

Chapter 11

Conclusion

We started the current study on ergativity in Tongan by addressing two questions. Why does UG have to have ergative case marking? Why is the accusative pattern relatively more stable compared with the ergative pattern? We have studied the Tongan data in an attempt to provide an answer to these two questions. In this final chapter, we will summarise our findings.

11.1 Proposal

In analysing the Tongan data, we proposed the following hypothesis. First, based on the fact that ergativity is manifested also at the level of syntax, we argue that ERG is a structural case. Second, following Bobaljik (1993), we assume that the difference between ergative case marking and accusative case marking is fundamentally the choice of active Agr. If a language chooses Agr_s as the active Agr, it will have an accusative case marking. If Agr_o is selected, then, the language will show an ergative case marking. In other words, the difference can be reduced to the question of which case is assigned to S. We then propose the following modification of the standard feature-checking theory (Chomsky 1991, 1993). Instead of assuming that case features are intrinsic to T and V, we propose that they are intrinsic to Agr(s). Specifically, Agr_s

has the feature [T-case] and Agro, [V-case]. In addition, [Null] is considered to be intrinsic to [-tense] T. [+tense] T and V bears associated case features, [T-case] and [V-case], respectively. These features are checked when T and V adjoin to Agrs and Agro. NP's also have an associated case feature; however, their case features are unspecified [case]. Thus, in principle, a NP may check off its case feature in any Spec-position provided that it is the closest Spec-position in which case feature can be checked. The only exception is PRO, which has an associated case feature specified for [Null]. Assuming that case feature checking takes place in a Spec-head configuration, we propose that [T-case] is checked in [Spec, Agrs], [V-case] in [Spec, Agro], and [Null] in [Spec, TP]. Another essential assumption is that associate case features must be checked off for a derivation to converge. This in turn means that checking of intrinsic case features is not obligatory for convergence of a derivation.

Secondly, we propose that *ke*-clauses in Tongan are equivalent to the inflected infinitives in European Portuguese (Raposo 1987): they contain both [-tense] T and Agrs. Consequently, a NP in [Spec, Agrs] may receive [T-case] and PRO can check off its feature [Null] in [Spec, TP]. As a result, *ke*-clauses can have both PRO and overt NP's in the subject position. Note also that we assume that infinitives lack Agrs but contain TP headed by [-tense] T. Thirdly, with regard to pronouns, we propose that Tongan has a set of clitic pronouns that are generated in [Spec, VP] and are licensed by being assigned an external theta-role in the sense of Williams (1980, 1981). In short, we argue that clitics in Tongan are [+A] and [+C], requiring a theta-role as well as case. This analysis predicts that O cannot be realised as a clitic. Thus, we propose that the split concerning pronouns arises because the rule of cliticisation is

sensitive to theta-role. Finally, we argued that *pro* is permitted on the following two conditions: it is third person singular and b) its features are identifiable with those of a discourse antecedent. We thus propose that an overt pronoun is used in environments in which *pro* cannot occur. Our data have shown that the above hypotheses are borne out.

11.2 Findings

11.2.1 Morphological ergativity

Case marking in Tongan demonstrates an ergative pattern: S and O are marked by the absolutive case marker ‘*a*, while A is marked by the ergative case marker ‘*e*, as illustrated by (11.1) below.

(11.1) a. Na’e ‘alu ‘a Sione ki Tonga.
 Pst go ABS Sione to Tonga
 “Sione went to Tonga.”

 b. Na’e ‘ave ‘e Sione ‘a Mele ki Tonga.
 Pst take ERG Sione ABS Mele to Tonga
 “Sione took Mele to Tonga.”

The same pattern is found in subordinate clauses. What is intriguing is that non-finite *ke*-clauses show the same pattern as well. See (11.2) below.

(11.2) a. ‘Oku totonu [ke ‘alu ‘a Sione ki Tonga].
 Prs advisable that go ABS Sione to Tonga
 “Sione should go to Tonga.”

 b. ‘Oku totonu [ke ‘ave ‘e Sione ‘a Mele ki Tonga].
 Prs advisable that take ERG Sione ABS Mele to Tonga
 “Sione should take Mele to Tonga.”

