at all, but as free form nouns. The explanation for this perhaps lies with the fact that parts of artefacts do not naturally occur as parts of wholes. Being manufactured, they presumably first of all existed as separate items before the whole thing was put together. We find, for example, that all canoe parts and parts of houses are expressed as free forms, as indicated in Table 4.

<i>asem</i>	'outrigger'
<i>eilohten</i>	'outrigger poles'
<i>heilak</i>	'outrigger pegs'
<i>asil</i>	'mast'
<i>ala</i>	'sail'
<i>metareh</i>	'door'
<i>aho</i>	'window'
<i>meteäu</i>	'gate'
<i>pis</i>	'back wall'
<i>uriov</i>	'side wall'
<i>hatūr</i>	'roof post'
<i>peat</i>	'top roof beam'
<i>holāse</i>	'side roof beams'

Table 4: Parts of canoes and houses expressed as free form nouns

In fact, the linked noun *aroe-* 'handle' in Table 3 corresponds in meaning to the free form *apak*, and there seems to be no difference between the two. Unfortunately, I have no ready semantically based explanation for anomalies such as these.

3.2 Positions

Another major subclass of linked nouns in Paamese refers to a part of a thing which is again not physically separable. Such nouns refer to a position that is defined with respect to a whole. Table 5 includes all nouns of this type in my corpus.

<i>vote-</i>	'bottom'	<i>vote-ahis</i>	'bottom of bunch of bananas'
<i>rome-</i>	'top'	<i>rome-matou</i>	'top of coconut palm'
<i>hoi-</i>	'upper side'	<i>hoi-m</i>	'roof of house'
<i>vāse-</i>	'under side'	<i>vāse-hēn</i>	'heel (underside of foot)'
<i>tine-</i>	'inside surface'	<i>tine-hēn</i>	'sole (inside of foot)'
<i>kahi-</i>	'outside covering'	<i>kahi-meten</i>	'eyelid (covering of eye)'
<i>mete-</i>	'centre'	<i>mete-ai</i>	'sun (centre of daylight)'
<i>horati-</i>	'core'	<i>horati-matou</i>	'nut of coconut'
<i>ingi-</i>	'rim'	<i>ingi-tīn</i>	'rim of tin'
<i>sei-</i>	'edge'	<i>sei-sūvon</i>	'edge of mat'
<i>vali-</i>	'side'	<i>vali-sfʋ</i>	'side of ship'
<i>tove-</i>	'other side'	<i>tove-oi</i>	'other side of river'
<i>kele-</i>	'end'	<i>kele-out</i>	'end of island'
<i>ulungo-</i>	'top (of slope)'	<i>ulungo-iāh</i>	'top of sloping garden'
<i>tasi-</i>	'last'	<i>tasi-veta</i>	'smaller of pair of breadfruit'
<i>mua-</i>	'first'	<i>mua-veta</i>	'larger of pair of breadfruit'

Table 5: Linked nouns expressing position

The semantic connection between these relationships and part-whole constructions is also fairly clear, as the position that is referred to cannot be expressed except as part of something else. Thus, an 'edge', for example, cannot exist except as the edge of something.

Not all nouns in this semantic category, however, are expressed as linked nouns in Paamese. There two semantically very similar nouns which are expressed instead as pronominally suffixed nouns, i.e., *ē-* 'interior' and *tou-* 'behind', as illustrated below:

- (10) *ē-n* *sūvon*
interior-3sg mat
'interior of rolled up mat'

- (11) *tou-n* *veieh*
behind-3sg fence
'behind the fence (i.e., outside village limits, where it is acceptable to defecate)'

No satisfactory semantically based explanation for the anomalous behaviour of these forms is apparent from the data.

3.3 Broken pieces and by-products

There is another category of linked nouns which expresses the idea that something is a broken piece or a by-product of an activity carried out on something else. Such nouns are set out in Table 6.

