

The expression of potential event modality in the Papuan language of Koromu

Dr Carol Priestley

Griffith University

c.priestley@griffith.edu.au

Research Associate of the Australian National University

Abstract. This paper aims to give an overview of the morphosyntax and semantics of potential event modality in Koromu (Kesawai), a Madang language in the Papuan group. Potential event modality refers to Palmer's "events that are not actualized...but are merely potential" (2001:70). Some characteristics of event modality are compared with English and other Papuan/regional languages. The study is based on Koromu data in recorded texts, collected over a number of years and on earlier grammatical analysis (Priestley 2002a, 2009, and forthcoming^a). Meanings are represented in semantic explications in the natural semantic metalanguage, a metalanguage that can be used in many different languages (Goddard & Wierzbicka 2002). The findings include a range of constructions and meanings for "imperative" and "desiderative" type expressions, a distinction between external, internal and negative desires, and strategies for testing meaning and grammar analysis with Koromu speakers.

Keywords. potential event modality, imperative, desiderative, semantic primes, explications, grammaticized 'say/do'

1. Introduction

The Koromu (Kesawai) language¹ is spoken in one of the many speech communities in the middle Ramu Valley of Papua New Guinea (PNG). Koromu is a Rai Coast language, in the Madang group of Trans New Guinea languages. Like other Madang languages it can also be referred to as a Papuan language, as it is one of the approximately 800 languages of the region that are not Austronesian.² Some of the typologically interesting features of Koromu are serial verb constructions, impersonal experiencer object constructions, clause chaining, switch reference and grammaticized uses of the verb *#* ‘say (quote form)/do’.

This paper aims to contribute to the study of modality by examining a system of morphosyntactic and semantic distinctions that express event modality. Event modality refers to “events that are not actualized, events that have not taken place but are merely potential” (Palmer 2001:8). Some of the event modality distinctions in Koromu are compared here to examples from English and from other Madang languages, for example, Amele, Bargam, Kalam (Roberts 1990), and Tauya (McDonald 1990). Other references are made to languages in the broader region, for example, Mangap-Mbula an Austronesian language in Papua New Guinea (Bugenhagen 1989), and Ungarinyin, an Australian language (Rumsey 2001).

The meanings of event modality expressions are outlined in tentative explications using reductive paraphrase. These paraphrased explications are written using semantic primes and their combinatorial properties in the natural semantic metalanguage (Wierzbicka 1996, Goddard & Wierzbicka 2002, Goddard 2008, 2011).³ This metalanguage can be expressed not only in English, the language of publication, but also in other languages. In this paper three examples are given using Koromu exponents of the semantic primes.

This study of Koromu event modality refers to examples in natural speech that occur in recorded texts and extracts from conversation. The data was collected while I lived in a Koromu village (1975-1976, 1978-1980, 1986) as well as during

¹ In Z’agraggen (1980) the Koromu language is referred to as Kesawai after the villages of Kesawai 1 and 2 on the north side of the Ramu River.

² Papuan languages are not a genealogical unit (Ross 2005:15).

³ Complete explications using the full rigour of the natural semantic metalanguage are not attempted here.

linguistic fieldwork (2000, 2004 and 2010). The study also refers to my analysis of the language in earlier work (Priestley 2002a, 2008 (revised 2008), forthcoming^a).

The paper is structured as follows. Section 2 outlines some key theories of modality. Section 3 presents the methodology for semantic description. Section 4 provides a background to the study with a brief introduction to Koromu clauses and dependent and independent verbs. Then various types of potential event modality are examined in sections (5) for imperative, (6) the future tense/hortative overlap, 7 intensive with *-mpe*, 8 desiderative with *V-apesi*: what people, want/desire and are about to do, 9 internal and negative experience and 10 concluding remarks.

2. Theories of modality

Modality is a grammatical category closely associated with tense and aspect. All three categories can be expressed from the level of the lexicon to the “level of text” (Timberlake 2007:283). They are “generally, but not always marked within the verbal complex” (Palmer 2001:1). In grammaticalized, regular combinations of verbs and morphological operators, the morphological devices that express tense, aspect and modality include derivational and inflectional morphology, and verbs with particles, auxiliary verbs or participles (Timberlake 2007:283). In Papuan languages such as Koromu, it is common for tense, aspect and mood to be expressed in verbal inflectional morphology, phasal (aspectual) and/or modal verbs in serial verb constructions and in particles and adverbs (see Priestley 2008).

There is a general consensus that tense refers to the time of an event, while aspect characterises the nature of an event (Chung and Timberlake 1985, Palmer 2001) and its “internal temporal constituency” (Comrie 1976:30). However, modality is a category that has been defined in many different ways (for numerous examples of the range of definition, see Roberts 1990:363-367). In this chapter I refer mostly to the discussions of modality in Palmer (2001) and Timberlake (2007). In his book *Mood and Modality*, Palmer (2001:1) describes modality as differing “from tense and aspect in that it does not refer directly to any characteristic of the event, but simply to the status of the proposition”. In the second edition of Shopen’s

Language Typology and Syntactic Description, Timberlake (2007:315) describes modality as “consideration of alternative realities mediated by an authority”, for example:

how we come to know and speak about the world, how the world came
to be as it is, whether it might be other than it is, what needs to be done
to the world to make it what we want (.)

Timberlake goes on to state that “there are many ways in which a situation can be less than certain and real” (2007:316). His first category, epistemology, “has to do with knowledge about events and the world” (2007:316); the second, directive/jussive/so-be-it modality, is modality in which “the responsibility for the state of the world is transferred from one authority to another” (2007:318); and the third, causation and contingency, involves one situation, rather than an individual, that is “responsible for the existence of another situation”. The latter is exemplified in conditional constructions in which a contingency situation is in some sense prior to a consequence (2007:321-322).

Palmer’s (2001) classification of modal systems includes propositional and event modality. He describes propositional (epistemic or evidential) modality as being concerned with the “speaker’s attitude to the truth-value or factual status of the proposition” (2001:24). In contrast, event modality, which includes both deontic and dynamic modality,⁴ refers to “events that are not actualized, events that have not taken place but are merely potential” (2001:70).

Deontic modality has conditioning factors that are “external to the relevant individual” or the subject of the clause (Palmer 2001:9, 70). They are “generally dependent on some kind of authority” (2001:70, cf. Timberlake 2007). Examples occur in obligation, permission, direction, and so on, when “trying to get someone to do something”. Palmer also suggests that commissive “where the speaker guarantees that the action will take place”, is a type of deontic modality (2001:70). In contrast, in dynamic modality, the conditioning factors are ability or willingness. These factors are internal to the relevant individual, whether that individual is the speaker or someone else. They can also be based on general circumstances that make the action possible or impossible (2001:70, 76-80).

⁴ Of these two terms ‘deontic’ often occurs in linguistic descriptions (see, for example, Bugenhagen 1989:17, Roberts 1990:365, Foley 1991:264, Payne 1997:246).

Furthermore, although “the status within modality of wishes and fears is a little more obscure [...]” it is clear that the expression of wants, desires and preferences also relates to “unrealized events” (Palmer 2001:13, see also Timberlake 2007:319).

The main purpose of this paper is to examine key types of event modality in Koromu, the grammatical constructions in which they occur and their core meanings. The modality expressions discussed here are linked by the fact that they refer to non-actualised and potential events. They could be said to fit loosely into Palmer’s “event modality system”, or into Timberlake’s second realm of modality, directive/jussive and so-be-it modality. When Koromu speakers talk about potential events, options and wishes, what they want, don’t want, intend and are about to do, they have a variety of ways to do so. The different forms include the verbal inflections for imperative, and the inflections *-mpe*, *-apeſi* and *-apu* used in the expression of intention, desire, prospective action, internal experience/desire and negative experience/desire.

