

1 Introduction¹

Traditional grammars classify clauses as either transitive as in (1) or intransitive as in (2).

- (1) He dropped the coconut.
 (2) The coconut fell.

This two-way distinction between transitive and intransitive clauses can be described from the point of view of syntax or semantics. From the syntactic point of view, transitive clauses such as (1) have a verb (*dropped*) and both a subject (*he*) and an object (*the coconut*), whereas intransitive clauses such as (2) have a verb (*fell*) and a subject (*the coconut*), but no object. From the semantic point of view, transitive clauses such as (1) have a predicate (DROP) and two arguments, both an actor (3SG) and an undergoer (COCONUT), whereas intransitive clauses such as (2) have a predicate (FALL) and one argument (COCONUT) which is an undergoer.²

Current linguistic theories have mechanisms for linking syntactic and semantic information. For example, in (1) the predicate (DROP) is linked to the verb (*dropped*); the actor (3SG) is linked to the subject (*he*); and the undergoer (COCONUT) is linked to the object (*the coconut*). Similarly in (2), the predicate (FALL) is linked to the verb (*fell*), and the undergoer (COCONUT) is linked to the subject (*the coconut*).

Since the 1970s, an increasing body of linguistic evidence has shown that the traditional two-way distinction between transitive and intransitive clauses is inadequate. A number of linguists have shown that intransitive clauses can be subdivided into two classes: those whose single argument is an actor such as *he* in (3), and those whose single argument is an undergoer such as *the coconut* in (2).

- (3) He swims on Monday and Friday.

While the distinction between the intransitive clauses in (2) and (3) is described above in primarily semantic terms with (2) having an undergoer as subject and (3) having an actor as subject, some linguistic theories describe the distinction between (2) and (3) in primarily syntactic terms. One such syntactic formulation which was proposed by David Perlmutter and Paul Postal (1984) is known as the Unaccusative Hypothesis.

According to the Unaccusative Hypothesis, some intransitive clauses (*unergatives*) have an initial or underlying subject, whereas other intransitive clauses (*unaccusatives*) have an initial or underlying direct object, and no initial or underlying subject. In accordance with the Unaccusative Hypothesis, (3) is an

¹I am very grateful for the comments that Paul Kroeger made on an earlier version of this paper.

²The **actor** is the entity which instigates, controls or effects the action expressed by the verb. The **undergoer** is the entity affected by the action or state expressed by the verb. Actor and undergoer are semantic macroroles. They correspond to the two primary arguments in a prototypical transitive construction. Either actor or undergoer may be the single argument of an intransitive verb (Van Valin 1993:43).

unergative clause with an underlying subject, whereas (2) is an unaccusative clause with an underlying object, but no underlying subject.

The three-way classification resulting from the subdivision of intransitive clauses into unergative and unaccusative clauses is a hallmark of Relational Grammar. Marit Vamarasi (1999) uses this distinction between unergative and unaccusative clauses to account for the occurrence of Indonesian adversative clauses such as (4).

- (4) Dia ke-jatuh-an kelapa.³
 3SG ADVER-fall-ADVER coconut
 ‘He/she had a coconut fall on him.’

Adversative constructions in Malay and Indonesian are formed by affixing the discontinuous morpheme *ke-* *-an* ‘ADVERSATIVE’ to a verbal base.⁴ Adversative constructions are so named because what the undergoer undergoes is usually harmful or unpleasant.⁵

According to Vamarasi (1999:99), unaccusative predicates such as *jatuh* ‘fall’ can be used to form adversative clauses as in (4), but unergative predicates cannot be used to form adversative clauses.⁶

This paper examines adversative constructions in Bonggi, a Western Austronesian language of Sabah, Malaysia. As in Malay and Indonesian, unergative predicates cannot be used to form adversative clauses in Bonggi. However, to say that adversative constructions in Bonggi are formed from unaccusative predicates is merely a partial truth, because only a subclass of unaccusative predicates are used to form adversative clauses. This paper shows that the distinction between unergative and unaccusative predicates cannot adequately predict which intransitive predicates form adversative clauses in Bonggi. Furthermore, this paper briefly describes how the theory of Role and Reference Grammar (RRG) predicts which predicates can form adversative clauses in Bonggi.

³The abbreviations and glossing conventions used follow the Leipzig Glossing Rules which are available at <http://www.eva.mpg.de/lingua/resources/glossing-rules.php>. Infixes are separated by angle brackets in both the text and the gloss as seen in (6). Abbreviations include: 1 first person, 3 third person, ACL accomplishment, ACT actor, ACY activity, ADVER adversative, CAU causative, GEN genitive case, INTEXP internal experience, IRR irrealis, ISA induced state of affairs, NOM nominative case, NP noun phrase, PST past, SG singular, ST state, and UND undergoer. In the English free translation, the noun phrase in bold is the subject.

