

Nominative and genitive case alternations in Bonggi

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1 Introduction¹

Bonggi is a western Malayo-Polynesian language spoken by approximately 1,400 people on Banggi and Balambangan islands in the Kudat District of Sabah, Malaysia. According to Blust (1998), the Sabahan languages, including Bonggi, form a primary branch of a North Borneo subgroup whose other primary branch is the North Sarawak languages. Bonggi has sentences like the following.

- (1) *Sia kiohol ulakng.*²
sia -in-kohol-∅ ulakng
3SG.NOM REAL-bite-ISA.UND snake
'He was bitten by a snake.'
- (2) *Mipa? nya kiohol?*
mipa? nya -in-kohol-∅
when 3SG.GEN REAL-bite-ISA.UND
'When was he bitten?'

The verb morphology in (1) and (2) is identical. In both examples, the verb morphology indexes the clause undergoer; however, in (1) the undergoer (*sia* '3SG.NOM') is in nominative case, whereas in (2) the undergoer (*nya* '3SG.GEN') is in genitive case. It is well known that actors in many western Malayo-Polynesian languages occur in genitive case

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² Abbreviations used: ACH achievement; ACT actor; ACY activity; ARG argument; DAT dative; DEF definite; EXC exclusive; GEN genitive; IRREAL irrealis; ISA induced state of affairs; LS logical structure; NOM nominative; NP noun phrase; NONACT nonactor; PL plural; PASS passive; PCS precore slot; PER perfect; PN personal noun; PSA privileged syntactic argument; REAL realis; RRG Role and Reference Grammar; SG singular; SR semantic representation; STAT stative and UND undergoer. The PSA in Bonggi occurs in the English free translation in **bold**. The symbol $_$ means 'linked.'

when they are not indexed by the verb; however, main clauses in which the argument indexed by the verb is an undergoer in genitive case are virtually unknown. This paper explains nominative and genitive case alternations in Bonggi.

The starting point for this paper is Silverstein's (1981) claim that case marking is a dependent variable which is contingent on the interaction of different independent variables. The following five semantic-pragmatic variables must be understood in order to account for case marking in Bonggi: (1) inherent lexical content of NPs (§3), (2) clause-level propositionality (§4), (3) clause linkage (§5), (4) tense (§6) and (5) the discourse pragmatic relations topic and focus (§7) (cf. Silverstein 1993:474).

The theoretical framework used to account for alternations between nominative and genitive case is Role and Reference Grammar (RRG).³ Section 8 summarises my explanation for these case alternations and reviews the implications of this paper for the study of western Malayo-Polynesian case systems.

2 Overview of voice in Bonggi

Voice is a mechanism that selects one nominal element in each clause for syntactic prominence. Because voice alternations consist of different ways of presenting a verb with its arguments, they are normally associated with verbs which have two or more arguments. In active voice, the actor is the syntactically prominent nominal; in passive voice, the undergoer is the syntactically prominent nominal. Verbs with one argument offer no alternative; thus, the syntactically prominent nominal is the single argument. However, single argument verbs in Bonggi do **not** all belong to the same verb class, as verb classes are defined semantically.⁴ Single argument verbs have a semantic valency of one and are labelled 'intransitive' voice in Table 1 following Nida (1949:168). Table 1 shows the underlying forms of indicative and imperative mood verbal affixes.

Induced states of affairs are complex in that one state of affairs brings about another. They are semantically transitive, having a valency of two. As seen in Table 1, five basic voice alternations can occur in induced states of affairs: active voice and four different passive voice forms, including a periphrastic passive formed with the auxiliary verb *anu*.⁵ All five voice alternations are morphologically marked, with the morphological marking occurring on the auxiliary verb in periphrastic passive constructions.

³ RRG theoretical notions are introduced in §4.1. For a brief overview of RRG see Kishimoto (1996:250-253) or Van Valin (1990:222-230, 1991:154-171, 1995). For a more extensive overview see Van Valin (1993).

⁴ Evidence for Bonggi verb classes can be found in Boutin (1994).

⁵ See Wolff (1996) for use of similar passive terminology for Philippine-type languages. See Boutin (forthcoming) for a description of the development of periphrastic passive constructions in Bonggi.

Table 1: Basic voice-related affixes in Bonggi

Verb class	Semantic valency	Voice	Syntactically prominent nominal	INDICATIVE		IMPERATIVE
				Irrrealis	Realis	
attributive state	1	intransitive	undergoer	m-		
achievement	1	intransitive	undergoer	mə-	in-	
accomplishment	1	intransitive	undergoer	-əm-	-in--əm-	
activity	1	intransitive	actor	-əm-	-in--əm-	(bare root)
induced state of affairs	2	active	actor	ng-	in-ng-	pəng-
	2	direct passive	undergoer	-ən	-in-	-a?
	2	periphrastic passive	undergoer	anu-ən	-in-anu	anu-a?
	2	local passive	marked undergoer	-an	-in- -an	-i
	2	instrumental passive	instrument (non-argument)	pəng-	-in-pəng-	
	1 or 2	periphrastic non-argument passive	non-argument	gien	gien	

The five voice alternations are exemplified below by various forms of the verb root *bagi* ‘to divide’: (3) illustrates active voice with the actor (*sia* ‘3SG.NOM’) being the syntactically prominent nominal; (4) illustrates a direct passive with the undergoer (*louk nyu* ‘your fish’) being the syntactically prominent nominal; (5) is a periphrastic passive with the undergoer (*louk nyu* ‘your fish’) being the syntactically prominent nominal; (6) is a local passive with the benefactive (*ou* ‘1SG.NOM’), which is a marked undergoer, being the syntactically prominent nominal. Finally, (7) is an instrumental passive with the instrument (*badi? ku* ‘my machete’) being the syntactically prominent nominal.⁶

(3) *Sia imagi louk nyu.*
sia in-ng-bagi louk nyu
 3SG.NOM REAL-ISA.ACT-divide fish 2PL.GEN
 ‘He divided your fish.’

(4) *Louk nyu biagi nya.*
louk nyu -in-bagi-0 nya
 fish 2PL.GEN REAL-divide-ISA.UND 3SG.GEN
 ‘Your fish was divided by him.’

⁶ Although instrumental passives occur, they are extremely rare in Bonggi.

- (5) *Louk nyu* ~ *inanu* *nya* *imagi*.
louk nyu *-in-anu-∅* *nya* *in-ng-bagi*
 fish 2PL.GEN REAL-PASS-ISA.UND 3SG.GEN REAL-ISA.ACT-divide
 'Your fish was divided by him.'
- (6) *Ou* *bigiadm* *nya* *louk nyu*.
ou *-in-bagi-an* *nya* *louk nyu*
 1SG.NOM REAL-divide-ISA.MARKED.UND 3SG.GEN fish 2PL.GEN
 'He divided your fish for me.'
- (7) *Badi?* *ku* *pimagi* *nya* *louk nyu*.
badi? *ku* *-in-pəng-bagi* *nya* *louk nyu*
 machete 1SG.GEN REAL-ISA.INSTRUMENT-divide 3SG.GEN fish 2PL.GEN
 'My machete is what he used to divide your fish.'

Three different forms of the passive auxiliary are used in periphrastic passive constructions to index undergoers: *nuan* (*anu* + *-ən*) occurs in irrealis modality as illustrated in (8); *inanu* (*-in-* + *anu*) occurs in realis modality as illustrated in (5); and *nua?* (*anu* + *-a?*) occurs in imperative mood as illustrated in (9). These three forms of the passive auxiliary are morphologically related, with the initial /a/ of the root *anu* being deleted when the root is suffixed (Boutin, forthcoming).⁷

- (8) *Louk nyu* *nuan* *nya* *magi*.
louk nyu *anu-ən* *nya* *ng-bagi*
 fish 2PL.GEN PASS-ISA.UND 3SG.GEN ISA.ACT-divide
 'Your fish will be divided by him.'
- (9) *Nua?* *na* *magi!*
anu-a? *na* *ng-bagi*
 PASS-ISA.UND.IMPERATIVE PER ISA.ACT-divide
 'Divide it up!'

Bonggi verbal affixes signal verb class and, for verbs with two or more arguments, the semantic role of the nominal indexed by the affix. For example, attributive states, achievements and accomplishments have a single argument which is an undergoer; however, each verb class is uniquely marked. Attributive states are marked by *m-*; achievements with irrealis modality are marked by *mə-*; and accomplishments with irrealis modality are marked by *-əm-*. If the primary function of these affixes was to signal the semantic role of the nominal, then we would expect all three classes to share the same affix. Similarly, the actor is the syntactically prominent nominal for both activities and active voice induced states of affairs; however, the two classes of verbs are uniquely marked. Activities are marked by *-əm-* whereas active voice induced states of affairs are marked by *ng-*. The prefix *ng-* has a dual function in that it signals both verb class (i.e. induced state of affairs) and the semantic role of the indexed nominal (i.e. actor). Similarly, *-ən* also has a dual function in that it signals both verb class (i.e. induced state of affairs) and the semantic role of the indexed nominal (i.e. undergoer).

⁷ The affixes *-ən* 'UND', *-in-* 'REAL' and *-a?* 'ISA.UND.IMPERATIVE' are the same affixes as are used with non-periphrastic passives when the pivot is an unmarked undergoer (cf. Table 1).

Bonggi, like many other western Malayo-Polynesian languages, not only allows semantic arguments of the predicate to be the syntactically prominent nominal, but it also allows non-arguments of the predicate to be the syntactically prominent nominal. For example, in (10) although the location is not an argument of the verb *milakng* 'to lie down', it is the syntactically prominent nominal. When the syntactically prominent nominal is not an argument of the verb, a periphrastic construction with *gien* 'place' normally occurs (cf. §5.2.1). The other option for making non-arguments the syntactically prominent nominal is an instrumental passive as in (7); however, instrumental passives rarely occur and are only used with instruments. As seen in the bottom of Table 1, periphrastic constructions with *gien* 'place' can occur in clauses with a semantic valency of either one or two.