3. Methodology for semantic description

Timberlake, Palmer and many others use English terms as a basis for classifying different types of modality in different languages. While English-specific terms for modality may to some extent provide a framework, they can also be misleading in the absence of a more in-depth analysis of the meanings expressed in particular languages. Furthermore, they do not reveal whether there are similar or different components of meaning in modality types in different languages. The difficulty arises, not only from the differences between the categories, but also from limitations inherent in using one language, English, to describe modality in other languages. In fact, the modality terms themselves, for example, ‘epistemic’, ‘deontic’ and ‘dynamic’, need to be clearly defined in simpler terms (Wierzbicka 1987:37).

One way to try to avoid these limitations, to show the differences and similarities between modal expressions and to be able to test the results with native speakers is to use word meanings that can be expressed in other languages. For this purpose, the core categories of Koromu potential event modality in this paper are

accompanied by tentative explications expressed in reductive paraphrase. These explications are based on the proposed semantic primes and their combinatorial properties in the natural semantic metalanguage (Wierzbicka 1996, Goddard & Wierzbicka 2002, Goddard 2008, 2011) rather than on complex English-specific words. Using this method, meanings are represented in explications composed of ‘semantic primes’ that can be expressed through their Koromu exponents (see Appendices: Table). This tool allows the explications to be directly checked with speakers of the language. It can be used with care to avoid a representation of meaning that is based on Anglo-centric concepts.

When primes are discussed in text they are normally represented in small capitals. In this paper the English exponents are represented in ordinary small capitals while their Koromu counterparts (still under investigation) are in italics. Some primes in specific languages have more than one variant form. This variation is called allolexy and is represented by a tilde ‘~’ between the alternate forms, as in ‘SOMETHING~THING’ (see Appendices: Conventions).

The most commonly used semantic primes in this study of potential event modality in Koromu are the substantives I, YOU, SOMEONE, and SOMETHING~THING (*I, NE, ATO, NA*); the determiner THIS (*MO*); the quantifier SOME (*ASAQ*); the mental predicates THINK, KNOW, and WANT (*URUNU, SIPAMU, URUNU~-APEST*); the speech word SAY (*SA~U*); the action word DO (*HARU~U*); BE (specificational) (*MENE*), and the logical concepts NOT and BECAUSE (*TAI, U SEI*). These primes can be used in the explications of modality expressions of similar types in other languages.

Other semantic primes used for this topic in Koromu are: the substantives PEOPLE and BODY (*AHAROPU, METE*), the determiner THE SAME (*ATEREI*), evaluators BAD and GOOD (*WARIKAU, ETAMAU*), the event verb HAPPEN (*AIRI*), the mental predicate FEEL (*ORU~URUNU*), the time exponents AFTER and A SHORT TIME (*EPONO, SA HANE*), and the space exponent INSIDE (*ORU PA*). Since ‘you plural’ is not a semantic prime most of the explications are written for a single addressee. Further research is needed to provide more detailed explications that include second person plural addressees.

These primes could be further tested, and also used to provide language-specific definitions, in future semantic fieldwork in Koromu and in studies of modality in other languages. Furthermore, the primes and components of meaning needed in explications of modality may highlight language-specific characteristics of this semantic domain in particular languages. For example, as I will show in this paper, the prime *INSIDE*, though it may seem an unlikely contributor to explications of modality expressions in English, is used in one of the Koromu explications and may also be relevant in explications of potential event modality relating to internal experience in other Papuan languages.

The natural semantic metalanguage (NSM) has been used in several studies of modality. In addition to a discussion of the semantics of English modality written in an earlier version of the natural semantic metalanguage (1987), Wierzbicka has written an extremely detailed and enlightening study of English epistemic phrases and adverbs in her 2006 book *English: Meaning and Culture*. There, Wierzbicka suggests that “from the speaker’s point of view, adverbs of this kind refer to thinking and knowledge (or lack of knowledge) rather than to truth” (cf. Timberlake 2007:316 above). Other work on modality using NSM includes Goddard’s study of modals of necessity in English (forthcoming) and Bugenhagen’s study of the semantics of modality, using an earlier version of the natural semantic metalanguage, in the Austronesian language of Mangap-Mbula (1989) and in his overview of the semantics of irrealis in several Austronesian languages (1993).

4. Koromu clauses, dependent and independent verbs: background to Koromu event modality

Koromu has both verbal and non-verbal clauses. In verbal clauses there is either a dependent (medial) verb or an independent (final) verb. Modal distinctions are indicated by modal verbs, adverbs and particles (see Roberts 1990 for examples of forms that express modality in a number of other Papuan languages). Modal adverbs and particles, relating to certainty, uncertainty and ability, occur in both verbal and non-verbal clauses. As with many other languages, basic modal distinctions relating to potential events are expressed through final verb

morphology. For further details on any of the grammatical categories in this section, see Priestley (2002a, 2008 and forthcoming*a*).

Independent final verbs are fully inflected for future or non-future tense with portmanteau tense-subject-number inflections. Present tense-aspect, object, reciprocal and/or habitual aspect inflections are optional. Finite verbs, or serial verb constructions, express realis (or indicative) mood in simple declarative clauses inflected for non-future tense, as in example (1).

- (1)⁵ ...*naere* *wamte* *te* *sa* *amkoru* *pate* *ho* -s -a.
 snake (snake.type) PNP road middle S/L bite -O1s -3s
 ‘...in the middle of the road a snake (death adder) bit me.’ (T1.6.1)⁶

With independent verbs the present tense-aspect suffix indicates the moment of speaking or time earlier on the day of speaking, as in the quoted speech in example (2). Example (2) also exemplifies the boundary marker (BM) clitic that commonly occurs at the end of a declarative clause (verbal or nonverbal) when it is at the end of a discourse or significant part of a discourse. In this case the discourse is the quoted speech.

⁵ Abbreviations: ALOC: animate locative; APP: apprehensional; BM: boundary marker; DR: different referent following; EMPH: emphatic; F: future; GRD: ground (topic-like element); G/L: goal/locative; HAB: habitual; IMP: imperative; INC: inclusive; INT: intensive; LTD: loose temporal dependency; LV: light verb; NEG: negative; NOM: nominaliser; O: object; ORNT: orientation; p: plural; P: possessive/part of; POS: possibility; PRES: present; PNP: prominent noun phrase; Q: question; s: singular; S/L: source/locative; SR: same referent following; TADJ: temporal adjectiviser; T:S: ‘tense-subject suffix’; UNC: uncertainty; V: ‘verb’.

⁶ The majority of examples come from texts (T). The initial T for text is followed by the number of the tape, or other data source, and then the number of the text and number of the line in the original transcription. Several examples come from Databooks (D), a collection of data based on overheard conversations and in some cases related elicitation. D numbers indicate the book, page number and line number. There are also a few examples from a collection of translations (Z) and from an early grammar paper (G.E) that includes some natural examples.

- (2) “*Naere ho -se -r -a =mo*”, *o re -pe...*
 snake bite -O1s -PRES -3s =BM say PUT⁷ -SR
 ‘“A snake bit me”, I said (to him)...’ (T1.6.6)

Before moving on to the future tense, example (2) above and (4) below also illustrate direct speech. There are several different word forms that express ‘say’ in Koromu. The form *u* ‘say’ is used following direct speech or thoughts, in grammaticized constructions and in some contexts for ‘do’. It appears as *o* before *re* PUT where it is affected by a rule of ablaut (Priestley 2008:57). The grammaticized constructions are important in later sections of this paper.