<i>hati-</i>	'small piece'	<i>hati-anien</i>	'small piece of food'
<i>nehi-</i>	'small piece'	<i>nehi-āv</i>	'kindling (small piece of firewood)'
<i>mavuli-</i>	'large chunk'	<i>mavuli-āi</i>	'large piece of wood'
<i>tavisenge-</i>	'broken piece'	<i>tavisenge-vōtel</i>	'broken piece of glass'
<i>masoke-</i>	'broken piece'	<i>masoke-sosipen</i>	'broken piece of saucepan'
<i>soko-</i>	'remains'	<i>soko-rais</i>	'remains of rice'
<i>sume-</i>	'ground up remains'	<i>sume-ateh</i>	'chewed sugarcane remains'
<i>tahuli-</i>	'detritus'	<i>tahuli-āi</i>	'waste timber in cleared garden'
<i>ane-</i>	'edible part'	<i>ane-matou</i>	'dry coconut flesh'

Table 6: Linked nouns referring to broken pieces and by-products

An additional member of this semantic set is the noun *uf-* 'reward', e.g., *uf-umēn* 'reward for work'. Although this does not refer to anything that is physically detachable, it can still be considered as something that is given as the result of something having been done, and is thus still a by-product of an activity.

Once again, nouns of this semantic type can be construed as being semantically very close to nouns expressing parts of wholes. Something that is *sume-* 'ground up remains', for example, cannot exist except as the remains of something else that has existed previously.

3.4 Imprints and impressions

Impressions that have been made on something by the action of something else are also expressed in Paamese by means of linked nouns. With such nouns, the free form noun that follows can indicate what the impression has been made into, as shown by the forms in Table 7.

<i>valenge-</i>	'hollowed out part'	<i>valenge-vakili</i>	'hollowed out part of canoe'
<i>rumi-</i>	'first cuts in log'	<i>rumi-āi</i>	'first cuts in piece of wood'
<i>sisi-</i>	'high tide mark'	<i>sisi-veien</i>	'high tide mark on beach'

Table 7: Linked nouns expressing impressions made into something else

In other cases, as set out in Table 8, the following free form noun indicates what it was that caused the impression.

<i>vuli-</i>	'hole left by something'	<i>vuli-lohloh</i>	'hole left by fallen lohloh tree'
<i>tahe-</i>	'wash of vessel in sea'	<i>tahe-siv</i>	'wash of ship'
<i>vone-</i>	'mark'	<i>vone-manu</i>	'scar (i.e., mark of sore)'
<i>sisi-</i>	'high tide mark'	<i>sisi-atas</i>	'high tide mark of sea'

Table 8: Impressions caused by something else

Once again, an imprint or an impression is something that can only exist with respect to something else, either as the item imprinted upon or as the cause of the impression. There is thus still a clear semantic connection between part-whole relationships and nouns of these types.

There is a number of formally related pairs of nouns in Paamese which behave as linked nouns and as free form nouns with differences in meanings that are consistent with this difference in grammatical status. Contrasting with *tahuli-* 'rubbish', we find the single free form noun *tahul*. The latter simply refers to rubbish, without saying what the rubbish comes from, while the linked noun *tahuli-* specifically refers to some particular thing that has become rubbish. There are also the free forms *tahe* 'wave' and *vulvul* 'hole', which are formally related to the corresponding linked nouns *tahe-* and *vuli-* respectively. The difference between these pairs is that while free form *tahe* simply refers to any wave, linked *tahe-* specifically refers to a wave produced by some kind of vessel travelling through the sea and similarly, *vuli-* refers to a hole left by something (such as a fallen tree), while *vulvul* refers to a hole that has been dug for some purpose, and is not simply a hole left by something else.

Imprints and impressions are occasionally also expressed in Paamese by means of the directly suffixed construction rather than the linked noun construction. Thus, we find *vē-* 'footprint' occurring in this kind of construction in *vē-n vuas* 'pig tracks'. The

difference between these nouns and the linked nouns expressing the same meaning is that the former expresses imprints left by inanimates, while the latter refer to imprints which have animate causes. In Crowley (in press), I indicate that pronominally suffixed forms such as these prototypically express relationships to nouns with animate reference, while we have seen so far that linked nouns are generally followed by inanimate nouns. The apparently anomalous behaviour of *vē-* ‘footprint’ can therefore perhaps be attributed to this overriding semantic tendency.

3.5 Environmental features and results of natural processes

There is a small category of linked nouns which refers to something that has come about as a result of some kind of natural environmental action or process, as shown in Table 9.