- (10) *Kati? gien ku milakng.*
kati? gien ku -əm-ilakng
 here place 1SG.GEN ACY-lie.down
 'Here is where I lie down.'

3 Nominal marking

"Case is a system of marking dependent nouns for the type of relationship they bear to their heads" (Blake 1994:1;13). In Bonggi, the form of marking is contingent upon the type of nominal expression. Three types of nominal expressions are distinguished: common nouns (§3.1), personal nouns (§3.2) and personal pronouns (§3.3).⁸ Only personal pronouns and personal nouns receive overt case marking; personal pronouns are inflected, while personal nouns are preceded by one of two proclitics.

3.1 Common nouns

Bonggi, like many other western Malayo-Polynesian languages, makes a distinction between common nouns and personal nouns in terms of case marking. For example, in (11) the nominal expression *Umal* is case marked because it is a personal noun in nominative case; however, in (12) the nominal expression *daidn na* 'the trail' is not case marked because it is a common noun.⁹

- (11) *Si Umal miliug.*
si Umal m-liug
 PN.NOM Umal STAT-tall
 'Umal is tall.'

⁸ Some western Malayo-Polynesian languages include a fourth type of nominal expression, namely deictic pronouns. With respect to case marking, Bonggi deictic pronouns are treated like common nouns. For a discussion of case marking distinctions among deictic pronouns see Schachter and Otnes (1972:91-93) for Tagalog or McFarland (1974:148ff.) for Bikol.

⁹ In the majority of the languages of the Philippines, NPs including common nouns are case marked; however, core arguments are not case marked in the Sama Bajau languages (Pallesen 1985:97; Walton 1986:2).

- (12) *Ntimpad daidn na.*
m-timpad daidn na
 STAT-straight trail the
 'The trail is straight.'

Case is distinguished from case markers. Both the personal noun *Umal* in (11) and the common noun *daidn* in (12) receive nominative case. However, common nouns which occur in nominative case are not case marked (e.g. *daidn na* 'the trail' in (12)), whereas personal nouns which occur in nominative case are case marked (e.g. *si Umal* in (11)).

3.2 Personal nouns

Personal nouns include personal names (e.g. *Umal* in (11)), nicknames (e.g. *Lonti* 'hang down' in (13)), some kinship terms (e.g. *ama?* 'father' in (14)) and the indefinite substitute word *anu* when it means 'what's-his-name' as in (15).

- (13) *Si Lonti miliug.*
si Lonti m-liug
 PN.NOM Lonti STAT-tall
 'Lonti is tall.'
- (14) *Ntuhai si ama?*
m-tuhai si ama?
 STAT-thin PN.NOM father
 'Father is thin.'
- (15) *Si anu ntuhai.*
si anu m-tuhai
 PN.NOM what's-his-name STAT-thin
 'What's-his-name is thin.'

With the exception of vocatives, personal nouns are always preceded by a personal noun marker (cf. Schachter & Otnes 1972:95 for Tagalog). Personal nouns exhibit a two-way case distinction, with all non-nominative personal nouns being marked with a phonologically conditioned variant of *ny*. Unlike *si* 'PN.NOM' which has both a case marking function and a noun-class marking function, *ny* 'PN' only has a noun-class marking function in that it distinguishes personal nouns from common nouns. For example, in (16) the grammatical marker *ny* 'PN' occurs with both genitive case *ama?* 'father' and dative case *Umal*.

- (16) *Si Mual imori siidn ny ama? di ny Umal.*
si Mual -in-ng-bori siidn ny ama? di ny Umal
 PN.NOM Mual REAL-ISA.ACT-give money PN father to.DAT PN Umal
 'Mual gave father's money to Umal.'

When personal nouns are used as vocatives, usually only the last syllable of the noun occurs. For example, in (17) the personal name *Umal* occurs in the vocative form *Mal*, and in (18) the kinship term *ama?* occurs in the vocative form *ma?*. Vocatives are not dependents in constructions, but rather stand outside constructions. Since they do not mark the relation of dependent to head, they are not case marked (Blake 1994:9).

- (17) *Mal, kana? gulu!*
 Umal come.here first
 'Umal, come here first!'
- (18) *Ma?, kana? gulu!*
 Father come.here first
 'Father, come here first!'

The semantic basis for the distinction between personal nouns and common nouns is found in the animacy hierarchy (cf. Dixon 1994:85). Personal names and some kinship terms are higher on the hierarchy than common nouns which refer to people. In Bonggi, non-collateral consanguineal kinship terms in the first and second generation above the speaker and addressee (i.e. the speaker's and addressee's parents and grandparents) are treated as personal nouns. Furthermore, Bonggi and certain Bornean languages have what are known as 'death/mourning-names' which are used as terms of reference and terms of address for close relatives of the deceased.¹⁰ In terms of case marking, death/mourning-names are treated as personal names. This is illustrated in (19) by the presence of the nominative case marker *si* 'PN.NOM' before *obos* which is a death/mourning-name for the second oldest male child who has recently suffered the loss of a parent.

- (19) *Si obos ntuhul.*
si obos m-tuhul
 PN.NOM 2nd.oldest.male.orphan STAT-thin
 'That second oldest male who recently suffered the loss of a parent is thin.'

3.3 Personal pronouns

Like personal nouns, personal pronouns receive overt case marking. Unlike personal nouns, personal pronouns exhibit a three-way case marking distinction as shown in Table 2.

Table 2: Bonggi pronouns

	NOMINATIVE	GENITIVE ¹¹	ACCUSATIVE/DATIVE
1 singular	<i>ou</i>	<i>ku</i>	<i>diaadn</i>
1&2 singular	<i>kita</i>	<i>ta</i>	<i>dihita</i>
1 plural-inclusive	<i>kiti</i>	<i>ti</i>	<i>dihiti</i>
1 plural-exclusive	<i>ihi</i>	<i>mi</i>	<i>dihhi</i>
2 singular	<i>aha</i>	<i>nu</i>	<i>diha</i>
2 plural	<i>uhu</i>	<i>nyu</i>	<i>dihu</i>
3 singular	<i>sia</i>	<i>nya/na</i>	<i>nya</i>
3 plural	<i>siga lama</i>	<i>siga lama/nda</i>	<i>siga lama</i>

Nominative case is reserved for the syntactically prominent nominal in a clause. For example, in (20) *sia* '3SG.NOM' is inflected for nominative case because it is both a pronoun and the syntactically prominent nominal (cf. Table 2).

¹⁰ See Needham (1954a, 1954b) for a discussion of death/mourning-names in Borneo.

¹¹ Genitive case pronouns are enclitics which do not affect stress in the preceding word.

- (20) *Sia kindi bali nu.*
sia ki-n-di bali nu
 3SG.NOM GOAL-DIRECTIONAL-to house 2SG.GEN
 'She is going to your house.'

Genitive case takes its name from its function of encoding the possessor in NPs such as *bali nu* 'your (2SG.GEN) house' in (20). In such constructions, the genitive is an adnominal case which marks noun phrases as dependents of nouns. The most common non-adnominal use of genitive pronouns is to encode actors when they are not the syntactically prominent nominal (e.g. *nya* '3SG.GEN' in (4)). Other non-adnominal uses of genitive case (e.g. *nya* '3SG.GEN' in (2)) are discussed in §4.2, §5, §6 and §7.

The third class of pronouns is used for nonactors which are not the syntactically prominent nominal including: (a) undergoers which are not indexed by the verb, such as *diaadn* '1SG.NONACT' in (21); (b) non-macroroles such as *diaadn* '1SG.NONACT' in (22);¹² and topicalised pronouns such as *diaadn* '1SG.NONACT' in (23). The presence of *di* 'DAT' distinguishes dative (e.g. *diaadn* in (22)) from accusative (e.g. *diaadn* in (21)) pronouns.

- (21) *Sia mori diaadn siidn.*
sia ng-bori diaadn siidn
 3SG.NOM ISA.ACT-give 1SG.NONACT money
 'He gives me money.'
- (22) *Sia mori siidn di diaadn.*
sia ng-bori siidn di diaadn
 3SG.NOM ISA.ACT-give money to.DAT 1SG.NONACT
 'He gives money to me.'
- (23) *Diaadn, ndou melou.*
diaadn, nd-ou m-lou
 1SG.NONACT NEGATIVE-1SG.NOM STAT-embarrass
 'As for me, I am not embarrassed.'

3.4 Grammatical case marking versus adjunct marking

Argument case markers (including adpositions) are distinguished from adjunct markers (including adpositions). Adpositions which mark arguments of the verb have a case marking function, whereas adpositions which mark non-arguments (adjuncts) have an adverbial function.¹³ This is in accord with a basic distinction which is often made in the analysis of case systems; that is, the difference between grammatical case and adjunct marking.

For example, the preposition *di* 'to/at' can mark either locative arguments or locative adjuncts. Thus, *diaadn* '1SG.NONACT' in (22) is the locative-goal argument of the verb *mori* 'give', and the preposition *di* 'to.DAT' marks this argument as a syntactically oblique argument. On the other hand, prepositions which mark non-arguments or adjuncts have an adverbial function, e.g. *di* 'at' in (24). The locative phrase *di sungi na* 'at the river' in (24) is not an argument of the verb *lemongi* 'swim'; instead, it is a locative adjunct.

¹² Macroroles are the two primary arguments of a transitive predicate (cf. §4.1).

¹³ Arguments of the verb are defined by logical structures. See §4.1 for a discussion of logical structures.

- (24) *Sia lemongi di sungi na.*
sia -əm-longi di sungi na
 3SG.NOM ACY-swim at river the
 'He swims at the river.'

The following major points regarding case have been made in §3. A distinction was made between case and case markers. Although common nouns receive case, they are not case marked. Only personal nouns and personal pronouns receive overt case marking. Personal nouns are preceded by one of two proclitics: *si* 'PN.NOM' marks nominative case personal nouns, while *ny* marks all other personal nouns with the exception of vocatives. Personal pronouns are inflected for one of three different cases: nominative, genitive or accusative/dative. Prepositions which mark arguments of the verb have a case marking function, whereas prepositions which mark non-arguments have an adverbial function.

