Ergative Agreement Systems

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Abstract:

Can ergative agreement occur without ergative Case? Most previous approaches to ergativity have treated ergative agreement as a unitary phenomenon, answering this question with either an unqualified ‘yes’ or an unqualified ‘no’, but new typological information indicates that there are two distinct types of ergative agreement systems, which differ radically in their relationship to Case: one is parasitic on Case (e.g. Hindi) while the other is independent of Case (e.g. Jacaltec, Selayarese, Abkhaz). This supports the view of Marantz 1984b and Johns 1996 that ergativity is not a unitary phenomenon, at least with respect to agreement.

The correct theory of agreement must be sufficiently restrictive so as not to be able to generate the first type in the absence of ergative (or dative) Case, but nonetheless able to generate the second type in the absence of ergative Case. This can be accomplished within the structural approach to agreement of Chomsky 1995, with some help from Optimality Theory (Prince and Smolensky 1993). In the Hindi-type of ergative agreement, agreement simply cross-references nominative arguments; the pattern is ergative only when there is a lexically Cased subject and a nominative object. In the Jacaltec-type, the ergative agreement pattern has a completely different source. It is the result of a preference for using a clitic rather than agreement to cross-reference arguments. A clitic is used when there is only one argument to cross-reference (intransitives), while agreement is used in addition to a clitic when there are two arguments to cross-reference (transitives). In contrast, if a language prefers agreement, the resulting pattern is nominative-accusative.

This analysis of the Jacaltec-type pattern does not require positing the presence of a covert ergative Case system, as in Hale, Storto, and Goeldi 1996, which is good because positing covert ergative Case systems makes the wrong typological predictions. The same kind of typological overgeneration results if one links ergative agreement to ergative and absolutive grammatical relations. This approach also enables us to restrict the theory of agreement so as to disallow the possibility that some subjects trigger object agreement, as in Murasugi 1992 and Bobaljik 1993b.
0. Introduction

An agreement pattern is defined as ergative if it treats intransitive subjects and transitive objects alike, but treats transitive subjects differently (e.g. Dixon 1979, Comrie 1978), as in the following examples from Hindi where the intransitive subject and transitive object agree, but the transitive subject does not.

(1)a. Raam baazaar gayaa.
   Ram    market    go(past,masc,sg)
   Ram went to the market.

   b. Raam-ne roTii khaayii thii.
      Ram-erg   bread(fem) eat(perf, fem) be(past,fem)
      Ram had eaten bread. (Mahajan 1990:73)

Ergative agreement often occurs in languages with ergative Case, such as Hindi, but ergative agreement can also occur in languages without any ergative Case morphology, as in Jacaltec (Mayan). In Jacaltec, intransitive subjects and transitive objects are cross-referenced by the same morpheme series in the same position (attached to the auxiliary), while transitive subjects are cross-referenced by a different series in a different position (attached to the verb).

(2)a. ch-ach toyi
      aspect-2nd,abs    go
      You go.

   b. ch-ach w-ila
      aspect-2nd,abs I**erg-see
      I see you. (Craig 1977:90)

What produces these patterns? Most theories of grammar produce familiar nominative-accusative Case and agreement patterns by associating one Case or agreement series with subjects (or subject position) and one with objects (or object position). Ergative patterns are unexpected because they do not treat all subjects consistently and they unite some subjects with objects. Nevertheless, there are many formal proposals for generating ergative patterns. Some postulate ergative and absolutive grammatical relations that can be linked to Case and/or agreement (e.g. Johnson 1974, Woodbury 1977, Klokeid 1978), while others associate ergative patterns with special structural configurations (e.g. Marantz 1984a, 1984b, 1992, Levin 1983, Levin and Massam 1985, Campana 1992, Chomsky 1992, Johns 1992, Murasugi 1992, Bobaljik 1993a, 1993b) and/or the unavailability of accusative Case (Bok-Bennema 1991, Bittner and Hale 1996a, 1996b).

With respect to ergative Case systems, the prevailing view now appears to be that absolutive is just another name for nominative Case (e.g. Marantz 1984a, Bittner 1994, Murasugi 1992) and

Current approaches to ergative agreement diverge on two major questions:

1. Is ergative agreement a unified phenomenon?

2. Can ergative agreement occur without ergative Case?¹

With respect to the first question, most approaches have assumed that the answer is ‘yes’, probably because it is natural (and more satisfying) to seek a unified solution to any problem and because it is difficult enough to come up with one way to generate these unusual patterns. However Johns 1992 and Marantz 1984b maintain that ergativity is not a unified phenomenon. I will argue that the latter view is correct, at least for ergative agreement, based on new typological information. I will argue that the ergative agreement patterns in Hindi and Jacaltec represent two distinct types with two distinct analyses. One piece of evidence for this view emerges when we look at what Case patterns the Hindi and Jacaltec types of ergative agreement occur with. We find a striking difference:

The Hindi-type of ergative agreement (where only absolutive agree) only occurs in languages which have morphological ergative (or dative) Case.

The Jacaltec-type of ergative agreement (where both subjects and objects agree) can occur with or without ergative Case.

With respect to the second question, of whether ergative agreement can occur without ergative Case, this new typological information suggests a non-unitary answer: ‘no’ for the Hindi-type of ergative agreement, but ‘yes’ for the Jacaltec-type.

This new typological information is problematic for most previous approaches to ergative agreement. Those that treat Case and agreement as completely independent systems overgenerate: they can generate a Hindi-type agreement pattern without ergative (or dative) subjects. However, even those that treat ergative agreement as parasitic on ergative Case also overgenerate if they allow a completely covert ergative Case system to produce an ergative agreement system; under such a system, a covert ergative Case system ought to be sufficient to generate the Hindi-type of ergative agreement, but it is not.

¹It is well-known that nominative-accusative agreement is independent of Case, because it occurs with both nominative-accusative Case systems (e.g. English) as well as with ergative Case systems (e.g. Warlpiri (Bittner and Hale 1996a), Nez Perce (Rude 1988)).
What is needed is a theory of agreement that does not overgenerate in this way, but rather actually predicts this typological gap. To this end, I will propose a restrictive approach to ergative agreement within the Minimalist Program of Chomsky 1995, with some assistance from Optimality Theory (Prince and Smolensky 1993). I will argue that very little actually needs to be added to the Minimalist Program to generate ergative agreement because both the Hindi and Jacaltec types of ergative agreement can be analyzed as variants of ordinary nominative-accusative agreement systems (or agreement plus clitic systems) that have been slightly altered as a result of interaction with other subsystems of grammar.

The Hindi-type system is like English in that all and only nominatives agree: the pattern becomes ergative only when the subject has lexical/inherent Case (ergative or dative) and the object is nominative. The Jacaltec-type system looks much like Spanish in its transitive clauses. The object is cross-referenced with a clitic, while the subject is cross-referenced by a subject agreement morpheme attached to the verb. The pattern is ergative because intransitive subjects are cross-referenced with a clitic, instead of with subject agreement as in Spanish. It is proposed that Jacaltec differs from Spanish in considering clitic doubling to be a cheaper, preferred, or less marked method of cross-referencing arguments.

This approach to Jacaltec eliminates the motivation for the conclusion of Murasugi 1992 and Campana 1992 that Mayan languages have an upside-down syntax, with the object in Spec AgrS and the subject in Spec AgrO, based on the fact that the morpheme that cross-references objects is higher in the tree than the morpheme that cross-references transitive subjects. This approach also eliminates any motivation for positing covert ergative Case in languages like Jacaltec in order to explain the presence of ergative agreement, as in Hale, Storto, and Goeldi 1996. In fact, based on the new typological results noted above, we have to conclude that no language has a completely covert ergative Case system, perhaps because language learners will not posit a marked Case like ergative without overt morphological evidence.

2The idea that verbal agreement may have to be stated in terms of the nominative case is suggested in Kachru, Kachru, and Bhatia 1976.

3This analysis of the Jacaltec-type of ergative agreement was partially inspired by the work of Finer (1995 and to appear) on Selayarese showing that the absolutive cross-referencing morpheme in that language is a clitic, and by Isaak’s (p.c.) description of the Jacaltec absolutive cross-referencing morpheme as behaving like a clitic in certain respects.

4This is similar to Bresnan’s 1998 proposal that languages can differ in whether they prefer to realize pronouns as clitics or affixes and that this preference is expressed as a difference in the relative ranking of the markedness constraints *CL and *af.

5See Bobaljik 1993a,b for arguments that subjects c-command objects even in such ergative languages.

6Anderson 1974 also rejects the idea of positing covert ergative Case to explain ergative agreement. The claim here is that no language has completely covert ergative Case. However, positing abstract ergative Case is legitimate in languages where first and second person pronouns are not overtly marked with ergative morphology, but overt ergative Case morphology is used in third person. In that situation, agreement continues to be with
One remaining problem is how to account for the typological gap that originally motivated the idea that ergative agreement is parasitic on ergative Case: there are no reported instances of ergative agreement in a nominative-accusative Case system (Anderson 1977, Dixon 1979, 1994). The first thing to note is that the generalization is actually that ergative agreement has not been observed to occur in languages with morphologically marked accusative Case. The position taken in this paper is that the Jacaltec-type of ergative agreement can occur in languages with a nominative-accusative Case system, as long as the accusative is not morphologically marked. The lack of co-occurrence of the Jacaltec-type of ergative agreement with a morphologically marked accusative Case is attributed to the strong tendency for languages not to doubly mark arguments with both Case and agreement.

