

Transitivity and Ergativity in Sinauḡoro*

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1. Introduction

Sinauḡoro¹ is an Austronesian language belonging to the Papuan Tip Cluster. It is located in the Central Province just east of Port Moresby, the capital of Papua New Guinea. Kolia (1975) produced a brief linguistic description of Sinauḡoro. The most recent description is the work of Gerhard and Hiltrud Tauberschmidt (1991).

Sinauḡoro has case marking in sentence structure that can be analyzed as ergative.² The purpose of this article is to demonstrate this analysis and also show how various other syntactic devices such as object incorporation, reflexive and reciprocal formation, and topicalization delete the ergative marking for different reasons. We also discuss the ergative possession marking in Sinauḡoro and show how this is also consistent with an underlying ergative-absolutive case marking system.

Ergativity was discussed intensively in the late 1970's and early 1980's particularly in such works as Dixon (1979) and Plank (1979). In a nominative-accusative system for marking grammatical functions the single argument (S) of an intransitive clause is marked in the same way as the agent (A) of a transitive clause. This is the nominative case and is distinguished from the accusative case which is the patient (P) argument of the transitive clause. In an ergative-absolutive system, on the other hand, the S argument of an intransitive clause is identified with the P argument of a transitive clause. This is the absolutive case and is distinguished from the ergative case which is the A argument of the transitive clause. As pointed out by Dixon (1979), however, very few languages that have ergative-absolutive marking have this as their only case marking system. In most cases an ergative-absolutive system is mixed with a nominative-accusative system. This is known as a split-ergative system and is what occurs in Sinauḡoro.

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¹ The grapheme <ḡ> represents the voiced velar fricative /ɣ/.

² Ergative-absolutive patterns have also been noted in related languages such as Aroma and Motu, although they will not be demonstrated in this paper. Kolia (1975), Craig (1980), and Lister-Turner and Clark (n.d.) all briefly mention this pattern, however none of the authors uses the term 'ergative' nor do they discuss the syntactic pattern in much depth. Considering the attention that ergativity was receiving in the mid 1970's, this is somewhat surprising.

2. Ergative Marking in Sinauḡoro

The ergative case is marked in Sinauḡoro by the postpositional particle *-na* which attaches to the subject-NP. This is illustrated by (1-3). The order of basic constituents in the transitive clause is SOV and subject and object agreement is marked on the verb by proclitic pronouns and suffixation respectively. In (1-3) *-na* is marked on the NP which is cross-referenced as subject on the verb. The subject is a pronoun in (1), a noun in (2) and an NP in (3). Sinauḡoro also has a topic marker *tu* which can be marked in addition to the ergative marker, as in (3). In (4), while 3p subject is marked on the verb, there is no overt subject NP in the clause and therefore no ergative marking.³

- 1) *ḡia-na ḡau e basi-a-ni*
3s-ERG tree 3s.SU cut-3s.OB-IMPF
'He is cutting the tree.'
- 2) *kwaiva-na bai e kafu-a-ni*
dog-ERG pig 3s.SU bite-3s.OB-IMPF
'The dog is biting the pig.'
- 3) *fitua muri-sei-na-na tu tobo e ḡabi tari-a-to*
boy after-born-3s-ERG TOP bamboo 3s.SU take hold-3s.OB-PERF
'The lastborn boy took hold of the bamboo.'
- 4) *nima ḡe rovo-a-ni*
house 3p.SU pull.down-3s.OB-IMPF
'They are pulling down the house.'

The ergative marking in transitive clauses is optional, however, and can be omitted under certain circumstances. This is illustrated in (5).

- 5) *mai kure tu bai ḡiḡu-na e kafu-a-ni*
this rat TOP pig tail-3s.POS 3s.SU bite-3s.OB-IMPF
'This rat is biting the pig's tail.'