4 Clause-level propositionality

The clause is both the basic unit in syntax and the starting point for the analysis of case. Section 4.1 provides an overview of clause analysis in RRG, while §4.2 shows how Bonggi case marking reflects the relationships between predicates and their argument(s).

4.1 Predicate-argument relations in RRG

In RRG the semantic relationship between a predicate and its arguments is expressed by **Logical Structures (LSs)**. LSs provide a formal semantic representation for each verb and they consist of predicates, their arguments and a small set of operators (Van Valin 1990:223). Semantic representations in RRG are based on Dowty's (1979) theory of verbal semantics in which verbs are classified into four basic *Aktionsart* classes: states, achievements, accomplishments and activities.

Stative clauses are illustrated by attributive constructions in (11), (12), (13), (14), (15), (19) and (23). The LS for all attributive statives is shown in (25) where the first argument 'x' is the attributant and the second argument **pred'** is the attribute (Van Valin & LaPolla 1997:103). In Bonggi, attributive statives are prefixed with *m-*.¹⁴

- (25) LS for attributive statives: **be'** (x, [**pred'**])

Whereas the LS in (25) is the LS for all attributive statives, the semantic representations (SR) for (11) and (12) are shown in (26) and (27).

- (26) SR for (11): **be'** (Umal, [**tall**'])
 (27) SR for (12): **be'** (*daidn* 'trail', [**straight**'])

Basic *Aktionsart* classes depict spontaneous states of affairs; however, states of affairs can also be induced. Induced states of affairs are complex in that one state of affairs brings about another state of affairs. The LS for induced states of affairs is ϕ CAUSE ψ , where ϕ is a causal state of affairs which induces another state of affairs ψ . For example,

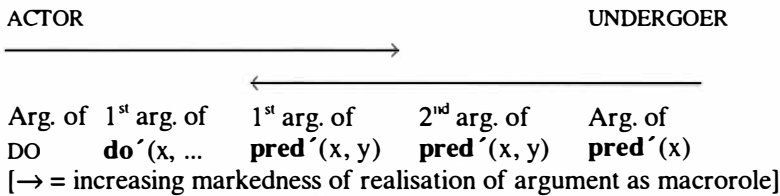
¹⁴ Regular morphophonemic alternations account for the variation in surface forms. Nasal assimilation makes the nasal *m-* homorganic with following nonsonorant consonants (e.g. (12), (14), (15) and (19)). Vowel epenthesis inserts vowels between prefixes and sonorant consonants (e.g. (11), (13) and (23)).

(16) is an induced accomplishment clause. "Accomplishments are coded by BECOME, which codes change over some temporal span, plus a state predicate" (Van Valin & LaPolla 1997:104). The LS for *bori* 'give' is shown in (28a), whereas the SR for (16) is shown in (28b). The ϕ portion of the LS in (28a) is an activity, while the ψ portion is an accomplishment. The second argument position in the ϕ portion of the SR in (28b) is \emptyset (i.e. not specified) since the causing activity is not specified (cf. Van Valin 1990:225).

- (28)a. LS for *bori* 'give': [do'(x, [predicate'(x)])] CAUSE [BECOME have'(y, z)]
- b. SR for (16): [do'(Mual, \emptyset)] CAUSE [BECOME have'(Umal, *siidn ny ama?* 'father's money')]

Actor and **undergoer** are the two primary arguments of a transitive predicate, either one of which may be the single argument of an intransitive verb (Van Valin 1993:43). 'Actor and undergoer are generalisations across classes of specific argument positions in logical structure' (Van Valin & LaPolla 1997:142). The relationship between macroroles and argument positions in LS is captured in the Actor-Undergoer Hierarchy in (29) (Van Valin & LaPolla 1997:146). This double hierarchy states that the argument position that is leftmost on the cline will be the actor and the argument position that is rightmost will be the undergoer. This is the unmarked situation; marked assignments to undergoer are possible.

(29) **Actor-Undergoer Hierarchy**



The number of macroroles a verb takes is either \emptyset , 1 or 2, and is largely predictable from the LS of the verb (Van Valin 1993:46-47). Default principles for macrorole assignment are shown in (30).

- (30) DEFAULT MACROROLE ASSIGNMENT PRINCIPLES:
 - a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its LS.
 - 1. If a verb has two or more arguments in its LS, it will take two macroroles.
 - 2. If a verb has one argument in its LS, it will take one macrorole.
 - b. Nature: for verbs which take one macrorole,
 - 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 - 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

In (25), because the second argument is a predicate, it cannot function as an argument. Thus, despite having two argument positions ('x' and 'y'), attributive statives have only one macrorole. This follows from the principle in (30a.2). The nature of the single macrorole is predictable from (30b); that is, the single macrorole in (11) is an undergoer since there is no activity predicate in its LS in (25).¹⁵

¹⁵ Activity predicates are predicates with **do'** in their LS.

According to (30a.1), the verb *bori* 'give' has two macroroles since its LS in (28a) has three arguments: 'x', 'y' and 'z'. In (28a) **do'** refers to a generalised unspecified activity predicate. **Do'** has two argument positions. The first argument position in (28a) is occupied by 'x', the second by another LS, i.e. [**predicate'** (x)]. The variable 'x' in (28a) refers to both the first argument of **do'** and the only argument of **predicate'**. Because the same variable 'x' is used in both places, these arguments are coreferential. Coreferential arguments are counted as a single argument in LSs.

According to (29), 'x' in (28a) is linked to actor since 'x' is the first argument of **do'** and '1st argument of **do'** is leftmost on the cline in (29). Furthermore, according to (29), either 'y' or 'z' in (28a) can be an undergoer. In (16) 'z' (*siidn ny ama?* 'father's money') is linked to undergoer. This is the unmarked choice for undergoer since 'z' is the second argument in the LS configuration BECOME **have'** (y, z) and '2nd argument of **pred'** (y, z)' is rightmost on the cline in (29).

Macroroles provide the primary link between semantic representation and syntactic representation. The linking system works both from semantics to syntax and from syntax to semantics. This is indicated by the double-headed arrows in Figure 1 which links the syntactic representation for (16) with its semantic representation in (28b).

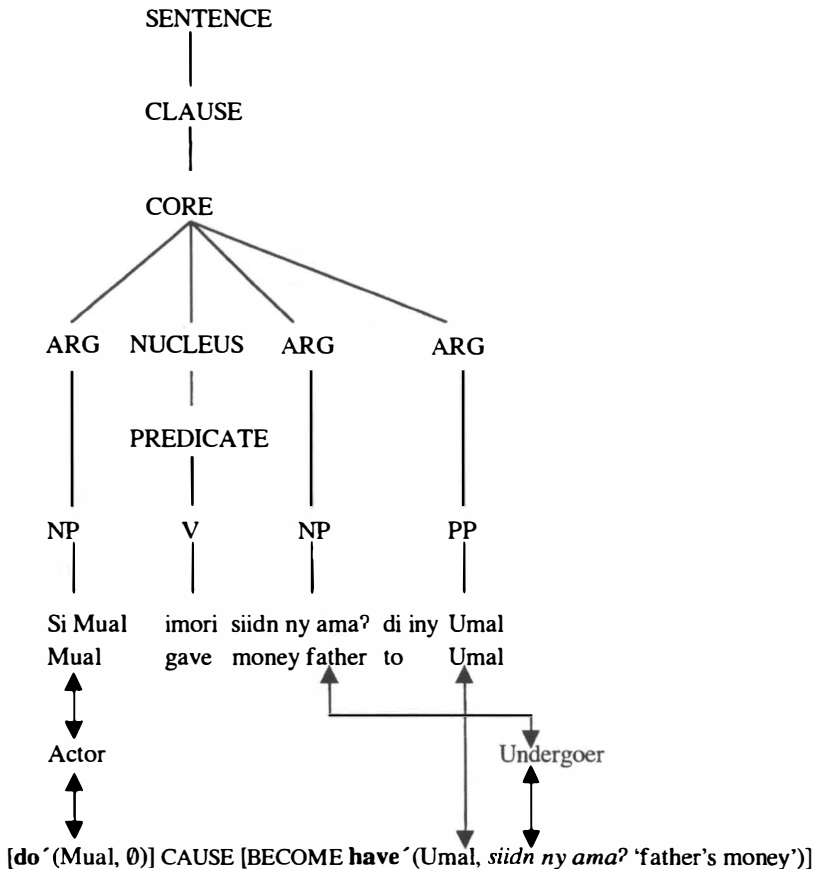


Figure 1: Linking syntax and semantics for (16)

Once arguments have been assigned to macroroles, actor and undergoer are assigned to specific morphosyntactic statuses (Van Valin 1993:76). The most important morphosyntactic status is the **privileged syntactic argument** (PSA) which includes both pivots and controllers. Pivots are construction-specific and are defined as a restricted neutralisation of semantic roles and pragmatic functions for syntactic purposes (Van Valin 1995:466). For example, there is a restricted neutralisation of semantic roles of the omitted argument in the dependent clauses in (31) and (32). The omitted argument in (31) is an actor, whereas the omitted argument in (32) is an undergoer. Since the actor is omitted in (31) and the undergoer is omitted in (32), the restriction cannot be stated in terms of semantic roles. The omitted NP in (31) and (32) is the pivot of the dependent clause. The omitted NP must be coreferential with the controller in the matrix clause; otherwise, the argument cannot be omitted (cf. (33)).

- (31) *Sia mingin kiliid diha.*
 3SG.NOM want see 2SG.NONACT
 'He wants to look at you.'
- (32) *Sia mingin midadn nu.*
 3SG.NOM want be.seen 2SG.GEN
 'He wants to be noticed by you.'
- (33) *Sia mingin diha kiliid nya.*
 3SG.NOM want 2SG.NONACT see 3SG.NONACT
 'He wants you to look at him.'