<i>māhui-</i>	‘billowing smoke’	<i>māhui-vanei</i>	‘smoke billowing from volcano’
<i>mene-</i>	‘flame’	<i>mene-vakora</i>	‘flame from burning coconut shell’
<i>tāsili-</i>	‘spray’	<i>tāsili-atas</i>	‘sea spray’

Table 9: Linked nouns expressing natural environmental processes and features

Included in this set is also a single noun referring to a natural environmental feature that does not directly derive from any observable natural process, i.e., *(ngol)ngoli-* ‘part of seabed which drops off to deep part of sea’, as in *(ngol)ngoli-amai* ‘drop-off on reef’.

While such features can normally only be viewed as existing in relation to something else, the expression of these meanings as linked nouns is not completely consistent. There are some free form nouns which one might have expected to be expressed as linked nouns for the same reasons, including *eas* ‘smoke’, *vatvat* ‘smoke rising from volcano’, and *eihoi* ‘opening in reef’. In fact, the linked noun *(ngol)ngoli-* included in Table 9 can also be expressed as the historically related free form noun *ngolngol* with the same meaning. Thus, I have no satisfactory explanation for the distribution of nouns between those in Table 9 and those just listed.

3.6 Collections and containers

Another semantic relationship that is expressed by means of the linked noun construction is that of collectivity. There is a small number of linked nouns with a collective meaning that are set out in Table 10.

<i>hungi-</i>	'bunch (of fruit)'	<i>hungi-ani</i>	'bunch of coconuts'
<i>tei-</i>	'hand (of bananas)'	<i>tei-kavedes</i>	'bunch of Cavendish bananas'
<i>(n)ei-</i>	'patch (of trees)'	<i>ei-atong</i>	'mangrove patch'
<i>tali-</i>	'group'	<i>tali-veave</i>	'group of cottonwood trees'
<i>vati-</i>	'type'	<i>vati-terak</i>	'type of car'

Table 10: Linked nouns expressing collectivity

A group cannot exist except as a group of something and it is therefore natural that this relationship in Paamese should be expressed by means of the linked noun construction.

Similar to the concept of collectivity, there is a small number of linked nouns which refer to the whole plant itself, as set out in Table 11.

<i>vati-</i>	'tree/plant'	<i>vati-ahis</i>	'banana plant'
<i>tehi-</i>	'vine'	<i>tehi-ouh</i>	'yam vine'
<i>tukuli-</i>	'vine'	<i>tukuli-ouh</i>	'yam vine'
<i>vie-</i>	'vine'	<i>vie-uhia</i>	'wild yam vine'
<i>holholi-</i>	'sapling'	<i>holholi-veta</i>	'breadfruit sapling'
<i>hole(nge)-</i>	'sapling'	<i>hole(nge)-veta</i>	'breadfruit sapling'
<i>tupe-</i>	'short tree'	<i>tupe-vilu</i>	'short <i>vilu</i> tree'

Table 11: Linked nouns referring to whole plants

These linked nouns are attached to nouns referring to specific kinds of plants or trees. Thus, these specific-generic relationships in Paamese behave grammatically in the same way as non-separated part-whole relationships. This is not surprising given that both words in a specific-generic pair include the meaning of the other as part of its own meaning, in one way or another. Thus, a specific kind of tree can only be expressed with the linked noun *vati-* preceding the free form name of the tree, e.g.,

- (12) *Naluh vati-amol tāi.*
 1sg:real:plant tree:orange one
 'I planted an orange tree.'

A completely unspecified tree, however, is referred to by the free form generic noun *āi* 'tree':

- (13) *Naluh āi tāi.*
 1sg:real:plant tree one
 'I planted a tree.'

It is also always possible for the name of a specific kind of tree to occur on its own without the preceding *vati-* 'tree', but these nouns can never occur in a prepositional relationship with the free form *āi* 'tree':

- (14) *Naluh amol tāi.*
 1sg:real:plant orange one
 'I planted an orange.'
- (15) **Naluh āi ten amol tāi.*
 1sg:real:plant tree p/w orange one
 'I planted an orange tree.'

Finally, there is a pair of linked nouns that refer to things that physically contains other things, as in Table 12.

<i>voi-</i>	'container'	<i>voi-kaset</i>	'cassette cover'
<i>tini-</i>	'used cooking leaf'	<i>tini-aek</i>	'used pudding leaf'

Table 12: Linked nouns expressing containers

Nouns referring to containers can be viewed as being semantically similar to the collective and generic nouns just mentioned in that collective and generic terms metaphorically "surround" other nouns, just as containers physically surround the things inside them.

