

## Chapter 4

### **Case Theory in Generative Grammar**

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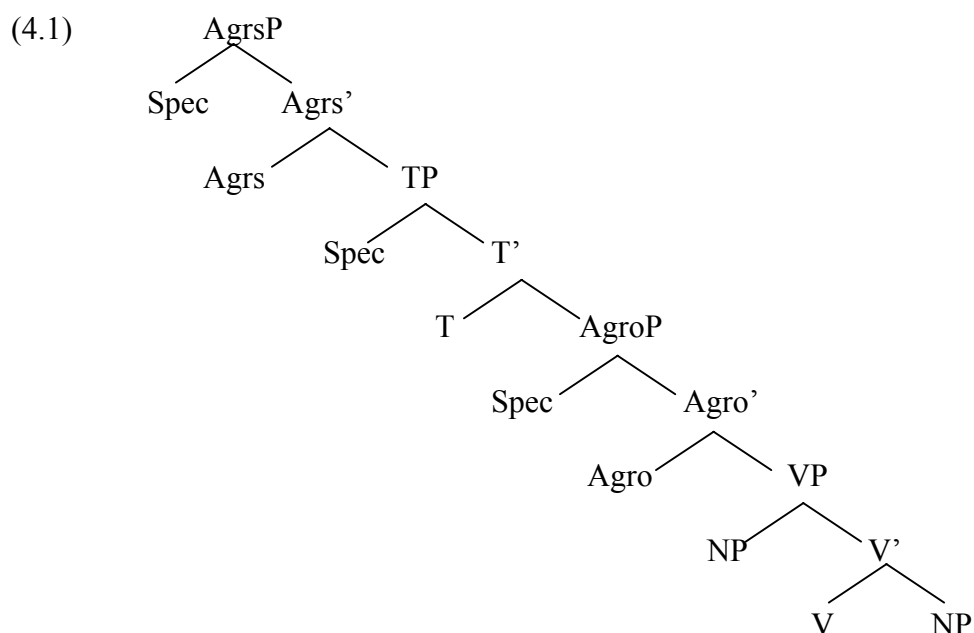
The previous two chapters have presented a number of issues to be discussed concerning ergativity in general and its manifestation in the Tongan syntax. In this chapter, we will study various approaches to ergativity hitherto proposed in the literature and put forth an alternative analysis. In §4.1, we will review the standard case theory proposed by Chomsky (1991, 1993). The essence of the standard theory is that case is assigned by means of feature checking in a Spec-head configuration. In §4.2, some exceptional cases and how they are treated in the standard theory will be discussed. Noting that the feature checking mechanism of the standard theory fails to account for ergative case marking, we will review various approaches to ergative case marking in §4.3. These include the unaccusative analysis, the inherent case analysis (Woolford 1996), the dependent case analysis (Mahajan 1996, to appear), the KP approach (Bittner and Hale 1996a,b) and the active Agr approach (Bobaljik 1993). It will be shown that the active Agr approach is most promising in that it postulates a single parameter to account for the difference between accusative case marking and ergative case marking. Thus, our analysis of ergative case marking is based on the active Agr approach. In §4.4, we will propose an alternative analysis. Following Chomsky (1991, 1993), we assume that case assignment is in fact case feature checking. We also assume, with Bobaljik (1993), that the ergative-accusative

dichotomy arises due to the active Agr parameter. However, our analysis differs from the standard account in the following respects: a) case features are considered to be intrinsic to Agr, and not T and V; b) Null case feature is checked in [Spec, T], and not in [Spec, Agrs]. It will be shown that these modifications solve the problems with which other approaches are confronted. We will also consider how ergative case marking can be accounted for in the minimalist approach proposed by Chomsky (1995) and argue why our analysis is preferred.

#### **4.1 Standard theory of case**

In generative grammar, case is considered to be a phenomenon of language that is not reducible to some smaller, more fundamental notions. Case is often visible in the form of case morphology, e.g., inflection and particles. However, an essential assumption is that abstract case exists without overt morphology. Thus, when we mention case, we are referring to abstract case and not case morphology. Another important assumption is that an overt NP must have abstract case. This principle is known as Case Filter (Chomsky 1981). Abstract case is either structural or inherent. Structural case has some connection with structural positions and inherent case is associated with theta-roles (Chomsky 1981).

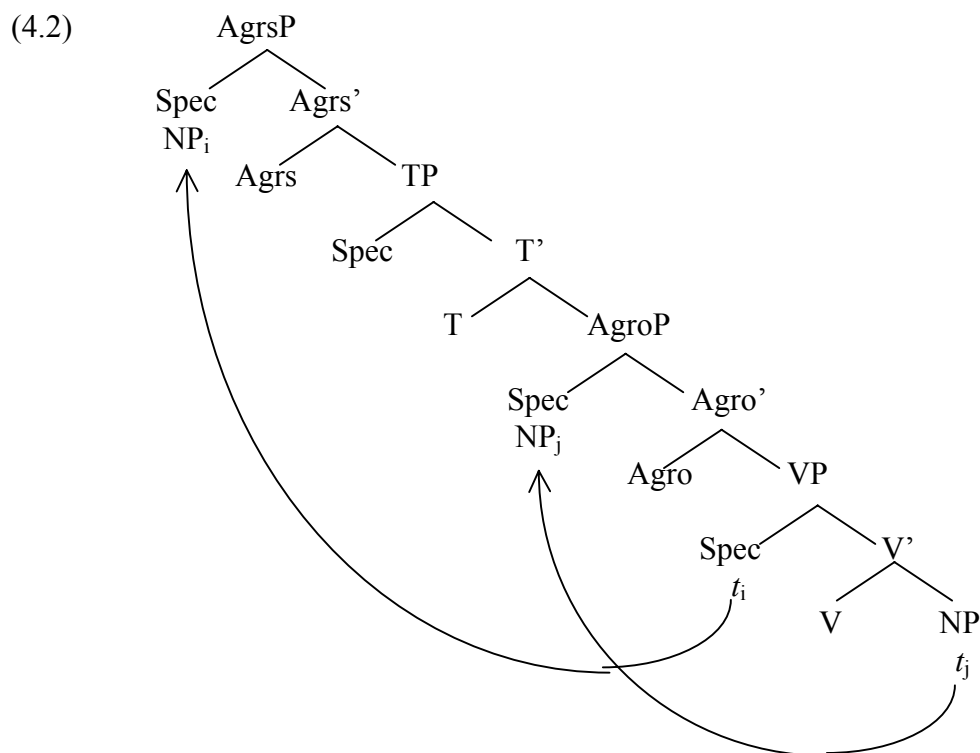
Structural case is considered to be the manifestation of Spec-head relation, specifically, that of Agr node(s) (Chomsky 1993).<sup>1</sup> In this approach, case assignment is accounted for in terms of feature checking. In the standard theory, it is assumed that each constituent bears a set of features and that these features must be checked (and thereby deleted) in the course of derivation in order to yield a grammatical sequence. Following Pollock (1989) and Chomsky (1993), we assume the base structure (4.1) below. IP consists of three functional categories, T(ense) and two Agr(eement)'s. We will also assume that the subject is base-generated in [Spec, VP].