To summarise, the semantic relationship between predicates and their arguments is expressed by logical structures (LSs). An RRG analysis of clauses (e.g. (16)) includes a syntactic representation as in Figure 1, a semantic representation as in (28b), and a small set of principles for linking the two types of representation. These principles include the Actor-Undergoer Hierarchy in (29) which captures the relationship between macroroles and argument positions in LSs, and the default macrorole assignment principles in (30) which determine from LSs the number and nature of macroroles. Macroroles provide the primary link between LS and syntax. The most important syntactic status is the privileged syntactic argument (PSA). §4.2 discusses language specific principles for selecting a PSA and assigning case.

4.2 Bonggi case marking rules

Part of the process involved in assigning actor and undergoer to specific morphosyntactic statuses is case and preposition assignment. The case marking rules for Bonggi are given in (34) (cf. Van Valin 1991:171; Van Valin 1993:73; and Narasimhan 1995).

- (34) **Case marking rules for Bonggi**
- a. The PSA takes NOMINATIVE case.
 - b. Non-PSA actors take GENITIVE case.
 - c. Non-PSA undergoers take ACCUSATIVE case.
 - d. Non-macrorole arguments take DATIVE case as their default case.
 - e. Dependent clause PSAs take GENITIVE case.

Nominative case is defined in terms of the notion PSA. The case marking rules in (34) only apply to personal pronouns and personal nouns in Bonggi since common nouns are not case marked (cf. §3.1). The case marking rules in (34) are exemplified below.

- (35) *Sia imori siidn di diaadn.*
sia -in-ng-bori siidn di diaadn
 3SG.NOM REAL-ISA.ACT-give money to.DAT 1SG.NONACT
 'He gave money to me.'

- (36) *Sia imori diaadn siidn.*
sia -in-ng-bori diaadn siidn
 3SG.NOM REAL-ISA.ACT-give 1SG.NONACT money
 'He gave me money.'

Bonggi verbal affixes normally index one nominal per clause, and this nominal is usually the PSA. Examples (35) and (36) are active voice constructions in which the actor (*sia* '3SG.NOM') is indexed by the morphology on the verb (i.e. *ng-*). Furthermore, the actor is the PSA in both (35) and (36). As seen in (37) and (38), PSAs control coreferential deletion across clauses. In (37) the controller (*sia* '3SG.NOM') is an actor (cf. (36)), whereas in (38) the controller (*ou* '1SG.NOM') is a marked undergoer. According to (34a), the PSA is assigned nominative case. Thus, the main clause controller in (37) and (38) receives nominative case.

- (37) *Sia imori diaadn siidn, ma? minili?.*
sia -in-ng-bori diaadn siidn, ma? -in--əm-uli?
 3SG.NOM REAL-ISA.ACT-give 1SG.NONACT money and REAL-ACY-return.home
 'He gave me money and [he/*I] returned home.'

- (38) *Ou biniriadn nya siidn, ma? minili?.*
Ou -in-bori-an nya siidn, ma? -in--əm-uli?
 1SG.NOM REAL-give-ISA.MARKED.UND 3SG.GEN money and REAL-ACY-return
 'I was given money by him and [I/*he] returned home.'

Examples (39), (40), (41) and (42) are passive constructions in which the nominal indexed by the verb morphology is an undergoer. In Bonggi, two types of passive constructions are used to signal that the nominal indexed by the verb morphology is an undergoer: non-periphrastic passives (e.g. (39), (40) and (41)) and periphrastic passives (e.g. (42)). Periphrastic passives have a passive auxiliary such as *inanu* in (42), whereas non-periphrastic passives do not.

- (39) *Siidn biniri nya di diaadn.*
siidn -in-bori-∅ nya di diaadn
 money REAL-give-ISA.UND 3SG.GEN to.DAT 1SG.NONACT
 'Money was given to me by him.'

- (40) *Siidn biriidn nya di diaadn.*
siidn bori-ən nya di diaadn
 money give-ISA.UND 3SG.GEN to.DAT 1SG.NONACT
 'Money is given to me by him.'

- (41) *Ou biniriadn nya siidn.*
ou -in-bori-an nya siidn
 1SG.NOM REAL-give-ISA.MARKED.UND 3SG.GEN money
 'I was given money by him.'
- (42) *Siidn inanu nya mori di diaadn.*
siidn -in-anu-∅ nya ng-bori di diaadn
 money REAL-PASS-ISA.UND 3SG.GEN ISA.ACT-give to.DAT 1SG.NONACT
 'Money was given to me by him.'

As seen in (28a), the verb *bori* 'give' has two possible undergoers, either 'y' or 'z'. The predicate **have'** in (28a) corresponds to **pred'** in the LS configuration **pred'** (y, z); 'y' is the '1st argument of **pred'** (y, z)' and 'z' is the '2nd argument of **pred'** (y, z)'. According to (29), 'z' is the unmarked undergoer and 'y' is a marked choice for undergoer since the '2nd argument of **pred'** (y, z)' is further to the right on the cline than the '1st argument of **pred'** (y, z)'.

In realis modality, when an undergoer which is indexed by the verb is the 'z' argument (i.e. the unmarked choice for undergoer) as is *siidn* 'money' in (39), the verb is morphologically unmarked (\emptyset). However, when an undergoer which is indexed by the verb is the 'y' argument (i.e. the marked choice for undergoer) as is *ou* '1SG.NOM' in (41), there is a corresponding morphological markedness in the verb morphology with the addition of the suffix *-an*.¹⁶ Thus, semantic markedness correlates with morphological markedness in realis modality.

In irrealis modality, the verb is morphologically marked even when the undergoer is the unmarked choice in terms of the hierarchy in (29). For example, in (40) the verb *biriidn* 'give-ISA.UND' is suffixed with *-an* indicating that the undergoer (i.e. *siidn* 'money') is an unmarked undergoer in terms of the hierarchy in (29).¹⁷ Stated in terms of Table 1, direct passives involve the unmarked choice for undergoer (i.e. the 2nd argument of **pred'** (y, z)), whereas local passives involve the marked choice for undergoer (i.e. the 1st argument of **pred'** (y, z)). As seen in Table 1, in irrealis modality both direct and local passives are morphologically marked; however, in realis modality only local passives are morphologically marked for undergoer.

As stated above, the nominal which is indexed by the verb morphology is normally the PSA. The verb in (39), (40) and (41) indexes the undergoer, which is the PSA in these clauses (cf. also (38)). According to (34a), the PSA is assigned nominative case. Thus, the undergoer in (39), (40) and (41) is assigned nominative case just as the actor is assigned nominative case in (35) and (36). However, because the PSA (*siidn* 'money') in (39) and (40) is a common noun, it is not case marked (§3.1). On the other hand, the PSA (*ou* '1SG.NOM') in (41) is inflected for case since it is a personal pronoun (§3.3). By (34b), the actor in (39), (40) and (41) is assigned genitive case since it is not the PSA.¹⁸

Example (36) is a dative-shift alternation in which the undergoer is the 'y' argument (i.e. *diaadn* '1SG.NONACT'), not the 'z' argument (i.e. *siidn* 'money'). According to (34c), the undergoer *diaadn* '1SG.NONACT' in (36) receives accusative case. In (35), (39) and (40) the 'z' argument (i.e. *siidn* 'money'), not the 'y' argument (i.e. '1SG'), is the undergoer.

¹⁶ *-an* is realised as *-adn* due to word-final nasals being preploded when preceded by non-nasal vowels.

¹⁷ *-an* is realised as *-idn* due to nasal prepllosion and vowel harmony.

¹⁸ Actors are considered core arguments and not oblique constituents in passive clauses (cf. Kroeger 1993:228-229).

According to (34d), the ‘y’ argument (i.e. ‘1SG’) receives dative case in (35), (39) and (40) since it is a non-macrorole argument. The preposition *di* ‘to.DAT’ marks the ‘y’ argument in the LS configuration ...BECOME **have**’ (y, z) when the ‘y’ argument is not the undergoer. Notice, however, that when the ‘z’ argument is not the undergoer as in (36), there is no overt dative case marker. Thus, (34d) applies only to the marked choice for undergoer in terms of the hierarchy in (29), never to the unmarked choice for undergoer. Or, stated in another way, the marked choice for undergoer receives dative case when it not the undergoer, whereas the unmarked choice for undergoer never receives dative case when it is not the undergoer.

In periphrastic passive constructions such as (42), two different arguments are indexed in the verb phrase. The passive auxiliary *inanu* in (42) indexes the undergoer (*siidn* ‘money’), whereas the main verb *mori* ‘ISA.ACT-give’ indexes the actor (*nya* ‘3SG.GEN’). The NP indexed by the passive auxiliary is the PSA in these constructions. This underscores an important fact about case marking in Bonggi. One cannot always determine which nominal is the PSA and consequently which nominal receives nominative case by simple reference to the morphology of the main verb.

One of the functions of passive constructions is to present non-actors as pragmatic pivots in order to maintain discourse topicality. **Pragmatic pivots** are syntactic pivots with pragmatic influence (cf. Van Valin 1993:65). In Bonggi, pragmatic pivots are determined by discourse topicality, as illustrated in (43). The speaker in (43) is a sultan who is angry at a group of people who keep bothering him. In (43) the sultan tells his guards what to do if they notice the people returning again. The discourse topic is the people who have angered the sultan. The NP which refers to these people is a pragmatic pivot in both clauses.

- (43)a. *Bakng midadn nyu pa malik si sida diti,*¹⁹
 if be.seen 2PL.GEN yet again PN.NOM plural here
- b. *nu-a?* *nyu ga mmati!*
anu-a? *nyu ga m-ng-pati*
 PASS-ISA.UND.IMPERATIVE 2PL.GEN EMPHATIC IRREALIS-ISA.ACT-die
 ‘If you notice **them** here again, kill **them**!’