A set of future tense-subject person-number suffixes can occur with an independent verb in a declarative clause, as in example (3).

- (3) *Weti pa eno pa pobo ni -hi =mo.*
 house G/L over.there G/L sit STAY -F1s =BM
 ‘I will sit at the house over there.’ (T1.6b.5)

In contrast, dependent verbs have either no inflections, or partial inflections, for tense-subject person-number and aspect. They do, however, have inflections that indicate whether the subsequent verb has the same or a different subject referent (Priestley 2008:320-340). A series of these dependent verbs followed by an independent verb forms a clause chain. Clause chaining with switch reference inflections on dependent or medial verbs is common in Papuan languages (Roberts 1997). While giving information about the forthcoming subject, they can also give information on whether events in a chain are sequential or simultaneous (Roberts 1997:139-142), on tense (1997:144-148), on aspect, for example durative or punctual (1997:142-144), and also on the distinction between realis and irrealis mood (1997:148-152).

⁷ Glosses in capitals indicate a phasal/valency verb. This shows that the verb has grammatical function as well as lexical meaning. In some cases the lexical meaning remains an important aspect of the function of these verbs. *Here/re* PUT expresses ‘put’, perfective or a wide range of types of valency increase, depending on the verb it combines with. *Ne* STAY expresses durative, stative aspect or valency decrease (Priestley 2009:341-402).

Koromu switch reference inflections on medial dependent verbs express several types of grammatical information. They indicate whether the subsequent verb has the same subject, whether the events expressed by the verb occur sequentially (in close succession), overlap temporally, or are loosely related in time. With verbs marked for a different referent following, they also indicate whether mood is realis or irrealis. A subsequent, partially inflected dependent verb, or fully inflected independent verb, provides information on tense, aspect and mood. Example (4) has a verb marked by *-pe* for same referent following, followed by a clause in which the verb is inflected for first person singular non-future tense.

- (4) ...*a* *mi* *-pe,* *weti* *pa* *airi* *ta* *-i.*
 come move.down -SR house G/L arrive END -1s
 ‘...I came down and arrived at the house.’ (T5.20.45)

5. Imperative

The term imperative is used here as a label for a morphosyntactic category. This category is indicated when a verb root is inflected by an imperative suffix, *-ae* (IMP2s) or *-abe* (IMP2p). A simple imperative, consisting of a verb root and one of the imperative suffixes, is used when the speaker wants one or more addressees to do something, as in (5).

- (5) *Io* *abi* *-ma* *te,*
 GEN1s mother -P1s PNP
 ‘*Nau* *topi* *-ae*’, *u* *-a.*
 coconut climb -IMP2s say -3s
 ‘My mother said, “Climb the coconut palm”.’ (T1.4.1)

A comparable category is found in many languages and the term “imperative” is commonly used in grammatical description. In Chung & Timberlake (1985:248) imperative mood is described as “the quintessential form of the deontic mode: the speaker is the source that imposes an event on the addressee”. However, the term

“imperative” is strongly connected in English with commands, directives and authority. For example, see the following quote from Palmer (2001:80, see also Timberlake 2007:316, 318).

Most languages have a specific form that can be identified as Imperative. [...] It is clearly directive and usually portrayed as indicating a command. In fact it is often thought to be the strongest of the directives, one that emanates from someone in authority, which therefore, does not expect non-compliance.

The use of the English terms ‘impose’, ‘command’, and ‘directive’ can lead to some misunderstanding when looking at so-called ‘imperative’ forms in other languages, since these terms could be said to relate to one aspect of the ‘cultural logic’ (cf. Gumperz 1982) of English speakers. In this ‘cultural logic’, imperatives are commonly associated with ‘commands’. In many contexts in English speaking communities, commands act against the strong cultural principles of ‘non-interference’ and ‘avoidance of imposition’ on others (Wierzbicka 1991/2003:60-62, 2006:45). Thus English speakers avoid bare imperatives when they want someone else to do something. Instead they commonly use ‘whimperative’ expressions like *Would you mind shutting the door?* or *Will you close the door please?* (Wierzbicka 1991/2003:30-32). Such expressions are used even when someone is being ‘impolite’, for example, *Why don’t you shut your mouth?* (1991/2003:60).

Although this is a pragmatic issue, the common association of the bare imperative with ‘imposition’ is important in a discussion of the grammatical category of imperative, because it is all too easy to allow English pragmatics to impose on our understanding of the meaning expressed by imperative forms in other languages.

The cultural logic in other languages may mean that the use of the bare imperative does not have the negative connotation of ‘commands’ and ‘imposition’, or carry the idea that the speaker is an ‘authority’ in the strict sense of the word. Thus such terms do not give an adequate picture of imperative modality in a language like Koromu. For example, as I will show below, the Koromu grammatical category signalled by the suffixes *-ae* (IMP2S) and *-abe* (IMP2p) is just as commonly used for giving advice, invitations or offers, making suggestions and requests, or expressing salutations.

In fact, even in English the imperative can be used “simply to give permission or advice” as in *Come in* and *Don’t worry about it* (Palmer 2001:80) and in offers such as *Have a drink*. These English examples appear to be conventionalised expressions within the domain of hospitality.

Timberlake (2007:316) states that an imperative can be an attempt “to persuade (invite, obligate, cajole) the addressee to act...”. This latter description, using the English words ‘inviting’ and ‘cajoling’, draws a little closer to the meanings expressed in many languages. For example, when obliged to use English to describe another language like Koromu, one could say that in many canonical examples speakers who use the imperative form are doing something like cajoling, requesting, inviting, suggesting or offering something. For this reason I have omitted the English convention of exclamation marks in many of the following examples.

In example (6), a young man who has just killed a pig (and is not an experienced butcher) comes home and requests help from an older man. He uses a flat imperative but this is not considered disrespectful (cf. Priestley forthcoming^b).

- (6) *Yako sau -pe “Ho -ae,” u -r -i =mo.*
 Yako say.to.3s -SR cut -IMP2s say -PRES-1s =BM
 ‘I said to Yako, “Cut it”.’ (T2.14.18)

In the conversation in (7) a young man, who has just been bitten by a snake, requests some medicine from an older man who offers him a place to sit down. Both speakers use the imperative form.

- (7) *Popo sau -pe n-i-te,*
 Bob say.to.3s-LTD1s

“Sutu si -ae. Marasin si -ae.
 injection give.1s-IMP2s medicine give.1s-IMP2s

Naere ho -s -a -te
 snake bite -O1s -3s -DR

ka -r -i =mo, *u -i =mo*.
 come -PRES -1s =BM say -1s =BM

(...) “*A werei mo pobo n -ae.*” *U -a =mo*.
 Ah a.little here sit STAY -IMP2s say -3s =BM

‘I said to Bob, “Give me an injection. Give me medicine. A snake bit me and I came.” (...) “Ah, sit here a moment (a little),” he said.’ (T1.6b.1)

Example (8) is an offer by one woman to her friends.

(8) *Pobo ne -pe kare beti -abe.*
 sit STAY -SR car wait -IMP2p
 ‘Sit and wait for the car.’ (T1.35.13)

An imperative form of the verb is also a conventionalised expression used to express friendly farewells, as in (9).

(9) *Men -ae!*
 stay -IMP2s
 ‘(You) stay!’ (D1.1.6)

Words like ‘invite’, ‘cajole’ and so on have no direct equivalents in Koromu and still cannot fully sum up the meaning of the Koromu imperative form. Based on a study of Koromu usage, the following common meaning for the singular imperative emerges in terms that can be translated into many other languages. In the explication the speaker and addressee are represented by the primes I and YOU.

