

# ASPECT AND TEMPORAL REFERENCE IN BANGGI

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## 1. INTRODUCTION

This paper is concerned with the ways in which temporal reference is structured in Banggi. Temporal reference is encoded in the language in three ways: 1) by a system of temporal deixis; 2) by a system of sentential aspect which characterises the relationship of a predicate to the time interval over which it occurs (Chung & Timberlake 1985:213); and 3) by a system of linkage and discourse tense-aspect which indicates relationships between events.

Table 1 provides an overview of the temporal reference system in Banggi. The four grammatical levels are from Chung and Timberlake (see section 2). Since I provide evidence for four types of formal marking and four types of temporal function, the presentation in terms of four grammatical levels is quite convenient.

It is common for formal markers to code semantic features from more than one level. Table 1 and the analysis that follows do not deny this possibility. I do maintain, however, that the table reflects the primary relationship between the formal markers and semantic features in the Banggi temporal system. In other words, there is a strong correspondence between linguistic form and semantic function (see Bybee 1985:7).

TABLE 1: BANGGI TEMPORAL REFERENCE SYSTEM OVERVIEW

Grammatical level	Formal marking	Temporal function
1) verb	derivational morphology	situation aspect
2) predicate (verb + auxiliary)	auxiliary verbs	viewpoint aspect
3) proposition	deictic temporal adverbs	location of situation in time
4) discourse	inflectional morphology, free morphemes, temporal linkage	discourse-pragmatic tense-aspect

I begin with some preliminary remarks on aspect (section 2), which is followed by discussion of the four temporal functions given in Table 1: situation aspect (section 3), viewpoint aspect (section 4), location of situation in time (section 5), and discourse-pragmatic tense-aspect (section 6).

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## 2. PRELIMINARY REMARKS ON ASPECT

This paper introduces and illustrates a model of tense-aspect in which such features are treated at different grammatical levels within a single language. The model is based on the work of Smith (1983), Chung and Timberlake (1985), and Waugh and Monville-Burston (1986). I present evidence from Banggi to show that tense-aspect is not simply a local feature of sentences; nor is it simply a global feature of discourse from which sentential tense-aspect is merely derived.

Part of the confusion which sometimes surrounds the use of the term aspect arises from a failure to distinguish: 1) the grammatical levels at which aspect is relevant; 2) the formal means for encoding aspect; and 3) the semantic functions signalled by the formal markings.

In Banggi, tense-aspect is encoded in three ways: derivational morphology (e.g. *meg-lahi* 'always chase men', see section 4.5), free grammatical morphemes (e.g. *kahal* 'still', see section 4.1) and inflectional morphology (e.g. *-in-*, see section 6.2). In the analysis of tense-aspect that follows, I show that there is a correlation between the formal means for encoding tense-aspect, the semantic function of the tense-aspect concerned and the grammatical level at which it occurs.

Different linguists state that aspect is relevant at different levels. I adopt Chung and Timberlake's (1985:214) position that tense-aspect is relevant at four different levels: 1) the verb and its inherent aspectual properties; 2) the predicate, which includes the verb and any auxiliary verbs; 3) the proposition, which is the predicate in relation to the situation frame; and 4) the discourse, which is the proposition in relation to other propositions. Their view of aspect combines the incomplete views of other linguists.

Comrie's view of aspect is sententially based. For him, aspect represents different ways of viewing the internal temporal constituency of an event (1976:3).

Specialists in Slavic languages take a similar view to Comrie and have traditionally made a distinction between *Aktionsart* which refers to the inherent features of the meaning of a predicate, and aspect which refers to a temporal grammatical category subdivided into notions like perfective and imperfective (see Foley & Van Valin 1984:377). (Incidentally, for Bybee (1985:21), *Aktionsart* refers to aspectual distinctions which are lexicalised (e.g. English 'know' versus 'realise'), and have a greater semantic effect on the verb than aspect which occurs as an inflectional category on verbs. Thus there is a correspondence between form and function.)

Grimes's view of aspect is discourse based. He states (1975:232f.) that there are two kinds of information communicated by aspect systems: 1) shape of a particular action; and 2) relationship between one proposition and the next.

Smith (1983) recognises two components of sentential aspect: 1) situation aspect which involves the type of situation; and 2) viewpoint aspect which involves the perspective or viewpoint from which the situation is considered. That is, situation aspect is inherent in the situation itself, while viewpoint aspect results from the author's choice of perspective which is outside the situation. Smith assigns both of these types of aspect to the sentential level for English, whereas I assign situation aspect to the verb level and viewpoint aspect to the predicate level for Banggi.

Hopper (1982:4) claims that aspect is highly abstract and draws upon context for its interpretation. He states (p.5) that the fundamental notion of aspect is not sentential but

discourse-pragmatic. A similar view is held by the other authors in the work edited by Hopper (1982).

It is sometimes assumed that the discourse and the sentential view(s) of aspect are incompatible. Hopper attempts to reconcile the two views by assigning priority to discourse. He claims (1979:217) that aspectual distinctions in French DERIVE FROM discourse. The position taken in this paper is that the discourse and the sentential views of tense-aspect complement each other and there is no reason to assign primacy to either.

### 3. SITUATION ASPECT

This section describes how the semantic function of situation aspect is formally marked at the grammatical level of the verb in derivational morphology. Situation aspect is comparable to *Aktionsart* or inherent aspect (see section 2). It involves the aspectual features which are inherent in situations.

Situation is a term which includes both events and states (see Smith 1983:481). Four major types of situations are encoded in Banggi: 1) states; 2) achievements; 3) activities; and 4) accomplishments (see Foley & Van Valin 1984). These four types of situations correspond to major verb classes which are signalled in the verbal morphology of Banggi.

States are static situations which are ongoing. Stative verbs are morphologically marked by *m-*. Before the consonants /g,l,r/, an epenthetic vowel is inserted following *m-*. Before vowels, *m-* is realised as /m-/; otherwise *m-* assimilates to the point of articulation of the following consonant. The following illustrates stative verbs (see section 5 for a discussion of deictic temporal adverbs such as *kirab* 'yesterday' and *nehaa' na* 'now'):<sup>1</sup>

- (1) *Kirab ng-kotul [m-kotul], nehaa' na mu-lumak [m-lumak].*  
 yesterday ST-hard now - ST-soft  
 Yesterday it was hard, now it is soft.