According to (34a), the undergoer in periphrastic passive constructions receives nominative case since it is the PSA. In (44) the undergoer (*sia* ‘3SG.NOM’) is case marked since it is a personal pronoun; however, in (42) the undergoer (*siidn* ‘money’) is not case marked since it is a common noun. In (43b) the undergoer does not occur due to coreferential deletion. (44) shows that marked undergoers (i.e. the ‘y’ argument in the LS configuration **pred**’ (y, z)) can occur as the PSA in periphrastic passive constructions. By (34b), actors in periphrastic passive constructions receive genitive case (e.g. *nya* ‘3SG.GEN’ in (42), *nyu* ‘2PL.GEN’ in (43b) and *nu* ‘2SG.GEN’ in (44)).

- (44) *Gaabm pa sia nuan nu mori.*
gaabm pa sia anu-ən nu ng-bori
 better yet 3SG.NOM PASS-ISA.UND 2SG.GEN ISA.ACT-give
 ‘Moreover, you should give it to **him**.’

¹⁹ The plural marker *sida* is related to the third person plural Proto Austronesian pronoun **siDa*.

To summarise, Bonggi has pragmatic pivots which are determined by discourse topicality. In periphrastic passive constructions, the passive auxiliary indexes the PSA.

5 Clause linkage

Explanations for case marking are normally centered around the issues described in §4. The primary concern in §4 was to show how case is a reflection of the linking between semantic and syntactic representations. This section deals briefly with clause linkage.²⁰

Two basic aspects of clause linkage are the semantic relationship between the clauses being linked, and the syntactic relationship between them. The syntactic linkage may be ranked in terms of the strength of the syntactic bond between the units being linked. Similarly, the semantic linkage may be ranked in terms of the semantic relationship between the propositions being linked. In general, the closer the semantic relationship between two propositions, the stronger the syntactic bond (Van Valin 1993:111). Figure 2 provides an overview of the types of clause linkage and the degree of bonding presented in this paper (cf. Silverstein 1993:481; Van Valin 1993:112).

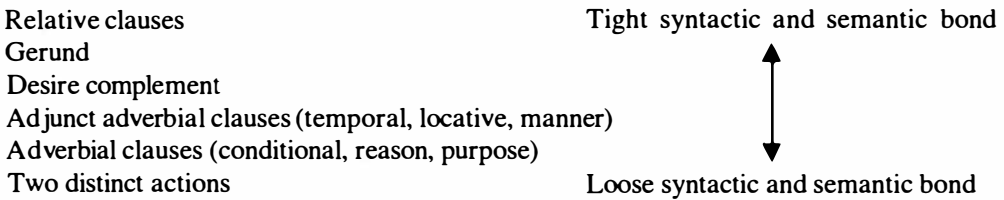


Figure 2: Types of clause linkage and degree of bonding

5.1 Loose linkage

Clauses which refer to two distinct actions are loosely linked, as in (45) where (45a) is linked to (45b) via the coordinate conjunction *ma?* ‘and’. In both (45a) and (45b) the PSA (*sia* ‘3SG.NOM’) is in nominative case. Two clauses joined by coordination function in the same way as equivalent simple clauses.

- (45)a. *Inubu?* *sia* *ingengkabm* *karukng* *suga?* *kubal*
inubu? *sia* *i-ng-kengkabm* *karukng* *suga?* *kubal*
 then 3SG.NOM REAL-ISA.ACT-grope gunnysack inserted skin
- kerbou* *na*
kerbou *na*
 waterbuffalo the
- ‘Then he groped around for the gunnysack with the waterbuffalo skin

²⁰ My intent is not to present a detailed analysis of Bonggi clause linkage. Readers who are interested in a detailed RRG account of clause linkage are referred to Chapter 8 of Van Valin and LaPolla (1997).

- b. *maʔ sia miniliʔ kindi bali nya.*
maʔ sia -in-əm-uliʔ ki-n-di bali nya
 and 3SG.NOM REAL-ACY-return GOAL-DIRECTIONAL-to house 3SG.GEN
 and **he** returned to his house.'

Adverbial clauses divide into two types: clauses which are substitutable for by a single word, and those which are not (cf. Thompson & Longacre 1985:177ff.). Those which are substitutable for by a single word are referred to in Figure 2 as adjunct adverbial clauses which include time, location and manner clauses. The PSA in these clauses receives genitive case, as in (46), where the temporal adverbial clause in (46a) is linked to the main clause in (46b). The PSA (*gibatadn* 'dock') in the main clause (46b) receives nominative case according to (34a);²¹ however, the PSA in the temporal adverbial clause (46a) is in genitive case (i.e. *ku* '1SG.GEN') following (34e). The PSA always receives genitive case in adjunct adverbial clauses which function as temporal adjuncts (e.g. *ku* '1SG.GEN' in (46a)), locative adjuncts (e.g. \emptyset in (47b)),²² or manner adjuncts (e.g. *nyu* '2PL.GEN' in (48b)).

- (46)a. *Atakng ku mpanu,*
atakng ku -əm-panu
 while 1SG.GEN ACY-walk
 'While **I** was walking,
- b. *gibatadn irumbak na.*
gibatadn -in-rumbak na
 dock ACH.REAL-collapse PER
the dock collapsed.'
- (47)a. *Inubuʔ siga lama na igtimung*
inubuʔ siga lama na igtimung
 then some people DEF gather
 'Then **they** gathered together
- b. *nggien nual nya.*
nggien ng-sual nya
 place ISA.ACT-interrogate 3SG.NONACT
 where **they** could interrogate him.'
- (48)a. *Gaabm pa uhu mingisiadn lama leidn*
gaabm pa uhu m-ingisiadn lama leidn
 better yet 2PL.NOM STAT-pity people other
 'Moreover, **you** should pity other people
- b. *singgurua nyu mingisiadn deirdn nyu.*
singgurua nyu m-ingisiadn deirdn nyu
 like 2PL.GEN STAT-pity self 2PL.GEN
 like **you** pity yourselves.'

Adverbial clauses which are not substitutable for by a single word, including conditional, purpose, reason, concessive and substitutive clauses, are more loosely linked

²¹ Since *gibatadn* 'dock' is a common noun, it is not case marked (§2).

²² The actor in (47b) is deleted due to zero anaphora. Locative adverbial clauses have the shape of relative clauses (cf. Thompson & Longacre 1985:183).

to the main clause than temporal, locative and manner adverbial clauses. The PSA in these more loosely linked adverbial clauses receives nominative case, just like in loosely linked clauses found in coordinate constructions such as (45). For example, the PSA in the conditional clause in (49a) is in nominative case (i.e. *aha* '2SG.NOM') as is the PSA in the reason clause in (50b) (i.e. *ou* '1SG.NOM').

- (49)a. *Bakng ngua? aha kibori egas,*
bakng ng-kua? aha ki-bori egas
 if ACT-come 2SG.NOM ask-give rice
 'If **you** are coming to ask for rice,
- b. *ndaardn na egas mi.*
ndaardn na egas mi
 not.have PER rice 1PLE.EXC.GEN
 'our rice is gone.'
- (50)a. *Limidik ou*
-əm-lidik ou
 ACY-slash 1SG.NOM
- b. *pasal mingin ou nanam sikiou.*
pasal m-ingin ou ng-tanam sikiou
 because STAT-want 1SG.NOM ISA.ACT-plant cassava
 'I am slashing because I want to plant cassava.'

Desire complements were illustrated in (31), (32) and (33) of §4.1. The pivot of desire complements is also the undergoer of the matrix clause. If the pivot is not coreferential with the controller in the matrix clause, the pivot occurs in accusative case (e.g. *diha* '2SG.NONACT' in (33)) according to (34c). Thus, the pivot receives its case from its function as undergoer in the matrix clause, not from its function as PSA in the complement clause.

Gerunds are nominalised constructions which are often used as subordinate clauses with the meaning 'when/upon...' as in (51b) (cf. Shibatani 1988:99ff.). PSAs within gerunds always receive genitive case (e.g. *nya* '3SG.GEN' in (51b)).

- (51)a. *Inubu? sia minili?*
inubu? sia -in-əm-uli?
 then 3SG.NOM REAL-ACY-returned.home
 'Then **he** returned home.'
- b. *Pegdatakng nya di bali na, timeis na sia.*
pag-datakng nya di bali na -in-əm-teis na sia
 GERUND-coming 3SG.GEN to house the REAL-ACY-cry PER 3SG.NOM
 'Upon **his** coming to the house, **he** cried.'

5.2 Tight relative clause linkage

5.2.1 Relative clause formation strategies

Bonggi has two strategies for forming relative clauses. The most frequently occurring strategy involves deletion or gapping of the relativised nominal from the relative clause. For example, in (52) *siidn* 'money' is the head of the relative clause (relative clauses are in

curly brackets), but this argument is gapped in the relative clause itself. The verb *tiahu* 'stole' in the relative clause indexes the relativised nominal which is gapped. The NP which is gapped is the pivot of the relative clause. The gapped NP is a pragmatic pivot which must be coreferential with the head of the relative clause. Only pragmatic pivots can be relativised. The gapping strategy illustrated in (52) is the most common relativisation strategy in Philippine-type languages.

- (52) *Sia imori diaadn siidn*
sia -in-ng-bori diaadn siidn
 3SG.NOM REAL-ISA.ACT-give 2SG.NONACT money

{*tiahu nya*.}
-in-tahu-Ø nya
 REAL-steal-UND 3SG.GEN

'He gave me the money he stole.'

Gapped relative clauses can occur in active or passive voice. When the relative clause is in active voice as in (53), the gapped argument is an actor. When the relative clause is in direct passive voice as in (52), the gapped argument is an unmarked undergoer. When the relative clause is in local passive voice as in (54), the gapped argument is a marked undergoer.

- (53) *Sia nipu lama {moli gandubm.}*
sia ng-tipu lama ng-boli gandubm
 3SG.NOM ISA.ACT-cheat people ISA.ACT-buy corn
 'He cheats people who buy corn.'