Chomsky (1993) assumes that T and V have intrinsic case feature, [NOM] and [ACC], respectively. On the other hand, a NP bears an associate case feature. Case is assigned to a NP if its case feature is checked off. Case feature is checked off in a Spec-head configuration. If the head is T, a NP in Spec will receive NOM. If the head is V, ACC

<sup>1</sup> Note that Chomsky (1995) proposes that relevant nodes are T and V, not Agr. We will return to this point shortly.

will be assigned. On the other hand, if a NP fails to have its case feature checked, the Case Filter will be violated. As a result, the derivation will crash. Thus, NP's in (4.1) above need to move to some Spec position in order to have their case feature checked. Note that Agr itself does not have a case feature. A case feature becomes available in Agr when T (or V) adjoins to it. Subsequently, the NP originated in [V, NP] moves up to [Spec, Agro] and the NP originated in [Spec, VP] moves up to [Spec, Agrs], as illustrated by (4.2) below. In this configuration, both NP's successfully check their case feature.



Finally, another fundamental assumption should be noted: T of an infinitival clause does not have the case feature [NOM].<sup>2</sup> This condition predicts that infinitival clauses cannot have an overt subject, as illustrated by (4.3a) below.

- (4.3) a. \*It is important [John to attend the meeting].  
b. It is important [PRO to attend the meeting].  
c. It is important [for John to attend the meeting].

The infinitive may have a null subject PRO as shown by (4.3.b). Alternatively, an overt NP is licensed by *for*, as illustrated by (4.3c). In (4.3c), the NP may check its case feature in [Spec, CP] by the complementiser *for*.

## 4.2 Some exceptional cases

In this section, we will consider some special cases that do not fit the regular case feature checking model depicted above. These include unaccusatives, Exceptional Case Marking (ECM), small clause, and PRO.

### 4.2.1 Unaccusative

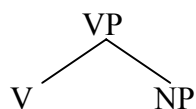
Perlmutter (1978) points out that there is a special subgroup of intransitive verbs called *unaccusative*. Just like other intransitive verbs (henceforth called *unergative*), unaccusative verbs take only one argument. However, the sole argument of an

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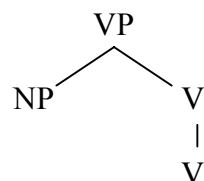
<sup>2</sup> We assume that what the infinitives lack is [+ tense] feature and not T itself. Specifically, we assume that T of an infinitive is a kind of tense anaphora.

unaccusative verb is generated in [V, NP]. In contrast, the sole argument of an unergative verb is generated in [Spec, VP]. See (4.4) below.

(4.4) a. Unaccusative



b. Unergative<sup>3</sup>



Following Williams (1980, 1981), we refer to NP in [Spec, VP] as external argument and the one in [V, NP] as internal argument.

Evidence for the phrase structure (4.4a) is found in Italian. In Italian, *ne*-cliticisation is possible only for an internal argument (Belletti and Rizzi 1981). See (4.5) below.

(4.5b) is ungrammatical because *tre (settimane)* is an external argument. In contrast, (4.5d) is grammatical because *tre (settimane)* is an internal argument.

(4.5) Italian (Belletti and Rizzi 1981: 119)

- a. Tre settimane passano rapidamente.  
 three weeks elapse rapidly
- b. \*Tre ne-passano rapidamente.  
 three of-them elapse rapidly

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<sup>3</sup> Alternatively, following Hale and Keyser (1993), we may assume that unergative verbs are covertly transitive: specifically, we may assume that there is an abstract NP in [V, NP]. Note that the bare phrase structure (Chomsky 1995) fails to distinguish unaccusative from unergative if we are to assume that they both take only one argument. In the bare phrase structure approach, a phrase structure is defined as follows: a) if constituents  $\alpha$ ,  $\beta$  of K have been formed in the course of computation, one of the two must project (say,  $\alpha$ ) and b) at LF, maximal K is interpreted as a phrase of the type  $\alpha$  (Chomsky 1995:245). According to this definition, an intransitive verb and NP constitute a phrase, namely, VP (verbal projection). However, crucially, this definition cannot specify whether the NP is a complement (i.e., the internal argument) or a specifier (i.e., the external argument). Thus, Chomsky (1995) adopts the proposal of Hale and Keyser and assumes that the unergative is transitive.

(4.5) c. Gianni trascorrerà tre settimane a Milano.  
Gianni will-spend three weeks in Milano

d. Gianni        ne-trascorrerà tre a Milano.  
Gianni of-them will-spend three in Milano

One would imagine that *ne*-cliticisation is prohibited in intransitive sentences. However, this is not a correct prediction. Some intransitive verbs that take *essere* as the auxiliary allow *ne*-cliticisation with the inverted subject although those that take *avere* do not. Consider (4.6) below.

(4.6) Italian (Belletti and Rizzi 1981: 133)

a. Sono passate tre settimane.  
are elapsed three weeks  
“Three weeks elapsed”

b. Ne sono passate tre.  
of-them are elapsed three

c. Hanno parlato tre ragazze  
have spoken three girls  
“Three girls spoke”

d. \*Ne hanno parlato tre.  
of-them have spoken three

Based on this observation, Burzio (1986) argues that those intransitive verbs taking *essere* form a special subclass, namely, the unaccusative, whose subject is base-generated as an internal argument.<sup>4,5</sup>

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<sup>4</sup> To be accurate, Burzio (1986) refers to this subclass as “ergative”. However, we adopt the name “unaccusative” in order to distinguish this particular class of intransitive verbs from other instances of ergative case marking.

<sup>5</sup> Belletti and Rizzi (1981) propose that difference between the *essere*-type verbs and the *avere*-type verbs is the position to which the subject moves by the operation of subject inversion. The inverted subject of an *essere*-type verb substitutes the position [V, NP], while that of an *avere*-type verb adjoins to VP like an adverbial phrase. The trace of *ne* is governed by the antecedent in the former structure, whereas it cannot in the latter.

In the framework outlined above, a NP generated in [V, NP] moves to Agro and checks its case feature. As a result, an internal argument receives ACC. This theory predicts that the sole argument of an unaccusative verb receives ACC. However, the internal argument of an unaccusative verb has NOM. Facing this problem, Burzio (1986) proposes that a verb that fails to assign an external theta-role is incapable of assigning case. Put differently, a verb that does not assign an external theta-role does not have a case feature. Consequently, a NP in [V, NP] in the structure (4.4) above cannot check its case feature in [Spec, Agro]. Therefore, it moves further up to [Spec, Agrs], where it can its case feature checked by T and receive NOM.

#### 4.2.2 Raising

Raising verbs in English such as *seem* are also unaccusative in that they do not assign an external theta-role nor have the case feature [ACC]. Since raising verbs do not assign an external theta-role, they may have an expletive subject as illustrated by (4.7) below.

(4.7) It seems [that John is happy].

Note that raising verbs do not take a NP complement: they subcategorise for a CP complement. Thus,

(4.8) \*It seems John.