Achievements are dynamic situations which are inception-orientated. They refer to non-volitional changes of state. Achievement verbs which are derived from adjective roots are morphologically marked by *kVm-*. Those which are derived from verb roots are marked by *mV-*. Before vowels and the consonants /p,b/, *kVm-* is realised as /kVm-/ and *mV-* is realised as /m-/; otherwise *kVm-* is realised as /-Vm-/ and *mV-* is realised as /mV-/. The following examples illustrate achievement verbs derived from an adjective root (2) and from a verb root (3):

- (2) *Molok ou l-um-umak [kVm-lumak].*  
 afraid I \*-ACH-soft  
 I am afraid it will get soft.
- (3) *Molok ou me-loput [mV-loput].*  
 afraid I ACH-break  
 I am afraid it will get broken.

Activities are dynamic situations which are activity-orientated. They refer to events which involve a volitional actor and which often have no clear endpoint (i.e. atelic events). Activity

<sup>1</sup>Abbreviations used are as follows: ACH – achievement verb, ACM – accomplishment verb, ACY - activity verb, CON - contrast, IN – infix, NPV – non-pivot, NV – non-volitional, PAT – patient, PFT – perfect, PIV – pivot, SP – subject pivot, ST – stative verb, \* – part of stem when preceding an infix.

verbs are morphologically marked by *g-* or *-Vm-*. Before the consonants /l,r,s,t/, *-Vm-* is realised as /-Vm-/ and *g-* is realised as /gV-/. Before vowels, *-Vm-* is realised as /m-/ and *g-* is realised as /g-/. Before the consonants /p,b,k,g/, the contrast between *-Vm-* and *g-* is neutralised and realised as a homorganic combination of nasal and stop. Before /d/, the contrast is neutralised and realised as /-Vm-/. The following examples illustrate activity verbs:

- (4) *Ingat bilun nu l-em-oput [-Vm-loput].*  
look.out balloon your \*-ACY-break  
Look out so your balloon does not break.
- (5) *Ng-gi-liput [N-g-liput] ou Banggi suub.*  
SP-ACY-circle I Banggi tomorrow  
I am going around Banggi Island tomorrow.
- (6) *Nehaa' na m-buat [-Vm-buat] ou bali.*  
now ACY-make I house  
Now I am making a house.

Accomplishments are dynamic situations which are orientated with reference to the final endpoint (i.e. they are telic). They refer to changes of state which are brought about by a volitional actor. Actor-pivot accomplishment verbs are morphologically marked by *ng-*. Before the consonants /g,d,l,r/, an epenthetic vowel is inserted following *ng-*. Before vowels, *ng-* is realised as /ng-/; otherwise *ng-* and the stem-initial consonant are replaced by a nasal which is homorganic to the consonant. Patient-pivot accomplishment verbs are morphologically marked by *-Vdn*. The following examples illustrate accomplishment verbs:

- (7) *Dolok ngu-lumak [ng-lumak] tana'.*  
rain ACM-soft ground  
Rain softens the ground.
- (8) *Nge-loput [ng-loput] ou tali gulu.*  
ACM-break I rope first  
I will break a string first.
- (9) *Luput-udn [loput-Vdn] ku gulu.*  
break-PAT.ACM me first  
It will be broken by me first.

Four types of situation aspect correspond to the four situations described above. Table 2 characterises the salient features of situation aspect which distinguish the four situation types:

TABLE 2: SALIENT FEATURES OF SITUATION ASPECT

	state	achievement	activity	accomplishment
dynamism	-	+	+	-
telicity	-	+	-	+
inception	-	+	-	-

Activities are activity-orientated while achievements and accomplishments are telic or endpoint-orientated (see Smith 1983:488; Foley & Van Valin 1984:371). However, achievements are orientated to the initial endpoint whereas accomplishments are orientated to

the final endpoint. Thus achievements and accomplishments may be distinguished on the basis of  $\pm$  inception.<sup>2</sup>

Duration is not a salient feature of situation aspect. (States by definition are durative and this is reflected within the feature dynamism.) Achievement and accomplishment verbs are not limited to punctual situations or to situations of short duration (e.g. (2), (7)). Some verbs can be viewed as inherently punctual (e.g. 'break' (8)), whereas others are inherently durative (e.g. 'soften' (7)), but this distinction is not encoded in Banggi.

Bybee (1985) argues that the common morphological distinction between derivational and inflectional affixes is not a dichotomy but a continuum (see also Corbett 1987). For instance, with Banggi verbs which are derived from noun roots (e.g. *sapu* 'broom' --> *n-apu* [*ng-sapu*] 'sweep'), the verb class marker appears to be derivational. However, with verbs which are derived from verb roots (e.g. *seidn* --> *n-eidn* [*ng-seidn*] 'change clothes'), the verb class marker appears to be more like a traditionally defined inflectional affix. Verb class markers are considered derivational and not inflectional because they have a transitivity role (see (1), (2), (7); see also Givón (1984:234) who states that the most common derivational morphemes on verbs are those affecting transitivity). Therefore, situation aspect is marked in derivational and not inflectional morphology.

#### 4. VIEWPOINT ASPECT

This section describes how viewpoint aspect is marked by auxiliary verbs which occupy first position in the predicate. This paper is not concerned with the syntactic status of auxiliaries, only their semantic functions.

Situations can be viewed from different points in order to highlight different phases of the situation. Auxiliary verbs are used to indicate the point of view which the speaker takes with respect to a situation. Table 3 summarises possible viewpoints in Banggi.