4 Body Parts

There is a further group of nouns which enter into the linked noun construction and these are some nouns referring to body parts. Body part nouns in Paamese are gener-

ally expressed either as pronominally suffixed nouns or as free form nouns, depending on the permanence of the body part and the extent to which it is considered as being separable from the rest of the body, as described in detail in Crowley (*in press*). There is, however, a small subset of body parts (and some body products and other aspects of our bodies) which are expressed instead as linked nouns. The full set of linked nouns in this semantic category is set out in Table 13.

<i>ami-</i>	'hair (other than head hair)'
<i>hili-</i>	'skin'
<i>enge-</i>	'dry skin'
<i>sine-</i>	'fur/scales of fish'
<i>uli-</i>	'clothing'
<i>ʋf-</i>	'smell'
<i>nini-</i>	'shadow/reflection'
<i>kokohi-</i>	'dribble'
<i>toe-</i>	'perspiration'
<i>usi-</i>	'side'
<i>hati-</i>	'body part'

Table 13: Linked nouns expressing body parts and products

Of these eleven linked body part nouns, we can see that the first five belong in a set which have in common the fact that they all express outer coverings of the entire body, i.e., *ami-* 'body hair (rather than head hair)', *hili-* 'skin', *enge-* 'dry skin', *sine-* 'fur/scales of fish' and *uli-* 'clothing'. This fact distinguishes them from all other body part nouns in Paamese, whether they are expressed as pronominally suffixed nouns or as free form nouns. It is presumably this expression of superficiality that is responsible for the fact that these nouns are expressed as linked nouns rather than as pronominally suffixed nouns. The semantic explanation for this that is possibly related to the fact that containers are also expressed as linked nouns, as described in 3.6, and the outer covering of the body is perceived of as some kind of container.

The next two nouns in Table 13 do not express physical outer coverings, but could perhaps be interpreted metaphorically in this way, as they do represent some kind of outline or delimitation of an individual body, i.e., *nini-* 'shadow/reflection' and *ʋf-* 'smell'.

Alternatively, it may be possible to explain the appearance of these two nouns in terms similar to those invoked to account for the behaviour of linked nouns listed in Table 6, as they refer to some kind of by-product or extension of the body that could not exist independently of the body.

The final two nouns in Table 13 express physical body products, i.e., *kokohi*- 'dribble' and *toe*- 'perspiration'. Both of these nouns have synonyms or near synonyms which behave as either pronominally suffixed nouns or as free form nouns. The difference between pronominally suffixed *tive-n* 'his/her saliva' and the linked noun *kokohi*- 'dribble' can be reconciled to an alienable/inalienable type of distinction, in that saliva is something that is present in one's mouth all the time as a result of normal body functioning, whereas dribble is saliva that one has lost control of, and which is no longer in one's mouth. The free form *mād* and the linked noun *toe*- both mean 'perspiration'. I am unable to find any semantic difference between these two forms that corresponds to the difference in membership between these two subcategories of nouns. Thus, the behaviour of these two forms remains anomalous.

This leaves the two linked nouns *usi*- 'side' and *hati*- 'body part' in the set included in Table 13. These correspond in meaning to the pronominally suffixed nouns *kou*- 'side' and *ave*- 'body part'. I am again unable to offer any semantic explanation as to why these nouns should behave as they do.

5 Separating Parts From Wholes

The discussion of the distribution of linked nouns through the Paamese lexicon has shown that, with a small number of exceptions still unaccounted for, the following particular kinds of semantic relationships are expressed in this way:

- (i) parts of trees and plants which are not ordinarily deliberately separated from the whole to be consumed or discarded, and which do not commonly separate of their own accord
- (ii) some parts of artefacts
- (iii) most parts of wholes that express position
- (iv) broken pieces and by-products of something
- (v) imprints and impressions on something caused by something else
- (vi) collections of things and generics

(vii) containers of things

(viii) body parts and products expressing outer coverings and out-of-body extensions

These relationships may appear to be somewhat disparate semantically, but we can say that the linked noun construction generally expresses some kind of relationship between what can be perceived of as a separable part of a whole, but which prototypically exists as part of the whole.

Obviously, it can become necessary to speak of the referents of many of these linked nouns independently of the larger entity with which they are associated. There are two ways of doing this in Paamese. The first of these involves the attachment of the linked noun to a generic term to create a derived free form noun, while the second involves the addition of a special derivational morpheme to the linked noun which has the sole function in Paamese grammar of creating a free form noun out of a linked noun.