⁴Blust (2003:449-451) describes reflexes of the Proto-Austronesian circumfix **ka-* *-an* ‘ADVERSATIVE’ in several languages.

⁵A second type of adversative construction in Malay is described in Chong (2005). Chong compares the transitivity of *kena* adversatives (which are illustrated below) with *di-* passives and concludes that *kena* adversatives are higher in transitivity (cf. Hopper & Thompson 1980).

Dia	kena	tipu	oleh	orang	itu.
3SG.NOM	KENA	cheat	by	person	that

‘He/she was cheated by that person.’

⁶Vamarasi (1999:32-34) actually analyzes *berenang* ‘swim’ (cf. (3)) as an unaccusative verb, because the addition of *meN-* and *-kan* to the root *renang* ‘swim’ in *me-reng-kan* results in a causative meaning. In other words, in her analysis, intransitive verbs whose single argument is an actor are treated as unaccusatives if the addition of *meN-* and *-kan* to the root results in a causative meaning. I am grateful to Paul Kroeger for pointing this out to me.

2 Introduction to RRG

2.1 Aktionsart classes

In RRG, predicates are classified according to a universal four-way semantic distinction between: (1) states, (2) accomplishments, (3) achievements, and (4) activities. These four *Aktionsart* classes correspond to major verb classes which are encoded in the verbal morphology of Bonggi.

States are static situations with no activity as in (5).

- (5) Sia ng-korikng.⁷
 3SG.NOM ST-dry
 ‘It is dry.’

Accomplishments are nonpunctual changes of state which have an endpoint as in (6).

- (6) Sia k < i > < m > orikng.⁸
 3SG.NOM < PST > < ACL > dry
 ‘It became dry.’

Achievements are punctual changes of state which have an endpoint as in (7).

- (7) Sia i-pudaʔ.⁹
 3SG.NOM REALIS-extinguish
 ‘It extinguished.’

Activities involve a participant doing something and have no clear endpoint as in (8).

- (8) Sia l < i > < m > ompud.
 3SG.NOM < PST > < ACY > ran
 ‘He/she ran.’

⁷The underlying form of the prefix is *m-* ‘ST’ which is subject to nasal assimilation as seen in (5). The underlying form of the root is /kɔriŋ/ ‘dry’. Velar nasals are represented orthographically as *ng*. Word-final nasals are preploded if the preceding vowel is non-nasalized; e.g., /m/ + /kɔriŋ/ [ŋkɔri^hŋ] ‘ST-dry’ (Boutin. To appear).

⁸The affix <in> ‘PAST/REALIS’ is sometimes realized as an infix (e.g., (6) and (8)) and other times as a prefix (e.g., (7)). The position and the shape of this inflectional morpheme is conditioned by the lexical semantics of the verb and phonological shape of the stem to which it attaches (Boutin 2009). Stative verbs are not inflected for tense or realis/irrealis (e.g., (5) and (10)). The affix <in> is glossed ‘REALIS’ when inflecting achievement verbs (e.g., (7)), and ‘PAST’ when inflecting accomplishment verbs (e.g., (6)) and activity verbs (e.g. (8)). As seen in table 4, <in> is realized as a prefix /n/ before achievement stems beginning with a vowel or an alveolar consonant, and as a prefix /i/ otherwise. If the first vowel in activity or accomplishment verb stems is /i/, then <in> is infix as /in/ after the initial consonant of the stem; otherwise, <in> is infix as /i/ after the initial consonant of the stem (cf. table 6).

⁹The symbol /ʔ/ represents a glottal stop.

The four basic *Aktionsart* classes describe basic, spontaneous situations or states of affairs; however, states of affairs can also be induced. Induced states of affairs (ISAs) are complex in that one state of affairs brings about another. For example, in (9) an activity (a person doing something) induces an accomplishment (coconut becoming dry).

- (9) Sia ng-orikng piasu.¹⁰
 3SG.NOM ISA.ACT-dry coconut
 ‘He/she dries coconuts.’

Aktionsart distinctions are fundamental features of the verbal system in all languages (Van Valin and LaPolla 1997:99). Some languages, including Bonggi, mark these verb classes overtly with some type of morphological marker. Thus, the same root can occur with different affixes which signal different *Aktionsart* classes as seen in table 1.

Table 1: Sample *Aktionsart* classes associated with root *korikng* ‘dry’

“Orthographic” form	Underlying form	Meaning	Example
ng-korikng	m- + korij	‘ST-dry’	(5)
k<om>orikng	<m> + korij*	‘ACL-dry’	(6)
ng-orikng	ŋ- + korij	‘ISA.ACT-dry’	(9)
kiring-in	korij + -on	‘dry-ISA.UND’	
po-korikng	po- + korij	‘CAU-dry’	
pi-kiring-in	po- + korij + -on	‘CAU-dry-ISA.UND’	

*As seen in table 7, the affix <m> ‘ACL’ is realized as *km-* ‘ACL’ in vowel-initial roots and roots whose initial consonant is a bilabial stop, /p/ or /b/; otherwise, <m> ‘ACL’ is inserted following the initial consonant of the root. To avoid impermissible consonant clusters, an epenthetic vowel (which is a copy of the initial vowel of the root) is inserted between the initial consonant and the /m/. In (6), *k<i><m>orikng* is the past tense form, whereas *k<om>orikng* in table 1 is the nonpast form with an epenthetic vowel.