[A] Koromu verb-*ae* IMP2s
 I say: ‘I want you to do this’

Here I propose Koromu versions of explications [A] to [C] that are based on my knowledge of the language. These tentative explications need to be tested with native speakers during future fieldwork.⁸

The Koromu version:

[AA] 'mo ne u-apesi,' u-i
 ['this you do-want,' say-1s]
 (I say: 'I want you to do this')

In the more routinized hospitality and greeting/farewell contexts in Koromu there is also an implication that can be phrased in terms of reductive paraphrase as follows:

'you can feel something good because of this (because I say this)'

In some contexts, imperative examples are expressed quite forcefully, with a gruff tone of voice and falling intonation. Then they are more like a command than a request. This is particularly common with some verbs, for example, *Si-abe!* [clear out-IMP2p] 'Clear out of the way'. In this context there is an added implication that:

'it will be bad if you do not do this'

In relation to these findings in Koromu, it would also be interesting to investigate the meanings and implications involved in the distinction between 'strong' and 'polite' imperatives in some other Madang languages, for instance Amele⁹ and Bargam (for which there is some detail in Roberts 1990:384), and in at least one other Papuan language Alamblak (Roberts 1990:390), as well as in the constructions that express simply 'wish' in Nahuatl (Andrews 1975).

⁸ Note that speakers can express [A] simply by using the imperative.

⁹ Amele is the closest of these languages geographically and linguistically to Koromu. The strong imperative is expressed by a verb in its final form with the imperative suffix as in, *H-o-g-a* [come-2sg-IMP] 'Come!' The more polite form is expressed by an irrealis medial verb form, as in, *Ho-ho-m* [SIM-come-2sg.DS.IR] 'Would you come.' (The abbreviations are sg.: singular, IMP: imperative, SIM: simultaneous, 2sg.DS.IR: second singular different subject irrealis.)

In order to express an imperative that is negative in Koromu, the speaker includes the standard negative particle *tai* (NEG), which, when it is required, is added to verbal clauses in the position immediately before the verb. An example with a verb inflected by the imperative suffix is given in (10).

- (10) *I sei tai urunu -ae.*
 1s ORNT NEG think -IMP2s
 ‘Don’t think about me.’ (T6.4.24)

The meaning expressed when the imperative is preceded by the negative particle is as follows.

[B] I say: ‘I don’t want you to do this’

Koromu version:

[BB] ‘ne mo u-apu, maikoho-se-r-a,’ u-i
 [‘you this do-NOM not.want-O1s-PRES-3s,’ say-1s]

Koromu has several types of serial verb construction. In coincident serial verb constructions two verbs “each encode components of one event” (Priestley 2008:383). In order to tell someone to cease doing something, a cessative construction is used. This consists of a main verb, representing the action that the speaker wants to cease, followed by the verb *apaise* meaning ‘do not/leave off/stop’ with an imperative suffix, as in (11) below. This modal verb has the same form as the main verb *apaise* which means ‘leave’ (as in ‘he left the house’). The context for example (11) is that a man had been lying resting in the house for some time (following an illness). His wife was tired of this and said the following.

- (11) *Weti pa seka ene ne apais -ae.*
 house G/L so.much lie.down STAY do.not -IMP2s
 ‘Don’t lie around (sleep) in the house so much.’ (T1.15.9)

A further example, in (12), is also an attempt to stop someone from continuing to do something.

- (12) *Ene ne -bera =mo. Wera -ima ani apes -ae.*
 sleep STAY -F3s =BM child -P1s wake do.not -IMP1s
 ‘He will stay asleep. Don’t wake my child.’ (T2.24.8)

In his paper on modality in Mangap-Mbula, Bugenhagen describes a cessative modal particle (1989:29-30). Two of the components in his explication for this particle are “You are doing X now, I don’t want you to do this”. These components fit very well with the basic cessative meaning in Koromu serial verb constructions which include the modal verb *apaise* ‘leave off/stop’. However, I propose that in an explication of this cessative meaning in Koromu there is possibly a third component, which I have included here in brackets.

- [C] I say: ‘you are doing something now
 I don’t want you to do this now
 (it is bad if you do this)’

Koromu version:

- [CC] ‘apu ne na haru-r-i,
 apu ne mo u-apu, maikoho-se-r-a
 (‘mo na harur-i uo, mo warikau)
 [‘now you something do-2s
 [‘now you this do-NOM not.want-O1s-PRES-3s
 [(‘this thing do-2s GRD, it is bad)]

6. The future tense/hortative overlap

Future time reference is an area where tense and modality can merge and overlap. “Situations in the future are inherently uncertain as to actuality [...] they are potential rather than actual” (Chung & Timberlake 1985:243) and “an event in future time can be located deictically on the timeline by a future tense but it can also be categorized as irrealis since it has not been actualized in the real world” (Roberts 1990:373). In Koromu, the first person plural (inclusive) future tense

and hortative modality can be expressed by the same form, the suffix *-abo/bo* (INC1p). As in the imperative, there is both a speaker and an addressee.

In (13) the first person plural inclusive future tense suffix *-abo/bo* is used as future tense when giving information to someone.

(13) *Kainantu aire ta -pe n-ia-te*

Kainantu arrive END -LTD:1p

si u pate ete -bo =mo.

then that S/L through-INC1p=BM

‘We will arrive at Kainantu and then go through it.’ (T1.22.38)

Drawing on components from Goddard’s (2011:339) explication of ‘we’,¹⁰ ‘some people, I am one of these people’,¹¹ the meaning of the future tense first person plural inclusive can be expressed in semantic primes as in explication [D]. Koromu versions of this explication, and the ones that follow, are not included here as further research and consultation with native speakers are required.

[D] Verb with future tense first person inclusive suffix *-abo/-bo*

I say: ‘some people will do something at the same time a short time after,
you are one of these people, I am one of these people’

When the suffix *-abo/bo* combines with a verb and expresses a hortative sense the addressee is invited to share with the speaker in what happens next, “in changing the world”, as Timberlake puts it (2007:318). For example, when calling to someone else, as in example (14), the speaker could be said to be using hortative modality.

¹⁰ ‘We’ is not a semantic primitive, as it can be defined using other primitives. Also, its meaning is not the same in all languages (inclusive, exclusive, dual, plural etc.).

¹¹ Interestingly, the etymology of Tok Pisin *mipela* ‘we’ is ‘I-fellow’ (cf. Goddard 2011:339).

- (14) *Yar -abo.*
 go -INC1p
 ‘We will go.’/‘Let’s go.’

It appears that in many everyday contexts this type of expression is used when people have already talked about doing something together or when they have other reasons for thinking they will be doing so. The tentative explication below reflects the hortative inclusive meaning. (For English *let’s*, see Wierzbicka 2006a:195-196).

- [E] Verb with future tense first person inclusive suffix *-abo/-bo* used in a hortative manner
 I say: ‘some people want to do something now at the same time, you are one of these people, I am one of these people
 because of this, I say: ‘I want to do this now, I want you to do the same thing at the same time’

7. Intensive with *-mpe*

When expressing their intention to do something, or to bring about some future event, Koromu speakers use a verb inflected for future tense first person singular, or plural, followed by the suffix *-mpe* ‘intensive’. The expression of intention is restricted to use by the first person, the one who has some ability to bring it about, unless it appears in a special quotative form where it can be used to represent the intentions of a third person. Similar restrictions occur in many languages. In Tauya, a Madang language in the Ramu Valley related to Koromu, there is a necessitive mood suffix that is used only for first person and third person subjects. Like the Koromu intensive suffix, the Tauya necessitive mood suffix combines with a future tense suffix. It is described as being “in complementary distribution with the imperative mood” (MacDonald 1990:213). Further afield, in the Australian language Ungarinyin, intentional meaning is also “limited to cases where the subject of the future-marked verb is a first-person one” (Rumsey 2001:355).