The first of these methods is used with a subset of those nouns listed in Table 1. It is possible for these nouns to be attached to a special compounding form of the generic free form *ʔi* 'tree'. When compounded, this loses its initial historical *a-* (becoming *-ai*) and is preceded by the special link morpheme *-i-* referred to in footnote 2 (Crowley 1982:91,103-104). Table 14 presents those nouns referring to parts of plants that can be referred to independently of the plant that they are part of.

<i>vātāi</i> ⁵	‘a tree’
<i>tavoiai</i>	‘a trunk’
<i>lāi</i>	‘a root’
<i>angoiai</i>	‘a large limb’
<i>asāi</i>	‘a small branch’
<i>mahosekeiai</i>	‘a fork’
<i>heiai</i>	‘a fruit’
<i>hīlāi</i>	‘bark’
<i>ouai</i>	‘a leaf’
<i>teiai</i>	‘a log’

Table 14: Tree and plant parts compounded with generic *āi* ‘tree’.

Thus, if a speaker wanted to refer to a leaf completely independently of any particular kind of tree or plant, it would be possible to say:

- (16) *Kisān ouai tāi.*
 2sg:fut:give leaf:tree one
 ‘Give me a leaf.’

That the noun *āi* ‘tree’ is being used as a semantically empty “carrier” for these obligatorily linked nouns is indicated by the fact that it is possible to use the nouns in Table 14 to refer to parts of plants that would not ordinarily be referred to independently as *āi* ‘tree’. For instance, a hibiscus leaf could be referred to as an *ouai* ‘leaf’, though the hibiscus plant itself would never be referred to as an *āi* ‘tree’, but merely as a *vati-vāi* ‘hibiscus plant’, i.e., the noun *vāi* ‘hibiscus’, which is linked to *vati-* ‘tree/plant’. It is also possible for derived nouns like *ouai* ‘leaf’ to enter into prepositional constructions with free form nouns. Thus, the linked noun construction *ou-vāi* ‘hibiscus leaf’ is synonymous with the prepositional construction below:

⁵ I do not intend to discuss the phonological derivation of surface forms in Paamese in this paper. *Vātāi*, for example, has as its underlying form *vati-i-ai*. For details of the phonological rules of Paamese, see Crowley (1982:28-43).

- (17) *ouai ten vativāi*
 leaf:tree p/w plant:hibiscus
 'leaf of hibiscus plant'

The remaining nouns referring to parts of plants in Table 1, however, have to specify the particular tree or plant that they are a part of, and it is simply not possible to refer to referents of these nouns without referring to the wholes that they are parts of. Thus, for example, it is impossible to refer to **melīai* 'a ripe fruit'. Speakers instead are required to specify what kind of tree the ripe fruit comes from, e.g., *meli-veta* 'ripe breadfruit'. The same is true of linked nouns in the other semantic fields for which there are no appropriate generic terms to which they could be attached. Thus, a *vf* 'smell' must always be attributed to something in Paamese; it is not possible to refer to smells that do not emanate from something.

A similar kind of construction is also encountered with those body parts expressed as linked nouns in Table 13. Unlike many other body part nouns, nouns of this type can never be followed by possessive pronominal suffixes. In order to express a pronominal possessor with these nouns, the inanimate generic noun *ave-n* 'his/her body' must first of all be attached to the linked noun, effectively functioning as a semantically empty "carrier" for the pronominal suffixes. As with the noun *āi* 'tree' in such constructions, *ave-n* 'his/her body' loses its initial *a-* and is linked to the preceding linked noun by means of the morpheme *-i-*. In order to express pronominal possession of the body parts listed in Table 13, therefore, these linked nouns appear as in Table 15.