TABLE 3: VIEWPOINT ASPECT SUMMARY

Viewpoint	Formal marking			
continuous	<i>kahal</i>	still		
perfective	<i>bas</i>	already	<i>punga na</i>	finish
	<i>beranti</i>	stop	<i>adak</i>	almost
inceptive	<i>mulai</i>	begin		
potential	<i>pa</i>	yet		
habitual	<i>selalu</i>	always		
iterative	<i>malik</i>	again		

The viewpoint(s) available for referring to a particular type of situation (section 3) depend on the properties of that situation (Smith 1983:491). Situation aspect constrains the possibilities for viewpoint aspect; thus, the range of viewpoint aspects which combine with

<sup>2</sup>This paper uses the aspectual features of Table 2 to distinguish verb classes. A wider view of Banggi indicates that volitionality, rather than inception, is actually the distinguishing feature. Volitionality is characteristic of nominal arguments and is important for verb classification but not for aspect. Nominal arguments are part of the logical structure associated with situations.

situation aspects are not the same.<sup>3</sup> Furthermore, the viewpoint aspect may be understood differently according to the situation (Smith 1983:492; see also Lamiroy (1987) who discusses this notion in terms of syntactic constraints in French between aspectual verbs (viewpoint aspect in this paper) and embedded predicates (situations)).<sup>4</sup>

#### 4.1 CONTINUOUS VIEWPOINT ASPECT

Comrie (1976:12), Bybee (1985:196) and Chung and Timberlake (1985:219) distinguish progressive and continuous aspect. They claim that progressive aspect is restricted to dynamic verbs (non-statives). I therefore use the term continuous instead of progressive because this aspect may occur with stative verbs in Banggi as well as with activity and accomplishment verbs.

Continuous aspect presents an interior perspective on a situation, which ignores its endpoints (see Smith 1983:482). This perspective makes reference to a moment or interval of a situation that is not an endpoint. This is schematised in Figure 1:

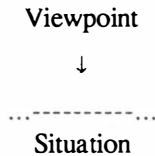


FIGURE 1: CONTINUOUS VIEWPOINT ASPECT

Continuous viewpoint aspect is incompatible with achievement verbs because this perspective views a situation from a point after its inception, whereas the point at which achievements are realised (i.e. inception) is punctual.

Continuous viewpoint aspect is marked by *kahal* 'still'. *Kahal* occurs as an auxiliary with stative (e.g. (10)), activity (e.g. (11)) and accomplishment (e.g. (12), (13)) verbs:

- (10) *Sia kahal ng-korikng [m-korikng].*  
is still ST-dry  
It is still dry.
- (11) *Sia kahal m-ohodn [-Vm-ohodn] babi.*  
he still ACY-eat pork  
He still eats pork.
- (12) *Sia kahal ng-orikng [ng-korikng] piasu.*  
he still ACM-dry coconut  
He still dries coconut.

<sup>3</sup>Talmy (1985:78) states that intrinsic aspect (situation aspect in this paper) determines how the verb interacts with grammatical elements that also have aspectual meaning (viewpoint aspect).

<sup>4</sup>It could legitimately be argued that inceptive viewpoint aspect is a subtype of perfective viewpoint aspect and that five auxiliaries are used to mark perfective viewpoint aspect. Continuous, potential and habitual would then subdivide imperfective aspect (see Bybee 1985:163). Iterative would be peripheral to the system since its syntactic function is different (see section 4.6). Such an arrangement would yield two basic viewpoint aspects: perfective and imperfective.

- (13) *Piasu kahal kiring-in [korikng-Vdn] ku.*  
 coconut still dry-PAT.ACM me  
 Coconut is still dried by me.

#### 4.2 PERFECTIVE VIEWPOINT ASPECT

Perfective aspect presents the situation as a whole. This perspective includes both the initial and final endpoints; the internal structure of the situation is ignored (Smith 1983:482). This is schematised in Figure 2:

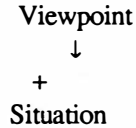


FIGURE 2: PERFECTIVE VIEWPOINT ASPECT

Four auxiliaries mark perfective viewpoint aspect in Banggi, each with a different meaning. The first perfective viewpoint aspect auxiliary is *bas* 'already'. *Bas* occurs as an auxiliary with stative (e.g. (14)), achievement (e.g. (15)), activity (e.g. (16)) and accomplishment (e.g. (17)) verbs.<sup>5</sup> (See section 6.2 for a discussion of *-in-*. When perfective viewpoint aspect occurs with achievement verbs (e.g. (15)), the verb must be inflected with *-in-*):

- (14) *Sia bas na ng-korikng [m-korikng].*  
 it already PFT ST-dry  
 It has been dry.
- (15) *Sia bas na k-i-m-orikng [-in-kVm-korikng].*  
 it already PFT \*-IN-ACH-dry  
 It has already become dry.
- (16) *Sia bas na m-ohodn [-Vm-ohodn].*  
 he already PFT ACY-eat  
 He has already eaten.
- (17) *Sia bas na ng-orikng [ng-korikng] piasu.*  
 he already PFT ACM-dry coconut  
 He has already dried coconut.

However, the interpretation of perfective viewpoint aspect varies to some extent with the type of situation involved (Smith 1983:482). With stative verbs (e.g. (14)), *bas* indicates that the state was terminated, the implication being that the present (time of utterance) state of the entity involved is different from that state. With achievement verbs (e.g. (15)), *bas* indicates that the state was achieved, the implication being that the present (time of utterance) state of the entity involved is different from that state which was achieved. With activity verbs (e.g. (16)), *bas* indicates that the situation was terminated. With accomplishment verbs (e.g. (17)), *bas* indicates that the situation was completed. Terminated situations are atelic, whereas completed situations are telic.

<sup>5</sup>*Bas* usually co-occurs with the perfect marker *na*. The perfect is discussed in section 6.1.

The second perfective viewpoint aspect auxiliary is *punga* 'finish'. *Punga* only occurs as an auxiliary with activity (e.g. (18)) and accomplishment (e.g. (19)) verbs, and is always accompanied by the perfect (*na*; see section 6.1):

- (18) *Sia punga na m-ohodn [-Vm-ohodn].*  
 he finish PFT ACY-eat  
 He has finished eating.
- (19) *Sia punga na ng-orikng [ng-korikng] piasu.*  
 he finish PFT ACM-dry coconut  
 He has finished drying coconut.

With activity verbs (e.g. (18)), *punga* indicates that the situation was terminated. With accomplishment verbs (e.g. (19)), *punga* indicates that the situation was completed. *Punga* only occurs in volitional situations (i.e. activities and accomplishments; see also fn.2), whereas *bas* may occur in non-volitional situations. *Punga* is concerned with the situation whereas *bas* is concerned with the state produced by the situation.