Within the theory of RRG, predicates are classified into different *Aktionsart* classes on the basis of a series of tests which have cross-linguistic validity (Van Valin and LaPolla 1997:93ff.). The tests used to determine *Aktionsart* classes are given in table 2.

Table 2: Tests for determining *Aktionsart* classes

Criterion	States	Accomplishments	Achievements	Activities
1 Occurs with progressive	No	No	No	Yes
2 Occurs with adverbs like <i>vigorously, actively, etc.</i>	No	No	No	Yes
3 Occurs with adverbs like <i>quickly, slowly, etc.</i>	No	Yes	No	Yes
4 Occurs with X for an hour	Yes	irrelevant	No	Yes
5 Occurs with X in an hour	No	Yes	No	No

¹⁰The prefix /ŋ/ ‘ISA.ACT’ (orthographically ‘ng’) coalesces with the initial consonant of the root.

On the one hand, unergative clauses closely correspond to activities in RRG. On the other hand, unaccusative clauses are split between achievements and accomplishments in RRG. Section 3 shows that adversative constructions are formed from achievement verbs, not accomplishment verbs.

2.2 Semantic representations

In RRG, the relationship between a predicate and its arguments is expressed by **logical structures** (LSs) which provide a formal semantic representation for each verb. Logical structures consist of predicates, their arguments, and a small set of operators (Van Valin 1990:223).

Attributive statives are a subclass of stative predicates which attribute a property to an entity as in (5) and (10) and are marked by *m-* ‘ST’.¹¹ Attributive stative verbs like *ng-korikng* ‘ST-dry’ in (5) and *ma-ramig* ‘ST-cold’ in (10) have a generic LS **be'** (x, [**predicate'**]). The variable ‘x’ represents an argument of the predicate. The generic logical structure for attributive stative verbs is shown in (11a), while the LS for the verb *ma-ramig* ‘ST-cold’ is shown in (11b). The semantic representation (SR) for the clause in (10) is given in (11c).¹²

(10) Sia ma-ramig.
 3SG.NOM ST-cold
 ‘It is cold.’

(11) a. Generic LS for attributive stative verbs: **be'** (x, [**predicate'**])
 b. LS for *ma-ramig* ‘ST-cold’: **be'** (x, [**cold'**])
 c. SR for (10): **be'** (3SG, [**cold'**])

There are three basic types of stative predicates as seen in table 3: (1) single argument stative predicates whose generic LS is: **predicate'** (x); (2) two argument stative predicates whose generic LS is: **predicate'** (x, y); and (3) stative predicates with two argument positions whose second argument position is filled by predicate, rather than another argument.¹³ Table 3 lists the subtypes of stative predicates that occur along with a sample logical structure for each subtype. Each subclass has a unique argument structure. For example, two argument possession stative predicates have a generic LS **have'** (x, y) with the variables ‘x’ and ‘y’ representing the arguments of the predicate (i.e., possessor and possessed item).

¹¹In (10), an epenthetic vowel (which is a copy of the initial vowel of the root) is inserted between the prefix *m-* ‘ST’ and the root *ramig* ‘cold’.

¹²Logical structures (LSs) show the relationship between predicates and their arguments, whereas semantic representations (SRs) for a sentence include the LS of the verb, the arguments of the verb, and adjuncts including adverbials.

¹³Cf. Van Valin and LaPolla (1997:115) for a discussion of the various subclasses of stative predicates.

Table 3. Stative predicates

A. One-place stative with single argument	predicate' (x)
1. Condition	broken' (x)
2. Existence	exist' (x)
B. Two-place stative with two arguments	predicate' (x, y)
1. Possession	have' (x, y)
2. Perception	hear' (x, y)
3. Cognition	know' (x, y)
4. Desire	want' (x, y)
5. Emotion	love' (x, y)
6. Propositional attitude	consider' (x, y)
C. Two-place stative with single argument	predicate' (x, [pred'])
1. Locative	be' (x, [LOC' (y)])
2. Attribute	be' (x, [predicate'])
3. Internal experience	feel' (x, [predicate'])

Several subclasses of states are distinguished morphologically in Bonggi. Internal experience statives pertain to internal sensations. They are marked by *-an* 'INTEXP' as in (12).¹⁴ The undergoer is the experiencer of the stimulus in these verbs of sensation/affect. Internal experience statives contrast with attributive statives. The attributive stative *ma-ramig* 'ST-cold' in (10) emphasizes the stimulus and is used to describe something as being 'cold to touch', whereas the internal experience stative *rimig-adn* 'cold-INTEXP' in (12) emphasizes the experiencer and is used to describe someone as 'feeling cold' (cf. Talmy 1985:99ff.).