This paper is organized as follows. Section one focuses on typological information, old and new. Section two is devoted to the description and analysis of the Hindi-type of ergative agreement and why it is parasitic on Case. That section ends with a brief discussion of how certain previous approaches to ergativity overgenerate by allowing a Hindi-type agreement without ergative Case. Section three takes up the question of how to analyze the Jacaltec-type of ergative agreement without ergative Case, not only in Jacaltec but also in Selayarese, Abkhaz and Yimas. Section four deals with three additional languages that have been described as having ergative agreement patterns, but which do not fit the clitic plus agreement model: Carib, Chamorro, and Halkomelem Salish. These languages provide additional evidence for the claim that ergative agreement is not a unitary phenomenon.

1. Typology

The typological literature reports a gap in the combinations of Case and agreement patterns that occur: there do not appear to be any languages with a nominative-accusative Case system and an ergative agreement system (Anderson 1977, Dixon 1979, Wierzbicka 1981). However, a more accurate version of this typological generalization is as follows: there are no reported languages with an unequivocal nominative-accusative Case system (one with a morphologically marked accusative Case) and ergative agreement. There are many languages with ergative agreement that have a Case system that is not easy to identify because there is no morphological Case on subjects or objects.

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<tr>
<td>absolutes only, even when the ergative subject is not marked with morphological ergative Case (see Woolford 1999).</td>
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<tr>
<td>The claim that languages like Jacaltec have no covert ergative Case does not conflict with the claim in Woolford 1999 that all languages can potentially license all Cases, including ergative. There is a difference between a verb having the potential to license ergative Case and actually being allowed to do so. For a discussion of the factors that determine whether or not a potentially licensed Case actually gets to occur, see Woolford 1999.</td>
</tr>
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</table>
(3) Typology of Case and agreement system combinations

<table>
<thead>
<tr>
<th>Case system</th>
<th>nominative-accusative agreement system</th>
<th>ergative agreement system</th>
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<tbody>
<tr>
<td>unequivocal nominative-accusative</td>
<td>✔ English, Tamil</td>
<td>*</td>
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<tr>
<td>Case system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>morphologically unmarked Case</td>
<td>✔ Swahili, Huichol</td>
<td>✔ Jacalte, Selayarese</td>
</tr>
<tr>
<td>unequivocal ergative Case system</td>
<td>✔ Warlpiri, Nez Perce</td>
<td>✔ Hindi, Kabardian</td>
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Nevertheless, it is tempting to move languages like Jacalte and Selayarese down into the cell below, into the ergative Case class (by claiming that such languages must have a covert ergative Case system), in order to explain this gap. One could then maintain the hypothesis that ergative agreement can only occur with an ergative Case system. While this move is intuitively appealing, a more detailed look at the typology of Case and agreement shows that it cannot be correct. Instead, we find evidence for a view that may seem surprising or even perverse at this point—that there are no languages with a covert ergative Case system and all of the morphologically unmarked Case systems are actually nominative-accusative Case systems.

To see this, we need to stop viewing ergative agreement systems as a unitary phenomenon, and separate out three logically possible types of ergative agreement patterns: (i) only absolutes agree (intransitive subjects and transitive objects), (ii) only ergatives agree (transitive subjects), and (iii) both ergatives and absolutes agree. When we correlate these with the types of Case systems they can occur with, we see that there are no languages where agreement is only with ergatives (transitive subjects), a known typological gap (Moravcsik 1978, Croft 1990). But we also see something new and interesting: the morphologically unmarked Case systems now behave like the unequivocal nominative-accusative Case systems, in one respect: neither can occur with the type of ergative agreement that occurs in Hindi.
Given this more detailed typology, we see that the morphologically unmarked Case systems behave like unequivocal ergative Case systems in one respect, but like unequivocal nominative-accusative Case systems in another.

The position to be argued for in this paper is that the correct diagnostic for the identity of the abstract Case system of languages with morphologically unmarked Case is the one that groups them with nominative-accusative systems. Under this assumption, we can collapse the table as follows:
The type of ergative agreement that occurs in Hindi is not compatible with a nominative-accusative Case system, for reasons that will become clear in the next section. The residual gap in (4), that nominative-accusative languages with a marked accusative never allow even the Jacaltec type of ergative agreement has an independent explanation. There is a strong universal tendency for languages to avoid ‘doubly marked’ arguments, that is arguments marked with both morphological Case and agreement (e.g. Gerdzs 1990, Whaley 1996). Thus a morphologically marked accusative object is very unlikely to agree. However, ergative agreement patterns always involve agreement with the object (because, by definition, objects agree like intransitive subjects in ergative systems). In contrast, many nominative-accusative agreement patterns involve only subject agreement. If we separate languages with nominative-accusative agreement into those with only subject agreement versus those with both subject and object agreement, we see that unequivocal nominative-accusative languages (with a marked accusative Case) tend not to occur with nominative-accusative agreement that involves object agreement.

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7 Dixon 1994:44 lists Canela-Krahô (Popjes and Popjes 1986) as a language that cross-references S and O (absolutives) but not A (ergatives). While this is a true statement concerning the agreement morpheme attached to the verb, this language also has an agreement morpheme attached to the auxiliary which cross-references the subject.

(i) ca ha a-mā ih-kīn
you Fut 2nd.-TEMPRY 3rd.-like
You will like him. (Popjes and Popjes 1986:179)
Nominative-accusative Case and nominative-accusative agreement

<table>
<thead>
<tr>
<th></th>
<th>subject agreement only</th>
<th>subject &amp; object agreement</th>
</tr>
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<tbody>
<tr>
<td>nominative-accusative</td>
<td>✓</td>
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<tr>
<td>(with a marked accusative)</td>
<td>English, Tamil</td>
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<tr>
<td>nominative-accusative</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(with an unmarked accusative)</td>
<td>Fula</td>
<td>Swahili, Palauan</td>
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Thus the incompatibility of ergative agreement with morphologically Case-marked accusatives is mirrored by an incompatibility of nominative-accusative agreement with morphologically Case-marked accusatives (when the latter agreement pattern involves object agreement).

To summarize, the purpose of this section has been to establish what typological gaps related to ergative agreement should be predicted by the correct theory of agreement. One gap from the typological literature is retained here, that no language has agreement with ergatives unless it also has agreement with absolutes. Since absolutive Case is just another name for nominative Case, this gap reduces to the generalization that if a language has agreement at all, it will have agreement with nominatives. A second gap from the typological literature is retained here in an altered form. The typological literature suggests that no language can have ergative agreement and a nominative-accusative Case system. This gap has been revised and divided into two separate generalizations: First, no language can have the Hindi-type of ergative agreement unless it has ergative (or dative) subjects. Second, no (or very few?) languages allow an object with morphologically marked accusative Case to also agree (regardless of whether it is an ergative agreement pattern or a nominative-accusative one).

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Some dialects of Quechua have both a marked accusative Case and object agreement, but the set of objects that agree appears to be different from the set of objects that surface with overt accusative Case. Non-pronominal third person objects are marked with accusative Case, but there is no agreement with third person objects. When first and second person objects agree (or cliticize), they Pro drop (Cole and Jake 1978, Muysken 1981, Milliken 1984).

Hungarian is a possible example of a language where objects are doubly marked with Case and agreement, but there is some doubt that this language actually has object agreement. There is no object agreement with first or second person objects, but there is a special ending that appears on verbs with definite third person objects. Farkas 1990 calls this the objective conjugation, but some authors assume it encodes object agreement (e.g. Kiss 1987).

This morphology does not encode number, but one could argue that it encodes person, since it is limited to third person. If this morphology is object agreement, then some objects are doubly marked in Hungarian. Even so, the two marking systems mark different sets of objects. In the examples below, we see that both definite and indefinite objects get accusative Case, but only the definite object ‘agrees’.

(i) a. János ír -t -a a levelet.
    John write-past-tr.sg.3rd the letter-acc
    John wrote the letter.

b. János ír -t -Ø egy levelet.
    John write-past-intr.sg.3rd a letter-acc
    John wrote a letter. (Kiss 1987:145)
This paper will have nothing to say about the first gap, that no language has agreement only with ergatives, except that some superficial exceptions to this generalization will be discussed in section five. Likewise, I will have nothing to add regarding the third gap, that languages strongly tend not to doubly mark accusative objects with both morphological Case and agreement. The focus of the paper will be on the second gap, that Hindi-type ergative agreement, but not Jacaltec-type, is limited to languages with (morphologically overt) ergative (or dative) subjects. The problem is to make the theory restrictive enough to prevent the generation of a Hindi-type ergative agreement system without ergative or dative subjects, but yet to allow the generation of a Jacaltec-type ergative agreement system with any type of abstract Case system.