The third perfective viewpoint aspect auxiliary is *beranti* 'stop' which is borrowed from Malay. *Beranti* only occurs as an auxiliary with activity (e.g. (20)) and accomplishment (e.g. (21)) verbs, and is usually accompanied by the perfect (*na*; see section 6.1):

- (20) *Sia beranti na m-ohodn [-Vm-ohodn].*  
 he stop PFT ACY-eat  
 He has stopped eating.
- (21) *Sia beranti na ng-orikng [ng-korikng] piasu.*  
 he stop PFT ACM-dry coconut  
 He has stopped drying coconut.

With both activity (e.g. (20)) and accomplishment verbs (e.g. (21)), *beranti* indicates that the situation was terminated.

The fourth perfective viewpoint aspect auxiliary is *adak* 'almost'. *Adak* is used to refer to a situation, prior to time of utterance, that the speaker believes was possible but that did not actually occur. *Adak* may occur with achievement (e.g. (22)), activity (e.g. 23)) and accomplishment (e.g. (24)) verbs:

- (22) *Adak ku me-dabu' [mV-dabu'].*  
 almost I ACH-fall  
 I almost fell.
- (23) *Adak ku m-ohodn [-Vm-ohodn].*  
 almost I ACY-eat  
 I almost ate it (and was not supposed to).
- (24) *Adak ku ng-orikng [ng-korikng].*  
 almost I ACM-dry  
 I almost dried it (and was not supposed to).

The implication associated with *adak* is that, had the situation happened, it would have had a negative consequence. The implication in (23), for instance, is that the food which the actor almost ate was not intended for him; had the actor eaten it, there would have been



negative consequences for the person for whom the food was intended. That is, the actor unknowingly almost did something that he was not supposed to do.<sup>6</sup>

#### 4.3 INCEPTIVE VIEWPOINT ASPECT

Inceptive aspect views a situation from its initial endpoint. This is schematised in Figure 3:

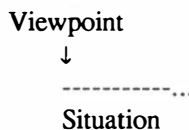


FIGURE 3: INCEPTIVE VIEWPOINT ASPECT

Inceptive viewpoint aspect is incompatible with states, because the endpoints of states are not part of the state. This perspective is also incompatible with achievements, which are inherently inceptive.

Inceptive viewpoint aspect is marked by *mulai* 'begin' which is borrowed from Malay. *Mulai* is the only auxiliary verb which exhibits inflectional morphology in that it may be inflected with *-in-* (see section 6.2). Bybee (1985:147f.) points out that inceptive aspect is rarely an inflectional morpheme. The Banggi data support this claim. The following examples illustrate inceptive viewpoint with activity (e.g. (25)) and accomplishment (e.g. (26)) verbs:

- (25) *Sia mulai m-ohodn [-Vm-ohodn].*  
he begin ACY-eat  
He began to eat.
- (26) *Sia mulai ng-orikng [ng-korikng] piasu.*  
he begin ACM-dry coconut  
He began to dry coconut.

#### 4.4 POTENTIAL VIEWPOINT ASPECT

Potential aspect views a situation as not having occurred yet, that is, as anticipatory or potential. This is schematised in Figure 4:

<sup>6</sup>If the actor would have been affected by the negative consequences (e.g. if what he almost ate was poison), the verb would have been affixed with non-intentional *kV-*, as illustrated below (see Boutin 1988):

*Adak ku i-k-ohodn [-in-kV-ohodn].*  
almost I IN-NV-eat

I almost ate it (and it could have killed me).

*Adak* has both a temporal and a modal function. The auxiliary verbs described in this paper primarily have a temporal function. However, as many people have argued (e.g. Wallace 1982), tense, aspect and mode are not discrete categories. Auxiliaries which primarily have a modal function and therefore are not described in this paper are: *kaap* 'can (permission)', *mistii* 'must (obligation)' and *kali* 'maybe (possibility)'. The permission and obligation modal auxiliaries can be negated (e.g. *nda'kaap* 'cannot', *nda' mistii* 'do not have to') but the possibility modal cannot.



- (32) *Sia meg-ganti-ganti diaadn.*  
 he always-replace-replace me  
 He always replaces me.

#### 4.6 ITERATIVE VIEWPOINT ASPECT

Iterative aspect is different from habitual, in that it indicates that a situation is repeated one or more times (Comrie 1985a:343). This perspective refers to the current situation but recognises the existence of one or more similar situations in the past. This is schematised in Figure 6:

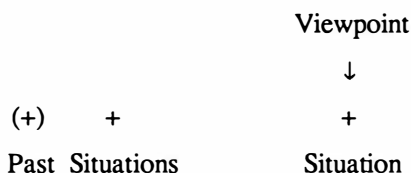


FIGURE 6: ITERATIVE VIEWPOINT ASPECT

Iterative aspect is marked by *malik* 'again'. The other auxiliaries are pre-verbal, but *malik* is post-verbal and has the whole proposition in its scope. It occurs with activity (e.g. (33)) and accomplishment (e.g. (34)) verbs:

- (33) *Sia m-ohodn [-Vm-ohodn] louk malik.*  
 he ACY-eat fish again  
 He is eating fish again.
- (34) *Sia ng-orikng [ng-korikng] piasu malik.*  
 he ACM-dry coconut again  
 He is drying coconut again.

Banggi speakers may thus choose a perspective or viewpoint (semantic function) and signal this perspective through the use of a set of auxiliary verbs (formal marking) which, with one exception, occur pre-verbally in predicate first position (grammatical level).

#### 5. LOCATION OF SITUATION IN TIME

This section describes how deictic temporal adverbs whose referent is a point in time (formal marking) are used in propositions (grammatical level) to locate situations in time (semantic function).

A system which locates situations in time is referred to as a deictic system. Temporal adverbs (e.g. *suub* 'tomorrow' and *kirab* 'yesterday') have a deictic function, as does tense (see section 6.2).

Deictic expressions relate to specific points in the communication event. The unmarked deictic centre or anchorage point for temporal deixis is time of utterance (Levinson 1983:64; see also Lyons 1977:685, Givón 1984:273, Comrie 1985b:14), and is lexicalised as *nehaa' na* 'now'. However, the deictic centre may be shifted to some other point. In narrative, the deictic centre typically is the time of the last main event presented in the discourse. Temporal

references which refer to points other than the deictic centre are either anterior or posterior with respect to the deictic centre.