- (12) *Rimig-adn ou na.*
 cold-INTEXP 1SG.NOM now
 'I am feeling cold.'

States are static situations with no activity. Stative situations are basic in that the semantic structure of accomplishments and achievements is derived from states by means of the logical operators BECOME and INGR respectively.¹⁵ For example, the generic logical structure for accomplishment verbs which are derived from underlying attributive statives is shown in (13a). The LS for the accomplishment verb *k<i> <m>orikng* '<PST> <ACL> dry' in (6) is shown in (13b). The semantic representation (SR) for the clause in (6) is given in (13c).

- (13) a. Generic LS for accomplishment verbs derived from
 attributive statives: BECOME **be'** (x, [**predicate'**])
 b. LS for *k<i> <m>orikng* '<PST> <ACL> dry' in (6): BECOME **be'** (x, [**dry'**])
 c. SR for (6): BECOME **be'** (3SG, [**dry'**])

¹⁴Non-high, prestressed vowels are subject to vowel harmony with high, root vowels being the controlling vowel; e.g. /ramig/ + /an/ [rimigədn] *rimig-adn* 'cold-INTEXP' (Boutin 2002).

¹⁵Achievements are derived from states by the addition of the logical operator INGR which is an abbreviation for 'ingressive' and refers to punctual or instantaneous changes (Van Valin and LaPolla 1997:104). In early versions of RRG, achievements were derived from states by the addition of the logical operator become (e.g., Walton 1986:21, Van Valin 1990:223).

The principles for determining the number and nature of macroroles are shown in (14) (Van Valin and LaPolla 1997:152).

(14) 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.

According to principle 14.a.2, the verb *k < i > < m > orikng* ‘< PST > < ACL > dry’ in (6) has one macrorole since its logical structure in (13b) has one argument. By principle 14.b.2, the single macrorole in (6) is an undergoer since the LS in (13b) does not contain the activity predicate *do*’.

3 Adversative constructions in Bonggi

The majority of achievements are derived from condition states. Example (15) illustrates a condition state, and (16) illustrates an achievement which is derived from a condition state.

(15) *Tedak na busul hu.*
 rupture now boil 1SG.GEN
 ‘My boil is ruptured.’

(16) *Busul hu n-tedak.*
 boil 1SG.GEN REALIS-rupture
 ‘My boil ruptured.’

The generic logical structure for condition stative verbs is shown in (17a), while the generic logical structure for achievement verbs which are derived from condition states is shown in (18a). The LS for the verb *tedak* ‘rupture’ in (15) is shown in (17b), while the LS for the verb *n-tedak* ‘REALIS-rupture’ in (16) is shown in (18b). The semantic representation (SR) for the clause in (15) is given in (17c), and the SR for (16) is shown in (18c).

- (17) a. Generic LS for condition stative verbs: **predicate**' (x)
 b. LS for *tedak* ‘ruptured’: **rupture**' (x)
 c. SR for (15): **rupture**' (*busul* 1SG)¹⁶

¹⁶In a richer semantic representation, possession within NPs (e.g., *busul hu* ‘my boil’ in (15)) is represented semantically as possession within clauses as in the following: **rupture**' (**have**' [1SG, *busul*]).

- (18) a. Generic LS for achievement verbs
 derived from condition statives: INGR **predicate'** (x)
 b. LS for *n-tedak* 'REALIS-rupture': INGR **rupture'** (x)
 c. SR for (16): INGR **rupture'** (*busul* 1SG)

According to principle 14.a.2, the verbs in (15) and (16) have one macrorole since their logical structures in (17b) and (18b) have one argument. By principle 14.b.2, the single macrorole is an undergoer since the LS does not contain the activity predicate **do'**.

Clauses (19) and (20) illustrate two types of achievement verb constructions. In (19) the verb *i-puda?* 'REALIS-extinguish' is a regular achievement verb (cf. (7)), whereas in (20) the verb *i-puda-adn* 'REALIS-extinguish-ADVER' is an achievement verb in an adversative construction.

- (19) I-puda? lampu ku kerebi.
 REALIS-extinguish lamp 1SG.GEN last.night
 'My light went out last night.'
- (20) I-puda-adn ou lampu ku kerebi.¹⁷
 REALIS-extinguish-ADVER 1SG.NOM lamp 1SG.GEN last.night
 'I had my light go out (on me) last night.'

The LS for *i-puda?* 'REALIS-extinguished' in (19) is shown in (21a), and the SR for (19) in (21b). Adverbials like *kerebi* 'last night' in (19) take the LS of the core as their argument.