The complement of a raising verb can also be infinitival. As mentioned above, the subject of the infinitive cannot check its case feature. Thus, (4.9a) is ruled out. Besides, *for*-insertion is not a possible option in this case, as illustrated by (4.9b).<sup>6</sup>

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<sup>6</sup> This in turn suggests that the infinitive complement of a raising verb lacks C. Stowell (1982) also argues that the complement of a raising verb is IP rather than CP.

(4.9) a. \*It seems [John to be happy]

b. \*It seems [for John to be happy]

Consequently, the subject NP raises to the matrix [Spec, Agrs] to check its case feature. As a result, we have (4.10) below.

(4.10) John<sub>i</sub> seems [<sub>t<sub>i</sub></sub> to be happy].

This type of raising is permissible only if it is necessary for case feature checking.

Therefore, raising out of *that*-clause is forbidden as illustrated by (4.11) below.

(4.11) \* John<sub>i</sub> seems [that <sub>t<sub>i</sub></sub> is happy]

In other words, a NP cannot move once it has checked its case feature.

#### 4.2.3 Exceptional Case Marking (ECM)

The internal argument of an unaccusative verb cannot check its case feature in [Spec, Agro] and therefore moves up to [Spec, Agrs] in order to satisfy the Case Filter. As a result, the internal argument receives NOM instead of ACC. In contrast, in what is called ECM construction, the external argument of a verb receives ACC. See (4.12) below.

(4.12) a. \*I consider [he to be intelligent].

b. \*I consider [for him to be intelligent].

c. I consider [him to be intelligent].

(4.12a) is ruled out because the subject of an infinitive fails to check its case feature.

(4.12b) shows that *for*-insertion is not possible in this case.<sup>7</sup> (4.12c) is an ECM construction: the subject of an infinitive bears ACC. The question is how does this NP check its case feature? Chomsky (1993) argues that the subject NP of the infinitival

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<sup>7</sup> This in turn indicates that the embedded clause of an ECM construction also lacks C. This conforms to the proposal of Stowell (1982) that NP-movement cannot cross a CP boundary.

clause moves to the closest Agr available, namely, [Spec, Agro] of the matrix clause.

In this position, it successfully checks off its case feature by the matrix verb and thereby receives ACC.

(4.13) I consider him<sub>i</sub> [ t<sub>i</sub> to be intelligent].

#### 4.2.4 Small clause

There is another instance in which the external argument appears in ACC rather than NOM. See (4.14) below.

(4.14) a. I saw [him run].  
 b. \*I saw [he run].

In (4.14), the pronominal argument receives an external theta-role from the verb. However, it bears ACC, not NOM. This clause minimally consisting of an argument and a bare verb is called small clause, and is assumed to lack not only C but also T.<sup>8</sup> It is assumed that the NP receives an external theta-role from the verb by way of predication in the sense of Williams (1980).

(4.15) I saw [<sub>SC</sub> him [<sub>Pred</sub> run]

Since small clauses lack T, the external argument cannot have its case feature checked inside the clause. Therefore, it moves out of the embedded clause to [Spec, Agro] of the higher clause in order to check off its case feature.

(4.15) I saw him<sub>i</sub> [<sub>SC</sub> t<sub>i</sub> [<sub>Pred</sub> run]

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<sup>8</sup> Note that small clauses contain Agr. In French, for example, the predicate of a small clause shows agreement with the subject.

(i) a. Je considère le garçon intelligent.  
 I consider the boy intelligent-m.s.  
 b. Je considère la fille intelligente.  
 I consider the girl intelligent-f.s.

## 4.2.5 PRO and Null case

As noted earlier, one of the fundamental assumptions in this approach is that the infinitival clause cannot have an overt NP in the subject position. Hence, in raising constructions and ECM constructions, the subject NP raises to a closest higher [Spec, Agr] position. Due to this movement, the infinitival clause in these constructions contains an empty category, specifically a NP-trace. Infinitives permit another type of empty category in the subject position, namely, PRO. See (4.3b), repeated below as (4.16).

(4.16) It is important [PRO to attend the meeting].

Sentences like (4.16) suggest that PRO need not check off its case feature by T. This means either that PRO does not have a case feature or that PRO bears a special case feature that can be checked inside the infinitival clause. The current approach takes the latter view and assumes that PRO bears Null case (Chomsky and Lasnik 1993). In the standard approach, it is also assumed that the Null case feature is checked in [Spec, IP] of the minimal I, which lacks both T and Agrs.<sup>9</sup> Importantly, tensed T cannot check Null case feature. This explains why PRO cannot appear in a tensed clause, as illustrated by (4.17) below.

(4.17) \*I expect [that PRO will attend the meeting].

In short, we assume three types of structural case feature: [NOM], [ACC] and [Null], associated with tensed T, V, and infinite T, respectively.

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<sup>9</sup> Bobaljik (1993) interprets this as follows: Agrs is defective in the [-T] environment. In this view, infinitival clauses lack T but contain Agrs.

### 4.3 Ergative case

The standard theory described above faces a difficulty when ergative case marking enters the scene. In ergative languages, S and O receive the same case ABS and A receives a distinctive case ERG. In other words, the contrast is not between the external argument and the internal argument. See (4.18) below.

(4.18)	<u>Ergative</u>	<u>Accusative</u>	
	ERG	A	}
	ABS	S	}
		O	}
			NOM
			ACC

Thus, in an ergative case system, the external subject of an intransitive verb seems to check its case feature by V, rather than T as expected by the standard theory. However, if that is the case, why is it so? And what about the case feature of T? In this section, we will review some analyses hitherto proposed.

#### 4.3.1 Unaccusative analysis

One approach is to assume that ABS-marked S is not an external argument but an internal argument (Levin 1983b, Laka 1993). In this view, intransitive verbs in an ergative language are all unaccusative. Consequently, S undergoes the same movement as O: raising to [Spec, Agro] to check off its case feature by V. As a result, S and O receive the same case. This analysis essentially assumes that unaccusative verbs in ergative languages bear a case feature, contradicting Burzio's generalisation.

This analysis works neatly for Basque, in which the subject of an unergative verb appears in ERG. However, not all ergative languages distinguish unaccusatives and unergatives in a similar fashion. In such a case, S of an unergative verb checks its case feature in [Spec, Agro] in spite of the fact that it is assigned an external theta-role.

Some propose that S/O is generated in [Spec, VP] and A in [V, NP] (Plank 1979, Marantz 1984, Levin 1987). Consequently, S/O checks its case feature in [Spec, Agrs], while A checks its case feature in [Spec, Agro]. S and O are internal arguments in that the verb assigns an internal theta-role to them. Similarly, it is assumed that the verb assigns an external theta-role to A. In other words, it is assumed that the verb assigns the Agent theta-role to the internal argument and the Patient theta-role to the external argument. In this approach, ergative case marking arises not because the internal argument checks its case by T and the external argument checks its case by V, but because A is generated as the internal argument and O, as the external argument. ABS is regarded as an alias for NOM. The weakness of this analysis is that it assumes that theta-role assignment is parameterised in such a way that the thematic hierarchy proposed by Jackendoff (1972) is reversed in ergative languages.