I will argue that in order to make our theories of agreement sufficiently restrictive so that they cannot generate a Hindi-type ergative agreement system unless ergative (or dative) Case is present, we must prohibit certain means that have been proposed to generate ergative patterns, including ergative and absolutive grammatical relations and positing a completely covert ergative Case system. In addition, we will see that other devices such as allowing subjects to trigger object agreement are unnecessary. Let us now see how both the Hindi and Jacaltec types of ergative agreement systems can be generated without the use of any of these devices.

2. The Hindi-type of Ergative Agreement: Parasitic on Case

Above we saw that the Hindi-type ergative agreement pattern (agreement with absolutes only) does not occur in languages without ergative Case. Why not? What role does ergative Case play? The answer is that ergative Case (and dative) blocks agreement in these languages. Agreement in Hindi is with nominative arguments, as in English. The ergative agreement pattern emerges only when the transitive subject is not nominative.

Let us look at the data patterns in Hindi. In intransitive constructions, the subject agrees only if it is nominative. If the subject is dative or ergative, the agreement morpheme is the default form (3rd sg, masc) (Comrie 1984, Mahajan 1990).

(7) Intransitive patterns in Hindi:

a. subject-nom verb-agr
b. subject-DAT verb-default agr (masc. sg.)
c. subject-ERG verb-default agr (masc. sg.)

(8)a. siitaa aayii
    Sita(fem) arrived(fem)
    Sita arrived. (Mahajan 1990:74)
b. tum-ko ana hi hoga
   you-dat come emph be(fut,masc.sg.)
   You will have to come.  (Abbi 1990:259)

c. kuttoN-ne bhoNkaa
   dogs-erg barked(masc., sg.)
   The dogs barked.  (Mahajan 1990:74)

In transitive constructions, the subject again agrees only if it is nominative. If the subject is not
nominative, but the object is nominative, then the object agrees. Otherwise there is default
agreement.

(9) Transitive patterns in Hindi

   a. subject-ERG object-nom verb-agr
   b. subject-DAT object-nom verb-agr
   c. subject-ERG object-DAT verb-default agr
   d. subject-nom object-acc verb-agr
   e. subject-nom object-DAT verb-agr

(10)a. Raam-ne roTii khaayii thii.
   Ram-erg bread(nom,fem) eat(perf, fem) be(past,fem)
   Ram had eaten bread. (Mahajan 1990:73)

b. siitaa-ko la. rke pasand the.
   Sita-dat boys(nom) like be(past,masc.pl)
   Sita likes the boys.  (Mahajan 1991 (7))

c. siitaa-ne laRkii-ko dekhaa
   Sita(fem)-erg girl-dat see (perf, 3sg.masc.)
   Sita saw the girl.  (Mahajan 1990:87)

d. siitaa kelaa khaatii thii
   Sita(nom,fem) banana(masc.) eat(imp,fem) be(past,fem)
   Sita (habitually) ate bananas.  (Mahajan 1990:72)

e. niinaa bacce-ko utaayegii
   Nina(nom) child-dat lift(fut,fem)
   Nina will pick the child up.  (Mohanan 1994:59)
The same agreement pattern occurs in dative subject constructions in non-ergative languages, such as Icelandic. In Icelandic, nominative subjects agree, and nominative objects agree, but dative subjects do not (Yip, Maling, and Jackendoff 1987). It could be the case that English has this same Icelandic/Hindi agreement system as well, but since English has no inherently Cased subjects (and thus no nominative objects), we would never see the ergative agreement pattern emerge.

Looking at Hindi, Icelandic, and English in this way, the line between nominative-accusative agreement systems and ergative agreement becomes very blurry. What we appear to have in all three languages is a nominative agreement system (where arguments with nominative Case agree). An ‘ergative’ agreement pattern emerges only when the subject has inherent Case and the object has nominative Case and agrees.

The Minimalist Program of Chomsky 1995 already has the ability to check nominative Case and agreement on objects, even if the object remains in situ. The mechanism of feature raising allows the nominative Case and other features of the object to covertly raise to the relevant higher head (Agr-S or Tense) to be checked. All that needs to be added to the theory is a way to block feature checking with the subject when it has an inherent Case such as dative or ergative, allowing feature checking with the less close object instead. What I have been tacitly assuming here is that the mismatch of the nominative Case feature of Tense and the inherent Case of the subject blocks checking with the subject, so that checking with the next closest argument (the object) occurs. However, even ergative subjects agree in some languages (e.g. Nez Perce (Rude 1988, Woolford 1997) and Nepali (Verma 1976, Stump 1983)), so that the theory needs to allow for two types of languages, one where all subjects agree, regardless of their Case, and one where only nominative subjects agree. Isaak (1999) proposes a parameter as to whether or not inherent Cases such as ergative are opaque or visible to agreement.9

We now have a better understanding of why the Hindi-type of ergative agreement cannot occur in a purely nominative-accusative Case system. We see how ergative (or dative) subjects are crucial in producing the ergative agreement pattern, by blocking agreement with the subject and allowing agreement with a nominative object. If the subject is nominative instead, then agreement is with that nominative subject and there is no ergative pattern.

If there were languages with a completely covert ergative Case system, we would expect some of them to have the Hindi-type of ‘absolutes only’ agreement pattern. However, we never find the Hindi ‘absolutes only’ agreement pattern in any language without overt morphological ergative and/or dative Case. That fact leads to the conclusion that there are no languages with a completely covert ergative Case system. That does not mean, however, that it is impossible for any argument to have abstract ergative Case that is not expressed by overt ergative Case morphology. In many languages with overt ergative Case morphology, that morphology is

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9Note that the nominative Case feature that Tense carries need not be checked at all, as we can see by the fact that some Hindi sentences have no nominative argument.
present only when the argument is third person. However, there is evidence that first and second person pronouns nevertheless have abstract ergative Case. In Marathi, for example, such subjects do not trigger agreement; instead they occur with nominative objects that do agree (Comrie 1984). Thus we do not want to rule out covert ergative Case in the theory in principle (which would be difficult, since covert accusatives do seem to occur). Instead, the correct conclusion seems to be that languages do not have abstract ergative Case unless they have at least some overt ergative Case morphology. One can speculate that the reason involves learnability, that language learners require an overt ergative Case morpheme in at least some context before they will posit the presence of abstract ergative Case in the grammar, perhaps because ergative is a very marked Case.10

Note that the same effect as positing completely covert ergative Case systems can be produced by using grammatical relations to control Case and agreement. Under that approach, a language like Warlpiri (where an ergative Case pattern is paired with a nominative-accusative agreement system) is produced by linking Case to ergative and absolutive grammatical relations, while controlling agreement with subject and object grammatical relations (GRs). However, this predicts that some languages will take the opposite tack, linking Case with the subject/object GRs, while agreement is controlled with the ergative/absolutive GRs. That would produce a language with a Hindi-type ergative agreement system in a language with a nominative-accusative Case system, a type that does not occur.

Several approaches have attempted to capture the fact that objects and intransitive subjects behave alike with respect to agreement by suggesting that these arguments occupy the same syntactic position, while transitive subjects occupy a different syntactic position (e.g. Bobaljik 1993b, Murasugi 1992).11 These approaches undergenerate typologically in that they are not designed to generate languages whose Case and agreement systems do not match (e.g. Warlpiri). Moreover, because they equate ergative Case with either nominative or accusative, they cannot deal with languages such as Nez Perce where it is clear from the Case morphology that ergative is distinct from both nominative and accusative (Woolford 1997). Nevertheless, several key insights from Bobaljik’s 1993b analysis of ergative agreement are preserved in the proposed approach to Jacaltec-type ergative agreement systems, to which we now turn. We preserve the idea that what has been called ‘ergative’ agreement is simply normal subject agreement in Jacaltec-type systems (and that such subjects have nominative Case) and that intransitive subjects and objects are cross-referenced with the same device (although it is not object agreement).

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10See Woolford 1999 on markedness and Case.

11In Bobaljik’s system, it is intransitive subjects (and objects) that trigger object agreement, while in Murasugi’s system, transitive subjects (but not objects) trigger object agreement in ergative systems.
3. The Jacaltec-type of Ergative Agreement: Independent of Case

In this section, we address the question of how to analyze the agreement pattern of languages like Jacaltec without positing a covert ergative Case system. The analysis proposed here is fairly simple and built from very familiar components. Transitive clauses look a bit like Spanish, where subject agreement is attached to the verb, while objects can be cross-referenced by a clitic attached higher in the clause. What produces the ergative pattern is the fact that intransitive subjects are cross-referenced by a clitic in languages like Jacaltec, rather than by subject agreement.