Demonstratives can occur with some temporal adverbs, for example, *odu nti* 'today' (lit. 'day this') and *minggu nti* 'this week'. These demonstratives are related to spatial demonstratives. Anderson and Keenan (1985:297) claim that temporal demonstratives are usually imported from the spatial domain. Temporal deictic expressions which include the demonstratives *nti* 'this' and *diti* 'here' refer to time of utterance, for example, *ringa' diti* 'before now' and *minggu ringa' diti* 'week before now'. Temporal deictic expressions which include the demonstrative *ina* 'that' have a deictic centre other than time of utterance, for example, *odu ina* 'that day'.

Temporal references can be characterised as either specific or vague. For example, under certain circumstances, *odu nti* 'today' is a vague reference to the unmarked deictic centre, in the context of which *nehaa' na* 'now' is specific. However, the degree to which temporal references are specific is contextually dependent. Thus, *odu nti* 'today' is specific in the context of 'this week'. Even *nehaa' na* 'now' is not always specific. Sometimes *nehaa' na* can refer to a point anterior to time of utterance, as in the following (both speaker and hearer knew that Mual came from Kudat the day before time of utterance):

- (35) *Nehaa'na si Mual ti-dii Kudat.*  
 now PIV Mual from-there Kudat  
 Very recently Mual has come from Kudat.

Sometimes *nehaa' na* can refer to a point posterior to time of utterance, as in the following:

- (36) a. *Mipa' a min-dii Kudat?*  
 when you to-there Kudat  
 When are you going to Kudat?  
 b. *Nehaa'na.*  
 now  
 Very soon.

Table 4 illustrates examples of typical anterior temporal references.

TABLE 4: EXAMPLES OF ANTERIOR REFERENCES

	Vague		More Specific
<i>hina</i>	earlier (earlier today)	<i>rigiodu hina</i>	earlier this morning
		<i>gibiidn hina</i>	earlier this afternoon
		<i>kirab</i>	yesterday
		<i>kerobi</i>	last night
		<i>kisinggirab</i>	day before yesterday
<i>ringa' diti</i>	before now (recent past)	<i>kisinggerobi</i>	two nights ago
<i>ringa' na</i>	before (remote past)	<i>minggu ringa' diti</i>	week before this
<i>ringa' bu'</i>	long ago	<i>minggu ringa' na</i>	last week
<i>ringa' bu'-bu'</i>	long long ago	<i>buaidn ringa' na</i>	last month
		<i>toudn ringa' na</i>	last year

Table 5 illustrates examples of typical posterior temporal references.

TABLE 5: EXAMPLES OF POSTERIOR REFERENCES

Vague		More Specific	
<i>tina</i>	later (today)	<i>tina rigiodu</i>	later this morning
		<i>tina gibiidn</i>	later this afternoon
		<i>tina robi</i>	later tonight
		<i>suub/subu'</i>	tomorrow
		<i>suub robi</i>	tomorrow night
<i>mipa'-mipa'</i>	whenever	<i>kesobodn</i>	day after tomorrow
		<i>minggu malik</i>	next week

The temporal expression *gulu* 'first/before' is posterior with respect to time of utterance but anterior with respect to some other deictic centre. The following illustrates the temporal expression *gulu*:

- (37) *Angat n Domon, "Dei uhu panu; modop ou gulu".*  
 said NPV Domon don't you walk sleep I first  
 Domon said, "Don't go anywhere; I am going to sleep first".

Deictic temporal expressions are placed at the beginning of a sentence to establish the initial temporal setting of a discourse (e.g. (38a)) and to provide new temporal settings (e.g. (38f); see Levinsohn (1987:44). Deictic temporal expressions are post-verbal when they refer to a previously established temporal setting (e.g. 38c)):

- (38) a. *Kina si Mekul ikuli' ga melik.*  
 earlier PIV Michael had.to.return CON again  
 EARLIER (today) Michael had to return home.
- b. He followed me to settle a dispute in Batu Layar Darat.
- c. *Ou meleid dii iguhubm kina.*  
 I long.time there settle.dispute earlier  
 I was a long time there settling the dispute EARLIER.
- d. I settled the dispute between Sumping and her husband.
- e. Michael had followed me there.
- f. *Gipad puhul satu ga sia mili'.*  
 near time 1 CON he returned  
 ABOUT ONE O'CLOCK he returned home.

Thus deictic temporal adverbs (formal marking) are used to locate events in time (semantic function). The syntactic position of temporal adverbs in a proposition (grammatical level) indicates whether the temporal setting is new or the same as the previous setting.<sup>7</sup>

<sup>7</sup>Some temporal expressions are non-deictic in the sense that they contain no point of reference within the expression itself. These expressions usually refer to the duration of an action (e.g. *meleid* 'long time', *dua ntoudn* 'two years') or to its frequency (e.g. *odu-odu* 'daily', *minggu-minggu* 'weekly'). They relate to a deictic centre established in the discourse. Temporal expressions of duration and frequency are sometimes pre-verbal and other times post-verbal. The assumption is that the contrast in position is meaningful, even though the reasons for the contrast have not been established. My assumption is based on Bolinger (1972:71) who says, "Every contrast a language permits to survive is relevant, some time or other". Levinsohn (1987:44) claims that temporal expressions of duration and frequency in Koine Greek precede the verb in order to emphasise that aspect of the event.

## 6. DISCOURSE-PRAGMATIC TENSE-ASPECT

In sections 3 and 4, I discussed what could be called sententially based (situationally based) aspect. This was presented in terms of situation and viewpoint aspect. I now discuss the form and function of the perfect, since it involves more than one situation and thus falls between sentential and discourse tense-aspect (section 6.1). I then consider the semantic functions in discourse of the inflectional affix *-in-* (section 6.2), and show that Waugh and Monville-Burston's 1986 analysis of simple past in French as 'detached' is applicable also to *-in-*.

## 6.1 PERFECT

The perfect in Banggi describes situations that have current relevance (Li, Thompson & Thompson 1982), this being the prototypical feature of the perfect. The perfect indicates the continuing current relevance of a past situation.