### 4.3.2 Inherent case analysis

Another approach is to assume that ERG is an inherent, rather than a structural, case (cf. Woolford 1996, Johns 1992). In this view, all the transitive verbs in an ergative language subcategorise for the lexically ERG-marked subject in the same way as some verbs subcategorise for the quirky case marked subject in Icelandic (cf. Sigurdsson

1991, Zaenen et al. 1985). Woolford (1996) proposes that ERG is an inherent case assigned by the verb in association with the agent theta-role. Woolford observes that ERG subjects behave like DAT subjects in the following respects: a) they are not permitted in intransitive constructions and b) they typically occur with NOM (ABS) objects and not with ACC objects. Woolford argues that similarity between ERG and DAT suggests that ERG is an inherent case just like DAT. Simply put, in this view, transitive verbs in the ergative languages require their subject to be inherently case marked with ERG.<sup>10,11</sup> The weakness of the inherent case analysis is that ERG is not necessarily associated with the agent theta-role: e.g., in Tongan, *'ofa'i* (“to love”) takes an ERG-marked subject while *kai* (“to eat”) takes an ABS-marked subject in an unergative construction. Furthermore, it fails to account for syntactic ergativity. The fact that some languages show an ergative pattern with regard to some syntactic operations suggests that ERG is somehow related to a particular structural position.

#### 4.3.3 Dependent case analysis

Mahajan (1997, to appear) proposes that ERG is not only lexical but also dependent in the sense of Marantz (1991). Dependent case is assigned to the subject of a transitive in case the verb is not a structural case-marker. Specifically, if the verb fails to assign

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<sup>10</sup> Note that Woolford’s (1996) argument is originally motivated to account for the three-way case marking system, which is found in languages such as Nez Perce and Kalkatungu. In the three-way system, S is marked with NOM, A with ERG and O with ACC. Woolford argues that this system is in fact four-way rather than three-way, with two structural cases available for O, accusative (ACC) and objective (OBJ). It is further argued that a lexically cased subject cannot co-occur with an ACC object and that ACC in these languages is not morphologically overt. Hence, the possible patterns are NOM (intransitive), ERG-OBJ and NOM-ACC.

<sup>11</sup> Johns (1992) also proposes that ERG in Inuktitut is an inherent case, specifically, GEN. Johns argues that in Inuktitut a verb cannot project a VP. Therefore, transitive constructions are formed as relative clauses. For example, Inuktitut translation of the sentence “The man stabbed the bear” is “The bear is the man’s stabbed one”. The subject of a transitive verb appears in GEN and not ERG.

ACC to the internal argument, the external argument receives a dependent lexical case ERG.<sup>12</sup> Mahajan attempts to provide a parametric account for ergative case marking associated with the perfective. In this approach, it is assumed that the external argument of a transitive verb is universally generated as PP in past/perfect tense. In accusative languages such as English and French, P head of the subject PP is incorporated into the auxiliary. This P-incorporation makes ACC available for the internal argument. In other words, the incorporated P provides a case feature [ACC].<sup>13</sup> As a result, the internal argument receives ACC. The external argument receives NOM through case feature checking in [Spec, Agrs]. In contrast, in Hindi, P-incorporation is structurally impossible because the auxiliary is not adjacent to the external argument. Therefore, the external argument remains a PP and ACC is not available. Consequently, a dependent case ERG is assigned to the external argument. Meanwhile, the internal argument moves to [Spec, Agrs] to receive NOM.<sup>14</sup> To summarise, in this approach, difference between ergative case marking and accusative case marking is reduced to a parameter whether or not P-incorporation is possible. However, this analysis cannot explain how ERG arises in the imperfective. Many languages show ergative case marking not only with the perfective, but also with the imperfective.

#### 4.3.4 KP analysis

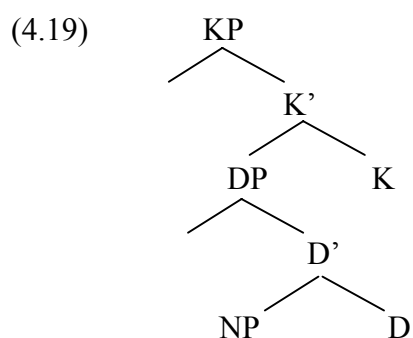
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<sup>12</sup> This view that ERG is assigned only when the verb fails to assign ACC is also proposed by Bok-Bennema (1991)

<sup>13</sup> In effect, Mahajan (1997, to appear) assumes that [ACC] is checked in [Spec, Aux] by the auxiliary.

<sup>14</sup> Mahajan (1997, to appear) proposes that P-incorporation is reflected in the form of auxiliary. The auxiliary surfaces as *have* after P-incorporation while it surfaces as *be* if P-incorporation does not take place. It is argued that the unaccusative verbs in Romance languages take the auxiliary *be* instead of *have* due to this condition.

Bittner and Hale (1996a,b) attempt to account for ergative case marking in terms phrase structure, but not in a way the standard theory does. They postulate a functional category, KP, which is headed by case. KP is considered to be a nominal counterpart of the verbal category CP. KP has a structure illustrated by (4.19) below. D is considered an intermediate projection, equivalent to I in the verbal system.



Case assignment is governed by the following conditions: a) a K-less nominal must be c-commanded and governed by K-equivalent (i.e., either C or K) to satisfy the K-Filter<sup>15</sup> and b) marked structural cases are K's that originate empty and therefore must be antecedent-governed at S-structure to satisfy the Empty Category Principle (Chomsky 1981). Consequently, KP's appear in the marked case and K-less nominals in the unmarked case. Overt realisation of the marked case is determined by the antecedent-governor (i.e., case assigner): it is realised as ERG if the case assigner is I (or D) and as ACC, if the case assigner is V (or P) and has an adjoined D.

It should be noted that essential notions in this approach are government and markedness. First, case is classified in terms of markedness. Thus, ABS and NOM are

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<sup>15</sup> K-Filter: let  $\alpha$  be a K-less nominal (DP or NP) with a non-empty  $X^0$  head and let  $\alpha$  head an argument chain  $\beta$ . Then (a)  $\alpha$  is c-commanded and governed by K or C, and (b)  $\beta$  does not contain any case-bound position (Bittner and Hale 1996b:542).

grouped together as unmarked case<sup>16</sup> and ACC and ERG are under the same category of marked case. It is also assumed that KP's receive a marked case and K-less nominals, an unmarked case. Second, adopting the GB approach, it is assumed that case is assigned under government: specifically, Infl assigns case to the external argument and the verb assigns case to the internal argument. The (marked) case is realised as ERG if assigned by Infl, and as ACC if assigned by the verb. This hypothesis correctly predicts that ERG is assigned to the external argument and ACC to the internal argument.<sup>17</sup>

This account, however, raises a question concerning the generation of nominals. It is not clear what determines whether a given nominal is generated as a KP or K-less. Structural positions do not seem to play a role in this respect. A nominal in [Spec, VP] (i.e., the external argument) may be generated K-less (and as a result, receive NOM) or as KP (and marked with ERG). Similarly, a nominal in [V, NP] (i.e., the internal argument) may be realised either K-less (receiving ABS) or as a KP (marked with ACC). In other words, there is no relation between the marked-unmarked difference and structural positions. In short, this assumption is rather ad-hoc.