The Koromu intensive is about what someone wants to do and is committed to doing in the near future. Example (15) explains the speaker's intentions or plans to a group of young men recruited to help with some gardening work.

- (15) *Wa werai u pa hibike re -hi -mpe...*
 garden small that G/L fence PUT F1s -INT
 'I intend to fence in a small garden there...' (T6.7.30)

The meaning of a verb with future tense and intensive marking is summarised in [F]. This contrasts with the simple future tense with an agentive subject that can be summed up as, I say: 'I will do something'.

- [F] I say: 'I want to do this'
 I think about it like this: 'I will do it at some time a short time after'

The intensive can be expressed in first person plural, as in (16).

- (16) *...sakin sa -hia -mpe.*
 word say -F1p -INT

Yare -r -ia umo kaset ia n -a -te...
 go -PRES -1p but cassette be.not STAY -3s -DR
 '...we intended to talk. We went but the cassette was not (there)...'
 (T1.20.57)

With Goddard's (2011:339) explication of 'we' in mind, an explication for first person plural intensive could be written as follows:

- [G] First person plural intensive with *-mpe*
 I say: 'some people want to do something, I am one of these people'
 I think about it like this: 'these people will do it at some time a short time after'

When speaking about the intentions of someone else, a verb with a first person future subject and the suffix *-mpe* can be framed by a light verb (LV), *u* 'say (quote form)/do' with tense-subject person number marking, as in (17). This

construction is not the same as direct speech, where *u* ‘say’ follows direct quotes of speech and thought, because there is a different intonation pattern.

- (17) ...*si* *mere* *-pe* *wene* *ni* *-hi* *-mpe* *u* *-a*.
 then move.down -SR food eat -F1s -INT say(LV)-3s
 ‘...then she went (moved) down, she was going to eat.’ (T7.2.18)

Constructions that involve a light verb with a form of the verb ‘to say’ are found in a number of Papuan languages and similarities can also be found in languages in other parts of the world (see Reesink 1993 on “‘inner speech’ in Papuan languages”). For example, to predicate intention to someone else the Australian language Ungarinyin, mentioned earlier, can have a verb with future and intensive inflections that is “framed by an appropriately prefixed form of the following verb *-ma*, which means ‘say’ or ‘do’” (Rumsey 2001:355).

8. Desiderative with V-*apesi*: what people want/desire, and are about to do

Potential event modality expressions in which a verb has the suffix *-apesi* ‘desiderative: want/be about to’ can appear in different constructions. The first is a simple desiderative in which a verb with the suffix *-apesi* represents something someone wants to do (8.1). Secondly, when a verb with *-apesi* occurs as complement of a light verb *u* ‘say/do’ the construction expresses what the subject is ‘about to do’, imminent prospective action (8.2). While *-apesi* could possibly be glossed as ‘desiderative (DES)’, the meaning is more clearly expressed by ‘want’ and ‘be about to’ depending on the type of construction in which the form occurs.

8.1 Simple desiderative: saying what someone wants with *-apesi*

When speakers express what they or someone else ‘wants’, a bare verb root is inflected by *-apesi* (*WANT*).¹² There is no indication of subject person or number so the subject has to be understood from the discourse or real world context. This expression is commonly used by the speaker about his/her own desires or,

¹² The gloss for ‘want’ is written in small capitals in italics to distinguish it as a suffix.

alternatively, in questions to a second person. There is a contrast with intensive constructions because person and number are not specified on the *-apesi* inflected verb. Also these forms do not express such a strong intention, plan, commitment or even ability to do something as first person intensive forms with *-mpe*.

In (18) the subject can be understood to be the same as the one indicated by the person-number suffix on the preceding verb.

- (18) *Serip -ia. Yar -apesi =mo.*
 get.up -1p go -WANT =BM
 ‘We stood up. We wanted to go.’ (T1.1b.10)

The meaning can be explicated simply as in [H].

- [H] *u-apesi*
 (someone) wants to do this

In (19), the subject can be understood from the third person subject suffix on the final verb in the previous clause. Note that the uncertainty in this example is expressed by the modality particle *tauo* (*taumo*).

- (19) *Pobo n -e. “He k -apesi tauo...” u -i.*
 sit STAY -3p return come -WANT UNC say -1s
 ‘They were sitting. “Maybe they want to come back...?” I thought.’
 (T1.15.22)

Example (20) is from direct speech in a narrative about a large store. The speaker is the person guiding other participants around the store. The narrator was one of the addressees. Although the subject can be understood as ‘you, the addressees’ it could also be the general public.

- (20) “...*Aine kесе baim u -apesi. Mo na mo,” u -r -a.*
 fish case buy do¹³ -WANT this thing here say-PRES-3s
 ‘...“(You) want to buy a case of fish. Here it is.”...he said.’ (T1.20.11)

The speaker can indicate tense-subject person-number using a similar method to the one that occurs when verbs are inflected by *-mpe*. The frame consists of the appropriately suffixed form of the light verb *u* ‘say/do’. The third person singular is indicated in example (21). Again the basic meaning is given in [H].

- (21) *Wera ya hes -apesi u -a -te*
 child water wash -WANT say(LV)-3s -DR

aba -nema te eme te -pe yare -r -a.
 mother-P3s PS take/carry GET -SR go -PRES -3s
 ‘The child wanted to wash (so) her mother took her and went (to the river).’ (G.E.30.3)

In contrast, when an example like this is an example of direct speech the verb *u* means ‘say (quote)’, the intonation for direct speech is used and *wera* ‘child’ can not occur on its own in front of the quote. The morphosyntax of direct speech has an optional pre-quote formula which includes another speech verb, for example *sau* ‘say to 3s’. As an example of direct speech, the contents of (20) could be expressed as *Wera sau-pe* “*Ya hes-apesi,” u-a-te* [child said.to.3s-SR water wash-WANT say-3s-DR] “The child said to her, ‘(I) want to wash’”.

A verb with the suffix *-apesi* can occur in sequence with another verb. The two verbs have the same subject referent and the subsequent verb is fully inflected for tense-subject person-number. The meaning of this sequence of verbs could be interpreted as ‘someone wants to do something, because of this, this someone does something else before’. (The suffix *-apesi* incorporates forms that are possibly related to *-pe* ‘same subject referent following’ and *seipa* ‘reason’.)

¹³ Here *u* ‘do’ is a light verb that occurs with borrowings from Tok Pisin such as *baim* ‘buy’ (Priestley 2009:398).

- (22) ...*koia aiake oro -apesi ya ne -e -te...*
 sweet.potato cassava dig.up -*WANT* go STAY -3p -DR
 ‘...wanting to dig up sweet potato and cassava they went...’ (T.2M 1.5)

- (23) *sakine nokono te -nek -apesi ka -r -i =mo.*
 talk good give -O2p -*WANT* come -PRES -1s =BM
 ‘Wanting to give you this good news I’ve come.’ (Za1 Lk 1:19)

- (24) *Ian hare sai pe her -apesi*
 Ian ALOC talk stand PUT -*WANT*
- Sarere Ihi pa yari -bi =mo.*
 Saturday (Ramu) Sugar G/L go -F1s =BM
 ‘Wanting to send a message to Ian, I’ll go to Ramu Sugar on Saturday.’
 (D10.48.2)

An initial verb with the suffix *-pe* ‘same referent following’ can be followed by a second verb with the suffix *-apesi WANT* in a clause chain sequence. Neither the same referent following suffix nor the *-apesi* suffix express tense-subject or mood. This information must be gleaned from the real world context, as in (25), or from other clauses in the discourse, as in (26).