Some linguists doubt whether the perfect should be considered an aspect. Bybee (1985:159), for instance, states that the perfect signals a situation that is relevant to another situation. She treats the perfect as a tense because its meaning deals with the time of a situation relative to another time. Li, Thompson and Thompson (p.21) point out that, in conversation, the perfect has a deictic function.

In Banggi, situations with two types of viewpoint aspect (perfective and imperfective) may be construed as having current relevance. Situations which have current relevance and are viewed perfectly are marked by *na*, whereas those that are viewed imperfectively are marked by *pa* (see also J.K. King's paper, in this volume, which describes a three-way marking of current relevance). Current relevance is usually with respect to time of utterance. The following example illustrates the perfect with a situation which is viewed perfectly:

- (39) a. *Bas nu m-ohodn [-Vm-ohodn]?*  
 already you ACY-eat  
 Did you already eat?
- b. *Bas ku na m-ohodn [-Vm-ohodn].*  
 already I PFT ACY-eat  
 I have already eaten.

The use of the perfect implies a current relevance which does not otherwise occur. Thus, in response to the question 'Did you already eat?', (39b) implies that the respondent already ate and is not interested in eating. On the other hand, (40) implies that the respondent already ate, but nevertheless may be interested in eating again:

- (40) *Bas ku m-ohodn [-Vm-ohodn].*  
 already I ACY-eat  
 I already ate.

The following example illustrates the perfect with a situation which is viewed imperfectively:

- (41) *Sia kahal m-ohodn [-Vm-ohodn] pa.*  
 he still ACY-eat yet  
 He is still eating.

The use of the perfect in (41) implies a current relevance which does not otherwise occur. Compare (11) which is repeated here as (42):

- (42) *Sia kahal m-ohodn [-Vm-ohodn] babi.*  
 he still ACY-eat pork  
 He still eats pork.

Situations which are viewed imperfectively are often negated. The use of *nda' pa* 'not yet' (e.g. (43)) results in situations that are presumed to be more certain to occur than those described using *pa* by itself (e.g. (44)). The following examples illustrate the perfect with situations which are viewed imperfectively:

- (43) *Sia nda' pa m-ohodn [-Vm-ohodn].*  
 he not yet ACY-eat  
 He has not eaten yet.
- (44) *Sia m-ohodn [-Vm-ohodn] pa.*  
 he ACY-eat yet  
 He has yet to eat.

The perfect can occur with all four situations: statives (e.g. (14)), achievements (e.g. (15)), activities (e.g. (16), (18), (20), (39b), (41), (43), (44)) and accomplishments (e.g. (17), (19), (21)). The perfect has a different syntactic behaviour than the auxiliaries used to mark viewpoint aspect. Auxiliaries are pre-verbal, but the perfect occurs in second position in the verb phrase except when *pa* (imperfective-perfect) co-occurs with the auxiliary *kahal* 'still' (e.g. (41)). *Na* (perfective-perfect) never co-occurs with *kahal* 'still' (imperfective viewpoint) because they are logically incompatible. Similarly, *pa* (imperfective-perfect) never co-occurs with *bas* 'already' (perfective viewpoint) because they too are logically incompatible.

## 6.2 *-in-*: 'DETACHMENT'

This section describes the semantic functions associated with *-in-* which is an inflectional affix, as opposed to viewpoint aspect and the perfect which are encoded as free grammatical morphemes. The affix *-in-* occurs with events (achievements, activities and accomplishments) but not with states. The manner in which *-in-* is phonologically realised depends upon the verb class, type of root (verb, noun or adjective) and type of pivot (actor or patient).

The affix *-in-* is realised as /i-/ in achievement verbs derived from adjectives (e.g. *l-i-m-umak [-in-kVm-lumak]* 'got soft'; see (2)); as /i-/ or /n-/ in achievement verbs derived from verbs (e.g. *i-loput [-in-loput]* 'broke'; see (3); *n-dabu' [-in-dabu']* 'fell'; see (22), (56b)); as /i-/ in activity verbs marked by *-Vm-* (e.g. *m-i-ohodn* 'ate'; see (16)); as /i-/ in activity verbs marked by *g-* (e.g. *i-gi-liput [-in-g-liput]* 'circled'; see (5)); as /i-/ in actor-pivot accomplishment verbs (e.g. *i-ngu-lumak [-in-ng-lumak]* 'softened'; see (7)); and as /i-/ , /-in-/ , or /in-/ in patient-pivot accomplishment verbs (e.g. *l-i-oput* 'broke'; see (9); *l-in-aak [-in-laak]* 'dried'; see (47b); *in-it [-in-it]* 'carried'; see (48d)).

A cursory examination of isolated utterances with *-in-* suggests that it marks past tense:

- (45) *Onu in-ohodn [-in-ohodn] nu?*  
 what IN-eat you  
 What did you eat?
- (46) *Mipa' sia m-i-li'[-in--Vm-uli']?*  
 when he ACY-IN-return  
 When did he return home?

Many examples in narrative fit the past tense hypothesis, if past tense is interpreted to mean past with respect to deictic centre. Deictic centres other than time of utterance are usually established with temporal deictic adverbs (see section 5). Once a deictic centre has been established in narrative, it continually shifts, with sequenced events receiving their deictic centre from the preceding clause (see Givón (1984:275, fn.8). The most natural way to present a sequence of events is in the chronological sequence in which they originally occurred (Givón 1984:282). When this strategy is pursued, as in (47) below, the past tense hypothesis predicts that the events will not be marked with *-in-*<sup>8</sup>

- |             |   |  |
|-------------|---|--|
| $\emptyset$ | <i>-in-</i>                                       |  |
| (47) a.     | Then we split ( <i>mela'</i> ) it (coconut).      |  |
| b.          | Then we put-out-to-dry ( <i>ngelaak</i> ) it.     |  |
| c.          | Then we scoop ( <i>nunggit</i> ) it out.          |  |
| d.          | Then we insert ( <i>nuga'</i> ) it in gunnysacks. |  |

The past tense hypothesis also predicts that out-of-sequence events (i.e. events occurring prior to the deictic centre) will be coded by *-in-*. This is illustrated in the following (coconut is weighed at the warehouse, not on the boat or at the dock):

- |             |  |  |
|-------------|--|--|
| $\emptyset$ | <i>-in-</i>  |  |
| (48) a.     | Then we went ( <i>mindii</i> ) straight to Kudat.                |  |
| b.          | Then we came ( <i>matakng</i> ) to Kudat.                        |  |
| c.          | Then we weighed ( <i>nimbakng</i> ) it (coconut).                |  |
| d.          | It had been carried ( <i>in-it</i> ) by us to Sukim's warehouse. |  |
| e.          | I received ( <i>tirima</i> ) \$250.                              |  |

Although the past tense hypothesis can account for (45)-(48), many examples cannot be explained in terms of past tense. For instance, (49) cannot be interpreted as past with respect to the time of utterance, even though *-in-* occurs:

- (49) *Sia nda' pa m-i-ohodn [-in--Vm-ohodn].*  
 he not yet ACY-IN-eat  
 He has not eaten yet.