- (21) a. LS for *i-puda?* 'REALIS-extinguished': INGR **extinguish'** (x)
 b. SR for (19): **last.night'** [INGR **extinguish'** (*lampu* 1SG)]

Because adversatives are a type of achievement, their LS must include an achievement. Furthermore, since the LS in (21a) for the achievement verb in (19) includes an underlying condition stative predicate, the LS for the adversative in (20) must also include an underlying condition stative predicate. The LS for adversatives with an underlying condition stative predicate is seen in (22a), the LS for *i-puda-an* 'REALIS-extinguished-ADVER' in (20) is seen in (22b), and the SR for (20) in (22c).

- (22) a. LS for adversative achievements with an
 underlying condition stative predicate: **feel'** (x, [INGR **predicate'** (y)])
 b. LS for *i-puda-an* 'REALIS-extinguished-ADVER': **feel'** (x, [INGR **extinguish'** (y)])
 c. SR for (20): **last.night'** [**feel'** (1SG, [INGR **extinguish'** (*lampu* 1SG)])]

In (22a), the achievement is embedded in an internal experience stative. Internal experience statives have two argument positions 'x' and 'y', but only one argument 'x' (cf. table 3). The second argument position in (22a) is filled by a

¹⁷Final glottal stops are deleted when a suffix is added.

predicate (i.e., [INGR **predicate'** (y)]). In (22a), 'y' is an argument of the embedded predicate (i.e., **predicate'**), not an argument of **feel'**. According to principle 14.a.2, the verb in (20) has one macrorole since its logical structure in (22b) has one argument. By principle 14.b.2, the single macrorole is an undergoer since the LS does not contain the activity predicate **do'**. The LS in (22a) correctly predicts that adversative achievements have one macrorole, an undergoer.

Adversatives are peculiar both syntactically and semantically (Kuno 1973:24). Syntactically, they have an extra noun phrase. For example, the adversative construction in (20) has an extra NP in contrast to the non-adversative construction in (19). Semantically, the subject in adversative constructions is usually adversely affected as in (20) (cf. Payne 1997:208). The subject *ou* '1SG.NOM' in (20) receives nominative case.

In RRG, transitivity is defined in terms of the number of macroroles that a predicate takes, not in terms of the traditional notion of syntactic valency (cf. Kroeger 2005:70).¹⁸ Transitive verbs have two macroroles, whereas intransitive verbs have one macrorole. Adversatives have only one macrorole (an undergoer); thus, they are intransitive constructions. When compared with regular achievements, adversatives have an extra NP; however, the extra NP is an optional adjunct as illustrated by the adversative clause in (23).

- (23) *Sia baru i-piti-adn.*
 3SG.NOM recently REALIS-die-ADVER
 'He recently experienced the death of a close relative.'

While syntactic valency can be increased for adversatives, semantic valency is not increased since adversatives have only one macrorole. Non-macrorole noun phrases such as *lampu ku* 'my lamp' in (20) are optional adjuncts. They do not bear the grammatical relation subject or object. They cannot be passivized, questioned, relativized, or fronted.

A crucial component of RRG is the set of syntactic and semantic tests for determining the class membership of a verb in a particular clause. Thus, given (20), how do we know it is an achievement, not an accomplishment or some other *Aktionsart* type? According to table 2, achievements should fail the *in an hour* temporal completion test, whereas accomplishment should pass this test.

While the application of *Aktionsart* tests must be done carefully for any language, certain precautions are in order when applying the tests to Bonggi. The first problem to arise during the application of the two temporal tests is that unlike English, Bonggi has no adpositions indicating temporal duration (cf. *for in for an hour*) or temporal completion (cf. *in an hour*). Thus, the meaning of the temporal phrase *simbatu jaabm* 'one hour' must be contextually interpreted. For example, in (24) the addition of the temporal phrase *simbatu jaabm* 'one hour' to

¹⁸The principles for determining the number and nature of macroroles can be found in Van Valin (1990:227, 1993:47) and Van Valin and LaPolla (1997:152).

the accomplishment in (6) yields a temporal completion (*in an hour*) interpretation as shown by the free translation in (24).

- (24) Sia k<i> <m>orikng simbatu jaabm.
 3SG.NOM <PST> <ACL> dry one hour
 ‘It dried in an hour.’

The addition of the temporal phrase *simbatu jaabm* ‘one hour’ to the activity in (8) yields a temporal duration (*for an hour*) interpretation as shown by the free translation in (25).

- (25) Sia l<i> <m>ompud simbatu jaabm.
 3SG.NOM <PST> <ACY> run one hour
 ‘He/she ran for an hour.’

The addition of the temporal phrase *simbatu jaabm* ‘one hour’ to the achievement in (7) yields neither a temporal duration (*for an hour*) nor a temporal completion (*in an hour*) interpretation as shown in (26).