Under this analysis, the syntax of languages like Jacaltec is not exotic: subjects and objects occupy the same positions as they do in nominative-accusative languages and the cross-referencing elements (subject agreement and clitics) are equally mundane. All that needs to be added to the theory to produce this ergative pattern is a formal means of expressing the intuitive idea that some languages prefer to use clitics, while others prefer to use agreement. That preference determines what will happen in intransitive clauses. To this we add the notion that some languages limit the number of clitics (or agreeing arguments) to one per clause. Jacaltec prefers clitics, but limits clitics to one per clause: as a result, transitive constructions involve one clitic and one agreement. These intuitive notions can be formalized in a straightforward way using Optimality Theory (Prince and Smolensky 1993).

This model is first developed below based on a similar ergative agreement system in the Austronesian language Selayarese, which provides clear evidence that the ‘absolutive’ element is a clitic (Finer (to appear)). The model is then shown to account for the Jacaltec facts as well. The model will be formalized using Optimality Theory. At the end of this section, it will be shown that this model appears to apply to two other languages with a similar ergative agreement pattern, Abkhaz and Yimas.

3.1 Selayarese

The Austronesian language Selayarese has an agreement/cross-referencing system that shares many properties with that of Jacaltec. There is no morphological Case on subjects or objects and the agreement system cross-references both subjects and objects, following an ergative pattern. A prefix cross-references transitive subjects, while a suffix cross-references objects and intransitive subjects. We see in (11) that the suffix -ko cross-references a second person intransitive subject (11a) and a second person transitive object (11b).

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12This analysis of ergative agreement in languages like Jacaltec shares a number of assumptions with Bobaljik’s 1993a,b view of ergative languages. Under his approach, a transitive clause has a normal nominative-accusative Case pattern, with subject and object in their normal syntactic positions, with transitive subjects triggering normal subject agreement. However, my analysis does not share Bobaljik’s view that intransitive subjects occupy Spec Agr-O, get accusative Case, and trigger object agreement.
(11)a. ak-kelong-ko
   int-sing-2
   You sang. (Finer 1991 (3d))

b. la-keo’-ko i Baso’.
   3-call-2 det Baso
   Baso called you. (Finer 1995 (14a))

The third person transitive subject in (11b) is cross-referenced by the prefix *la-*
   in contrast to the third person intransitive subject in (12) below, which is cross-referenced by the suffix *-i*.

(12) a?jóge?-i pundo?-iñjo
   int-dance-3 monkey-det
   The monkey dances. (Ceria 1993 (10c))

The prefix is always attached to the verb, but Finer (to appear) argues that the suffix is
   actually a clitic. It does not behave phonologically like other suffixes and moreover, it is not
   always a suffix. Instead, it generally attaches to whatever is in first position in the clause, which
   is normally the verb in this VOS language. But let us examine what happens when a PP is fronted
   to the left of the verb, as in (13b). The *-i* suffix which cross-references the object and which is
   attached to the initial verb in (13a) attaches instead to the end of the fronted PP in (13b).

(13)a. mu-pallu-i juku?-iñjo ri korọ.
   2-cook-3 fish-DEF in pan
   You cooked the fish in the pan.

b. ri korọ?-i mu-pallu juku?-iñjo
   in pan-3 2-cook fish-DEF
   In the pan you cooked the fish. (Finer (to appear) (11))

We see a similar effect in negative clauses, where the negative morpheme occurs as a free form
   preceding the verb. Here the object suffix attaches to the negative.

(14) gele-ko la-keo? i Baso?.
   neg-2 3-call Baso
   Baso didn’t call you. (Finer (to appear) (14b))

Even a fronted adverb will host this ‘absolutive’ morpheme.

(15)a. al-lari-ko lassiri.
   INT-run-2 fast
   You run fast.
The simplest conclusion to draw, following Finer (to appear), is that this ‘absolutive’ suffix is actually a second position clitic.

The question now is why Selayarese cross-referencing manifests an ergative pattern. Focusing just on transitive clauses, Selayarese appears to behave like a familiar nominative-accusative language: the subject agrees, while the object may be clitic doubled.¹³ What needs to be explained is the behavior of intransitives. Why is an intransitive subject clitic doubled instead of triggering subject agreement? The answer proposed here is that clitics (or at least the type of clitic in Selayarese) can potentially double any direct argument, and Selayarese prefers to cross-reference arguments using clitics rather than agreement. Why, then, does Selayarese not use clitics for both subject and object in transitive clauses? It is proposed here that Selayarese limits itself to one clitic per clause. As a result, when there are two arguments to cross-reference, it uses a clitic for one, but must then resort to using the less preferred agreement for the other. Why does the object get the clitic while the subject agrees? The answer assumed here is that there is a universal principle prohibiting languages with only object agreement and no subject agreement.

Let us now turn to various other languages that appear to have a pattern of ergative agreement similar to that in Selayarese, to see if this agreement plus clitic analysis makes sense for those languages as well. Let us begin with Jacaltec.

### 3.2 Jacaltec

The model developed above for Selayarese appears to fit Jacaltec rather well. Jacaltec has a cross-referencing pattern that shares many features with Selayarese. Transitive subjects are cross-referenced with a morpheme attached to the verb. Intransitive subjects and transitive objects are cross-referenced with a morpheme whose position is somewhat different in different constructions, consistent with the behavior of clitics. Normally this clitic attaches as a suffix to the auxiliary.

(16)a. ch-ach w-ila. 
    aspect-2(abs)
    1erg-see
    I see you. 
    (Craig 1977:121)

(16)b. ch-oñ ha-colo 
    aspect-1(pl,abs)
    2erg-help
    You help us. 
    (Craig 1977:90)

¹³Only specific objects are clitic doubled in Selayarese.
(17)a. ch-ach    toyi
    aspect-2nd.abs  go
    You go.        (Craig 1977:90)

b. ch-oñ    tzoteli
    aspect-1st.pl.abs  talk
    We talk.        (Craig 1977:90)

However, in deverbal stative predicates, the clitic follows the predicate.14

(18) winaj  hach
    man    2nd.abs
    You are a man.  (Craig 1977:107)

If the ‘ergative’ agreement series in Jacaltec is ordinary subject agreement, while the ‘absolutive’ series is a clitic, then the model developed above for Selayarese extends to Jacaltec. As in Selayarese, there is a preference for using a clitic to cross-reference arguments, and thus clitics are used in intransitives. Because of a limit of one clitic per clause, in transitives only one argument may be clitic doubled, so agreement must be used to cross-reference the other argument. Because languages cannot have object agreement without subject agreement (except in the Hindi-type situation discussed in section one), agreement must cross-reference the subject, so it is the object that is clitic doubled.

An additional piece of evidence for the claim that the clitic (absolutive series) has the potential to double any argument, including a transitive subject, comes from the Mayan construction known as the Focus Antipassive. This construction disallows what I have argued is agreement (that is, the ‘ergative’ series), so that the clitic (the ‘absolutive’ series) is all that is available for cross-referencing. In this construction, the absolutive clitic can cross-reference either the subject or the object, depending on the person of the arguments. This pattern is easier to see in related Mayan languages that have the same cross-referencing system, such as K’iche’.15 The K’iche’ examples in (19) show normal transitive constructions with the same agreement pattern as in Jacaltec. The absolutive series (clitic) cross-references the object, while the ergative

14I am indebted to André Isaak for assembling this list for me of the various ways in which the Jacaltec ‘absolutive’ morpheme behaves like a clitic. He also notes that the ‘absolutive’ series looks more like the free pronoun series than does the ‘ergative’ series, which is consistent with the view that clitics are historically more recently pronouns than are agreement morphemes.

15In Jacaltec, this construction is limited to third person subjects, so you cannot show an example in which the person of the subject is higher than that of the object. Hale, Storto, and Goeldi 1996 refer to the choice of agreement controllers in this focus construction in K’ichee’ Mayan as eccentric agreement. They suggest that the reason that first and second person ‘win’ over third is that in this language, first and second person must agree (overly) while third person need not. That approach seems correct, but no attempt will be made here to implement it formally.
series (agreement) cross-references the subject. If the subject is fronted (focused, questioned, etc.) however, the Focus Antipassive construction is used, as in (20). In that construction, there is no ergative morpheme and the absolutive morpheme (the clitic) cross-references the argument with the higher person, regardless of whether that is the subject or the object. Thus in both examples in (20), the clitic is second person, even though the second person argument is the object in (20a) and the subject in (20b).