³ Abbreviations

| | | | |
|-------|---------------------------------|------|---------------------------|
| CAUS | verbal causative marker | RED | reduplicated formant |
| ED | edible class possessive marker | REFL | verbal reflexive marker |
| ERG | ergative marker | SU | pre-verbal subject marker |
| IMPF | imperfective aspect marker | TOP | topic marker |
| NEUT | neutral class possessive marker | 1 | 1 st person |
| OB | verbal object agreement marker | 2 | 2 nd person |
| PERF | perfective aspect marker | 3 | 3 rd person |
| POS | possessive agreement marker | p | plural number |
| R | verbal remote tense marker | s | singular number |
| RECIP | verbal reciprocal marker | | |

The ergative marking also occurs in ditransitive clauses and in these cases it cannot be omitted. Some examples are given in (6-7). Notice from (7) that in a ditransitive clause the object agreement is with the animate recipient NP or indirect object.

- 6) *tau-na vavine bua e vini-a-to*
 man-ERG woman betelnut 3s.SU give-3s.OB-PERF
 'The man gave the woman betelnut.'
- 7) *tau-na bua e vini-gu-to*
 man-ERG betelnut 3s.SU give-1s.OB-PERF
 'The man gave me betelnut.'

The first point to note about the ergative marking in Sinauḡoro is that it can only be marked in a clause with both subject and object, i.e. transitive and ditransitive clauses. It cannot be marked in an intransitive clause. There are basically two ways to construct an intransitive clause. A purely intransitive verb may be used as in examples (8-9), or a transitive verb may be reduplicated (and consequently detransitivized) as in examples (10-11).

- 8) *veravera ḡe gara-ni*
 flower 3p.SU grow-IMPF
 'The flowers are growing.'
- 9) *ḡia e raga-ni*
 3s 3s.SU run-IMPF
 'He is running.'
- 10) *ḡe mari-mari-ni*
 3p.SU sing-RED-IMPF
 'They are singing.'
- 11) *mero e ḡani-ḡuni-ni*
 boy 3s.SU eat-RED-IMPF
 'The boy is eating.'

It would be ungrammatical, however, for ergativity to be marked in these intransitive clauses, as in (8a) and (11a) for example.

- 8) a. **veravera-na ḡe gara-ni*
 flower-ERG 3p.SU grow-IMPF
- 11) a. **mero-na e ḡani-ḡuni-ni*
 boy-ERG 3s.SU eat-RED-IMPF

Givón (1984:153-159) says that in some languages with a split-ergative system ergativity can be marked on the subjects of intransitive clauses which are high on the

agentivity scale. Such languages would therefore no longer be marking just a grammatical function, i.e. ergative, but rather would be marking the semantic role of agent directly. This is not the case with Sinauḡoro. The ergative marker cannot be used to indicate that the subject of an intransitive clause is 'more agentive'.

From the examples above it would appear that the particle *-na* marks the ergative case while the absolutive case is unmarked. However, there are difficulties with this analysis since examples occur of transitive clauses with no ergative marking. These problematic cases are discussed in the next section.

3. Optional Ergative Marking

While it is the case that ergativity can only be marked in clauses with overt subject and object NPs and not in intransitive clauses it is not always marked in transitive clauses. Dixon (1979:72-73) notes that ergative case marking is sometimes described as 'optional' in some languages. Dixon cites Motu as such a language where Taylor (1970:30) describes the ergative marker *'ese* as only being marked where there is no other means of distinguishing the A argument from the P argument in a transitive clause. Some would say that such optional ergative marking can no longer be considered ergativity. However, Dixon makes the point that "The ergative particle in Motu ... is normally used only when the identity of the A NP can NOT be inferred from any other grammatical or semantic information in the sentence" (1979: 73). In other words, the ergative function of the A argument is marked in the underlying grammatical structure but its overt marking can be omitted in surface structure when this function is indicated by other semantic and syntactic signals. This is the case for Sinauḡoro. The marker *-na* serves to distinguish the A argument from S/P when there is no other syntactic or semantic means of doing so. Indeed this is the only function of *-na* when it occurs. It does not have other functions such as to mark the agentivity of the subject-NP, for example.