In short, both ERG and ABS can be checked inside *ke*-clauses unlike English

to-infinitives in which only ACC but not NOM can be checked due to the lack to [+tense] T. *Ke*-clauses also permit PRO in the subject position, as illustrated by (11.3) below.

- (11.3) a. ‘Oku loto ‘a Sione [ke ‘alu PRO ki Tonga].
 Prs want ABS Sione to go to Tonga
 “Sione wants to go to Tonga.”
- b. ‘Oku loto ‘a Sione [ke ‘ave PRO ‘a Mele ki Tonga].
 Prs want ABS Sione to take ABS Mele to Tonga
 “Sione wants to take Mele to Tonga.”

Our hypothesis accounts for these data as follows. First, Tongan chooses Agro as the active Agr and therefore, S checks its case feature in [Spec, Agro]. As a result, S and O receives ABS and A receives ERG through case feature checking in [Spec, Agro] and [Spec, Agrs], respectively. Second, we assume that the feature [ERG] is intrinsic to Agrs, and not T, and that *ke*-clauses contains [–tense] T and Agrs. This correctly predicts that A can receive ERG in [Spec, Agrs] in *ke*-clauses. Third, in the current analysis, this [–tense] T in turn checks off the feature [Null]. Hence, PRO is also permitted in *ke*-clauses, for its case feature [Null] can be checked off in [Spec, Agrs].

One exception is pronominal arguments, which do not follow the ergative pattern. First, they are rarely accompanied by a case marker. Second, pronominal arguments appear adjacent to the verb: pronominal subjects immediately precede the verb and pronominal objects immediately follow the verb. See (11.4) below.

- (11.4) a. Na'a ne 'alu ki Tonga.
 Pst 3.s. go to Tonga
 ‘‘He went to Tonga.’’
- b. Na'a ne 'ave 'a Mele ki Tonga.
 Pst 3.s. take ABS Mele to Tonga
 ‘‘He took Mele to Tonga.’’
- c. Na'e 'ave ia 'e Sione ki Tonga.
 Pst take 3.s. ERG Sione to Tonga
 ‘‘Sione took her to Tonga.’’

As illustrated by (11.4) above, the third person singular pronoun appears in an identical form when it occurs as A and S, but it is realised in a special form if it is O. In other words, pronominal forms show an accusative pattern. We will return to this point in §11.2.3 below.

11.2.2 Syntactic ergativity

We observed that ERG-marked arguments are distinguished from ABS-marked arguments in the following respects: a) a resumptive pronoun is required in a position from which an ERG-marked argument has moved out, but it cannot appear in a position from which an ABS-marked argument has moved out; b) an NP in the matrix subject position of *totonu*-constructions can be coreferential only with an ABS-marked argument; c) an ABS-marked NP cannot be coreferential with an ERG-marked NP in *pea*-coordinate constructions; and d) ERG-marked NP's cannot occur as an antecedent in *'o*-coordinate constructions. Our hypothesis that ERG is checked in [Spec, Agrs] accounts for each of these phenomena.

First, with regard to relativisation, we propose that a trace of *wh*-movement in [Spec, Agrs] must be overtly realised as a resumptive pronoun. This resumptive pronoun

requirement in turn explains the ergative pattern demonstrated by *totonu*-constructions.

We assume that *totonu*-constructions such as (11.5) below are derived by operator-movement. As a result, *ke*-clause complements of *totonu* contain a trace.

(11.5) a. ‘Oku totonu ‘a Sione_i [OP_i [ke ‘alu t_i ki Tonga]].
Prs advisable ABS Sione to go to Tonga
“Sione should go to Tonga.”

b. *‘Oku totonu ‘a Sione_i [OP_i [ke ‘ave t_i ‘e Mele ki Tonga]].
Prs advisable ABS Sione to take ERG Mele to Tonga
“Sione should take Mele to Tonga.”