(19)a. x-at-r-il le achi [K’iche’]  
asp-2abs-3erg-see the man
The man saw you.

b. x-∅-aw-il le achi.  
asp-3abs-2erg-see the man
You saw the man.  
(Davies and Sam-Colop 1990:524)

(20)a. La are’ le ajkun x-at-kuna-n-ik  
Q FOC the doctor asp-2abs-cure-AP-in.suf
Was it the doctor who cured you?

b. La at x-at-kuna-n le ajkun  
Q you asp-2abs-cure-AP the doctor
Was it you who cured the doctor?  
(Davies and Sam-Colop 1990: 523)

Evidence for the claim made here that the subject agreement (ergative series) in Jacaltec actually has the potential to cross-reference intransitive subjects as well as transitive subjects comes from aspectless embedded clauses. In this context, the preference relation between agreement and clitic is reversed for some reason, so that agreement is preferred and a clitic is used only when there are two arguments. As a result, the subject agreement (‘ergative’ series) cross-references all subjects, intransitive as well as transitive, and clitics (the ‘absolutive’ series) only cross-reference transitive objects.16

(21) xc-ach w-iptze ha-munlayi  
asp-2nd-abs 1sterg-force 2nderg-work
I forced you [you work]
I forced you to work.  
(Craig 1977:312)

(22) x-∅-w-ilwe hach hin-colni  
asp-3rd-abs-1sterg-try 2ndabs 1sterg-help
I tried [I help you]
I tried to help you.  
(Craig 1977:124)

---

16The form of the ‘ergative’ series differs depending on the phonological context.
Under the analysis of Jacaltec proposed here, the fact that the agreement morpheme is closer to the verb, while the clitic is attached higher, is not evidence that Jacaltec has ‘upside-down’ syntax, with the transitive subject in Spec Agr-O and the object and intransitive subject in Spec Agr-S, contra the conclusion of Murasugi 1992 for Mayan languages.\(^\text{17}\) Instead, under the analysis proposed here, the syntactic arrangement of the agreement and clitic morphemes of Jacaltec is much like that of the Spanish example below, where the subject agreement is attached to the verb and the object clitic is higher:

(23) La vimos.
    Her saw-we
    We saw her.

We thus see that we can account for the Mayan ‘ergative’ agreement pattern without positing covert ergative Case (contra, for example, Hale, Storto, and Goeldi 1996), and without positing any kind of upside-down syntax (contra, for example, Campana 1992 and Murasugi 1992).\(^\text{18}\)

Before we look at any additional languages that have been said to have ergative agreement, let us first attempt to formalize this approach to Selayarese and Jacaltec agreement using Optimality Theory.

3.3 An OT Account

Both Selayarese and Jacaltec have subject agreement, but there are contexts in which neither language uses that agreement. Both languages prefer to use a clitic to cross-reference arguments whenever possible, resorting to using agreement only when a clitic is not possible. Optimality Theory allows us to formally account for this type of situation, where a language clearly has and could use a syntactic device, but does not because it prefers to use a different device for the task.

Using any type of cross-referencing device is ‘expensive’ in a sense, because it involves some sort of structure or complexity, and therefore dispreferred in general. This fact can be captured by proposing markedness constraints prohibiting such devices, as in Bresnan 1998.\(^\text{19}\)

\(^\text{17}\)Campana 1992 has a similar proposal where the syntax is ‘upside-down’, but only at LF, not at S-structure. The upside-down syntax is also motivated by a desire to get both nominative subjects and nominative objects to occupy Spec Agr-S for Case checking; however that is not necessary in the framework of Chomsky 1995 where the Case of nominative objects can be checked by feature raising to Agr-S, rather than by moving the whole object.

\(^\text{18}\)Additional evidence against a covert ergative Case system in Jacaltec is the fact pointed out by Isaak 1999 that the close association between ergative Case and agentivity seen in languages like Hindi is not characteristic of ergative agreement in Jacaltec.

\(^\text{19}\)Bresnan’s constraint is *af (affix), rather than *agreement, but *Agr will be used here for clarity. Bresnan uses these constraints to express differences in how languages realize pronouns.
Avoid Clitics: *CL

Avoid Agreement: *Agr

The ranking of these constraints is not universally fixed in Bresnan’s system, and thus we can use the language-particular ranking of these constraints to capture the fact that some languages prefer clitics, while others prefer agreement.

(26) Possible Rankings

a. *CL >> *Agr the language prefers agreement

b. *Agr >> *CL the language prefers clitics

However, because of their ‘expense’, languages would never have either clitics or agreement without some opposing constraint requiring them. It is generally assumed that this opposing force is a need to morphologically realize the features that these morphemes encode. Let us refer to this constraint as Realize Φ.

(27) Realize Φ: Morphologically realize Φ features (person, number, etc.) that occur on a head in an agreement relationship with an argument.

If Realize Φ is ranked above *Agr and/or *CL, the language will have agreement and/or clitics, but if Realize Φ is ranked below both *Agr and *CL, the language will have neither.

To generate the Selayarese system, we need one more type of violable constraint, one that limits clitics (or agreeing arguments) to one per clause.

a. Limit One: CL There is a limit of one clitic per clause.

b. Limit One: Agr There is a limit of one agreement per clause.

Given these constraints, we can now generate the Selayarese and Jacaltec systems, and contrast these with the pattern of a language like Spanish.

Let us begin by determining the relative ranking of these violable constraints. We have information in Selayarese and Jacaltec that tells us that Realize Φ is ranked above both *CL and *Agr. That is, it is more important in Selayarese and Jacaltec to morphologically realize Φ features than it is to be ‘economical’ by avoiding using clitics or agreement.

(29) Realize Φ >> *CL, *Agr

20See Yip 1995 for a survey of similar constraints in phonology, morphology, and syntax.
We also have information that tells us that *Agr is ranked above *CL. That is, it is more important to avoid using agreement than it is to avoid clitics. We know this because clitics are always used when there is only one argument to cross-reference.

(30) *Agr >> *CL

Nevertheless, we also know that Selayarese limits clitics to one per clause, even if that means using the less desirable agreement. That is, it is more important to limit clitics to one per clause than it is to avoid agreement. This tells us that the constraint, Limit One: CL, is ranked above *Agr.

(31) Limit One: CL >> *Agr.

Let us now assemble this ranking information into a summary ranking of these constraints in Selayarese and Jacaltec:

(32) Selayarese/Jacaltec ranking: Realize \( \Phi \), Limit One: CL >> *Agr >> *CL

Let us now see how these constraints operate, using tableaux to illustrate. In intransitive clauses, there is only one argument to cross-reference. The high rank of Realize \( \Phi \) insures that it will be cross-referenced, despite the ‘expense’ of using a marked element such as a clitic or agreement. Thus the candidate in (33c) without a clitic or agreement is eliminated. Now the decision is between cross-referencing with a clitic versus agreement, and the higher rank of *Agr eliminates the candidate in (33b) with agreement, leaving the candidate in (33a) with a clitic as the winner. The fact that this winning candidate violates *CL is irrelevant, because it is the only candidate left at this point, and as the best of the lot, it is the candidate that surfaces.

We do not have enough information to determine the relative ranking of Realize \( \Phi \) and Limit One: CL. That would require a situation in which there were two arguments to cross-reference, but in which clitics were the only available means to do so (no agreement available for some reason). Then we could see whether the language chooses to use two clitics, or to forgo realizing the \( \Phi \) features of both arguments.

We also do not know the ranking of Limit One: Agr. Selayarese never uses more than one agreement, but it is not clear whether this is due to the effect of Limit One: Agr or simply to the fact that there are never enough arguments to cross reference to require two agreements plus a clitic.
Intransitives (Word Order Shown is Selayarese)

<table>
<thead>
<tr>
<th>input: intransitive Candidates:</th>
<th>Realize-Φ</th>
<th>Limit One: CL</th>
<th>*Agr</th>
<th>*CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. V CL Subj</td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>b. Sagr+V Subj</td>
<td></td>
<td></td>
<td>!</td>
<td></td>
</tr>
<tr>
<td>c. V Subj</td>
<td>!</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In transitives with specific objects, there are two arguments to cross-reference. Realize-Φ will eliminate all candidates in which only one, or neither of these candidates are cross-referenced, so these candidates will not be included in the tableau in order to simplify things. Let us also assume that the potential candidate with agreement cross-referencing the object and a clitic doubling the subject is also eliminated, probably by whatever universal constraint prohibits object agreement without subject agreement in a language. That leaves three candidates, one with two clitics, one with one clitic and subject agreement, and one with two agreements.

Transitives (Word Order Shown is Selayarese)

<table>
<thead>
<tr>
<th>input: transitive Candidates:</th>
<th>Limit One: CL</th>
<th>*Agr</th>
<th>*CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. V CL CL Obj Subj</td>
<td>*!</td>
<td>**</td>
<td></td>
</tr>
<tr>
<td>b. agr+V CL Obj Subj</td>
<td>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. agr+agr+V Obj Subj</td>
<td>**!</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The high ranked constraint against multiple clitics eliminates the first candidate. The candidate (c) with two agreements is eliminated by its double violation of *Agr (or by Limit One: Agr, if that is ranked higher), leaving the candidate in (b) with subject agreement and a clitic-doubled object as the winner. 22

Altering the rankings of these violable constraints can generate 10 different types of systems.

22Transitive clauses with non-specific objects in Selayarese will work like intransitives, because the object is not eligible to be cross-referenced. One hypothesis as to why this is, is that in Selayarese, non-specific objects remain inside the VP where they cannot be clitic doubled.
Although the number of possible rerankings of five constraints is $5!$ (five factorial) or 120, most of these logically possible rerankings make no empirical difference, as we see below. To see this clearly, let us first consider only the six possible rankings of the three constraints, *CL, *Agr, and Realize Φ, and their typological predictions. We will then consider what difference it would make, if any, to intersperse among these, the two constraints limiting clitics and agreement to one per clause.