- (25) *Heteri -pe usu t -apesi.*
 run -SR pig get -*WANT*
 ‘He is running (because) he wants to get a pig.’

- (26) *Tamaite wei -rame semta -e.*
 man fight -person play/gamble -3p
- Yesu o tabi ne porone -pe t -apesi.*
 Jesus GEN clothes -P3s divide -SR get -*WANT*
- ‘The soldiers gambled. They divided Jesus’ clothes (because) they wanted them.’ (Za4 Lk 23:34)

The meaning expressed here can be summed up briefly in terms of semantic primes.

[1] V-*pe* V-*apesi*

someone does something at some time

(because) this someone wants to do something else after

8.2 *Verb-apesi and the complement-taking light verb u: saying what someone/something is about to do (prospective action)*

When a verb with *-apesi* is followed by a complement-taking predicate with the light verb *u* ‘say/do’ (cf. Reesink 1993) the construction describes what someone or something is about to do, that is, prospective or imminent action. In this grammaticized construction *-apesi* is closer in meaning to ‘be about to’ than to ‘want’. The subject, which may be animate or inanimate, is indicated by the person-number suffix on the complement-taking predicate. Examples of a similar device for expressing a kind of generalised immediate future are found in other Papuan languages, for example Ku Waru (Merlan & Rumsey 1991:330-331).

Example (27) with a sentient subject occurs at the beginning of a narrative.

- (27) *Sakin ato s -apesi u -r -i.*
 story one say -be.about say -PRES -1s
 ‘I am about to tell one story.’ (T1.14.1)

Within a narrative an example with similar words might occur as an utterance “‘I want to tell one story’, I said” with intonation and pauses setting off the utterance. Also, examples of direct speech often have a pre-quote formula, as in (20). When a verb with *-apesi* has a subject rather than a pre-quote formula it cannot be direct speech. Example (28), which also has a sentient subject, expresses prospective action since Korike is the subject of *k-apesi* ‘be about to come’ rather than a pre-quote formula. Like examples (21) and (27) above, this example would have to be rephrased, with an appropriate pre-quote formula and intonation, for it to form an example of direct speech.

- (28) *Korike k -apesi u -e -te men -i =mo.*
 Korike come-be.about.to say -3p -DR stay -1s =BM
 ‘The Korike people were about to come so I stayed.’ (G.E.30.1)

There is no possibility of ambiguity at all when prospective action constructions have an inanimate third singular subject, as in (29).

- (29) *Tiri pere -apesi u -a -te men -i.*
 tree fall -be.about.to say -3s -DR stay -1s
 ‘The tree was about to fall so I stayed.’ (G.E.30.1)

The same construction is used when describing the prospective action of wildlife.

- (30) *Apu uo, atu pu uo,*
 now GRD b.of.p GRD

eti amoko noko -apesi u -r -a.
 skirt new dress -be.about.to say -PRES -3s
 ‘Now, the bird of paradise, it is about to put on its new skirts (feathers).’
 (T1.5.1) (b.of.p = bird of paradise)

When this construction has a sentient subject the meaning can be represented in reductive paraphrase as:

- [J] V-*apesi u-i* (Sentient subject)
 someone will do something a short time after this

When the subject is non-sentient the reductive paraphrase can be phrased as follows:

- [K] V-*apesi u-a* (Non-sentient subject)
 something will happen to something a short time after this

9. Internal and negative experience

9.1 *Expressing desires that relate to internal experience*

Internal experience linked to ‘wanting to do something’ is expressed when a complement-taking modal verb *oru* ‘feel like’ follows a complement that consists of either a bare verb root with the suffix *-apu* ‘nominaliser’ or a noun referring to a consumable item. The root *oru* has a variety of meanings connected to things inside the body, including the verb ‘feel’ (cf. Priestley 2002b, 2008). These examples with the modal verb *oru* are impersonal experiencer constructions with an object experiencer and an anonymous third person singular subject (Priestley 2008:403-423, see also Kalam in Pawley *et al.* 2000 and Amele in Roberts 2001, amongst others). The complements refer to something associated with the inner part of the body. This type of construction is used in Koromu when describing something that is happening to an experiencer through “physical and psychological conditions or sensations” (Priestley 2008:403), for example, *mahe* ‘shame’, *peraru* ‘hunger’, *eri* ‘fear’, *sepa* ‘illness’ and *oru mere* ‘feel sorrow/grief’ (2009:403-423, see also 2002b).

As the next section, 8.5, on *maikobu* ‘not want’ shows, the impersonal experiencer construction is not limited to involuntary experience. In example (31) the complement consists of a verb *yakere* ‘laugh’ with the nominaliser *-apu*. This is combined with a complement-taking, impersonal experiencer verb to describe an internal experience and internal desire to do something.

- (31) *Yakere -apu oru -se -r -a.*
 laugh -NOM feel.like-O1s -PRES-3s
 ‘It makes me feel like laughing.’ (‘I want to laugh.’)

Although it is possible to use second person to ask someone about their situation, or third person to report on someone else’s feelings, constructions of this type are most commonly expressed in the first person, as in explication [L].

- [L] *V-apu oru-se-r-a*
 something is happening inside my body,
 I want to do something because of this

The complement-taking impersonal experiencer verb can also occur with noun complements that represent consumable entities.¹⁴ Again these constructions can occur with other person-number marking in the object position but examples are particularly common in the first person singular, as in (32).

- (32) *I ya oru -se -r -a.*
 1s water feel.like -O1s -PRES -3s
 ‘I feel like (thirst for) water.’

9.2 *Saying that you don’t want something or don’t want to do something: negative desiderative*

Saying that you don’t want something or don’t want to do something is labelled here as negative desiderative modality. This type of modality is expressed in a very similar form to internal experience and desire. A complement consisting of a noun phrase or a verb with *-apu* is followed by a complement-taking predicate, the modal verb *maikobu* ‘don’t want (to)’. Although the verb is a modal impersonal experiencer verb its meaning is not restricted to internal experiences, such as bodily functions or involuntary conditions/sensations. For an example, see (33).

- (33) *Usu ho -apu maikobu -neka -r -a.*
 pig butcher -NOM don’t.want -O3p -PRES -3s
 ‘They don’t want to butcher the pig.’ (‘Butchering the pig is not wanted by them.’) (D7.1.6 – cf. T2.14.18)

The Koromu negative desiderative construction expresses the following meanings with a verb and with a noun respectively.

[M] *V-apu maikobu-se-r-a*

I don’t want to do this

[MM] *NP maikobu-se-r-a*

I don’t want this

¹⁴ *Ne* ‘consume’ is used for ‘eat’ or ‘drink’ while *oru* ‘want’ is used for hunger and thirst.

Example (34) has an NP complement.

- (34) *Ea* *-bau* *wene* *nare* *maikobo* *-se* *-r* *-a*.
 yesterday -TADJ food cold don't.want -O1s -PRES -3s
 'I don't want left over cold food from yesterday.' ('Yesterday's cold food
 isn't wanted by me.') (D9.7.3)

Maikobu 'don't want (to)' can also stand alone, without a complement. However, the expression still refers to something that the experiencer doesn't want that can be understood from the context.

Lexical exponents that express a similar meaning of rejection can be found in other languages, for example, Tok Pisin *mi les* 'I don't want (to)'. Examples can also be found in more widespread languages, for example, *bèk* 'I don't want/(may it not be or happen that)' in Acehnese (Durie, Daud and Hasan 1994:180), *warnaja* 'diswant/dislike/avoid' in Kayardild (Evans 1994:210) and *oni* 'not want' in Longgu (Hill 1994:322).