- (26) *Sia i-puda? simbatu jaabm.
 3SG.NOM REALIS-extinguish one hour
 *‘It extinguished (for an hour)/(in an hour).’

Because achievements are punctual, they are incompatible with temporal phrases referring to long periods of time (e.g., *in an hour*). Temporal phrases in achievement clauses refer either to the time until the onset of the event, or to a time period within which the event takes place. They do not refer to the temporal duration of the event itself. David Dowty (1979:63) provides the following entailment for achievements: If ϕ is an achievement verb, then $x \phi$ ed in y time does not entail x was ϕ ing during y time.

While the absence of overt adpositions increases both the complexity of the tests and the chance of error, careful analyses yield consistent results. As seen in table 4, the evidence is formidable that Bonggi adversatives are derived from achievement verbs.¹⁹

¹⁹The alternations in table 4 between *-adn*, *-odn*, *-ardn*, and *-an* are phonologically conditioned. Root-final alveolar sonorants (i.e., /r/, /l/, and /n/) metathesize when *-an/* ‘ADVER’ or *-on/* ‘ISA.UND’ is added to form a new stem (Boutin 2002, and Boutin. To appear). The mid back vowel /o/ spreads from left to right to replace the low vowel /a/ in the suffix *-an/* ‘ADVER’; e.g. /m-/ + /kotop/ + *-an/* → /mokotopon/ [mākə’toφ⁴n] ‘IRR-broken.off-ADVER’.

Table 4: Adversatives derived from achievements

Achievements	Adversatives derived from achievements			
	Meaning of achievement	m- 'IRREALIS'	in- 'REALIS'	m- 'IRREALIS'
'spilt'	m-bubus	i-bubus	m-bus-adn	i-bus-adn
'blown away'	m-palis	i-palis	m-pilis-adn	i-pilis-adn
'broken into fragments'	m-pesa?	i-pesa?	m-pesa-adn	i-pesa-adn
'extinguished'	m-puda?	i-puda?	m-puda-adn	i-puda-adn
'dead'	m-ati	m < e > ti	m-piti-adn	i-piti-adn
'split open'	mu-guab	i-guab	mu-guab-adn	i-guab-adn
'uncovered'	ma-kahas	i-kahas	ma-kahas-adn	i-kahas-adn
'snapped off'	mo-kotop	i-kotop	mo-kotop-odn	i-kotop-odn
'fall through hole'	mu-kusut	i-kusut	mu-kusut-adn	i-kusut-adn
'escape'	me-lepas	i-lepas	me-lepas-adn	i-lepas-adn
'choke'	mo-lomos	i-lomos	mo-lomos-odn	i-lomos-odn
'snap'	mo-loput	i-loput	mu-luput-adn	i-luput-adn
'fall over'	me-reba'	i-reba'	me-reba-adn	i-reba-adn
'broken loose'	mu-rupus	i-rupus	mu-rupus-adn	i-rupus-adn
'collapse'	mu-rumbak	i-rumbak	mu-rumbah-adn	i-rumbah-adn
'collide'	ma-ranggar	i-ranggar	ma-rangga-ardn	i-rangga-ardn
'finish'	m-abis	n-abis	m-ibis-adn	n-ibis-adn
'fall'	ma-dabu?	n-dabu?	mu-dubu-adn	n-dubu-adn
'become'	ma-dadi	n-dadi	mi-didi-adn	n-didi-adn
'fall out of'	me-dak	n-dedak	me-dedah-adn	n-dedah-adn
'pinched'	mi-sipit	n-sipit	mi-sipit-adn	n-sipit-adn
'enter'	mu-suak	n-suak	mu-suah-adn	n-suah-adn
'contact'	mu-suat	n-suat	mu-suat-adn	n-suat-adn
'trapped'	mu-sulukng	n-sulukng	mu-sulung-an	n-sulung-an
'disgusted with'	mu-suma	n-suma	mu-suma-an	n-suma-an
'fall into'	ma-tabukng	n-tabukng	mu-tubung-an	n-tubung-an
'stuck'	ma-tandadn	n-tandadn	ma-tanda-an	n-tanda-an
'ruptured' (e.g. tank)	me-tebadn	n-tebadn	me-teba-an	n-teba-an
'punctured'	me-tedak	n-tedak	me-tedah-adn	n-tedah-adn
'astray'	me-teirdn	n-teirdn	mi-tirn-an	n-tirn-an
'capsized'	mo-togob	n-togob	mo-togob-odn	n-togob-odn
'stranded'	mu-tumang	n-tumang	mu-tumang-an	n-tumang-an
'burnt'	mu-tukng	n-tutukng	mu-tung-an	n-tung-an

The verbs in table 4 can occur as regular achievement verbs (e.g., *m < e > ti* ' < REALIS > die' in (27) and *n-dabu?* 'REALIS-fell' in (29)) or adversatives that are derived from achievement verbs and marked by *-an* 'ADVERSATIVE' (e.g., *i-piti-adn* 'died on' in (28) and *n-dubu-adn* 'fell on' in (30)).²⁰

- (27) M < e > ti na anak nya.
 REALIS-die COMPLETIVE child 3S.GEN
 'His/her child died.'