3.1. *NonThird Person Subjects*

The ergative marking is normally only required to distinguish A from S/P in the case of third person subjects. Where the subject NP is nonthird person there is little likelihood that it could be confused with the object NP. So in a sentence such as (12) the ergative marker is not necessary. However, its presence is not precluded by a nonthird person subject. When a second person pronominal subject is used in a contrastive construction, as in the latter half of (13) for example, the particle *-na* is included. So the ergative marking is available in underlying structure even for nonthird person subjects.

- 12) *gōi au o ruḡa-gu-to*
 2s 1s 2s.SU refuse-1s.obj-PERF
 'You refused me.'
- 13) *dei-na kaka-gu e vaḡi-a-to?*
 who-ERG older.brother-1s.POS 3s.SU kill-3s.OB-PERF
 'Who killed my older brother?'
gōi-na o vaḡi-a-to!
 you-ERG 2s.SU kill-3s.OB-PERF
 'You killed him!'

3.2. Topicalized Subjects

Another area of the syntax that interferes with the ergative marking is topicalization. *Tu* marks topicalization in subjects, objects and obliques, without marking the subject as either transitive or intransitive. (14) is an example of an intransitive clause with a topically marked subject. (15) is an example of a transitive clause with a topically marked subject. With respect to (15) the ergative marker can be optionally omitted, as in (16). However, this would only occur when the speaker assumed that the hearer would have no doubt from the context which NP was the subject.

- 14) *au tu a raka-ni*
 1s TOP 1s.SU walk-IMPF
 'I am going.'
- 15) *kwaiva-na tu bai be-ḡe kafu-a*
 dog-ERG TOP pig R-3p.SU bite-3s.OB
 'The dogs bit the pig.'
- 16) *kwaiva tu bai be-ḡe kafu-a*
 dog TOP pig R-3p.SU bite-3s.OB
 'The dogs bit the pig.'

The motivation for omitting the ergative marker in an example such as (16) would be on the assumption that the subject is the most likely topic in the clause. There would therefore be no need to 'double mark' the subject as both ergative and topic. However, when the object is topicalized it is normally front-shifted as well as marked with *tu*, as in (17) for example. In this case the subject has to be marked as ergative in order to disambiguate it from the topicalized object.

- 17) *bai tu kwaiva-na be-ḡe kafu-a*
 pig TOP dog-ERG R-3p.SU bite-3s.OB
 'The dogs bit the pig.' ('The pig is what the dogs bit.')

3.3. Object Incorporation

There are times when the object-NP of a transitive clause is given a non-specific or generic reference. In such cases the object agreement on the verb is omitted and so is the ergative marking on the subject-NP. Examples (18) and (19) illustrate this phenomenon. In example (18) the reference of *forara* is specific and refers to a particular entity. This meaning is reflected in the English gloss. In example (19), on the other hand, the reference is generic and does not refer to a particular piece of sand. This sentence would be describing the activity rather than the object affected by the action.

- 18) *ai-na forara a bubu lausi-a-to*
 1s-ERG sand 1s.SU pour spread-3s.OB-PERF
 'I spilt the sand.'
- 19) *ai forara a bubu lausi-to*
 1s sand 1s.SU pour spread-PERF
 'I spilt sand.' ('I sand-spilt.')

(19) is clearly a case of object incorporation since the object agreement no longer applies. The confirmation that this is object incorporation, a grammatical function changing device, is that the subject-NP is no longer ergative and it would be ungrammatical to mark it as such, as in (19a).

- 19) a. **ai-na forara a bubu lausi-to*
 1s-ERG sand 1s.SU pour spread-PERF

The object-NP *forara* is lexically incorporated into the verb and this is indicated by the change of meaning of the object-NP from specific to generic. It is also syntactically incorporated into the verb and this is indicated by the changes in grammatical function of the subject and object-NPs. The object-NP changes from absolutive to null and the subject-NP changes from ergative to absolutive. However, the incorporation is not phonological since *forara* does not form a single phonological unit with the verb. So the function of object incorporation in Sinauḡoro is to demote the object to null and to promote the ergative subject to absolutive, as illustrated in (20).