#### 4.3.5 Active Agr analysis

Finally, Bobaljik (1993) proposes an account along the lines of the feature-checking theory presented in §4.1 above. Thus, it is assumed that there are two structural cases:

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<sup>16</sup> To be accurate, NOM and ABS are not distinguished. It is assumed that the unmarked case is universally NOM.

one is intrinsic to T and is checked in [Spec, Agrs]; the other is intrinsic to V and is checked in [Spec, Agro]. In addition, markedness is considered to be a key factor that determines whether a language shows accusative case marking or ergative case marking. Bobaljik (1993) proposes that UG requires that case X must be obligatorily assigned in a language (the Obligatory Case Principle (OCP)). X is the unmarked case in a given system and is determined by the following parameter.

- (4.20) OCP parameter (Bobaljik 1993: 50)
- a. In accusative languages, Case X is NOM (=ERG);
  - b. In ergative languages, Case X is ABS (=ACC).

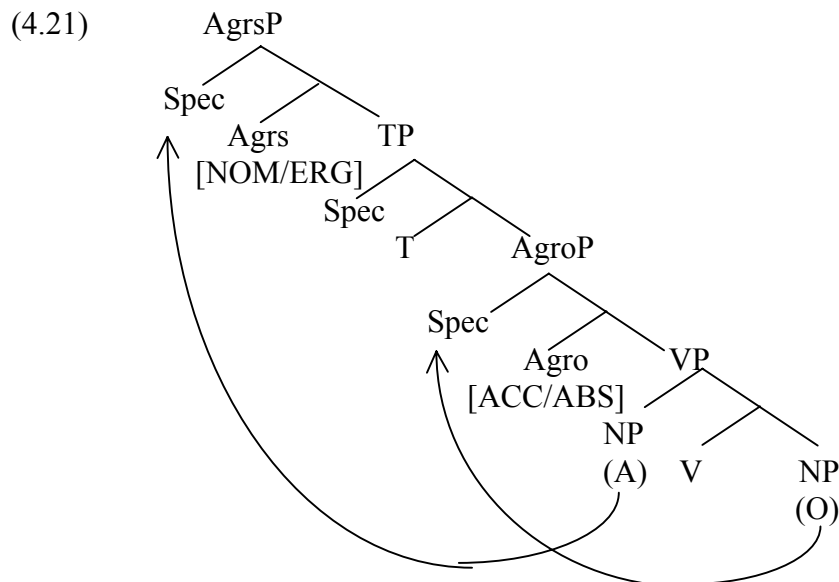
Note that NOM and ABS are considered to be different cases in this approach. Specifically, it is assumed that NOM is associated with T and ABS, with V. In effect, it is assumed that ERG corresponds to NOM and ABS is the equivalent of ACC in an ergative system.<sup>18</sup> Let us call the former T-case and the latter, V-case. Whether a language has an accusative case system or an ergative one is determined by the OCP: namely, which case is unmarked. This contrasts with the view of Hale and Bittner (1996b) who argue that difference between the two is which NP receives the marked case (i.e., ACC/ERG): in an accusative system, it is O that receives the marked case while in an ergative system it is A. In Bobaljik's (1993) analysis, what matters is which case is unmarked: in other words, which case S receives. In an accusative system, S receives T-case. In an ergative system, S receives V-case.

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<sup>17</sup> We may adapt this hypothesis to the feature-checking theory as follows: KP's bear [+marked] case feature and K-less nominals have [-marked] case feature. Case feature of the external argument is checked by T and that of the internal argument is checked by the verb.

<sup>18</sup> Note the contrast with the view in which it is assumed that NOM is equivalent to ABS and ERG to ACC (Bittner and Hale 1993a, b, Murasugi 1992, among others).

Bobaljik (1993) proposes the active Agr hypothesis based on this assumption: in an intransitive construction, only one Agr is active.<sup>19</sup> The active Agr is selected according to the value of the OCP parameter. If case X is NOM in a language, the active Agr is Agrs. If it is ABS, then, the active Agr is Agro. Consequently, S will receive T-case in [Spec, Agrs] in an accusative system and V-case in [Spec, Agro] in an ergative system. As far as transitive constructions are concerned, the two systems do not differ from each other. A moves up to [Spec, Agrs] to receive T-case, and O raises to [Spec, Agro] to receive V-case. See (4.21) below.

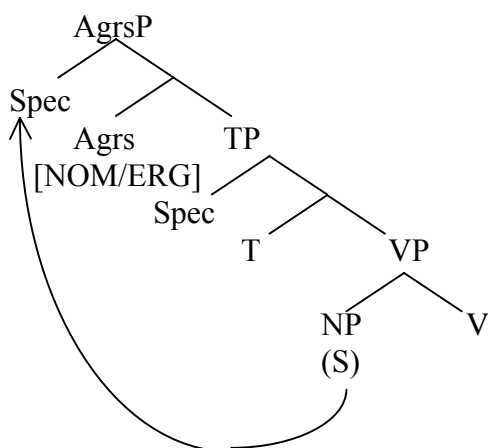


<sup>19</sup> Relevant to this analysis is Laka (1993)'s proposal that it is case feature rather than Agr that can be active or inert.

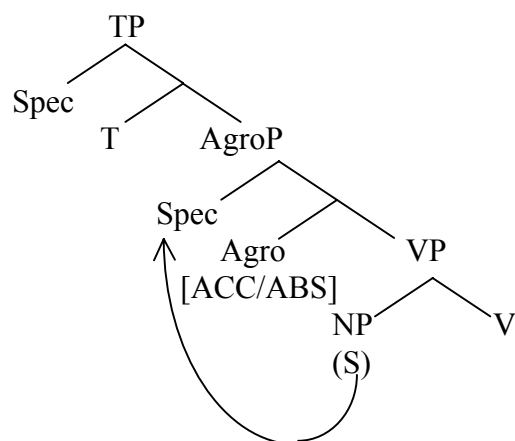
In an intransitive construction, only one Agr is active and the other one becomes inert.

In effect, we have the following two structures.

(4.22) a. Accusative: intransitive



(4.22) b. Ergative: intransitive



This approach is preferred in two respects: a) ERG is accounted for in terms of phrase structure and b) ergative case marking and accusative case marking are differentiated by a single parameter.<sup>20</sup> Another problem is PRO. As mentioned earlier, PRO can occur either as A or S. It is also assumed that PRO bears Null case and that a case feature [Null] is intrinsic to [-tense] T. Thus, PRO checks its case feature in [Spec, Agrs] by [-tense] T. Apparently, this is a problem for the active Agr approach. If Agrs is inert in ergative languages, PRO should not occur as S because it fails to check off its case feature. Nevertheless, PRO can occur as S as well as A in ergative languages.

## 4.4 Hypothesis

### 4.4.1 Preliminaries

Having studied various proposals, we are now presenting our own proposal. Let us summarise some important facts concerning ergative case marking. First, the contrast between ergative case marking and accusative case marking is which argument receives the marked case. In an accusative system, O receives a marked case. In contrast, A receives a marked case in an ergative system. Thus, this difference may be related to a parameter that determines which type of case marking a language has.