In the first two rankings, Realize Φ is ranked below both *Agr and *CL, indicating that the language finds it better to avoid marked structures than to realize features. As a result, the languages uses neither agreement nor clitics. In the nest two rankings (c,d), Realize Φ is in the middle, above one markedness constraint and below the other. That means that realizing features will occur, but only by means of the device mentioned in the lowest ranked constraint. In the last two rankings (e,f), Realize Φ is highest ranked, but the same result occurs: realizing features will be done by means of the device mentioned in the lowest ranked markedness constraint.

(35) Six Possible Rankings of *CL, *Agr, and Realize Φ and Their Typological Predictions

a. *Agr >> *CL >> Realize Φ  the language has neither clitics nor agr
b. *CL >> *Agr >> Realize Φ  the language has neither clitics nor agr
c. *Agr >> Realize Φ >> *CL  the language has clitics only
d. *CL >> Realize Φ >> *Agr  the language has agreement only
e. Realize Φ >> *Agr >> *CL  the language has clitics only
f. Realize Φ >> *CL >> *Agr  the language has agreement only

Now let us consider the effect of adding the two constraints that limit clitics or agreement to one manifestation per clause. The addition of these constraints to the ranking in (a) will make no difference in the typological predictions, regardless of where they are inserted, because the ranking in (a) already has the effect of limiting both clitics and agreement to zero, so that adding constraints limiting these devices to one can make no difference. The same is true of the ranking in (b).

The ranking in (c) already prohibits agreement to zero, so Limit One: Agr will make no difference regardless of where it is ranked. Limit One: CL will also make no difference if it is ranked below Realize Φ, because it will be more important to use as many clitics as is necessary to realize the available features that it is to limit them to one. However, Limit One: CL does make a difference if it is ranked above Realize Φ, as in (c’). With that ranking, the language will
allow only one clitic, even if it means that features will go unrealized.\textsuperscript{23}

\begin{itemize}
\item[c.] \( *\text{Agr} \gg \text{Realize} \Phi \gg *\text{CL}, \text{Limit One: CL} \) \quad \text{the language has clitics only}
\item[c’.] \( *\text{Agr}, \text{Limit One: CL} \gg \text{Realize} \Phi \gg *\text{CL} \) \quad \text{the language has one clitic and no agreement}
\end{itemize}

The situation with respect to the ranking in (d) is similar. Here the ranking prohibits clitics, so Limit One: CL can make no difference. However, Limit One: Agr can make a difference. If limiting agreement to one is more important than realizing features, then the language will be limited to one agreement per clause, as in (d’).

\begin{itemize}
\item[d.] \( *\text{CL} \gg \text{Realize} \Phi \gg *\text{Agr}, \text{Limit One: Agr} \) \quad \text{the language has agreement, but no clitics}
\item[d’.] \( *\text{CL}, \text{Limit One: Agr} \gg \text{Realize} \Phi \gg *\text{Agr} \) \quad \text{the language has one agreement and no clitics}
\end{itemize}

So far, none of these rankings has produced a language with both clitics and agreement. That situation arises only when Realize \( \Phi \) is ranked above both markedness constraints, but the preferred mode of cross-referencing cannot be used on more than one argument. We saw this situation above in Selayarese and Jacalte, where clitics are the preferred mode of cross-referencing, but there is a limit of one clitic. That ranking is shown in (e’) below, where Limit One: CL is ranked above *Agr, expressing the idea that it is necessary to avoid using more than one clitic, even if it means violating *Agr by using agreement in order to obey Realize \( \Phi \).

\begin{itemize}
\item[e.] \( \text{Realize} \Phi \gg *\text{Agr} \gg *\text{CL}, \text{Limit One: CL} \) \quad \text{the language has clitics only}
\item[e’.] \( \text{Realize} \Phi, \text{Limit One: CL} \gg *\text{Agr} \gg *\text{CL} \) \quad \text{the language has one clitic, plus agreement}
\end{itemize}

We also get a language with both cross-referencing devices if we add Limit One: Agr to the ranking in (f), but rank it above *CL (f), as in (f’) below. This will produce a language where agreement is preferred over clitics, but there is a limit of one agreement per clause. In such a language, intransitive subjects will always agree, and clitics will only cross-reference transitive objects. That produces a nominative-accusative cross-referencing pattern.

\begin{itemize}
\item[f.] \( \text{Realize} \Phi \gg *\text{CL} \gg *\text{Agr}, \text{Limit One: Agr} \) \quad \text{the language has agreement only}
\end{itemize}

\textsuperscript{23}Ordering Limit One: CL above *CL will make no difference under the assumption that the only two devices that one can ever use to realize features are clitics and agreement, and agreement is eliminated as an option by the high rank of *Agr. As long as Realize \( \Phi \) is ranked above Limit One: CL, it will be more important to realize features than to obey the constraint limiting clitics to one.
1. Realize $\Phi^*$, Limit One: Agr >> *CL >> *Agr the language has one agreeing argument, plus clitic(s)

Of all of these rankings, only one (e’) produces an ergative pattern (by itself) and that is the pattern of Jacaltec-type languages. Languages like Hindi have the same ranking as English (d’), which allows one agreement and no clitics. Assuming that there is a universal generalization that one agreement will go with the subject rather than the object, this ranking will never produce an ergative pattern unless the subject has a lexical/inherent Case and there is a nominative object which agrees, as we saw in section two.

Let us now examine two other languages with ergative agreement that appear to be good candidates for the Selayarese/Jacaltec model of ergative agreement developed above. One of these is Abkhaz and another other is Yimas.

3.4 Abkhaz

Like Jacaltec and Selayarese, Abkhaz has no overt Case morphology on subjects or objects, and like these languages, Abkhaz has an ergative pattern of cross-referencing. In Abkhaz, the morpheme that cross-references transitive subjects is located close to the verb stem, while the morpheme that cross-references intransitive subjects and transitive objects occurs on the extreme left periphery of the verbal complex (Hewitt 1979). Between these morphemes can occur a variety of other morphemes, including adverbials, orientation markers, directional markers, and oblique markers (see Comrie 1981:218). The examples below show that a first person intransitive subject is cross-referenced in the first slot in (36), while a first person transitive subject is cross-referenced in a much later slot adjacent to the verb stem, in (37).

(36) $s+\text{r}^{\text{e}}+\text{c}+\text{ca}+k^{*}e+\text{yt}$
I+them+with+go+pl+finite
I went with them. (Hewitt 1979: 212)

(37) $y\text{\theta}+b+z+a+a+z+g^{\text{e}}+y\text{t}$
I+you+for+hither+I+bring+finite
I brought it for/to you. (Hewitt 1979: 213)

The idea that the absolutive cross-referencing morpheme is not agreement, but rather a clitic, in Abkhaz (as in Jacaltec and Selayarese) is plausible given the fact that this morpheme always occurs peripherally. Baker 1999 independently argues that the absolutive morpheme of Abkhaz/Abaza is not object agreement because it does not behave like object agreement in Bantu and other languages with true object agreement.

If Abkhaz works like Jacaltec, then the so-called ergative morpheme next to the verb stem is true subject agreement, while the peripheral absolutive morpheme is a doubling clitic. As in Jacaltec and Selayarese, the ergative pattern is caused by a preference for using the clitic rather
than the agreement whenever possible. Under this analysis, it is not necessary to claim that Abkhaz has a covert ergative Case system, with the agreement parasitic on that Case system, contra O’Herin’s 1993 claim for the closely related language Abaza. A complete analysis of Abkhaz will not be attempted here because of several additional complexities, including the agreeing incorporated preposition-like elements in the examples above (but see Baker 1999 for a possible analysis of those elements).  

Let us now look at one last language that appears to have a Jacaltec-type agreement system.

3.5 Yimas

Yimas is a language of Papua New Guinea with no case marking on nominals, but with a quite complex agreement/cross-referencing system described in detail in Foley 1991. The Yimas system appears to lend itself to a basic analysis similar to that of Selayarese, Jacaltec, and Abkhaz, but there are several complicating factors that make Yimas look somewhat different.

In Yimas, intransitive subjects are cross-referenced with a peripheral prefix. This prefix form can also cross-reference transitive objects, with the transitive subject cross-referenced by a morpheme closer to the verb root. We see this absolute pattern of the prefix pu ‘3PL’ in the examples below, where pu cross-references the intransitive subject in (38) and the transitive object in (39a), but not the third plural transitive subject in (39b).