- 20) Object Incorporation:
 object (absolutive) → null
 subject (ergative) → subject (absolutive)

3.4. Object Incorporation and Causative Verbs

Sinauḡoro also has causative verbs. Causative is marked by *vaḡa* prefixed to the verb stem. Causative is another grammatical function changing device which demotes an absolutive subject to an absolutive object. This is illustrated by (21) and (22).

- 21) *ḡuru e keto-to*
 pot 3s.SU fall-PERF
 'The pot fell.'
- 22) *ḡuiato-na ḡuro e vaḡa-keto-a-to*
 girl-ERG pot 3s.SU CAUS-fall-3s.OB-PERF
 'The girl made the pot fall.'

In (22) an ergative subject-NP is also added to the clause so the causative function change is as illustrated in (23).

- 23) Causative:
 subject (absolutive) → object (absolutive)
 null → subject (ergative)

However, it is also the case that object incorporation can apply to causative verbs, as in (24) for example. As with object incorporation in a noncausative verb, object incorporation in a causative verb does not allow ergative marking on the subject, as in (24a).

- 24) *mai vavine kei-na karava e vaḡa-ḡara-to*
 this woman small-3s fire 3s.SU CAUS-burn-PERF
 'This small woman lit fire.'

- 24) a. **mai vavine kei-na-na karava e vaḡa-ḡara-to*
 this woman small-3s-ERG fire 3s.SU CAUS-burn-PERF

4. Reflexive Function

Sinauḡoro has reflexive pronouns which can have an emphatic function as well as a regular reflexive function. When the reflexive pronouns are used in their regular function the verb is also marked with the prefix *ve-*. An example is given in (25).

- 25) *ḡia tau-ḡe-na e ve-vaḡi-to*
 3s man-NEUT-3s 3s.SU REFL-kill-PERF
 ‘The man killed himself.’

The reflexive form is interesting in that the single argument NP has both A and P functions. However, it is not possible to mark this NP as ergative, as in (25a) for example. The function of ergative is to distinguish the A argument from the S/P arguments. However, it is not possible to do this with reflexive subjects. This again substantiates the argument that *-na* has an ergative function and not an agentive function.

- 25) a. **ḡia tau-ḡe-na-na e ve-vaḡi-to*
 3s man-NEUT-3s-ERG 3s.SU REFL-kill-PERF

On the other hand, when the reflexive pronoun is used to express emphasis in a transitive clause then ergativity is marked on this pronoun, as in (26) for example.

- 26) *au tau-ḡe-gu-na ḡe-gu bai b-a vaḡi-a*
 1s man-NEUT-1s-ERG NEUT-1s.POS pig R-1s kill-3s.OB
 ‘I killed my pig myself.’

5. Reciprocal Function

In Sinauḡoro a reciprocal action is also marked on the verb by the prefix *ve-*. An example is given in (27). As in the case of reflexive function it is not possible to mark ergativity on the subject of a reciprocal clause, as in (27a).

- 27) *tau e vavine be-ḡe ve-vaḡi*
 man and woman R-3p.SU RECIP-kill
 ‘The man and woman fought each other.’

- 27) a. **tau e vavine-na be-ḡe ve-vagī*
 man and woman-ERG R-3p.SU RECIP-kill

With respect to reciprocal function it is also the case that ergativity cannot be marked on the subject when there is an object. An example of this is given in (28) and (28a).

- 28) *tau e vavine bua be-ḡe ve-vini*
 man and woman betelnut R-3p.SU RECIP-give
 'The man and woman gave each other betelnuts.'

- 28) a. **tau e vavine-na bua be-ḡe ve-vini*
 man and woman-ERG betelnut R-3p.SU RECIP-give

This is probably due to the fact that the reciprocal subject is no longer a pure ergative case. Recall that in example (7) above it was noted that in a ditransitive clause the object agreement marked on the verb actually agrees with the recipient-NP or indirect object. This would indicate that in a ditransitive clause the recipient indirect object functions as the absolutive object and the direct object functions as the 'second' or oblique object. Thus in a reciprocal clause like (28) the subject-NP has both ergative and absolutive functions so it is not possible to mark it as uniquely ergative.