<i>amīve-</i>	'body hair'
<i>hiīve-</i>	'skin'
<i>engeive-</i>	'dry skin'
<i>sineive-</i>	'fur/scales'
<i>ulīve-</i>	'clothing'
<i>ninīve-</i>	'shadow/reflection'
<i>vīve-</i>	'smell'
<i>kokohīve-</i>	'dribble'
<i>toeive-</i>	'perspiration'
<i>ustve-</i>	'side'
<i>hatīve-</i>	'body part'

Table 15: Body parts compounded with pronominally suffixed generic *ave-* 'body'

With those linked nouns in Table 13 that refer to the outer coverings of the body, it is also possible to be more specific about the particular part of the body that they cover, and in the case of *vī-* 'smell', it is possible to express the particular part of the body that has produced the odour. In such cases, it is no longer necessary to use the pronominally suffixed generic noun *ave-* 'body' as a carrier for the possessive suffixes, as these other body parts do not themselves have animate reference and can therefore be directly attached to the linked noun. We therefore find examples such as those below which behave in this way:

(18) *ami-ongo-n*
 body hair-mouth-3sg
 'his moustache'

(19) *ami-veāse-n*
 body hair-chin-3sg
 'his beard'

(20) *ami-vile-n*
 body hair-vagina-3sg
 'her pubic hair'

(21) *vɪ-hinge-n*
 smell-armpit-3sg
 'his/her underarm odour'

(22) *vɪ-hili-ō-n⁶*
 smell-skin-penis-3sg
 'smell of his foreskin'

The second kind of construction which allows speakers to avoid specifying what something is a part of in Paamese involves the addition of a special bound morpheme which generally has the surface realisation of *-ite*.⁷ However, free form nouns derived from linked nouns in this way can only be used when the whole has already been specified by the linguistic or the non-linguistic context. Thus, *-ite* has an anaphoric function, and translates as 'of it'. Compare the acceptability of (23) and the unacceptability of (24) below:

(23) *Amol akilea avamun oute.*
 orange 3pl:real:able 3pl:imm:drink leaf:3sg
 'As for the orange tree, its leaves can be drunk (as tea).'

(24)**Kisān oute tāi.*
 2sg:fut:give leaf:3sg one
 'Give me a leaf.'

6 Linked Nouns and Animacy

Part-whole relationships expressed by linked nouns and the inalienable possessive relationships expressed by pronominally suffixed nouns in Paamese (Crowley, *in press*) are semantically very similar in that both involve relationships between things that cannot exist independently of some larger thing. The main difference between the two kinds of relationship involves the question of animacy. While inalienable posses-

⁶ Incidentally, that the last example shows that it is quite possible for a linked noun to itself be linked to another linked noun, which is then bound to another noun.

⁷ When this follows a linked noun ending in surface long *ɪ*, this form is realised simply as *-ite*, and when it follows a linked noun ending in short *i*, the sequence of identical vowels is resolved as *ɪ*

sion normally involves animate possession, in the case of part-whole relationships, the “possessor” is generally inanimate.

However, there are some nominal roots in Paamese which can enter into both the the linked noun construction and the pronominally suffixed construction, sometimes with slight (and unpredictable) differences in phonological shape. Those nouns that do occur in both constructions are listed in Table 16.

Linked Noun		Suffixed Noun	
<i>mete-</i>	‘centre’	<i>mete-</i>	‘eye’
<i>vote-</i>	‘base’	<i>vote-</i>	‘buttocks’
<i>tine-</i>	‘inside’	<i>ti-</i>	‘intestines’
<i>ulungo-</i>	‘top of slope’	<i>ulunge-</i>	‘top of bed’
<i>vuli-</i>	‘hole left by	<i>vuli-</i>	‘sleeping place’
<i>horati-</i>	‘core’	<i>horate-</i>	‘crop (of bird)’
<i>kahi-</i>	‘exterior’	<i>kahi-</i> ⁸	‘dry bark’

Table 16: Nouns that can occur in both linked and pronominally suffixed constructions

Although linked nouns cannot normally be followed by nouns with animate reference, there are three such nouns in Paamese in which this is in fact possible. In all three cases however, these linked nouns are being used in a secondary sense and have a primary sense in which they are normally followed by inanimate nouns. Table 17 sets out these forms.

	Primary sense	Extended sense		
<i>sili-</i>	‘sucker’	‘descendant’	<i>sili-vuas</i>	‘descendant of pig’
<i>vati-</i>	‘tree’	‘type’	<i>vati-meatin</i>	‘type of person’
<i>uti-</i>	‘seed’	‘person keen on something’	<i>uti-atouli</i>	‘man keen on girls’

Table 17: Linked nouns attached to animate and inanimate nouns

⁸ When the possessive suffix begins with a consonant other than an alveolar consonant, the final vowels of these roots shift to the back vowels *-o* and *-u* respectively. Thus, we find *mete-n* ‘his/her eye’ and *meto-k* ‘my eye’ (Crowley 1982:106-107).