- (54) *Sia nipu lama {biniriadn ku siidn.}*
sia ng-tipu lama -in-bori-an ku siidn
 3SG.NOM ISA.ACT-cheat people REAL-give-MARKED.UND 1SG.GEN money
 'He cheats people who have been given money by me.'

Gapping also occurs with periphrastic passives as seen in (55) where *siidn* 'money' is the head of the relative clause, and it is gapped in the relative clause. The passive auxiliary *inanu* indexes the gapped argument which is the pragmatic pivot. Gapped relative clauses with periphrastic passives show that the syntactic pivot (PSA) in these constructions is the argument indexed by the passive auxiliary (i.e. the undergoer), not the argument indexed by the main verb (i.e. the actor).

- (55) *Nubu? sia imori siidn {inanu*
nubu? sia -in-ng-bori siidn -in-anu-Ø
 then 3SG.NOM REAL-ISA.ACT-give money REAL-PASS-ISA.UND
inuga? di soig pahit na.}
-in-ng-suga? di soig pahit na
 REAL-ISA.ACT-insert to.DAT inside pocket 3SG.GEN
 'Then he gave the money which had been put inside his pocket.'

Example (56) illustrates that marked undergoers (i.e. the 'y' argument in the LS configuration **pred'** (y, z)) can occur as the PSA in gapped relative clauses with periphrastic passives (cf. (44)).

- (56) *Siga lama na ngedahap suhu lama {nuan nu*
siga lama na ng-dahap suhu lama anu-ən nu
 some people DEF ISA.ACT-arrest all people PASS-ISA.UND 2SG.GEN
mori.
ng-bori
 ACT-give
 'They arrest all the people who you give it to.'

The second strategy for forming relative clauses involves the use of the relative pronoun *nggien/gien* 'place'. In this strategy, the relative pronoun is the relativised nominal in the relative clause. For example, in (57) and (58) *nggien* 'place' is the relativised nominal in the relative clause. In (58) the relative clause is embedded in the main clause, whereas in (57) the relative clause is adjoined to the main clause.

- (57) *Inubu? sia ipanu ngirubm bunua {nggien nya limidik.}*
inubu? sia i-panu ng-irubm bunua nggien nya -əm-lidik
 then 3SG.NOM REAL-travel ACT-search area place 3SG.GEN ACY-slash
 'Then he traveled searching for an area **where** he could slash (for planting crops).'
- (58) *Inubu? sia ipanu ngirubm {nggien nya limidik.}*
inubu? sia i-panu ng-irubm nggien nya -əm-lidik
 then 3SG.NOM REAL-travel INS.ACT-search place 3SG.GEN ACY-slash
 'Then he traveled searching for a **place** he could slash (for planting crops).'

Nggien relative clauses can occur in active or passive voice. When the relative clause is in active voice as in (59), the argument indexed by the verb is an actor. When the relative clause is in direct passive voice as in (60), the argument indexed by the verb is an unmarked undergoer. When the relative clause is in local passive voice as in (61), the argument indexed by the verb is a marked undergoer. When the relative clause is in periphrastic passive voice as in (62), the argument indexed by the passive auxiliary is an unmarked undergoer.

- (59) *Sia mori siidn {nggien nanggukng diaadn.}*
sia ng-bori siidn nggien ng-tanggukng diaadn
 3SG.NOM ISA.ACT-give money which ISA.ACT-support 1SG.NONACT
 'He gives money by **which** to support me.'
- (60) *Sia iniit di bunua {nggien nya pineti.}*
sia in-iit-0 di bunua nggien nya -in-pati-0
 3SG.NOM REAL-bring-ISA.UND to area place 3SG.GEN REAL-kill-ISA.UND
 'He was brought to the area **where** he was killed.'
- (61) *Sia iniit di bali*
sia in-iit-0 di bali
 3SG.NOM REAL-bring-UND to house
{nggien nya biniriadn siidn.}
nggien nya -in-bori-a siidn
 place 3SG.GEN REAL-give-MARKED.UND money
 'He was brought to the house **where** he was given money.'

- (62) *Sia iniiit di bunua {nggien nya inanu
sia in-iiit-∅ di bunua nggien nya in-anu-∅
3SG.NOM REAL-bring-UND to area place 3SG.GEN REAL-PASS-UND
ngidipadn.}
ngi-dipadn
ACT-slave
‘He was brought to the area **where** he was enslaved.’*

As stated above, only pragmatic pivots can be relativised in Bonggi. In both the gapping strategy (e.g. (52)–(56)) and the relative pronoun strategy (e.g. (57)–(62)) the pragmatic pivot of the relative clause must be coreferential with the head of the relative clause. The pragmatic pivot of the relative clause in (57)–(58) and (60)–(62) is the location. Bonggi, like other Philippine-type languages, allows non-macroroles to function as pragmatic pivots. However, unlike many of these languages, the locative suffix *-an* only occurs with core arguments (i.e. arguments represented in the LS of the verb) which are macroroles. When the pragmatic pivot is a non-macrorole, *nggien/gien* occurs. For example, (59) illustrates a relative clause in which the pragmatic pivot of the relative clause is an instrument.

When the pragmatic pivot is a non-macrorole in a monoclausal sentence, the clause takes the shape of a NP followed by a relative clause as in (63) and (64).²³ As seen in (65) *nggien* ‘place’ also functions as an interrogative pronoun. The LS for (65) is shown in (66) where the locative adjunct *nggien* ‘where’ takes the entire LS of the verb as one of its arguments.

- (63) *Nti {gien ku monsu?}.
nti gien ku ng-ponsu?
this which 1SG.GEN ACT-bathe
‘This is what I bathe with.’*
- (64) *Sia {nggien ku mogot.}
sia nggien ku -am-ogot
3SG.NOM place 1SG.GEN ACY-hold
‘It is where I am holding on.’*
- (65) *Nggien nu monsu? Di telaga.
nggien nu ng-ponsu? di telaga
where 2SG.GEN ACT-bathe at well.
‘Where do you bathe?’ ‘At a well.’*
- (66) LS for (65): **where**’[**do**’(2SG, [**bathe**’(2SG))]

In summary, pragmatic pivots can be either macroroles or non-macroroles. Only pragmatic pivots can be relativised. Relative clauses are formed by either gapping the relativised nominal or using the relative pronoun *nggien* ‘place’. The former strategy is used to relativise macroroles, whereas the latter strategy is used to relativise non-macroroles.

²³ Cf. also (10) in §2.

5.2.2 Case marking in relative clauses

Recall from §4.1 that syntactic pivots involve a restricted neutralisation of semantic roles for syntactic purposes. In gapped relative clauses there is a restricted neutralisation of semantic roles of the gapped argument. For example, the gapped argument in (53) is an actor, whereas the gapped argument in (52) is an undergoer. Thus, gapped NPs are syntactic pivots in relative clauses. Furthermore, gapped NPs must be pragmatic pivots; otherwise, they cannot be relativised.

In gapped relative clauses the gapped NP is both the syntactic pivot and the pragmatic pivot; however, in relative clauses formed using the relative pronoun *nggien* 'place', the syntactic pivot is the argument indexed by the verb morphology while the pragmatic pivot is the relative pronoun *nggien*. This fundamental difference influences case marking in the two types of relative clauses.

Relative clauses are tightly bound dependent clauses (cf. Figure 2) and, according to (34e), the PSA in dependent clauses receives genitive case. However, since the syntactic pivot is gapped in gapped relative clauses (e.g. (52)–(56)), the PSA is not available to receive genitive case. Case marking of the other nominals in gapped relative clauses is straightforward. For example, by (34b) the actor in the relative clause in (52) and (54) receives genitive case since it is not the PSA. Similarly, by (34c) the undergoer (*gandubm* 'corn') in the relative clause in (53) receives accusative case since it is not the PSA.²⁴

In *nggien* relative clauses, the syntactic pivot is distinct from the pragmatic pivot. The syntactic pivot is indexed by the verb morphology, while the pragmatic pivot is the relative pronoun. According to (34e), the syntactic pivot (i.e. the PSA) receives genitive case regardless of whether it is an actor (e.g. *nya* '3SG.GEN' in (57)) or an undergoer (*nya* '3SG.GEN' in (62)). Case marking of the other nominals also follows the rules in (34). When *nggien* relative clauses are in active voice, non-PSA undergoers occur in accusative case (e.g. *diaadn* '1SG.NONACT' in (59)) following (34c). The pragmatic pivot (*nggien*) is the non-macrorole NP which is relativised. Because relative pronouns are not arguments, they do not receive case nor can they be case marked.

Table 3: Correlation between voice and case in main and relative clauses

	PSA in main clause	PSA (pivot) in gapped relative clause	<i>Nggien</i> relative clause	
			Pragmatic pivot	Syntactic pivot
	nominative case	∅ (case marking)	∅ (case marking)	genitive case
Active voice	actor e.g. (35)	actor e.g. (53)	non-macrorole <i>nggien</i> e.g. (57)	actor e.g. (59)
Direct passive	undergoer e.g. (39)	undergoer e.g. (52)		undergoer e.g. (60)
Periphrastic passive	undergoer e.g. (42); marked undergoer e.g. (44)	undergoer e.g. (55); marked undergoer e.g. (56)		undergoer e.g. (62)
Local passive	marked undergoer e.g. (41)	marked undergoer e.g. (54)		marked undergoer e.g. (61)

Table 3 provides an overview of the correlation between voice and case in main clauses and both types of relative clauses.

²⁴ Recall from §3.1 that common nouns are not case marked.

In summary, case marking in Bonggi is sensitive to clause linkage. Loose linkage results in nominative case PSAs, whereas tight linkage results in either null or genitive case marking of PSAs within the dependent clause. As we move up the clause linkage hierarchy in Figure 2, the dependent clause becomes partially nominalised which results in null or genitive case marking in dependent clauses.

6 Tense

Bonggi has two tense auxiliaries: *bas* 'PAST' and *adak* 'almost'. This section briefly illustrates the relationship between tense and case marking.