<sup>8</sup>For brevity, a free translation of the immediate context is provided with only the verbs given in Banggi. Clauses are divided into two columns, those without *-in-( $\emptyset$ )* and those with *-in-*.



Waugh and Monville-Burston's analysis of simple past in French as 'detached', however, also fits all cases of *-in-* in Banggi. I now show how their analysis satisfactorily explains both those examples accounted for by the past tense hypothesis and those examples for which the past tense analysis is inadequate.

The primary function of *-in-* is to detach a figure (one or more events) from its context (other events; see Waugh & Monville-Burston 1986:853). The effect of detaching events by marking them with *-in-* is typically to ground them, that is, to highlight or downgrade them, over against the other events.

Since *-in-* represents a formally marked category, it is perceptually and iconically more salient than the corresponding morphologically unmarked category. The unmarked mainline events are morphologically unmarked as well. In terms of the Gestalt principles of figure and ground, *-in-* marks figure (one or more events) as opposed to ground (other events which are formally unmarked; see Wallace 1982:215). However, because figure implies importance over against ground, I use the more neutral term 'detachment', since events which are detached may be either highlighted or downgraded. I recognise a continuum of related functions of *-in-* in discourse, the common denominator being detachment (see Waugh & Monville-Burston pp.852f.).

One function of *-in-* is to detach an event from the expected deictic centre, namely, time of utterance in conversation (e.g. (45), (46)), and time of preceding event in narrative (e.g. (48)). Example (43), repeated below as (50), and (49) above, are both viewed imperfectly but they are used in different circumstances. Example (50) is used prior to the expected time of eating. Example (49) is used after the expected time of eating, however, and suggests contra-expectation. It may be translated 'He has not eaten yet (even though I expected he would have at an earlier time)'. Example (51) similarly suggests contra-expectation. Both (49) and (51) are detached from the time of utterance and refer to a different deictic centre previous to time of utterance, namely, the earlier expected time of performing the act concerned:

(50) *Sia nda' pa m-ohodn [-Vm-ohodn].*  
 he not yet ACY-eat  
 He has not eaten yet.

(51) *Sia nda' pa m-i-li' [-in--Vm-ohodn].*  
 he not yet ACY-IN-return  
 He has not returned yet (but I thought he would have at an earlier time).

Sometimes sequenced events (i.e. events in chronological sequence with the last event described) are marked with *-in-*. In (52), for instance, climactic events ((52d), (52e), (52g)) are detached from non-climactic events (ground). This function of *-in-* may be interpreted as a rhetorical device for signalling and highlighting climax (see Longacre 1981:349).

∅

-in-

- (52) a. Then his spouse pulled-back  
 (*mungas*) the cover on the ark.
- b. She immediately saw (*pegliid-liid*)  
 a plant.
- c. "Don't take it", said (*kaadn*) her  
 sister-in-law.

- d. Well, she went (*i-ngua'*).
- e. She took (*i-ngai*) the plant.
- f. There she took (*ngai*) it.
- g. Well, she was swallowed up  
(*t-i-meronos*).
- h. She was no more (*ndaardn na*).

At other times, sequenced events are marked with *-in-* to detach 'boundary events' which move participants to or from locations. (See Waugh & Monville-Burston pp.856f.; they state that the simple past in French is a boundary signal, marking the formal limits of texts and sections of texts.) Compare, for example, (53b) and (53e):

- | $\emptyset$  | <i>-in-</i>                                       |
|--|---|
| (53) a. For five months I stayed ( <i>metak</i> ) with them. |   |
| b.   | Then Linda came ( <i>m-i-atakng</i> ) from Tawau. |
| c. Then Rakil introduced ( <i>petondu'</i> ) me to Linda.    |   |
| d. Then Linda and I were friends ( <i>mpangan</i> ).         |   |
| e.   | Linda took ( <i>i-git</i> ) me to Luyang.         |
| f. She got ( <i>pusuak</i> ) me a job with a Chinese.        |   |

Boundary events are detached from non-boundary events at the beginning of a story, as in (54a) and (54b) below.<sup>9</sup> In this example, the first two sentences are inflectionally marked. They begin the story and establish the setting for the rest of the story. These two sentences draw attention to the main topic of the story that follows:

- | $\emptyset$  | <i>-in-</i>   |
|--|---|
| (54) a.  | Nairi was litigating ( <i>i-guhubm</i> ) yesterday. |
| b.   | She was litigated ( <i>in-uhubm</i> ) by Laum.      |
| c. But she opposed ( <i>megloon</i> ) him.                 |   |
| d. She did not follow ( <i>miaa'</i> ) what he said to do. |   |

Boundary events are also detached at the end of a story, as in (55b), (55e), (55f) below. In this example, the speaker originally ends the story with (55a), but then resumes and finally finishes with (55g):

<sup>9</sup>Compare the use of simple past in French for marking the beginning and end of texts (Waugh & Monville-Burston 1986:857).