(11.5b) is ruled out due to the resumptive pronoun requirement because the *ke*-clause contains a trace in [Spec, Agrs].

Second, the restriction on *pea*-coordination is explained by postulating that the empty element is a type of *pro* that is licensed by feature identification, including the case feature. Thus, *pro* in [Spec, Agrs] cannot be coreferential with a NP in [Spec, Agro]. As for *‘o*-coordination, we propose that the empty element is a null anaphor that need be bound by an element outside the embedded clause and that binding observes relativised minimality (Rizzi 1990). ERG-marked NP’s cannot be a binder because they are in [Spec, Agrs] and an ABS-marked NP in [Spec, Agro] always intervenes.

11.2.3 Split: an accusative pattern

There are, however, some phenomena in which arguments are treated on an accusative basis. These include a) pronominal forms, b) *mo*-coordination, and c) distribution of PRO. As mentioned above, pronouns divide into two subgroups. One must appear in the position immediately preceding the verb and only S and A can be realised as a pronoun of this class. The other must appear in the position immediately following the

verb and pronouns of this class can occur only as O. In *mo*-coordinate constructions, O cannot occur either as a gap or as an antecedent. As for PRO, PRO is universally permitted only as S or A, but never as O. We propose that an apparent accusative pattern arises in these instances due to some factors independent of case. Specifically, an accusative pattern of pronominal forms and *mo*-coordination arises because the rules governing these phenomena are sensitive to theta-role rather than case. As for the distribution of PRO, an accusative pattern is ascribed to the feature [Null].

First, we propose that those pronouns occurring in the position left adjacent to the verb are actually clitics attached to T. These clitics are arguments that require both theta-role and case. They are generated in [Spec, VP] and are licensed by being assigned an external theta-role. Consequently, O cannot be realised as a clitic. To support this hypothesis, unaccusatives such as *kamata* (“to begin”) cannot have a clitic subject.¹ See (11.6) below.

(11.6) a. Na’e kamata ‘a e lea.
Pst begin ABS def speech
“The speech began.”

b. *Na’a ne kamata.
Pst 3.s. begin
“It began.”

Clitics are also excluded from the matrix subject position of *totonu*-constructions, for this position is not a theta-position.

(11.7) * ‘Oku ne_i totonu [OP_i [ke ‘alu t_i ki Tonga].
Prs 3.s. advisable to go to Tonga
“He should go to Tonga.”

On the other hand, those pronouns occurring in the position immediately following the

¹ However, as noted in Chapter 6, sentences like (11.6b) are ruled out also by an independent constraint, namely, that personal pronouns cannot refer to [–human] arguments.

verb must be O for the following reason. These pronouns are independent lexical items and thus can appear with a case marker. Furthermore, when accompanied by a case marker, they can occur as A/S as well as O. See (11.8) below.

(11.8) a. Na'e taa'i 'e he faiako 'a kinautolu.
 Pst hit ERG def teacher ABS 3.pl.
 "The teacher hit them."

b. Na'e 'alu 'a kinautolu.
 Pst go ABS 3.pl.
 "They went."

c. Na'e taa'i 'e kinautolu 'a e tamasi'i.
 Pst hit ERG 3.pl. ABS def boy
 "They hit the boy."

However, only O can appear in the position right-adjacent to the verb, as shown by (11.9) below.

(11.9) a. Na'e taa'i ia 'e he faiako.
 Pst hit 3.pl. ERG def teacher
 "The teacher hit them."

b. *Na'e 'alu kinautolu.
 Pst go 3.pl.
 "They went."

c. *Na'e taa'i ia 'a e tamasi'i.
 Pst hit 3.pl. ABS def boy
 "They hit the boy."