Some languages have a split in their case system based on tense; that is, nominal case marking can be predicted from verbal tense marking. In Bonggi, however, one cannot always predict case from tense because past tense introduces an alternation between nominative and genitive case which is not available in nonpast tense. The PSA in nonpast tense, main declarative clauses is always in the nominative case; however, the PSA in past tense, main declarative clauses is sometimes in genitive case. This possibility only occurs when the PSA is a pronoun. When using past tense and a pronominal PSA, speakers have two choices: (1) a genitive case enclitic pronoun which follows the tense marker as in (67); or (2) a nominative case pronoun which precedes the tense marker as in (68).

With the exception of *sigalama* '3PL', the genitive case pronouns in Table 2 of §3.3 are enclitics. *Sigalama* is actually an NP 'some people', and not a true pronoun. Thus, it is not case marked; but instead, it is treated as a common noun. When genitive case enclitic pronouns follow a tense auxiliary (e.g. *nya* '3SG.GEN' in (67)), they contrast with non-clitic nominative case pronouns (e.g. *sia* '3SG.NOM' in (68)) and other nominals (e.g. *si Tagi* 'Tagi' in (69)) which precede tense auxiliaries. Genitive case enclitic pronouns which follow tense auxiliaries are **special clitics** (Anderson 1993:74) since other nominals cannot occur in this position as illustrated by (70).

- (67) *Bas nya nuud diaadn.*
bas nya ng-tuud diaadn
 PAST 3SG.GEN ISA.ACT-assist 1SG.NONACT
 'Already **he** assisted me.'
- (68) *Sia bas na nuud diaadn.*
sia bas na ng-tuud diaadn
 3SG.NOM PAST PER ISA.ACT-assist 1SG.NONACT
 '**He** has already assisted me.'
- (69) *Si Tagi bas na nuud diaadn.*
si Tagi bas na ng-tuud diaadn
 PN.NOM Tagi PAST PER ISA.ACT-assist 1SG.NONACT
 '**Tagi** has already assisted me.'
- (70) **Bas n Tagi nuud diaadn.*
 PAST PN Tagi assist 1SG.NONACT
 '**Tagi** already assisted me.'

Undergoer PSAs can also occur in genitive case following a tense auxiliary as in (71) where the undergoer (*ku* '1SG.GEN') is a genitive case enclitic pronoun. (71) contrasts with non-clitic constructions such as (72) in which the undergoer is in nominative case (cf. (68)).

- (71) *Bas ku kiohol nya.*
bas ku -in-kiohol-Ø nya
 PAST 1SG.GEN REAL-bite-ISA.UND 3SG.GEN
 'I have already been bitten by him.'
- (72) *Ou bas na kiohol nya.*
ou bas na -in-kiohol-Ø nya
 1SG.NOM PAST PER REAL-bite-ISA.UND 3SG.GEN
 'I have already been bitten by him.'

The effect of tense on case marking is different from that of clause linkage. On the one hand, different types of clause linkage evoke either nominative or genitive case marking of the PSA (§5). For example, coordinate clause linkage evokes nominative case marking (e.g. (45)). On the other hand, tense auxiliaries do not require a particular case marking. That is, Bonggi is not a language with a case marking split along the dimension of tense/aspect since both nominative and genitive case pronouns can occur in past tense (cf. Dixon 1994:97ff.). In the interaction of clause linkage and tense, past tense can override clause linkage in determining case marking. For example, in (73b) coordinate clause linkage evokes nominative case, but nominative case is overridden by the occurrence of past tense with a genitive case enclitic pronoun (i.e. *nya* '3SG.GEN').

- (73)a. *Onu bunua onu bunua biniaan na nya,*
onu bunua onu bunua -in-biaa?-an na nya
 what area what area REAL-follow-ISA.MARKED.UND PER 3SG.GEN
 'From place to place he had travelled,
- b. *tei? nda? bas nya iketomu.*
tei? nda? bas nya i-kə-tomu
 but not PAST 3SG.GEN REAL-NONCONTROL-meet
 but **he** did not find it.'

Example (74), like (73), involves coordinate clause linkage. However, the PSA in the linked clause in (73b) is in genitive case (i.e. *nya* '3SG.GEN'), while the PSA in the linked clause in (74b) is in nominative case (i.e. *sia* '3SG.NOM'). The reason for the use of genitive case in (73b) as opposed to nominative case in (74b) goes beyond clause linkage and tense; it has to do with discourse pragmatic reference which is the final variable that must be understood in order to account for case marking in Bonggi (cf. §7). Both the genitive case pronoun *nya* '3SG.GEN' in (73b) and the nominative case pronoun *sia* '3SG.NOM' in (74b) are topical (i.e. presupposed). According to Lambrecht (1994:119ff.) sentences can have more than one topic; thus, topics can be ranked in terms of degrees of topicality. Genitive case enclitic pronouns (e.g. *nya* '3SG.GEN' in (73b)) are more topical than nominative case non-clitic pronouns (*sia* '3SG.NOM' in (74b)).

- (74)a. *Bas ku mori nya*
bas ku ng-bori nya
 PAST 1SG.GEN ISA.ACT-give 3SG.NONACT
 'I already gave it to him'

- b. *ma?* *sia* *bas na mori* *saa na.*
ma? *sia* *bas na ng-bori* *saa na*
 and 3SG.NOM PAST PER ISA.ACT-give spouse 3SG.GEN
 and **he** has already given it to his spouse.'

The tense auxiliary *adak* 'almost' has both a temporal and a modal function. *Adak* 'almost' refers to a situation prior to the time of utterance that the speaker believes was possible, but that did not actually occur. In contrast, *bas* refers to past situations that really occurred. The implication associated with *adak* is that, had the situation happened, it would have had a negative consequence. *Adak* 'almost', like *bas*, can occur with genitive case enclitic pronouns as seen in (75).

- (75) *Adak ku kohoidn.*
adak ku kohol-an
 almost 1SG.GEN bite-ISA.UND
 'I was almost bitten.'

A detailed explanation for the occurrence of genitive case PSAs in past tense constructions is beyond the scope of this paper. Such an explanation would require a discussion of the scope of tense operators and a description of the relationship between tense and both time and temporal adverbial clauses. Furthermore, in order to account for differences in usage between clauses such as (71) and (72), reference must be made to discourse structure.

7 Discourse pragmatic relations topic and focus

This section is concerned with how the distribution of information in discourse affects case marking in Bonggi. Information status is described in terms of two pragmatic relations: topic and focus. **Topic** is what the proposition is about, whereas **focus** is the unpredictable or pragmatically non-recoverable element in an utterance (Lambrecht 1994:207).²⁵ The topical part of an utterance is presupposed; the focus is non-presupposed. In Bonggi the order topic-focus is the norm for statements, whereas in WH-questions the focus is in clause-initial position.

Lambrecht (1994:223ff.) makes a distinction between different types of focus structure. The fundamental contrast is between narrow and broad focus. In **narrow focus** the focus domain extends over a single constituent, while in **broad focus** it extends beyond a single constituent (Van Valin 1993:25). In **broad predicate focus**, which is the unmarked focus structure, the focus includes the predicate. Broad predicate focus is illustrated in (76b) which is a response to the question in (76a). The focus in (76b) is *kiohol ulakng* 'bitten by a snake', whereas *sia* '3SG.NOM' is the topic and the pragmatic pivot.

- (76)a. *Onu kusuat* *ny Abas?*
onu kə-suat *ny Abas*
 what NONCONTROL-incur PN Abas
 'What happened to Abas?'

²⁵ My use of the term **focus** follows its use in general linguistics and should not be confused with its use in Philippine linguistics.

- b. *Sia kiohol ulakng.*
sia -in-kohol-Ø ulakng
 3SG.NOM REAL-bite-UND snake
 'He was bitten by a snake.'

Narrow focus is illustrated in (77b) which is a request for further information prompted by the statement made in (77a). The focus in (77b) is the question word *onu* 'what', whereas the topic or presupposed information is *ngohol nya* 'bit him'.

- (77)a. *Si Abas kiohol.*
si Abas -in-kohol-Ø
 PN.NOM Abas REAL-bite-ISA.UND
 'Abas was bitten.'

- b. *Onu ngohol nya?*
onu ng-kohol nya
 what ISA.ACT-bite 3SG.NONACT
 'What bit him?'

Examples (76) and (77) illustrate that the argument indexed by the verb cannot be equated with pragmatic topic. In (76b) the indexed argument (*sia* '3SG.NOM') is the topic, but in (77b) the indexed argument (*onu* 'what') is the focus while *ngohol nya* 'bit him' is the topic.

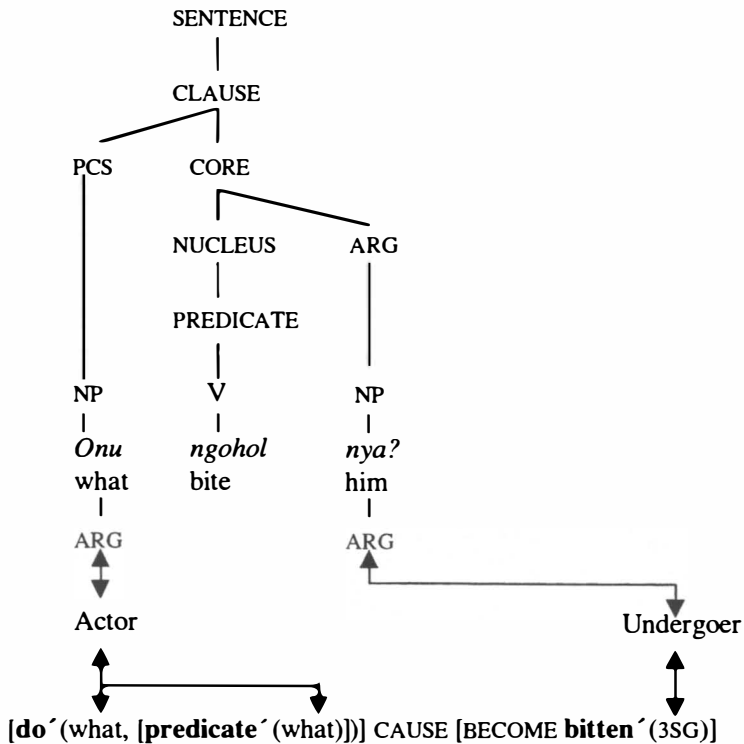


Figure 3: LS, constituent structure and pragmatic relations for (77b)

The relationship between the semantic structure (represented by LSs), constituent structure and pragmatic functions (topic and focus) is illustrated in Figure 3. Details for linking between LS and syntactic structure including the assignment of pragmatic functions are provided in Van Valin (1993). In narrow focus constructions (e.g. (77b)), the question word is in the precore slot (PCS). Figure 3 shows that the actor in (77b) is assigned the pragmatic function focus.