²⁰With the exception of irrealis *mati* 'die' and realis *meti* 'died' in which the stem vowel alternates as a result of ablaut, realis and irrealis are marked by prefixes on achievement verbs.

- (28) Sia i-piti-adn anak.
 3S.NOM REALIS-die-ADVER child
 ‘He/she experienced the death of (his/her) child.’
- (29) N-dabu? na piasu.
 REALIS-fall COMPLETIVE coconut
 ‘A coconut fell.’
- (30) Sia n-dubu-adn piasu.
 3S.NOM REALIS-fall-ADVER coconut
 ‘He/she had a coconut fall (on him/her).’

Not every adversative construction has a corresponding achievement verb. Some adversatives are derived from nouns as shown in table 5.

Table 5: Adversatives derived from nouns

		Adversatives derived from nouns	
Noun	Meaning	m- ‘IRREALIS’	in- ‘REALIS’
dolok	‘rain’	mo-doloh-odn	n-doloh-odn
sidu	‘urine’	mi-sidu-adn	n-sidu-adn
busul	‘boil’	busui-idn	i-busui-idn
dusa	‘sin’	mu-dusa-adn	n-dusa-adn
togor	‘rust’	mo-togo-ordn	n-togo-ordn

The adversative verb *n-doloh-odn* ‘REALIS-rain-ADVER’ in (31) is derived from the noun *dolok* ‘rain’.

- (31) Sia n-doloh-odn.
 3S.NOM REALIS-rain-ADVER
 ‘He/she got caught in the rain.’

When *-an* ‘ADVERSATIVE’ is added to a root ending in /l/, the /l/ metathesizes with the following vowel then vocalizes to /i/ as seen in (32) (cf. *busul* ‘boil’ in table 5).

- (32) Nda? kaap s<im>idu tulakng babi, busui-idn.
 not able <ACY>urate bone pig boil-ADVER
 ‘You cannot urinate on the bones of a pig, or you will be infected with boils.’

Adversative achievements are normally inflected with irrealis or realis modality, but *busuiidn* ‘to be infected with boils’ in (32) is an exception perhaps because the root is a noun and there are no corresponding forms for induced states of affairs. Most of the achievement roots in table 4 can function as a base from which a complex state of affairs can be derived. For example, sentences

(33) and (34) illustrate induced states of affairs involving someone doing something (an activity) which results in a lamp being extinguished (an achievement). Induced states of affairs are transitive situations involving two macroroles (actor and undergoer), whereas achievements and adversative constructions are intransitive situations involving a single macrorole which is an undergoer. The actor is the subject in (33), whereas the undergoer is the subject in (34). Actor and undergoer voice options are only relevant for verbs which have two macroroles.

- (33) M-uda? ou lampu.
 ISA.AV-extinguish 1SG.NOM lamp
 'I will extinguish the lamp.'
- (34) Lampu p<i>uda? ku.
 lamp <PST>extinguish 1SG.GEN
 'The lamp was extinguished by me.'

Activity predicates cannot be used to form adversative clauses in Bonggi. This claim is comparable to Vamarasi's (1999) claim that unergative predicates cannot be used to form adversative clauses in Indonesian. None of the activity verbs in table 6 or the accomplishment verbs in table 7 correspond to any adversatives.

Table 6: Activity verbs

Ø'IRREALIS'	Meaning	< in > 'REALIS'
m-apit	'ACY-stop by'	m < i > apit/m < e > pit
m-ilakng	'ACY-lying down'	m < in > ilakng
m-udukng	'ACY-arise'	m < i > udukng
m-upug	'ACY-sit'	m < i > upug
m-uhad	'ACY-leave'	m < i > uhad
m-uli?	'ACY-return'	m < i > li'/m < in > ili'
m-usag	'ACY-stand'	m < i > usag
m-panu	'ACY-walk; go'	i-panu
d < um > ua?	'ACY-descend'	d < i > < m > ua'
l < am > alu	'ACY-pass by'	l < i > < m > alu
l < am > anggat	'ACY-ascend'	l < i > < m > anggat
l < am > anjakng	'ACY-step on'	l < i > < m > anjakng
l < im > iaag	'ACY-sail'	l < i > < m > iaag
l < om > ongi	'ACY-swim'	l < i > < m > ongi
l < om > ompud	'ACY-run'	l < i > < m > ompud
l < um > uas	'ACY-exit'	l < i > < m > uas
r < am > ahad	'ACY-go inland'	r < i > < m > ahad
r < im > iru	'ACY-swarm'	r < i > < m > iru
s < am > asa?	'ACY-pass through a field'	s < i > < m > asa'
s < em > elehei	'ACY-ascend steps'	s < i > < m > elehei
s < um > uak	'ACY-enter'	s < i > < m > uak
t < em > erana	'ACY-stop and rest'	t < i > < m > erana
t < om > olop	'ACY-dive'	t < i > < m > olop
t < im > iligud	'ACY-turn back on'	t < i > < m > iligud
t < im > indiakng	'ACY-turn at intersection'	t < i > < m > indiakng
t < om > odik	'ACY-climb hill'	t < i > < m > odik
t < um > ulak	'ACY-depart'	t < i > < m > ulak
t < um > undakng	'ACY-take for walk (child)'	t < i > < m > undakng