There is one remaining linked noun with body part reference which behaves differently to all of those discussed so far in that it is always directly attached to a noun with animate reference, and never to an inanimate noun. This noun is *oreli-* 'egg', and it is illustrated by the following examples:

(25) *oreli-ato*
egg-chicken
'chicken's egg'

(26) *oreli-aman*
egg-bird
'bird's egg'

(27) *oreli-ahu*
egg-turtle
'turtle's egg'

We can explain the irregularity of this form by noting that eggs are primarily seen as food rather than as parts of wholes and therefore considered separately from the body that produces them. As with all other linked nouns, *oreli-* can never be followed by a pronoun referring to the individual that has produced it. If a chicken were able to speak, it could never refer to the egg of another chicken as:

(28) **oreli-keik*
egg-2sg
'your egg'

The egg would still need to be "detached" and treated as a separable item. Possession would accordingly be expressed as in (29) below:

(29) *oreli-ato ono-m*
egg-chicken poss-3sg
'your egg (which you have laid)'

There is a final category of linked nouns in Paamese which can be followed both by pronominal suffixes and linked inanimate nouns. These include some of those nouns set out in Table 13 above. When such nouns take pronominal suffixes, however, they are required to carry the compounded form of the pronominally suffixed noun *ave-* 'body' as a carrier for the suffix, and there is a clear semantic difference between these

nouns when they behave in this way and when they are linked to a following inanimate noun. Such pairs are set out in Table 18.

<i>hifve-</i>	'skin'	<i>hili-</i>	'peel (of fruit)'
<i>kokohve-</i>	'dribble'	<i>kokohi-</i>	'foam/froth'
<i>toive-</i>	'perspiration'	<i>toe-</i>	'sap'
<i>usve-</i>	'side'	<i>usi-</i>	'side of something'
<i>vve-</i>	'smell'	<i>v-</i>	'smell'
<i>sineive-</i>	'fur/scales'	<i>sine-</i>	'fuzz (on cane)'
<i>ulve-</i>	'clothing'	<i>uli-</i>	'fibrous bark'
<i>hatve-</i>	'body part'	<i>hati-⁹</i>	'piece'

Table 18: Pronominally suffixed nouns compounded with *ave-* 'body' and attached to linked nouns

7 Residual Linked Nouns Expressing States

There is a final category of linked nouns which are semantically (and grammatically) rather different to the categories discussed above in Paamese in that they do not refer to part-whole relationships at all, and the animacy of the noun to which they are attached has no effect on their semantics. With this set, the linked noun itself expresses

⁹ This form, along with three other linked nouns with roots ending in *-ti-*, is morphologically slightly irregular. The final *-i* of the linked noun is lost and the anaphoric suffix has the form *-te*, producing a geminate cluster of *-tt-* over a morpheme boundary. Nouns are attached to these forms on the basis of their regular roots. These four irregular anaphoric forms are:

Form when followed by Noun	Form when followed by <i>-ite</i>	
<i>vati-</i>	<i>vatte</i>	'tree'
<i>hati-</i>	<i>hatte</i>	'small piece'
<i>voreti-</i>	<i>vorette</i>	'small'
<i>horati-</i>	<i>horatte</i>	'core'

In contrast, the following form behaves regularly:

Form when followed by Noun	Form when followed by <i>-ite</i>	
<i>uti-</i>	<i>utte</i>	'seed'

a state, and it ascribes this particular state to the referent of the noun that is bound to it. Linked nouns of this type are listed in Table 19.¹⁰

<i>mari-</i>	'large (sg.)'	<i>mari-ahin</i>	'large woman'
<i>marmari-</i>	'large (pl.)'	<i>marmari-ahin</i>	'large women'
<i>more-</i>	'good (sg.)'	<i>more-vakili</i>	'good canoe'
<i>mormore-</i>	'good (pl.)'	<i>mormore-vakili</i>	'good canoes'
<i>voreti-</i>	'small (sg.)'	<i>voreti-atouli</i>	'little girl'
<i>vorvoreti-</i>	'small (pl.)'	<i>vorvoreti-atouli</i>	'little girls'
<i>(ti)ti-</i>	'tiny'	<i>(ti)ti-au</i>	'tiny knife'
<i>musi-</i>	'old'	<i>musi-tirausis</i>	'old trousers'
<i>mete-</i>	'dirty'	<i>mete-naiv</i>	'dirty knife'
<i>hui-</i>	'main'	<i>hui-meatin</i>	'main person'
<i>vatile-</i>	'short'	<i>vatile-meatin</i>	'short person'