10. Concluding remarks

This study of Koromu modality reveals diversity in the potential event category. First of all there are specific tense-subject inflections for expressing what someone wants someone else to do, as in the imperative. Then there are a range of different constructions for talking about intentions and desires of the speaker or subject of the clause.

Imperative constructions differ from other constructions discussed here, both in the form of the imperative suffixes and because they necessarily involve both a speaker and an addressee. The intensive and desiderative type constructions all involve only the speaker or a relevant subject as obligatory participants. When expressing intentions in Koromu, first person marking must occur. This is realised as V-F1s-*mpe* (cf. *-pe* 'same referent'). Perhaps this is because a person can express greater certainty about their own intentions. In contrast the form, V-*apesi* 'want', used to say what people generally, including the first person, want to do

has no tense-subject person-number marking in the verb word at all. However, both intensitive and desiderative type constructions can be framed in a construction with the light verb *u* ‘say/do’ that can also, in a different construction, be used to indicate quoted direct speech or thought. This framework allows person-number marking to be expressed.

Internal needs or desires are expressed distinctively, because Koromu uses impersonal experiential verb constructions with an object experiencer to express physical and psychological conditions and sensations (Priestley 2002b:259-265, 2008:403, see also Pawley *et al.* 2000, Roberts 2001). Similar constructions are also used for saying that ‘someone does not want (to do something)’ although the latter is not limited to internal experience.

Some of the core potential event modal categories in the verbal word can be summarised in English exponents of the semantic primes as follows:

Simple imperative	V-IMP2s/(-IMP2p) I say: ‘I want you to do this’
Negative imperative	<i>tai</i> V-IMP2s/(-IMP2p) I say: ‘I don’t want you to do this’
Cessative (SVC)	V <i>apaise</i> -IMP2s/(-IMP2p) I say: ‘You are doing something now, I don’t want you to do this now’ (it is bad if you do this’)
Intensive [first person]	V-F-T:S <i>-mpe</i> (INT1s) I say: ‘I want to do this’ I think about it like this: I will do it at some time a short time after’

Desiderative

V-apesi

(someone) wants to do this

Prospective action

V-apesi u ‘say/do’ (light verb) (Sentient subject)

someone will do something a short time after this

Internal experience-desire Bodily function/experiencer *V-apu oru-se-r-a* (1s)

something is happening inside my body,
I want to do something because of this

Negative desiderative

V-apu maikobu-se-r-a (1s)

I don’t want to do this

Tracing the instances of modality in Koromu verbal inflections highlights a number of characteristics of potential event modality in this Papuan language. For example, the range of use of the imperative form reveals related pragmatic issues and others may, with further research, reveal more about underlying cultural concepts. The use of the light verb *u* (used elsewhere with direct speech or thought) is a key structural component in the expression of the intentions and desires of other people than the speaker and also of prescriptive action. Another key structure is the use of impersonal experiential constructions, in which the experiencer is indicated by the object, to express internal experiences and desires (cf. Priestley 2002b) and also to express negative desires or rejection, that is, ‘not want’. The latter is expressed in just one word, as in many other languages.

The use of a simple metalanguage to represent the meaning of all of these various types of potential event modality has allowed a very clear formulation of meaning, much clearer than technical labels. It has the added benefit that the Koromu version can be tested with native speakers of this endangered language and also that further research can be done into using such Koromu formulations in language and grammar materials for speakers and their children.

Appendices

Natural semantic metalanguage (NSM) standard conventions

Small caps are used for primes when they are referred to in the text.

Tables

- Tables are kept to one page.
- Equivalent meanings are kept on the same line in all the languages included in the table, i.e. in my English, Koromu, Tok Pisin table I, YOU, SOMEONE are in the same line as their equivalents in the other languages. (Different languages may have word/phrases of different length and different patterns of allolexy.)
- The primes (on the left) are given priority over the English language description (which is placed on the right in small letters).

Explications

- Explications are written in a smaller/more distinctive font than the main text and are set out in single spacing.
- Explications consist of components of meaning. Each new component begins on a new line. In many cases a component fits on to one line. If it is too long and runs over into the next line it should, if possible, be indented.
- Following I say: or I think: the quoted material is put in single quotes. It is also indented if it is on another line.

Notes and table of semantic primes: Exponents in English, Koromu (provisional), and Tok Pisin (provisional)

- Primes exist as the meanings of lexical units (not at the level of lexemes).
- Exponents of primes may be words, bound morphemes, or phrasemes.
- Exponents can be formally complex.
- They can have language-specific combinatorial variants (allolexes, indicated with ~).
- Each prime has well-specified syntactic (combinatorial) properties.

Semantic primes: English, Koromu, Tok Pisin Exponents

ENGLISH	KOROMU (provisional)	TOK PISIN (see Priestley 1999a&b, 2008)	
I, YOU, SOMEONE, SOMETHING~THING, PEOPLE, BODY	I, NE, ATO, NA, AHAROPU, METE	MI, YU, WANPELA, SAMTING, MANMERI, BODI	substantives
KIND, PART	TOMTOM, MO~ASAO~-NE	KAIN, HAP	relational substantives
THIS, THE SAME, OTHER~ELSE	MO, ATEREI, TOMO	DISPELA, WANKAIN, NARAPELA	determiners
ONE, TWO, SOME, ALL, MUCH~MANY, LITTLE~FEW	ATEREI, AERE, ASA, NUPU, NUPU, WERAI	WANPELA, TUPELA, SAMPELA, OLGETA, PLANTI, LIKLIK	quantifiers
GOOD, BAD	ETAMAU, WARIKAU	GUTPELA, NOGUT	evaluators
BIG, SMALL	ARENE, WERAKAHUNO	BIKPELA, LIKLIK	descriptors
THINK, KNOW, WANT, NOT WANT FEEL, SEE, HEAR	URUNU, SIPAMU, URUNU~-APESI, MAIKOHU ORU~URUNU, WERE, ESERE	TINGTING, SAVE, LAIK, NO LAIK~LES BEL~PILIM, LUKIM, HARIM	mental predicates
SAY, WORDS, TRUE	SA, SAKINE, ITINI	TOK, TOK, TRU	speech
DO, HAPPEN, MOVE, TOUCH	HARU, AIRI, MOTOMOTO, MOTO	WOKIM, KAMAP, I GO, I PAS	action, events, movement, contact
BE (SOMEWHERE), THERE IS, BE(SOMEONE/SOMETHING), HAVE (SOMETHING)~BE SOMEONE'S	MENE, MENE, MENE MENE~-NE*	I STAP, I STAP, I, I GAT	location, existence, specification, possession
LIVE, DIE	ENE, EME	I STAP (LAIP), DAI	life death
WHEN~TIME, NOW, BEFORE, AFTER, A LONG TIME, A SHORT TIME, FOR SOME TIME*, MOMENT	ENAPU~SA, APU, SURUMAPA, EPONO, SA OROHOI*, SA HANE*, ATOTUHUNU PAO, APU MOREI	WANEM TAIM~TAIM, NAU, BIPO, BIHAIN, LONGTAIM TRU, LIKLIK TAIM, LONGTAIM LIKLIK, ?WANPELA TAIM	time
WHERE~PLACE, HERE, ABOVE, BELOW, FAR, NEAR, SIDE, INSIDE	ANI~SA, MO PA, NAUMPA, WARISESA, AIAKE, WAIMESA, MESA, ORU PA	WE~PLES, HIA, ANTAP, DAUNBILO, LONGWE, KLOSTU, SAIT, INSAIT	space
NOT, MAYBE, CAN, BECAUSE, IF	IA~TAI, TAUMO, NAUTO, U SEI, UO	NO, ATING, INAP, LONG DISPELA, SAPOS	logical concepts
VERY, MORE	HEREKANI, APAI	TUMAS, MOA	intensifier, augmentor
LIKE	UAPU	OLSEM	similarity