Table 7: Accomplishment verbs

kam-aal	'ACL-expensive'	d < am > alabm	'ACL-deep'
kam-angas	'ACL-rancid'	d < am > ama?	'ACL-dirty'
kam-ayad	'ACL-pretty'	d < om > oot	'ACL-bad'
kem-enta?	'ACL-unripe'	d < um > upakng	'ACL-foolish'
kim-ingi	'ACL-crazy'	d < um > uruk	'ACL-fast'
kim-iskidn	'ACL-poor'	g < am > arakng	'ACL-ferocious'
kom-odobm	'ACL-black'	g < im > ia	'ACL-big'
kom-omis	'ACL-sweet'	g < om > ool	'ACL-ache'
kum-ubas	'ACL-common'	k < am > abu	'ACL-faded'
kum-ulak	'ACL-young'	k < am > apal	'ACL-thick'
kum-utakng	'ACL-rotten'	k < am > arag	'ACL-wild'
kam-bagal	'ACL-huge'	k < am > asakng	'ACL-strong'
kam-bani	'ACL-brave'	k < om > orikng	'ACL-dry'
kam-bantut	'ACL-homosexual'	k < om > osog	'ACL-strong'
kam-barabm	'ACL-many'	k < om > otul	'ACL-hard'
kam-basa?	'ACL-wet'	l < om > ompukng	'ACL-fat; healthy'
kem-belati'	'ACL-inside out'	l < um > uag	'ACL-loose'
kim-biag	'ACL-satisfied; full'	l < um > umak	'ACL-soft'
kim-bisa	'ACL-powerful; deadly'	r < am > amig	'ACL-cold'
kim-bisak	'ACL-narrow; tight'	r < em > engan	'ACL-light weight'
kum-buha?	'ACL-open'	r < om > robor	'ACL-mirky'
kum-bulag	'ACL-blind'	r < om > ombu'	'ACL-healthy'
kum-butata	'ACL-blind'	r < um > uhubm	'ACL-tame'
kam-pagadn	'ACL-difficult; hard'	s < em > ega'	'ACL-red'
kam-pala	'ACL-spicy hot'	t < am > adabm	'ACL-sharp'
kam-panas	'ACL-hot'	t < em > elak	'ACL-bright'
kam-panggar	'ACL-stiff'	t < im > ihukng	'ACL-crooked'
kim-pia	'ACL-good'	t < om > odu	'ACL-calm'
kim-pintas	'ACL-easy'	t < om > ogi'	'ACL-pregnant'
kom-ponu?	'ACL-full'	t < om > ogobm	'ACL-diligent'
kum-puhu'	'ACL-short'	t < om > ook	'ACL-ripe'
kum-pusat	'ACL-pale'	t < um > ua'	'ACL-old (person)'
kum-puti'	'ACL-white'	t < um > uhal	'ACL-thin'
		t < um > umpis	'ACL-fluent'
		t < um > uug	'ACL-dry'

4 Conclusion

At least three researchers (Vamarasi [Kana] (1986, 1999) for Indonesian, Kroeger (1990) for Kimaragang, and Davies (1993, 1995) for Javanese) have reported that the occurrence of adversative constructions in Western Austronesian languages is based on split intransitivity. They argue that adversatives can be formed from unaccusative verbs (i.e., intransitive verbs whose single argument is an undergoer), but adversatives cannot be formed from unergative verbs (i.e., intransitive verbs whose single argument is an actor).

Within the theory of RRG, semantically intransitive verbs whose single argument is an undergoer do not form a homogenous class; instead, single argument intransitive verbs with an undergoer include: different subclasses of states, accomplishments, and achievements. This paper has shown that adversative constructions in Bonggi are formed from achievements, not activities or accomplishments. Since none of the activity verbs in table 6 or the accomplishment verbs in table 7 correspond to any adversatives, the evidence is overwhelming that adversatives are derived from one class of intransitive verbs; i.e., achievements.

In summary, while RRG correctly predicts which intransitive verbs (i.e., achievements) can form adversative constructions in Bonggi, an analysis solely in terms of the syntactic unaccusative/unergative distinction wrongly predicts that many intransitive verbs (i.e., accomplishments) could be used to form adversatives.

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