- |   |  |
|---|--|
| ∅   | -in-   |
| (55) a. That is all ( <i>ndaardn na</i> ).                          |  |
| b.  | Then we returned ( <i>m-i-li'</i> ).                                 |
| c. We purchased ( <i>moli</i> ) rice.                               |  |
| d. We purchased ( <i>moli</i> ) some betel leaves and some clothes. |  |
| e.  | The Ubian man brought ( <i>i-ngatad</i> ) us to the dock over there. |
| f.  | Then we returned ( <i>m-i-li'</i> ) to our house.                    |
| g. That is all ( <i>ndaardn na</i> ).                               |  |

A further function of *-in-* in connection with sequenced events is to detach an event which is contrary to what is expected (e.g. (56); see (49), (51) for the same function in conversation). The unexpected event (56b) is detached from the other events. (The expectation was that, following Mual's return from Kudat, he would litigate the dispute):

- |   |                                      |
|---|--------------------------------------|
| ∅   | -in-                                 |
| (56) a. Now Mual is back from ( <i>tidii</i> ) Kudat.                     |                                      |
| b.  | It did not happen ( <i>n-dedi</i> ), |
| c. that he litigated ( <i>nguhubm</i> ) the dispute between Bok and Noon, |                                      |
| d. about washing ( <i>masa'</i> ) hands.                                  |                                      |

Sometimes two sentences refer to the same event, with the second sentence elaborating on the first, often involving the repetition of the verb. If the second sentence is marked with *-in-*, the rhetorical effect is to highlight the additional information conveyed. In (57), for instance, (57b) elaborates on the event described in (57a). By detaching (57b) from its context, the speaker may have wanted to emphasise to others that he did not make his son-in-law (Likig) do all the heavy work (i.e. carrying coconut to the dock; (57e) could also be viewed as an elaboration of (57b), but the absence of *-in-* indicates that it is not given special prominence).

- |   |   |
|---|---|
| ∅   | -in-  |
| (57) a. Then we carried ( <i>nggahut</i> ) it to the landing place there. |   |
| b.  | We two, Likig and I, carried ( <i>i-gahut</i> ) it to the dock there. |
| c. We two went back ( <i>balik</i> ).                                     |   |
| d. We each went back again and again ( <i>igbalik-balik</i> ).            |   |
| e. We carried ( <i>nggahut</i> ) gunnysacks.                              |   |

Sometimes the verb which is reiterated is the unmarked form, in the context of events which are detached (i.e. inflectionally marked by *-in-*). This occurs in (52), in which the

verb in (52e) is reiterated in (52f). In (52), the reiterated event (52f) is not detached and highlighted, but occurs simply for clarification.

A single text can employ detachment in different ways. This is illustrated in (58) which contains five detached events. Example (58d) is a boundary event which brings a participant (water) to the scene of the previous events. Example (58h) is also a boundary event, setting the scene in time for the following events. Example (58l) is likewise a boundary event, effectively removing the participant from the scene by having him sleep while the story continues. Examples (58m) and (58p) are out of sequence with respect to (58l) and are detached from the expected deictic centre:

- | $\emptyset$   | <u>-in-</u> |   |
|---|-------------|---|
| (58) a. Having finished making ( <i>ngamad</i> ) the boat,              |             |   |
| b. Domon called ( <i>bitaan</i> ) it, "Ark".                            |             |   |
| c. Having finished making ( <i>ngamad</i> ) it,                         |             |   |
| d.  |             | then the water came ( <i>m-i-atakng</i> ).          |
| e. The land was no more ( <i>ndaardn na</i> ).                          |             |   |
| f. All at once this island was dissolved ( <i>ansur</i> ).              |             |   |
| g. Domon was left ( <i>tetak</i> ) on the ark with his wife and sister. |             |   |
| h.  |             | After the earth was destroyed ( <i>i-binasa</i> ),  |
| i. Domon said ( <i>angat</i> ),   |             |   |
| j. "Don't you two go ( <i>panu</i> ) anywhere.                          |             |   |
| k. I am going to sleep ( <i>modop</i> ) first".                         |             |   |
| l.  |             | Domon fell asleep ( <i>i-kodop</i> ).               |
| m.  |             | For three days he had not slept ( <i>i-kodop</i> ). |
| n. He was watching over ( <i>ngijaga</i> ) the village.                 |             |   |
| o. He was watching over ( <i>ngijaga</i> ) the ark.                     |             |   |
| p.  |             | Before he had yet fallen asleep ( <i>i-kodop</i> ), |
| q. then his spouse pulled-back ( <i>munggas</i> ) the cover on the ark. |             |   |

To summarise, *-in-* detaches events from other events. Detachment has the following functions: (a) to detach out-of-sequence events from the expected deictic centre (e.g. (45), (46), (48), (51), (58m), (58p)); (b) to detach climactic events (e.g. (52)); (c) to detach boundary events, including the movement of participants to or from the location of unmarked

foreground events (e.g. (53), (54), (55), (58d), (58h), (58I)); (d) to detach events which are contrary to expectation (e.g. (49), (51), (56)); and (e) to detach an event in order to elaborate on it (e.g. (57)). The diversity of functions associated with detachment arises from the fact that they are context dependent (see Waugh & Monville-Burston p.872).

## 7. CONCLUSION

Temporal reference is a cohesive device. The formal markers which encode temporal reference and have been discussed in this paper include: derivational morphology, auxiliary verbs, deictic temporal adverbs, free morphemes and inflectional morphology. One temporal cohesive device which has not been considered in this paper is linkage (for a discussion of linkage, see King, J.K., this volume, section 2.2). Linkage or juncture is a device for signalling relationships between situations (Beaugrande & Dressler 1981:71). Beaugrande and Dressler (p.69) claim that, when the verb system does not make tense-aspect distinctions explicit, modifiers or junctives must be used. Examination of temporal junctives is the next step beyond the current study.

The following is a simplified production model of what appears to be the temporal reference strategy in Banggi.

In each discourse, the speaker first establishes a deictic centre which is dependent on the nature of the discourse (see Marchese 1978:71). Once the deictic centre is established, the speaker chooses a situation with its inherent aspect, together with a viewpoint or perspective on the situation. He may also state whether the situation has current relevance. If the speaker wishes to highlight or downgrade an event, he detaches it from the other events.

The model of tense-aspect presented in this paper is not restricted to either a sentential view or a discourse view. Detachment is discourse derived but other tense-aspect distinctions are not derived simply from discourse. Situation aspect limits both viewpoint aspect (section 4) and detachment, since stative verbs cannot be detached (section 6.2). To summarise, some tense-aspect distinctions are discourse derived and others are situation derived.

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