References

- Andrews JR 1975 *Introduction to Classical Nahuatl* Austin: University of Texas Press.
- Bugenhagen RD 1989 'Modality in Mangap-Mbula: An exploration of its syntax and semantics' *Language and Linguistics in Melanesia* 20(1/2):9-39.
- Bugenhagen RD 1993 'The semantics of irrealis in Austronesian languages of Papua New Guinea. A cross-linguistic study' in GP Reesink (ed) *Topics in Descriptive Austronesian Linguistics Semaian* 11. Leiden: Vakgroep Talen en Culturen van Zuidoost-Azië en Oceanië, Rijksuniversiteit de Leiden. Pp. 1-39.
- Chung S & A Timberlake 1985 'Tense, aspect and mood' in T Shopen (ed) *Language Typology and Syntactic Description: Grammatical Categories and the Lexicon* Cambridge: Cambridge University Press. Pp. 202-258.
- Durie, M, B Daud & M Hasan 1994 'Achenese' in C Goddard & A Wierzbicka (eds) *Semantic and Lexical Universals: Theory and empirical findings* Amsterdam/Philadelphia: John Benjamins. Pp. 171-201.
- Evans, N 1994 'Kayardild' in C Goddard & A Wierzbicka (eds) *Semantic and Lexical Universals: Theory and empirical findings* Amsterdam/Philadelphia: John Benjamins. Pp. 203-228.
- Foley, WA 1991 *The Yimas Language of New Guinea* Stanford, Calif.: Stanford University Press.
- Goddard C 2008 *Cross-Linguistic Semantics* Amsterdam & Philadelphia: John Benjamins.
- 2011 *Semantic Analysis: A Practical Introduction* (revised second edition) Oxford: Oxford University Press.
- Forthcoming 'Have to, have got to, and must: NSM analyses of English modal verbs of "necessity"' in M Taboade & R Trnavac (eds) *Nonveridicality, Evaluation and Coherence Relations* ("Studies in Pragmatics" series Emerald) [submitted Dec 2011].
- Goddard C & A Wierzbicka (eds) 2002 *Meaning and Universal Grammar: Theory and Empirical Findings* Volume 1 Amsterdam & Philadelphia: John Benjamins.
- Gumperz J 1982 *Discourse Strategies* Cambridge: Cambridge University Press.
- Hill, D 1994 'Longgu' in C Goddard & A Wierzbicka (eds) *Semantic and Lexical Universals: Theory and empirical findings* Amsterdam/Philadelphia: John Benjamins. Pp. 31-329.
- MacDonald L 1990 *A Grammar of Tanya* Berlin: Mouton de Gruyter.
- Merlan F & A Rumsey 1991 *Ku Waru: Language and Segmentary Politics in the Western Nebiher Valley, Papua New Guinea* Cambridge: Cambridge University Press.
- Mithun M 1999 *The Languages of Native North America* Cambridge: Cambridge University Press.
- Mosel, U 1994 'Samoan' in C Goddard & A Wierzbicka (eds) *Semantic and Lexical Universals: Theory and empirical findings* Amsterdam/Philadelphia: John Benjamins. Pp. 331-360.
- Palmer FR 2001 *Mood and Modality* Cambridge: Cambridge University Press.
- Pawley A, SP Gi, IS Majnep & J Kias 2000 'Hunger acts on me: The grammar and semantics of bodily and mental process expressions in Kalam' in VP De Guzman & BW Bender (eds) *Grammatical Analysis in Morphology, Syntax and Semantics: Studies in honor of Stanley Starosta* Honolulu: University of Hawai'i Press. Pp 153-185.
- Payne TE 1997 *Describing Morphosyntax: A Guide for Field Linguists* Cambridge: Cambridge University Press.
- Priestley C 1999a 'Suggested exponents and grammar of substantives and mental predicates in Tok Pisin' unpublished manuscript (MA course): Australian National University.

- _____ 1999b 'Suggested exponents and grammar of some further predicates in Tok Pisin unpublished manuscript (MA course): Australian National University.
- _____ 2002a *The Morphosyntax of Verbs in Koromu (Kesawai), a Language of Papua New Guinea* Unpublished MA thesis: The Australian National University.
- _____ 2002b 'Insides and emotion in Koromu' in NJ Enfield & A Wierzbicka (eds) *The Body in Description of Emotion: Cross-Linguistic Studies Pragmatics and Cognition* Special Issue 10:1/2 Amsterdam & Philadelphia: John Benjamins. Pp. 243-270.
- _____ 2008 (revised 2009) *A Grammar of Koromu (Kesawai), a Trans New Guinea Language of Papua New Guinea* Unpublished PhD thesis: The Australian National University.
- _____ Forthcoming a *Koromu: A Papuan language of Kesawai and nearby villages* Berlin: The Pacific Linguistics Series Mouton de Gruyter. (based on 2008)
- _____ Forthcoming b 'What's in a name? Personal reference expressions, cultural values and cultural scripts in the Papuan language of Koromu' *Intercultural Pragmatics*.
- Reesink G 1993 "'Inner Speech" in Papuan languages' *Language and Linguistics in Melanesia* 24:217-225.
- Roberts JR 1990 'Modality in Amele and other Papuan languages' *Journal of Linguistics* 26(2):363-401.
- _____ 1997 'Switch-reference in Papua New Guinea: A preliminary survey' in A Pawley (ed) *Papers in Papuan Linguistics* No. 3 Pacific Linguistics A-87 Canberra: Australian National University. Pp. 101-241.
- _____ 2001 'Impersonal constructions in Amele' in A Aikhenvald, RMW Dixon & M Onishi (eds) *Non-canonical Marking of Subjects and Objects* Amsterdam/Philadelphia: John Benjamins Publishing Company. Pp. 201-250.
- Rumsey A 2001 'On the syntax and semantics of trying' in J Simpson, D Nash, M Laughren, P Austin & B Alpher (eds) *Forty Years on: Ken Hale and Australian Languages* Canberra: Pacific Linguistics. Pp. 353-363.
- Timberlake A 2007 'Aspect, tense, mood' in T Shopen (ed) *Language Typology and Syntactic Description* Second edition Volume III: Grammatical categories and the lexicon Cambridge: Cambridge University Press. Pp. 280-333.
- Van Valin Jr RD 2005 *Exploring the Syntax-Semantics Interface* Cambridge: Cambridge University Press.
- Wierzbicka A 1987 'The semantics of modality' *Folia Linguistica* 21(1):25-43.
- _____ 1991 *Cross-Cultural Pragmatics: The Semantics of Human Interaction* Berlin: Mouton de Gruyter (2003).
- _____ 1996 *Semantics: Primes and Universals* Oxford: Oxford University Press.
- _____ 2006a *English: Meaning and Culture* New York: Oxford University Press.
- _____ 2006b 'Anglo scripts against "putting pressure" on other people and their linguistic manifestations' in C Goddard (ed) *Ethnopragmatics: Understanding Discourse in Cultural Context* Berlin: Mouton de Gruyter. Pp. 31-63.
- Z'graggen, JA 1980 *A comparative word list of the Rai Coast languages, Madang Province, Papua New Guinea* D30 Canberra: Pacific Linguistics.