(38) **pu+tmuk+t**  
3PL+fall+PERF  
They fell down.  
(Foley 1991:197)

(39)a. **pu+ka+tay**  
3PL+1SG+see  
I saw them.  
(Foley 1991:196)  

b. **na+mpu+tay**  
3SG+3PL+see  
They saw him.  
(Foley 1991:195)

If Yimas has the cross-referencing system of Jacaltec, Selayarese, and Abkhaz discussed above,

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24 Although the focus in this section is on Jacaltec-type ergative agreement systems that occur in languages that do not have ergative Case systems, there is no reason why this type of agreement would be incompatible with languages that do have ergative Case systems. Virtually the same agreement system as in Abkhaz occurs in a related language that has ergative Case, Kabardian (Colarusso 1992). The claim of this paper is that languages with ergative Case systems can have either the Jacaltec or the Hindi type of ergative agreement pattern, but that languages without ergative Case can only have the Jacaltec type.
then the absolutive prefix is a clitic, while the more interior morpheme is true agreement.\textsuperscript{25} Evidence that the prefix is a clitic, aside from its peripheral position, is that fact that its form is identical to that of independent pronouns, where those exist (Foley 1991:200).\textsuperscript{26} Foley (1991:199) suggests that these prefix forms “in most cases simply seem to be these pronouns bound to the verb stem”. Another difference between the prefix and the more internal slot that justifies treating them as different kinds of cross-referencing mechanisms is the fact that the prefix reflects the noun class of arguments (in addition to person and number), while the more internal slot does not.

If the Yimas system is like that of Jacaltec, Selayarese, and Abkhaz, the use of the clitic rather than agreement in intransitives is the result of a preference for using a clitic over using agreement. The need to use agreement for one of the arguments in a transitive is the result of a limit of one clitic per clause. As argued above, these constraints are the sole source of the ‘ergativity’ manifested in this cross-referencing pattern. However, when we look at additional data, we find that Yimas is much less ‘ergative’ in its cross-referencing pattern than the other languages we have discussed in this section. The examples below manifest a ‘nominative-accusative’ cross-referencing pattern instead. The 3\textsuperscript{rd} plural prefix is used in these examples to cross-reference both transitive and intransitive subjects.

(40) pu+tmuk+t
3PL+fall+PERF
They fell down. (Foley 1991:197)

(41) pu+ŋa+tay
3PL+1SG+see
They saw me. (Foley 1991:196)

This data provides an additional argument for the claim made above that the clitic has the potential to cross-reference any argument. However, this data raises a new question of why, in contrast to Selayarese, Jacaltec, and Abkhaz where only the subject can agree (that is, be cross-referenced using true agreement), in Yimas, it appears that either the subject or the object can potentially agree. The answer proposed here is that Selayarese, Jacaltec, and Abkhaz only have one agreement series, which is necessarily subject agreement, while Yimas has both subject and

\textsuperscript{25}There are modals in Yimas that occur initially in the verbal complex and these disfavor the occurrence of a clitic, at least a first or second person clitic. In these circumstances, subject agreement occurs even in intransitives. This provides additional evidence that the subject agreement is not ergative agreement with an argument with covert ergative Case.

\textsuperscript{26}There is one exception, in that the free form of the 2\textsuperscript{nd} person singular pronoun is \textit{mi}, while the prefix form is \textit{ma}. 
object agreement, in addition to the clitic.\textsuperscript{27}

\begin{equation}
\text{(42) clitic + Sagr + Oagr + Vroot}
\end{equation}

\begin{equation}
\begin{array}{cccc}
\text{Clitics} & \text{Sagr} & \text{Oagr} & \text{Free Pronouns} \\
1\text{sg} & \text{ama} & \text{ka} & \text{ŋa} & \text{ama} \\
2\text{sg} & \text{ma} & \text{n} & \text{nan} & \text{mi} \\
3\text{sg} & \text{na} & \text{n} & \text{*}^{28} & - \\
1\text{pl} & \text{ipa} & \text{kay} & \text{kra} & \text{ipa} \\
2\text{pl} & \text{ipwa} & \text{nan} & \text{kul} & \text{ipwa} \\
3\text{pl} & \text{pu} & \text{mpu} & \text{*} & -
\end{array}
\end{equation}

Transitive clauses need to use only two of these three slots, because they have only two arguments to cross-reference. It is assumed here that subjects and objects occupy normal syntactic positions in Yimas which make them eligible to trigger subject and object agreement, respectively. However, agreement will not surface if the argument is cross-referenced by a clitic. Given the preference for using a clitic, we expect transitive clauses to use the clitic plus one of the two agreement morphemes. Before we discuss the principles that determine which argument will be cross-referenced by the clitic and which will agree, let us further motivate the existence of three slots by giving an example in which all three are filled. This situation is rare, but it does happen in the following ditransitive example, where the clitic cross-references the second object (theme) while the subject and first object (goal) both agree:

\textsuperscript{27}This analysis shares with the analysis in Phillips (1993) the conclusion that the cross-referencing morphemes in Yimas are not all agreement. However, Phillips’ analysis differs as to the identity and the number of cross-referencing morpheme slots in Yimas. For him, the prefix is an absolutive agreement morpheme, the second slot is an ergative agreement morpheme, the third is an incorporated subject pronoun and the last is an incorporated object pronoun. The details of the Yimas system are far too complex to allow a comparison of these two approaches here, but his approach does make the ergative agreement system parasitic on a covert ergative Case system, in that ergative and absolutive Case are absorbed by the ergative and absolutive agreement morphemes.

Foley 1991 does not identify the morpheme slots in the verbal complex. Instead he labels the cross-referencing morphemes in a way that indicates what they cross-reference: S (intransitive subject), A (transitive subject), or O (object). These correlate to a great extent with my labels of clitic, Sagr and Oagr, but not entirely. In his view, neither the linear order nor the surface form of these morphemes is fixed. The linear order is determined by principles to be discussed below, while the form of the morpheme varies depending on whether it is a prefix or not.

\textsuperscript{28}Third person object agreement forms exist, but they appear in a different position, suffixed to the verb, because of the person hierarchy constraint to be discussed below. These are the forms that Foley 1991:208 refers to as dative affixes, because they only occur in double object constructions.
The apparently universal generalization that second objects never agree (with true object agreement, as opposed to a clitic), provides further evidence that the initial prefix that cross-references the second object in the above example is not agreement.

Now let us turn to the question of what determines which argument will be cross-referenced with which device. Although it is not necessary to provide a complete analysis of the Yimas system in order to make what is the main point of this section— that these languages with an ‘ergative’ cross-referencing pattern can be analyzed without positing covert ergative Case—I will provide a sketch of an OT account of the interacting factors that appear to determine how arguments get cross-referenced in this language. Let us begin with a summary sketch of the patterns to be accounted for in transitive constructions:

(45) Transitive Patterns in Yimas

a. clitic(object)+Sagr  used when the object is 3rd person  (e.g. (39))

b. clitic(subject)+Oagr  used when the object is 1st or 2nd person, and the subject is 2nd or 3rd person  (e.g. (41))

c. (i) portmanteau form  1st person subject, 2nd sg. object  (kampan)

(ii) Oagr  1st person subject, non-sg 2nd person object  
(subject can occur as a free pronoun)

As one can see, the person of the subject and object largely determines how these arguments will be cross-referenced. Foley 1991:202 proposes a principle such that the morpheme with the higher person must occur to the right, closer to the verb stem. (One way to translate this into OT terms is by means of a series of alignment constraints, which preferably align the higher persons with the left edge of the Vroot.) Under the ‘three slot’ account I have proposed, this does not mean that the morphemes change position, but only that the surface order of morphemes should conform to the person hierarchy, with lower persons to the left and higher to the right. In fact, all of the transitive patterns do so conform:
(46) Transitive Patterns Obey a Person Hierarchy

<table>
<thead>
<tr>
<th>Clitic</th>
<th>Sagr</th>
<th>Oagr</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. 3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>b. 3</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c. (portmanteau)</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

While this much of the system seems clear, there are a number of additional questions to answer, which will only be mentioned here. To account for the fact that transitives with two third person arguments take the (a) pattern rather than the (b) pattern, Foley suggests that there is a principle aligning subjects to the right when both arguments are third person. Alternatively, there might be a universal, but violable preference for realizing subject agreement rather than object agreement. That principle would be violated by the forms in (b), so it would have to be ranked below the alignment constraints that enforce the person hierarchy. The forms in (c) where the subject is first person and the object is second person are unexpected, given what has been said so far. We would expect these 1-2 combinations to be realized with the pattern in (a), with the second person object realized as a clitic and the first person subject realized as agreement.

(47) Expected and Actual (c) patterns:

<table>
<thead>
<tr>
<th>Clitic</th>
<th>Sagr</th>
<th>Oagr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected:</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Actual:</td>
<td>2</td>
<td>(or portmanteau <em>kampan</em>)</td>
</tr>
</tbody>
</table>

The expected form would obey the person hierarchy, with the 1st person morpheme closer to the verb, and it would have subject agreement rather than object agreement. Instead, we find either a portmanteau form or just object agreement and no cross-referencing of the subject at all. This suggests the presence of some higher ranked constraint(s) taking precedence over the constraints discussed so far, but I will not speculate here as to what these might be.\(^29\)

To summarize this Yimas section, we have seen that the clitic plus agreement model of

\(^29\)Foley suggests that there is a principle such that the object morpheme must be closer to the verb stem when first and second person are involved.
Selayarese fits Yimas as well, but that Yimas has additional complicating factors, such as the potential presence of two agreement morphemes in addition to the clitic and person-based competition for how arguments get realized. However, it is not being claimed in this paper that all languages that have been said to have an ergative agreement system necessarily fit this Selayarese clitic plus agreement model. The claim is merely that the proper analysis of such languages never involves a covert ergative Case system. In the next section, we briefly look at two languages that have been said to have ergative agreement systems which do not work like Selayarese.