Table 19: Linked nouns expressing states

These forms are further structurally different from all other linked nouns in Paamese in that the suffix *-ite* does not create free form nouns anaphoric reference. Instead, it creates a form that behaves as a predicative adjective. Thus, the attributive construction *mari-eim* 'big house' contrasts with the following predicative construction:

- (30) *Eim ouak rovitei marite.*
 house poss:1sg 3sg:real:neg:copula:neg big:ite
 'My house is not big.'

Some of these linked nouns which express stative meanings correspond to free form verbal or adjectival forms that express identical meanings in Paamese. Those which have synonymous forms in other word classes are set out in Table 20.

<u>Linked Noun</u>	<u>Synonym</u>	<u>Form Class</u>	
<i>mari-</i>	<i>mariso</i>	verb	'large'
<i>more-</i>	<i>tahos</i>	verb	'good'

¹⁰ It will be noted that some of these linked statives exist in singular/plural pairs in which the plural is expressed by means of reduplication.

<i>voreti-</i>	<i>havivi</i>	adjective	'small'
<i>mete-</i>	<i>amus</i>	adjective	'dirty'
<i>vatile-</i>	<i>tamure</i>	verb	'short'

Table 20: Statives expressed both as linked nouns and by words belonging to other word classes

There appears to be further semantic unpredictability in the behaviour of members of this subset. While the antonymous pair *mari-* 'large' and *voreti-* 'small' both function as linked nouns, we find that the opposites of all the other stative linked nouns in Table 19 can only be expressed either as adjectives or as verbs, as indicated in Table 21.

<u>Linked Noun</u>		<u>Antonym</u>	<u>Form Class</u>	
<i>more-</i>	'good'	<i>tīsa</i>	verb	'bad'
<i>mete-</i>	'dirty'	<i>muto</i>	verb	'clean'
<i>(ti)ti-</i>	'tiny'	<i>eilev</i>	adjective	'huge'
<i>vatile-</i>	'short'	<i>taveah</i>	verb	'long'
<i>musi-</i>	'old'	<i>hāu</i>	adjective	'new'

Table 21: Linked stative nouns and free form antonyms

One possible way of accounting for the behaviour of the forms in this section might be to suggest that the linked noun construction does not encode the semantic relationship of separability at all as I have suggested, but that it expresses instead a kind of grammatical relationship of generic vs. specific, in which free form nouns incorporate within their meaning all that is needed to fully specify them, whereas linked nouns require further semantic specification. Statives, in expressing the general attributes of largeness, goodness and so on as they do, are also more fully specified by the noun that follows them, apparently providing support for such an analysis. While this analysis would indeed account for the seemingly anomalous behaviour of those linked forms described in this section, we lose all of the repeated semantic parallels relating to separability described in the previous section.

8 Conclusions

When faced with the question of the nature of the relationship between formal and semantic categories in language, opinions can generally be divided into two opposing camps. One point of view would have it that semantics and grammar are totally independent of each other, while the extreme opposing point of view is that grammatical categories reflect pre-existing semantic categories.

With respect to the distribution of free form nouns and pronominally suffixed nouns in Crowley (*in press*), I argue that while there is by no means a complete semantic correlation between those nouns that accept direct pronominal suffixation and those that do not, it is still the case that, by and large, directly suffixed nouns express inalienable possessive relationships, while free form nouns express alienable relationships.

The data that has been presented in this paper requires a similar kind of conclusion. The distribution of linked nouns in the Paamese lexicon is by no means random. At the same time, it is not completely regular either. I would argue that it falls somewhat to the more predictable side of being a general tendency. Many forms that might appear at first to exhibit anomalous behaviour in fact turn out, with closer attention being paid to semantic detail, to behave in ways that are consistent with a single semantic generalisation.

Excluding the stative linked nouns described in the preceding section, which do indeed appear to exhibit quite different patterns of behaviour to all other nouns of this type, linked nouns in Paamese generally express a relationship between something that can be perceived of as being a separable part of a whole, either physically or metaphorically, but which prototypically does not exist except as part of that whole.

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