We propose that this is because sentences like (11.8a) are derived by incorporation of a pronoun into the verb in the sense of Baker (1988). Incorporation of a NP in [Spec, VP] into V is impossible. Therefore, A and S cannot appear as a pronoun in this position. In short, an accusative pattern arises due to two factors: a) a clitic must be assigned an external theta-role and b) incorporation of the internal argument is possible but that of the external argument is not permissible. These rules apply at the base structure before any movement takes place. In addition, these pronouns (both

clitic and independent) bear case. Consider (11.10) below.

- (11.10) a. Na'a ne_i teke'i 'a Mele_j pea e_{i*j} too.
 Pst 3.s. push ABS Mele and fall
 "He pushed Mele and (she/*he) fell."
 b. Na'a ne_i tangi pea taa'i e_i 'e Hina.
 Pst 3.s. cry and hit ERG Hina
 "He cried and Hina hit (him)."

(11.10) shows that *ne* bear ERG in (11.10a) and ABS in (11.10b), for *pea*-coordination is permissible between two arguments of the same case. We propose that a clitic checks its case in [Spec, Agro] if it is S, or by adjoining to Agrs with its host T after cliticisation if it is A. Similarly, the incorporated pronoun checks its case feature when the verb adjoins to Agro.

Second, an accusative pattern of *mo*-coordination is ascribed to the obligatory theta-identification in the sense of Higginbotham (1985). *Mo* requires the external theta-role of the two verbs to be identified. As a result, the two verbs conjoined by *mo* necessarily have a coreferential subject. This rule also applies at the base structure before case feature checking takes place. Thus, the accusative pattern arises not because *mo* connects two arguments of the same case, say, NOM, but because *mo* connects two arguments that have the same theta-role.

Finally, distribution of PRO is accounted for by our proposal that [Null] is checked in [Spec, TP]. This explains why PRO can check its case feature [Null] in intransitive constructions despite the assumption that non-finite clauses lack Agrs in ergative languages. As to why PRO cannot appear in the object position, we may give the following account. In a transitive construction, a NP in [Spec, VP] moves to [Spec,

Agrs] in order to have its case feature checked off. In doing so, it has to stop by at [Spec, TP] because of the Shortest Move condition. As a result, [Spec, TP] is not available for O, which in turn has to first move into [Spec, Agro] for the same reason. Consequently, PRO would fail to check its feature [Null] if it were generated in [V, NP] as O. Hence, PRO cannot occur as O.

11.2.4 Voice

In the current approach, passive and ergative case marking are expected to be mutually exclusive. We assume that following Roberts (1987) and Baker et al. (1989), passive is essentially theta-role assignment to a passive morpheme. The passive morpheme, being an argument, bears a case feature, which we assumed to be checked off by adjoining to Agro when its host V does so. As a result, the remaining argument (i.e., the internal argument) will move to [Spec, Agrs] to check its case feature. This predicts that passive constructions in ergative languages have only one overt NP that bears an internal theta-role and ERG case. However, such a construction is not found in any ergative language. Thus, we propose that what is called passive in ergative languages involves theta-role absorption in the lexicon instead of theta-role assignment in the syntax.

In Tongan, there are five constructions that are said to have a passive meaning: lexical passive, agentless transitive, VOS construction, *ma*-verbs and *-Cia* verbs. We showed that the agentless transitive contains *pro* in the subject position and therefore, is virtually transitive. VOS constructions are derived by scrambling and not by passivisation as defined above. In both cases, the internal argument appears in ABS,

not ERG. This denies the possibility that these constructions involve syntactic passivisation. Similarly, *ma*-verbs and *-Cia* verbs fail to qualify as syntactic passive verbs, for the sole argument appears in ABS. Thus, we argued that affixation of *ma*- and *-Cia* takes place in the lexicon and not in the syntax. The prefix *ma*- derives a stative verb and in most cases refers to a resultative state such as *spilt* and *broken*. Moreover, a state described by a *ma*-verb is interpreted as accidental. The agent is completely suppressed. This supports our hypothesis that affixation of *ma*- is a lexical operation involving theta-role absorption. As for *-Cia*, we propose that the suffix *-Cia* is associated with the feature [+affected]. This feature induces the passive meaning of *-Cia* verbs.