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<sup>20</sup> On the other hand, as James Higginbotham (p.c.) points out, the active Agr analysis cannot explain how morphological split arises. If Agrs is not available in an intransitive construction, then, it would be

Second, there seems to be some connection between ERG case and a structural position. We have seen that some languages distinguish ABS-marked arguments from ERG-marked arguments in various syntactic operations. Syntactic rules are in general sensitive to structural positions. Thus, we assume that ERG is a structural case on a par with NOM and ACC. Given these facts, we consider that the active Agr analysis (Bobaljik 1993) is the most promising approach.

However, the active Agr analysis is challenged by two significant problems: morphological split and PRO. In some ergative languages, S and A appear in an identical form under a certain condition. Presumably, this pattern arises because S and A receive the same case, namely, T-case. This in turn suggests that S also checks its case feature in [Spec, Agrs]. However, this option is incompatible with the active Agr hypothesis, which assumes that Agrs be inert in an intransitive construction in ergative languages. As for PRO, the standard theory assumes that PRO has Null case and that Null case is intrinsic to [-T] Infl. Consequently, Bobaljik (1993) assumes that PRO checks its case in [Spec, Agrs]. Given this assumption, the active Agr hypothesis incorrectly predicts that PRO should fail to occur as S in ergative languages because it would fail to check its case feature. In order for PRO to occur in an intransitive construction, the active Agr analysis has to make an exception and allow Agrs to be active instead of Agro. Nevertheless, allowing such an exception simply undermines the basis of this analysis. In this section, we will seek some alternative means to account for these phenomena keeping the spirit of the active Agr approach.

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impossible for S and A to receive the same case. We will return to this point in Chapter 6.

## 4.4.2 Proposal

We assume that ERG is a structural case. Thus, we assume that there are three types of structural case: T-case (i.e., NOM/ERG), V-case (i.e., ACC/ABS) and Null. Null case is assigned only to the null subject PRO. We also assume that case is assigned by means of feature-checking. Specifically, we assume that T-case is checked in [Spec, Agrs] and V-case in [Spec, Agro]. Adopting the active Agr hypothesis (Bobaljik 1993), we assume that only one Agr is available in an intransitive construction. If a language selects Agrs as the active Agr, it will have accusative case marking. In contrast, if a language chooses Agro to be the active Agr, it will have an ergative case system. In other words, ergative-accusative difference is determined by the active Agr parameter.

From this point on, we will diverge from the standard account. Note that in the standard account, case is considered to be intrinsic to T and V. Thus, T bears a case feature [NOM/ERG] and V has a case feature [ACC/ABS]. In addition, [–tense] T has [Null] case feature. Note that we assume that infinitival clauses lack Agr but have TP. T of infinitival clauses is [–tense] in that it is not specified for a particular tense. We consider this [–tense] T a kind of tense anaphora that needs to be bound by T of the matrix clause. An NP is assumed to bear an associated case feature: either [ACC/ABS] or [NOM/ERG] if it is a full NP, and [Null] if it is PRO. What is important in the standard account is that Agr does not bear any case feature. The main function of Agr is to provide a position in which T, V and NP's may check their case features. Departing from the standard approach, we propose that Agr has a case

feature: specifically, Agrs bears [T-case (NOM/ERG)] and Agro, [V-case (ACC/ABS)]. On the other hand, T and V have a case feature associated with a particular case, [T-case] and [V-case] respectively. These are associated case features in that they do not have authority to check off the feature [case] of a NP. As for NP's, they have an unspecified case feature [case]. The only exception is PRO, which needs to be licensed by receiving Null. Let us assume that PRO has a specified case feature [Null]. In this view, feature checking is twofold: features [T-case] and [V-case] of T and V need to be checked off by [T-case] and [V-case] of Agrs and Agro by means of adjoining to them. An NP checks its case feature in [Spec, Agrs/Agro] by the Agr head.

An additional assumption in our analysis is that Null case is an exception in the following respect. As mentioned above, the feature [Null] is considered to be intrinsic to [-tense] T and PRO. Extending this assumption, we propose that the case feature of PRO is checked in [Spec, TP] by [-tense] T. Both PRO and [-tense] T bear a specified case feature [Null]. Thus [Null] of PRO and [Null] of [-tense] T can be matched and checked off in a Spec-head configuration in TP. Thus, PRO need not move higher to [Spec, Agrs]. With this assumption, the problem of PRO can be solved. PRO can successfully check its case feature even if Agrs is not available. Consequently, PRO may appear in an intransitive construction in ergative languages.

How about the split? Let us propose that a split occurs when morphological (as well as syntactic) rules are sensitive to theta-role rather than case. The standard theory assumes that a verb assigns an external theta-role to the NP in [Spec, VP] and an

internal theta-role to the NP in [V, NP]. Note that crucially, an external theta-role is assigned either S or A and an internal theta-role is assigned only to O. Some rules distinguish arguments with an external theta-role from those with an internal theta-role. For example, as we will discuss in Chapter 6, clitic pronouns in Tongan are required to receive an external theta-role. An accusative pattern (i.e., split) reflects the distinction between the external theta-role and the internal theta-role. It arises independent of case.

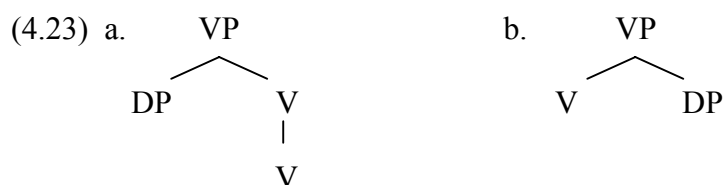
### 4.4.3 Minimalist program and ergative case marking

As mentioned earlier, the current approach assumes the earlier version of the minimalist program proposed by Chomsky (1991, 1993). Chomsky (1995) has further developed the minimalist program, replacing some of the fundamental assumptions with new ideas. Given such development, some explanation may be necessary as to why the current approach does not adopt the latest theory of minimalist program. In this section, we will outline some of the important changes proposed by Chomsky (1995) and discuss what these changes imply with regard to case theory. It will be shown that these changes bring about some unwelcome consequences in accounting for ergative case marking.

#### 4.4.3.1 Assumptions

One of the drastic changes is the introduction of bare phrase structure theory. Leaving details aside, the bare phrase structure theory assumes that a phrase is constructed by the operation Merge. The operation Merge picks up two syntactic objects,  $\alpha$  and  $\beta$ ,

and replaces them by a new combined syntactic object  $\gamma$ . Either  $\alpha$  or  $\beta$  is projected as the head of the combined object. The label of the complex will be that of the head. For example, Merge(D, NP) will form a DP with D being the head of the new object. Merge(V, DP) will form a VP if it is an intransitive verb or V' if it is a transitive verb, in which case VP is subsequently formed by Merge(V', DP). With this definition, the operation Merge fails to distinguish two types of intransitive, unaccusative and unergative, since it does not specify whether the DP is a specifier or a complement. In other words, Merge(V, DP) can form either (4.23a) or (4.23b).



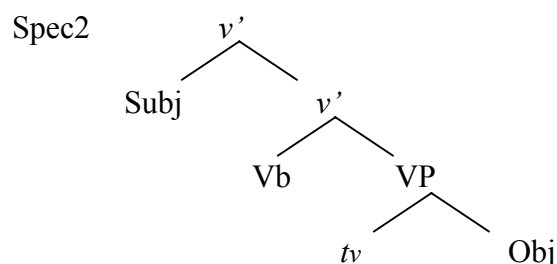
For this reason, Chomsky (1995) assumes, following Hale and Keyser (1993), that unergatives are transitive with a covert object.