In (2) (repeated as (78)), the verb *kiohol* indexes the undergoer which is in genitive case. Both (77b) and (78) are narrow focus constructions with the focus being on the WH-word (*onu* 'what' in (77b) and *mipa?* 'when' in (78)). In (77b) the focused constituent is an argument of the verb (cf. Figure 3), whereas in (78) the focused constituent is an adjunct (cf. Figure 4).²⁶ Examples (77b) and (78) are equally good responses to (77a) and have the same topic; however, (77b) is an unmarked narrow focus construction, whereas (78) is a marked narrow focus construction.

- (78) *Mipa? nya kiohol?*
mipa? nya -in-kiohol-∅
 when 3SG.GEN REAL-bite-ISA.UND
 'When was he bitten?'

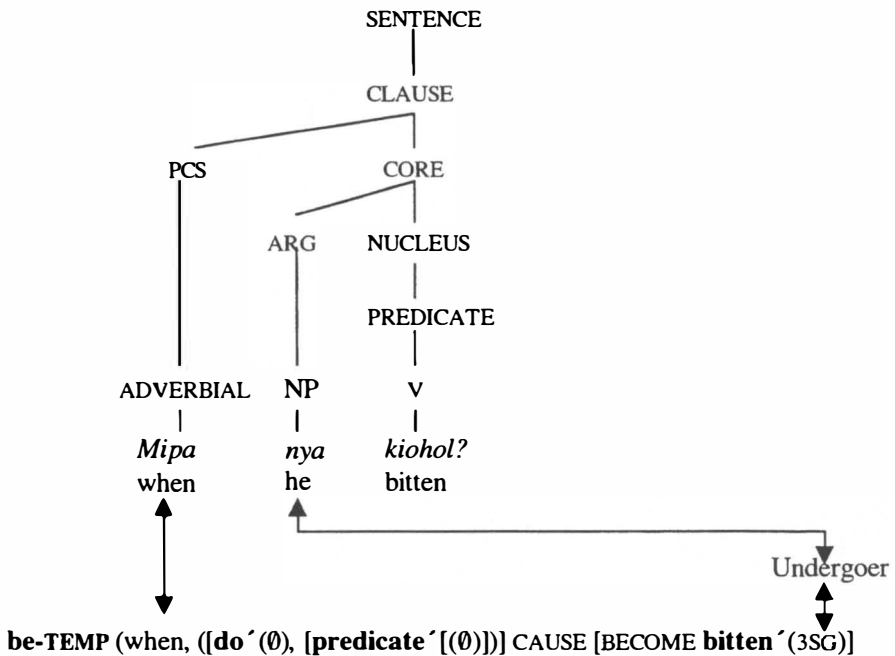


Figure 4: LS, constituent structure and pragmatic relations for (78)

²⁶ See Van Valin and LaPolla (1997:334-335) for discussion of the abstract temporal higher predicate *be-TEMP*':

Genitive case occurs in Bonggi WH-questions whenever the PCS is filled by an adverbial adjunct. Or stated another way, genitive case occurs in WH-questions when the focus is an adverbial adjunct. Thus, genitive case occurs in both (79a) and (79b) because the focus in (79a) is a locative adverbial adjunct and in (79b) a manner adverbial adjunct. Note that the use of genitive case marking here corresponds to that described in §5.1 for adjunct adverbial clauses.

- (79)a. *Nggién nya kiohol?*
nggién nya -in-kiohol-Ø
 where 3SG.GEN REAL-bite-UND
 'Where was **he** bitten?'
 b. *Pungga? buat nya kiohol?*
pungga? buat nya -in-kiohol-Ø
 how do 3SG.GEN REAL-bite-UND
 'How was **he** bitten?'

The analysis above accounts for most examples encountered. However, there are rare instances in which nominative case occurs in WH-questions when the focus is an adverbial adjunct. Compare the unmarked clause in (80a) in which the PSA (*nya* '3SG.GEN') is in genitive case with the highly marked clause in (80b) in which the PSA (*sia* '3SG.NOM') is in nominative case.

- (80)a. *Mipa? nya muli? ?*
mipa? nya -əm-uli?
 when 3SG.GEN ACY-return.home
 'When is **he** going home?'
 b. *Mipa? sia muli? ?*
mipa? sia -əm-uli?
 when 3SG.NOM ACY-return.home
 'When is **he** going home?'

The occurrence of nominative versus genitive case in (80) is pragmatically controlled. (80a) may be used whether or not the person being referred to is present. However, (80b) can only be used when the person being referred to is present and listening to the speaker and addressee. The use of nominative case in (80b) makes the referent prominent; thus, nominative case draws attention to the referent and implies something about the speaker's attitude toward the referent.²⁷

8 Conclusion

It is well known that actors in many western Malayo-Polynesian languages occur in genitive case when they are not indexed by the verb; however, main clauses in which the argument indexed by the verb is an undergoer in genitive case are virtually unknown. Thus, constructions such as those in (2), (71), (75), (78), (79a) and (79b) are particularly interesting. Genitive case marking in Bonggi is not lexically governed, idiosyncratic, or

²⁷ Paul Kroeger has suggested to me that the contrast in (80) may involve a deictic (80b) versus anaphoric (80a) use of the pronoun.

“quirky.”²⁸ Instead, the interaction of five independent variables accounts not only for the alternation between nominative and genitive case, but also for the case marking rules in (34). The inherent lexical content of NPs determines whether nominals are case marked or not (§3). Case marking then follows the language particular case marking rules in Bonggi (§4.2).

These rules may be modified by two different aspects of finiteness, tense (§6) and clause linkage (§5). Finiteness is here understood as a property of the clause rather than the verb; case marking is a nominal feature of finiteness, whereas tense is a verbal feature of finiteness (Givón 1990:853). In Bonggi, case marking is sensitive to clause linkage. The tighter the syntactic and semantic bond, the more likely the dependent clause becomes partially nominalised resulting in null or genitive case marking. This supports Givón’s claim that case marking of core arguments is most commonly modified toward the genitive (Givón 1990:498-499).²⁹ “The less finite a clause is, the more likely are its subject and object arguments to lose their normal case-marking, and to be coded instead by genitive morphology” (Givón 1990:503). Finally, the discourse pragmatic relations topic and focus interact in terms of case assignment (§7).

Table 4 provides a summary of case alternations in Bonggi. Adjuncts which are not pragmatic pivots are excluded from Table 4 because they are not case marked; instead, they are preceded by prepositions which have an adverbial function (cf. §3.4). First person singular pronouns are used to illustrate personal pronouns (cf. Table 2 in §3.3). The phrase ‘other nominals’ in Table 4 includes common nouns, relative pronouns and nominalisations. The dative case marker *di* ‘DAT’ which marks non-macrorole arguments is restricted to the ‘y’ argument in the LS configuration **pred’** (y, z) when the ‘y’ argument is not the undergoer. When the ‘z’ argument is not the undergoer, there is no overt dative case marker.

Table 4: Summary of case alternations in Bonggi

CASE	Privileged Syntactic Argument		Non-Privileged Syntactic Argument		
	main clause	dependent clause	Actor	Non-actor	
				Undergoer	Non-undergoer
	nominative	genitive	genitive	accusative	dative
personal pronouns ‘1SG’	<i>ou</i>	<i>ku</i>	<i>ku</i>	<i>diaadn</i>	<i>di diaadn</i>
personal nouns	<i>si</i>	<i>ny</i>	<i>ny</i>	<i>ny</i>	<i>di ny</i>
other nominals	∅	∅	∅	∅	<i>di</i>

Three apparent exceptions to Table 4 are: (1) WH-questions in which the pragmatic focus is an adverbial adjunct (cf. §7); (2) special clitics which follow tense auxiliaries (cf. §6); and (3) loosely linked adverbial clauses (cf. §5.1). The presence of genitive case in WH-questions whose focus is an adverbial adjunct is due to these being marked narrow focused constructions as opposed to unmarked narrow focused constructions in which the

²⁸ See Van Valin (1990), (1991) for Icelandic; Michaelis (1993) for Latin; and Narasimhan (1995) for Hindi.

²⁹ Originally claimed by Silverstein (1976).

focus of the WH-question is an argument. Similarly, because special clitics are marked constructions, the pivot is in genitive case. Finally, the presence of nominative case pivots in conditional, purpose and reason clauses simply underscores the incoherent nature of the traditional category of dependent clause (cf. Chafe 1988). That is, there is no reason to conclude that these clauses are more dependent than clauses linked by *ma?* 'and' (cf. Chafe 1988:20). Therefore, conditional, purpose and reason clauses are not exceptions to Table 4; instead, they are classified together with coordinate clauses in a single category of loosely linked clauses.

Many linguists view case as a mechanism for indicating grammatical relations such as subject, direct object and indirect object (e.g. Blake 1994:2; Spencer 1991:256). However, no reference has been made in this paper to any of these three relations. Even if we substitute PSA for subject, we are left without direct object and indirect object. Case marking in Bonggi, and by extension other Western Malayo-Polynesian languages, is not a direct indicator of grammatical relations. The case marking rules in (34) make reference to PSA, macroroles and core argument status, not grammatical relations.

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