On the other hand, ergative languages often have antipassive as a means to overcome restriction of syntactic ergativity. We propose that antipassive exists for this syntactic necessity. Antipassive turns an underlying A into a derived S and an underlying O into an oblique argument. The middle construction in Tongan resembles the antipassive in other languages in that the subject appears in ABS and the object in oblique, as illustrated by (11.11) below.

- (11.11) ‘Oku sai’ia ‘a Sione ‘ia Mele.
 Prs like ABS Sione in-person Mele
 “Sione likes Mele.”

However, we observed that the Tongan middle differs from the antipassive in the following three respects. First, middle verbs are morphologically less complex than the corresponding transitive verbs, which invariably contain the suffix *-i*. This goes against the general assumption that an antipassive involves affixation of an antipassive morpheme. Second, the process of antipassivisation is not productive: a transitive verb

does not necessarily have a corresponding middle construction. Third, middle verbs differ from the corresponding transitive verbs in terms of semantics: the middle object is less directly affected by the direct object of a transitive verb. For these reasons, we conclude that the middle is not an instance of antipassive. Given that Tongan uses the resumptive pronoun strategy to overcome the restriction of syntactic ergativity, the Tongan data conform to our hypothesis that antipassive arises when there is some syntactic demand for such a construction.

11.3 Conclusion

The findings summarised above answer the two questions addressed in the beginning of this thesis. Why does UG have two types of case marking? And, why is the accusative system relatively more stable than the ergative system? Our answer to the first question is that UG has a parameter that determines the choice of active Agr. The choice is arbitrary. If Agr_s is selected, the language will have an accusative case marking. If Agr_o is chosen, the language will show an ergative case marking. Our analysis assumes that a) case features are intrinsic to Agr's instead of T and V; b) [Null] is intrinsic to [-tense] T; and c) associated case features, [T-case] of T, [V-case] of V, [case] of NP's and [Null] of PRO must be checked off for a derivation to converge. Our proposal provides a simple and coherent account of various syntactic phenomena related to case.

First, the fact that PRO can only be A or S cross-linguistically cannot be predicted by

the standard Null case hypothesis or by the active Agr hypothesis proposed by Bobaljik (1993). If we assume that [Null] is checked in [Spec, Agrs], PRO should not be permitted in intransitive constructions in an ergative language. It would be necessary to postulate either that [Null] is intrinsic to both [-tense] T and V or that PRO activates Agrs. However, both of these hypotheses are problematic. The former allows a single feature to be intrinsic to two elements. The latter allows a NP to determine which Agr to be active, whereby the parametric nature of the active Agr hypothesis will be lost. Besides, if we allow V to have the feature [Null], we would not be able to exclude PRO (O). By assuming that [T-case] (ERG/NOM) and [V-case] (ABS/ACC) are intrinsic to Agrs and Agro, respectively and [Null] to [-tense] T, we establish one-to-one relations between case and structural positions: [T-case] is checked in [Spec, Agrs], [V-case] in [Spec, Agro] and [Null] in [Spec, TP]. This hypothesis is advantageous also in that case feature is checked in the Spec-position of the phrase whose head has an intrinsic case feature. Thus, it is not necessary to stipulate that the case feature of [+tense] T is checked in [Spec, Agrs], but that of [-tense] T in [Spec, TP]. Second, our analysis explains why both PRO and overt NP's are permitted in the subject position of *ke*-clauses. Assuming that *ke*-clauses contain both [-tense] T and Agrs, it is possible for both PRO and overt NP's to check its case feature: PRO in [Spec, TP] and overt NP's in [Spec, Agrs]. This in turn means that we assume that infinitives such as English *to*-infinitives has [-tense] T but lack Agrs.

The second question, regarding the relative stability of the accusative pattern, can be answered in terms of theta-role. We have shown that accusative patterns found in Tongan are due to the fact that the relevant rules are sensitive to theta-role. Three

argument types, S, A and O are divided into two subgroups according to the theta-role they bear.² See (11.12) below.