6. Ergative Possession

Finally, ergativity also has a function in possessive forms. Possession in Sinauḡoro can be either inalienable or alienable. The form that inalienable possession takes is that of a possessor NP, which is optional, followed by a possessee NP, which comprises a nominal + possessive suffix. The possessive suffix is almost identical with the object suffix on the verb. A comparison of the personal pronouns, object and possessive suffixes is given in table 1. The only difference between the object and possessive suffixes is in the third person singular form. For the object suffixes it is *-a*, or *-ia* if the verb stem ends in the vowel *a*, and for the possessive suffixes it is *-na*.

Table 1. Personal Pronouns, Object Suffixes and Possessive Suffixes

| | Personal pronouns | Object suffixes | Possessive suffixes |
|--------|----------------------|--------------------|------------------------|
| Sg. 1 | <i>au</i> | <i>-gu</i> | <i>-gu</i> |
| 2 | <i>ḡoi</i> | <i>-mu</i> | <i>-mu</i> |
| 3 | <i>ḡia</i> | <i>-a -ia</i> | <i>-na</i> |
| Pl. 1i | <i>ḡita</i> | <i>-ra</i> | <i>-ra</i> |
| 1e | <i>ḡai</i> | <i>-ma</i> | <i>-ma</i> |
| 2 | <i>ḡomi</i> | <i>-mi</i> | <i>-mi</i> |
| 3 | <i>ḡia</i> | <i>-ri</i> | <i>-ri</i> |

Some examples are given in (29-33) of inalienable possessed forms.

- 29) (*au*) *kwaku-gu*
1s leg-1s.POS
'my leg'
- 30) (*ḡoi*) *sina-mu*
2s mother-2s.POS
'your mother'
- 31) *ḡia tu Saroa vavine-na*
3s TOP Saroa woman-3s.POS
'She is a woman of Saroa.'
- 32) *boḡa bai-na*
bush pig-3s.POS
'bush pig'
- 33) *ḡau rega-na*
tree branch-3s.POS
'tree branch'

The form that alienable possession takes is similar to inalienable possession except that a noun classifier takes the place of the possessee noun and this noun then follows the possessee NP. There are two possession noun classifiers: *ḡe-* marks all inedible nouns and is termed the neutral classifier and *ḡa* marks all nouns that refer to items that can be consumed in the mouth, i.e. edible, drinkable, or smokable things. Some examples are given in (34-37).

- 34) (*au*) *ḡe-gu vanuḡa*
1s NEUT-1s.POS village
'my village'

- 35) (*g̃ia*) *g̃e-na bai*
 3s NEUT-3s.POS pig
 'his pig'
- 36) (*au*) *g̃a-gu bai*
 1s ED-1s.POS pig
 'my pig (to eat)'
- 37) (*g̃ia*) *g̃a-na laufa*
 3s ED-3s.POS cigarette
 'my cigarette (to smoke)'

There is also another form of possession that applies to alienably possessed forms and this is what might be termed ergative possession. In this form a personal pronoun, which refers to the possessor, is followed by the ergative marker *-na* and this precedes the possessed nominal. Some examples are given in (38-40).

- 38) *mai tu g̃oi-na bai?*
 this TOP 2s-ERG pig
 'Is this your pig?'
- 39) *au-na vamoka-i b-a gena*
 1s-ERG garden-in R-1s.SU sleep
 'I slept in my garden.'
- 40) *au-na motuka e rakava-to*
 1s-ERG car 3s.SU bad-PERF
 'My car got damaged.'