Another key notion is the operation Attract. Movement of a syntactic object is defined in terms of attraction. The operation Move picks up a syntactic object  $\alpha$  and adjoins it to or replaces it with another object. The operation Move is possible if a feature F is checked by the operation or it is a necessary step for a feature-checking operation that will take place later. In other words, movement is permitted only for case-checking purposes. This operation is regarded as attraction instead of raising of a syntactic object  $\alpha$ . Attract is defined as follows: target K attracts  $\alpha$  that is the minimal element including F, if F is the closest feature that can enter into a checking relation with a sublabel of K (Chomsky 1995: 297). Features are either [+Interpretable] or [-

Interpretable]. The latter must be eliminated by deletion before the computation reaches the LF interface. Features are deleted when checked and erased if possible. The deleted element is invisible at LF but accessible to the computation. Erased features are inaccessible to any operation. Case features are [-Interpretable]: once checked, they are inaccessible to the computation. This predicts that case-marked NP's cannot move further.

As for case feature checking, the original assumptions are still maintained to a certain extent: a) case features are intrinsic to V and T; and b) these features must be checked for the derivation to converge. However, here another drastic change is proposed: checking does not take place in Agr. The function of Agr is nothing but to provide a structural configuration in which features can be checked. Therefore, if the features can be checked in the domain independent of Agr, it no longer has a *raison d'être*. Chomsky (1995) argues that multiple-Spec structures make feature checking possible without assuming Agr. [-Interpretable] features, [(assign)ACC] and [(assign) Case (NOM or Null)] are checked in [Spec, *v*] and [Spec, T], respectively. Thus, in transitive constructions *v* projects two Spec positions, as illustrated by (4.24) below. Transitive constructions, including unergatives, are all assumed to have a double-VP structure, extending the proposal of Larson (1988) and Hale and Keyser (1993). V raises overtly to the light verb *v* to form the complex Vb. The subject is inserted in [Spec, *v*] by the operation Merge and receives an external theta-role by predication in the *v*-VP configuration. Spec2 is provided for the object raising so that the object can have its case feature checked in this position.

(4.24) 



Similarly, [(assign) Case (NOM/Null)] is checked in [Spec, TP]. As for the case feature of NP's, it is assumed that case features are added arbitrarily as a noun is selected for the numeration. In other words, a NP includes a case feature [NOM], [ACC] or [Null]. Case feature of T attracts a NP with a feature [NOM] or [Null], and that of V attracts a NP with a feature [ACC], so that the NP moves to an appropriate Spec position.

#### 4.4.3.2 Problems concerning ergative case marking

How is ergative case marking explained in this analysis? Assuming that ERG corresponds to NOM and ABS to ACC, we then assume that T has [(assign)Case (ERG or Null)] and V, [(assign)ABS]. NP's bear an associated case feature, [ERG], [ABS] or [Null]. Given this assumption, an external argument bears [ERG] and an internal argument, [ABS]. Consequently, an external argument moves up to [Spec, T] while an internal argument moves up to [Spec2, v]. This raises one problem. In this approach, unergatives are considered to be transitive. Thus, the subject of an unergative verb is an external argument. By definition, it bears the feature [ERG]. This assumption is borne out with regard to a few languages such as Basque (Bittner 1983, Laka 1993), but not with others. In many ergative languages, the subject of an

unergative verb appears in ABS, not ERG. Hence, we need to stipulate that the external argument of an unergative verb bears [ABS]. Consequently, we have to distinguish three cases: a) an external argument with [ERG], b) an external argument with [ABS], and c) an internal argument with [ABS]. Will the problem be solved if we assume, following Bittner and Hale (1996a,b), that ERG corresponds to ACC? If we take this view, then [ABS] is checked in [Spec, T] and [ERG] in [Spec2, v]. We still have to distinguish the three patterns: the external argument of a transitive verb bears [ERG] while the internal argument bears [ABS] and so does the external argument of an unergative verb. In short, in this approach, case feature of a NP is specified in the numeration. Therefore, the difference between ergative case marking and accusative case marking is which case feature the external argument of an unergative bears. If it is [NOM/ERG], the system turns out to be accusative. If it is [ACC/ABS], then it gives rise to an ergative pattern. Note that in this view, the Case Filter need be strengthened in the following sense: an NP must bear a specific case, otherwise the derivation crashes.

Another problem concerns PRO. It is assumed that PRO can only be the subject. In other words, external arguments and the internal argument of an unaccusative verb can bear the case feature [Null]. This in turn means that all of these arguments move to [Spec, T]. Here we need to distinguish two types of internal arguments: that of a transitive verb and that of an unaccusative. Consequently, with regard to accusative languages, we have three rules: a) external arguments check their case feature in [Spec, T]; b) internal arguments of transitive verbs check their case feature in [Spec, v]; and c) internal arguments of unaccusatives check their case feature in [Spec, T].

See (4.26) below. In contrast, as for an ergative system, we need to stipulate five different rules: a) external arguments check their case feature in [Spec, T]; b) external arguments of unergatives check its case in [Spec,  $v$ ] if they are full NP's; c) external arguments of unergatives check its case in [Spec, T] if they are PRO; d) internal arguments check their case in [Spec,  $v$ ]; e) internal arguments of unaccusatives check their case in [Spec, T] if they are PRO. Consider (4.27) below.

## (4.26) Accusative case system

	full NP	PRO
External argument	[Spec, T]	[Spec, T]
Internal argument transitive	[Spec, $v$ ]	N.A.
Internal argument unaccusative	[Spec, T]	[Spec, T]

## (4.27) Ergative case system

	full NP	PRO
External argument transitive	[Spec, T]	[Spec, T]
External argument unergative	[Spec, $v$ ]	[Spec, T]
Internal argument transitive	[Spec, $v$ ]	N.A.
Internal argument unaccusative	[Spec, $v$ ]	[Spec, T]

In short, it is impossible to postulate a parameter to distinguish accusative case marking from ergative case marking in this approach. In contrast, our proposal accounts for the above complication in terms of a single parameter, namely, choice of the active Agr.

## 4.4.4 Unaccusatives in ergative languages

Whether we take the active Agr approach or the minimalist approach, unaccusatives in ergative languages prove to be a problematic case. Unaccusatives take only one argument and this sole argument is generated in [V, NP] as an internal argument.

Following Burzio (1986), it is assumed that unaccusatives do not have a case feature. Burzio's generalisation is based on the observation that the internal argument of an unaccusative verb appears in NOM rather than ACC.<sup>21</sup> In the minimalist approach, case assignment in an unaccusative construction is explained by assuming that the internal argument of an unaccusative verb has the feature [NOM]. Therefore, this NP is attracted by T and checks its case in [Spec, T]. Note that in this account, Burzio's generalisation becomes irrelevant: whether or not the verb lacks case feature is not the matter. In other words, contrast between unaccusatives and unergatives is understood not in terms of verbs, but in terms of NP's. This seems to lose the point of distinguishing unaccusatives from unergatives. In the active Agr approach, case checking in an unaccusative construction is explained as follows. In accusative languages, the active Agr is Agrs. Consequently, an unaccusative construction contains only Agrs. Case feature [case] of the internal argument of an unaccusative verb is thus checked in [Spec, Agrs], being realised as T-case, namely, NOM.