(11.12)	A	NOM	ERG	external theta-role
	S	NOM	ABS	external theta-role
	O	ACC	ABS	internal theta-role

As illustrated above, the accusative case marking shows a pattern similar to the way the theta-role assignment distinguishes arguments. We assume that syntactic rules are sensitive to either structural position or theta-role. In an accusative language, rules of both types distinguish A and S from O. In contrast, in an ergative language, those rules sensitive to structural positions distinguish A from S and O, while those sensitive to theta-role distinguish O from A and S. In other words, it is not that accusative case marking itself is stable compared to ergative case marking. Rather, the accusative case marking appears to be consistent simply because it shows a configuration similar to the contrast between the external theta-role and the internal theta-role.

To conclude, the current study shows that a) ergative case marking derives from a UG parameter concerning the choice of active Agr and that b) the apparent stability of accusative case marking is ascribed to the fact that it coincides with the pattern exhibited by the contrast between the internal argument and the external argument.

11.4 Open questions

Finally, let us summarise the issues we leave open to future research. First problem

² Here we exclude S of unaccusatives, which bear the internal theta-role.

concerns morphological split. We have argued that an accusative pattern arises in ergative languages when a syntactic rule is sensitive to theta-role. Although our hypothesis gives a satisfactory account with regard to Tongan, some cases found in other languages are not as straightforward. In some languages, e.g., Dyirbal, first and second person pronouns show an accusative pattern while third person pronouns show an ergative pattern. A split of this type cannot be explained by simply postulating that the accusative pattern reflects theta-roles. In addition, splits found between the perfective and the imperfective and those concerning the difference between subordinate clauses and main clauses were not included in our discussion. These cases also need be considered to justify our claim that ergative case marking is a syntactic phenomenon caused by a UG parameter.

Second, we observed that an ergative pattern demonstrated in coordinate constructions involving *pea* and 'o in Tongan could occasionally be violated if the semantics requires such an exception. This fact is quite problematic, for semantics generally does not override syntactic rules. It is necessary to inquire why such an exception is permitted in Tongan. Thirdly, as mentioned in Chapter 7, constructions similar to the Tongan *totonu*-construction are found in several other languages including Haitian Creole (Déprez 1992) and Modern Greek (Rivero 1986). Given that analyses of such construction proposed in the literature cannot account for the Tongan data, it would be worth investigating whether the analysis proposed in the current study is applicable to the so-called copy raising as well.

One of the findings of the current study is that the distribution of PRO shows an

ergative pattern in Tongan when the controller is a pronominal argument: PRO can occur as A, but not as S or O. However, it is not clear what gives rise to this curious phenomenon. It may be attributed to the properties of pronouns. A more detailed investigation is called for. Another challenge to the current approach is some peculiar properties of PRO found in other languages. First, PRO appears to bear case other than Null in Icelandic *að*-clauses and Russian. The current analysis cannot provide a satisfactory explanation of these cases. Moreover, in Icelandic *að*-clauses verbs do not agree with PRO. This is puzzling given that quantifiers and passive participles show agreement with PRO and that *að*-clauses contain Agrs according to our hypothesis. PRO in Icelandic is even more problematic in that it apparently can bear an inherent case as well. This undermines the general assumption that the case feature of PRO is [Null], and not an unspecified [case]. Finally, Malagasy *fa*-clauses also pose a problem. In Chapter 10, we propose that *fa*-clauses are [+tense] and that the empty subject that is generally considered PRO is actually a trace of an empty operator. This operator movement analysis seems to account for the facts that a) *fa*-clauses permit both null element and overt NP's in the subject position and that b) the null element cannot occur in the object position. Nevertheless, it is necessary to look into more data in order to support this hypothesis.

Thus, the hypothesis proposed in the current study faces some problems such as those mentioned above. However, these problems, if they can be solved in the approach proposed in this thesis, will provide further support to the current approach. We conclude the current study leaving these questions open to future research.