The structure of the ergative possessive forms is significantly different to the structure of the nonergative or absolutive possessive forms. In the absolutive possessive the possessive suffixes attach to the possessee and cross-refer by object agreement to the possessor-NP, which is in the absolutive case. This possessor-NP can be the NP itself or a possessive noun classifier substitute in the case of alienable possession. The absolutive possession is therefore a single argument predicate and equivalent to the *of mine, of yours, of his* constructions in English. In the ergative possessive, however, the ergative marker attaches to the possessor which functions as the subject of this possessive construction. The ergative possession is therefore a two-place predicate in which the ergative case has to be distinguished from the absolutive case and is equivalent to *my X, your X, his X* constructions in English. So the ergative possessive turns out to be another grammatical function changing device like object incorporation and causative, as illustrated by (41).

41) Ergative Possessive:

| | | |
|------------------------|---|------------------------|
| null | → | possessor (ergative) |
| possessee (absolutive) | → | possessee (absolutive) |

7. Conclusion

Prior descriptions of Sinauḡoro have not discussed the ergative-absolutive system in this language in any depth and by implication have suggested that the particle *-na* does not mark ergative case. In this article we have therefore demonstrated that in every instance that *-na* occurs it marks ergative case, i.e. its grammatical function is to distinguish the A argument from the P argument in two-place predicates. We have also shown that it does not occur in one-place predicates and therefore does not mark the agentivity of the subject as is the case in some languages with a split-ergative system.

We also examined the various syntactic and semantic contexts in which the ergative *-na* is not marked on certain subjects of transitive clauses. These contexts were: nonthird person subjects, topicalized subjects, object incorporation and reflexive and reciprocal subjects. For the nonthird person and topicalized subjects it was demonstrated that the ergative marking is optional in these cases. Since the function of the ergative marker is to distinguish the A argument from the S/P arguments and for these subjects there are other grammatical signals to indicate this then in these cases the ergative marker can be optionally omitted. For the cases of object incorporation it was argued that this is a grammatical function changing device whereby the object-NP becomes incorporated syntactically and lexically into the verb. This is indicated respectively by the deletion of object agreement on the verb and by the fact that the object-NP has generic reference. The verb therefore becomes a one-place predicate and so the subject-NP is no longer ergative case. In the cases where ergative is not marked in subjects with a reflexive or reciprocal function it was argued that these subject-NPs have both ergative and absolutive case role assignment. It is therefore not possible to distinguish the A argument from the S/P arguments so ergative cannot be uniquely marked on these subject-NPs.

Finally we discussed the ergative marking in possessed forms in Sinauḡoro. We demonstrated that there is a difference between absolutive possession, which is based on a one-place predicate analysis and marked by object agreement with the absolutive possessor subject-NP, and ergative possession, which is based on a two-place predicate analysis and marked by the ergative marker on the ergative possessor subject-NP.

Thus in every case we have demonstrated the consistency of the ergative-absolutive analysis for *-na* in Sinauḡoro even down to its function in possessive constructions. In fact, because of the prominent role the ergative-absolutive case distinction plays in such

grammatical function changing devices as object incorporation, causative and ergative possession this case distinction clearly forms the basis of the syntax in the language and the nominative-accusative verb agreement is the subsidiary pattern.

Bibliography

- Craig, Maragret. 1980. Aroma morphology. *Kivung* 12:111-75.
- Dixon, R. M. W. 1979. Ergativity. *Language* 55:59-138.
- Givón, T. 1984. *Syntax. A functional-typological introduction*. Vol I. Amsterdam: Benjamins.
- Kolia, J. A. 1975. A Balawaia grammar sketch and vocabulary. In *Studies in languages of central and south-east Papua*, ed. T. E. Dutton, 107-226. Pacific Linguistics C-29. Canberra: Australian National University.
- Lister-Turner, R. and J. B. Clark. n.d. *A grammar of the Motu language of Papua*. Second Edition, Percy Chatterton, ed. [ca 1954] Sydney: NSW Government Printer.
- Plank, Frans, ed. 1979. *Ergativity*. New York: Academic Press.
- Tauberschmidt, Gerhard and Hiltrud Tauberschmidt. 1991. Sinaugoro grammar essentials. ms: SIL, Ukarumpa, Papua New Guinea.
- Taylor, A. J. 1970. *Syntax and phonology of Motu (Papua): a transformational approach*. Ph.D. diss., Australian National University.

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