Unaccusatives in ergative languages, however, brings up a serious challenge to Burzio's generalisation. The internal argument of an unaccusative verb appears in ABS. This contradicts Burzio's generalisation. The minimalist account must stipulate that the case feature of the internal argument of an unaccusative verb is [ABS] and that unaccusatives have the case feature [(assign)ABS]. In the active Agr analysis, the feature [case] of the internal argument of an unaccusative verb is checked by the

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<sup>21</sup> Note that in the GB theory, it is assumed that case is assigned under government: specifically, ACC by the verb and NOM by T. In an unaccusative construction, the internal argument fails to receive case because the verb is not endowed with case-assigning ability. Consequently, the NP in question moves to [Spec, T] to receive NOM so that the Case Filter will not be violated.

active Agr, namely, Agro. Agro bears a feature [V-case]. As a result, the NP appears in V-case, i.e., ABS. Hence, some argue that Burzio's generalisation does not hold in ergative languages (Bittner 1983, Levin and Massam 1986, and Laka 1993). However, in our approach, it is possible to maintain Burzio's generalisation. Since the feature [V-case] is intrinsic to Agro, [V-case] is available whether or not the verb itself has an associated feature [V-case]. This point can be regarded as additional advantage of the current analysis.<sup>22</sup>

#### 4.5 Summary

In this chapter, we reviewed the standard theory of case assignment and proposed an alternative approach. Fundamental assumptions are a) NP's must have case (the Case Filter) and b) structural case is assigned by means of feature checking in Agr. The standard theory assumes that a) T and V have case features [NOM] and [ACC], respectively and that b) external arguments check case in [Spec, Agrs] by T and internal arguments in [Spec, Agro] by V. The only exception is unaccusative constructions, in which the internal argument checks its case in [Spec, Agrs] instead of [Spec, Agro]. This exception is due to the fact that unaccusatives lack case feature (Burzio 1986). Since the internal argument of an unaccusative verb fails to check off its case feature in [Spec, Agro], it is forced to move up to [Spec, Agrs] in order to

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<sup>22</sup> Whether it is necessary to maintain Burzio's generalisation is another question. However, we will not pursue this question further here.

satisfy the Case Filter. Another assumption concerns PRO. PRO is assumed to have a special structural case Null. The feature [Null] is assumed to be intrinsic to [-T] Infl. Accordingly, it is assumed that PRO checks its case in [Spec, IP] of the minimal I. This in turn explains why PRO can occur only as subjects but not as objects.

The standard theory, however, fails to provide a sufficient account of ergative case marking. In an ergative case system, the subject of an intransitive verb, unergative as well as unaccusative, receives the same case as the internal argument of a transitive verb. Put differently, both the external argument of an unergative verb and the internal argument of an unaccusative verb check its case in [Spec, Agro]. This raises two problems. First, one of the principal assumptions that external arguments check their case in [Spec, Agrs] does not hold. Second, another fundamental assumption that unaccusatives lack case feature must also be rejected.

We then presented an alternative analysis with minimal modification to the standard theory. Specifically, we maintain the idea that case assignment is feature checking in a Spec-head configuration. Following Bobaljik (1993), we assume that only one Agr can be active in intransitive constructions. The difference between accusative case marking and ergative case marking can be accounted for in terms of the active Agr parameter. If a language chooses Agrs as the active Agr, it will have accusative case marking, with S checking its case feature in [Spec, Agrs]. On the other hand, if Agro is selected, then case marking shows an ergative pattern, with S checking its case feature in [Spec, Agro]. Thus, the first problem is solved. As for the second problem, we propose that case features are intrinsic to Agr, and not to T and V as assumed in

the standard theory. To be accurate, we assume the following two case features: [T-case] and [V-case], each intrinsic to Agr<sub>s</sub> and Agr<sub>o</sub>. T and V have an associate case feature, [T-case] and [V-case], respectively. NP's have an unspecified case feature [case]. In accordance with the standard theory, we assume unaccusatives lack an associate case feature [V-case]. What happens in unaccusative constructions is that the internal argument moves to [Spec, Agr<sub>o</sub>], as it is the active Agr, and have its case feature checked by [V-case] of Agr<sub>o</sub>. Consequently, the internal argument of an unaccusative successfully receives V-case (ABS) although the verb itself lacks case feature.

The active Agr approach, however, faces two crucial problems. One is case checking of PRO and the other is split. The standard account assumes that PRO bears a special case feature [Null] and that [Null] is intrinsic to [-T] Infl. This in turn explains why PRO occur only as subjects. However, in the active Agr approach, this raises a problem. If we are to assume that [Null] is checked in [Spec, Agr<sub>s</sub>], PRO should not be permitted in intransitive constructions in ergative languages because [Spec, Agr<sub>s</sub>] is inert in intransitive constructions. However, PRO does occur in intransitive constructions. Consequently, we have to allow PRO to check the feature [Null] in both [Spec, Agr<sub>s</sub>] and [Spec, Agr<sub>o</sub>]. In other words, we are forced to assume that [Null] is intrinsic not only to [-T] Infl but also to V. However, two different elements bearing the identical case feature is not a welcome situation. Instead, we propose that the feature [Null] is intrinsic to [-tense] T and PRO, and that PRO checks its case feature in [Spec, TP]. This will allow PRO to appear in intransitive constructions in ergative

languages because Null case feature checking does not require Agrs. As for the split, we argue that an accusative pattern arises when a syntactic/morphological rule is sensitive to theta-role rather than case. In other words, an accusative pattern reflects the contrast between the external theta-role and the internal theta-role in the sense of Williams (1980). This in turn accounts for the relative stability of accusative case marking, namely, why languages with accusative case marking do not show any ergative pattern at any level. In an accusative case system, external arguments consistently receive one case (NOM) and internal arguments receive another (ACC). Thus, syntactic/morphological rules that are sensitive to case and those that are sensitive to theta-role distinguish arguments in a similar manner: S/A vs. O. As a result, accusative languages consistently show an accusative pattern at any level. In contrast, languages with ergative case marking inevitably have two patterns. On the one hand, those rules that are sensitive to case will distinguish A from S and O. On the other hand, those that are sensitive to theta-role will distinguish O from S and A.

Finally, we discussed how ergative case marking is explained by the minimalist program proposed by Chomsky (1995). We pointed out that in the minimalist approach, case assignment is governed by case feature of NP's. Consequently, it is necessary to stipulate five different instances in order to account for ergative case marking: e.g., the external argument of a transitive verb have [ERG], but the external argument of an unergative verb have [ABS] etc. We argue that the difference between ergative case marking and accusative case marking cannot be reduced to a single parameter in the minimalist approach and that therefore, our analysis is more

advantageous. With the hypothesis proposed above in mind, we will proceed with our inquiry into ergativity in Tongan.