4. Residual Instances of Ergative Agreement

The types of ergative cross-referencing patterns discussed so far in this paper do not exhaust the types of patterns that have been called ergative. In this section, we will take a brief look at two additional types and how they might be accounted for. One type looks ergative only in certain person combinations and is the result of person based competition between the subject and the object for control of a cross-referencing morpheme. Another type occurs in Chamorro where transitive and intransitive subjects take different agreement forms.

4.1 Person-Based Competition

We have already seen an element of person-based competition between subject and object for control of some cross-referencing morpheme in Yimas and also in Mayan. In De’Kwana (Carib), this person competition produces what has been described as a split ergative pattern (Hall 1984). In De’Kwana, all subjects and objects agree, if possible. However, there is a limit of one agreement prefix allowed on the verb, with a person-based competition over whether this one agreement prefix will be a realization of subject or object agreement. (There is a distinct

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30With respect to ergative agreement systems, I concur with the view of Marantz 1984b and Johns 1996 that ergativity is not a unitary phenomenon with a unified account. However, ergativity with respect to Case appears to be a more unified phenomenon (see Woolford 1997, 1999).

31The discussion in section one of this paper may give the impression that any language in which both ergatives and absolutes are cross-referenced must necessarily be of the Jacaltec-type. However, that is not so. A variant of the Hindi-type of ergative agreement pattern occurs in Basque, where as in Hindi, the morpheme that cross-references absolutes/nominatives corresponds to ordinary subject agreement in English (Marantz 1984b). This qualifies Basque as having a Hindi-type agreement system, even though Basque differs from Hindi in having additional cross-referencing morphemes in a different location in the verbal complex which cross-reference arguments with ergative and dative Case. Basque, like Hindi, has overt morphological ergative Case, consistent with the claim of this paper that no language will use the familiar nominative/subject agreement morpheme to cross reference absolutes/nominatives in an ergative pattern unless that language has ergative or dative (inherently Cased) subjects.

32For example, Chukchi and Itelmen have been described as having a split ergative agreement system (e.g. Comrie 1979, 1981), but Bobaljik 1998 argues that these languages actually have a nominative-accusative (subject-object) alignment of agreement.
agreement series for subject and object agreement so you can tell which has surfaced.) First and second person arguments always win out over third person arguments. Thus constructions with a third person subject and a first or second person object manifest an ergative sort of pattern where the object agrees instead of the subject, as in (48) below.

(48) y-edant(ö)-a.
    1st-meet-pres
  He meets me.  (Hall 1984: 38)

However, constructions with a first or second person subject and a third person object manifest a nominative pattern where the subject agrees, as in (49).

(49) w-edant(ö)-a.
    1st-meet-pres
  I meet him.  (Hall 1984: 38)

In this sense only is the language split ergative.

To analyze such systems, one needs to use constraints that refer to the realization of particular features: Realize 1st person, Realize 2nd person > Realize 3rd person. Ranked above these are the constraints *CL and Limit One: Agr. The result is a language that allows only one agreement morpheme, even though there is both subject and object agreement in an abstract sense. The abstract agreement with the higher person feature gets to be realized.

4.2 Chamorro

Chamorro has been called ergative based on its cross-referencing morphology (Chung 1981, Cooreman 1988, Campana 1992). In one sense, Chamorro is a very clear example of a subject agreement language since all and only subjects agree. Moreover, the cross-referencing of transitive and intransitive subjects is the same in some contexts (irrealis forms). The basis for the label ergative is the fact that in the realis, the person/number agreement series cross-references only transitive subjects (intransitive subjects are cross-referenced by a different morpheme series that encodes only number). [Data from Chung 1981]

(50)a. Realis Intransitive Subject Agreement: Number Only

    singular   plural

    um or ø    man
b. Realis Transitive Subject Agreement: Person and Number

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>hu-</td>
<td>ta- (inclusive) [in- exclusive]</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>un-</td>
<td>in-</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>ha-</td>
<td>ma-</td>
</tr>
</tbody>
</table>

In that sense, there is an ‘ergative’ agreement morpheme (Chung 1981, Cooreman 1988). The language is said to manifest split ergative along realis — irrealis lines because in the irrealis, both transitive and intransitive subjects are cross-referenced with the same person/number series (except for third person plural).

(51) Irrealis Subject Agreement (Transitive and Intransitive)

<table>
<thead>
<tr>
<th></th>
<th>singular</th>
<th>plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
<td>u-</td>
<td>ta- (inclusive) [in- exclusive]</td>
</tr>
<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
<td>un-</td>
<td>in-</td>
</tr>
<tr>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
<td>u-</td>
<td>u- (intransitive) [uma- transitive]</td>
</tr>
</tbody>
</table>

Although there are many easy ways to formally generate this Chamorro system, the problem is that most are too powerful. We need a way to formally account for the Chamorro agreement pattern that will not incorrectly predict that there should exist languages where only transitive subjects agree. We cannot allow the possibility of an agreement series that has to agree with (or check) an ergative Case feature, nor can we allow an agreement series to be linked to an ergative grammatical relation, because both approaches will allow us to generate a system in which transitive subjects agree, but intransitive subjects and transitive objects do not.

Although no analysis of Chamorro will be proposed here, I will outline the properties that such an analysis might have. In order to prevent the generation of a special transitive form of subject agreement in languages where intransitive subjects do not agree, one strategy is to make the existence of a special transitive form contingent on the existence of the intransitive subject agreement that exists in Chamorro. That way, we do not predict that the transitive agreement could occur in a language lacking this intransitive agreement.

The intuitive idea I have in mind is to prohibit the co-occurrence of the number agreement

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33 Dixon 1994:21-22 restricts the definition of an ergative pattern to one in which the intransitive subject and transitive object are marked in the same way, and thus Chamorro would not be ergative under his definition.

34 In both realis and irrealis, a separate number agreement morpheme appears only in intransitives.

35 It is always possible that the correct approach is to allow the theory to overgenerate, but to add a separate principle or constraint to rule out the non-occurring patterns. In that way, any theory can be prevented from allowing ergative agreement without absolutive agreement.
series and the person/number agreement series in the realis. For some reason, the number series is limited to and required to occur in intransitives.\(^{36}\) Given this (unexplained) fact, we can use it to account for why the person/number series to limited to transitives only, if these two series cannot co-occur.

This approach to Chamorro agreement cannot generate a language with only ergative agreement, nor does it require positing a covert ergative Case system in order to explain the agreement pattern. The abstract Case pattern is nominative-accusative (because covert ergative Case systems do not exist, see section one) and thus arguments need not occupy any unusual positions for Case checking, contra the model in Campana 1992.

4.3 Halkomelem Salish

Like Chamorro, Halkomelem Salish appears to be a counterexample to the claim that no language has agreement only with ergatives. Gerdts 1988:49 states that “agreement is marked only for ergatives”. Halkomelem Salish is like Chamorro in a couple of respects. First, there is no ergative Case morphology, so we cannot posit a covert ergative Case system to explain this agreement pattern. Second, in some contexts, all subjects agree, not just transitive ones.

The facts of Halkomelem Salish are interesting. In subordinate contexts, there is a full subject agreement paradigm and all subjects agree, both intransitive and transitive.\(^{37}\) But in matrix contexts, the picture changes. The cross-referencing pattern of subjects varies depending on both person and transitivity. First and second person subjects never agree. Third person subjects do agree, but only in transitives. Intransitive third person subjects do not agree. The transitive subject agrees using the same agreement morpheme that occurs in subordinate contexts. So we have a situation where a full agreement paradigm is available in the language, but the language does not choose to use these morphemes in matrix contexts, unless the subject is a third person in a transitive clause.

Unlike the scenario in Chamorro, there is no competing morpheme to block the occurrence of agreement in Halkomelem Salish; nevertheless, something must be blocking the agreement morphemes that exist in the language from surfaceing in certain contexts. Although I have no suggestion at this point for what this blocking factor is, this approach makes a prediction regarding the situation that needs to hold before a language can manifest the type of ergative agreement pattern where only ergatives agree. The prediction is that the language must have other contexts in which all subjects agree. Something must then block the normally expected and available agreement in some contexts, producing an ergative pattern with the remaining surfacing agreement.

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\(^{36}\)There are languages that restrict agreement to intransitive subjects, e.g. Niuean (Seiter 1980).

\(^{37}\)One might argue that these are actually clitics.
5. Conclusion

New typological evidence supports the view that ergativity is not a unitary phenomenon, at least with respect to agreement. Two distinct types of ergative agreement occur, which require entirely different analyses. Nevertheless, both of these can be viewed as perturbations of the more familiar nominative or subject agreement caused by interactions with other subsystems of grammar.

In the Hindi-type of ergative agreement pattern, what corresponds to subject agreement in languages like English surfaces on ‘absolutives’ (nominatives); but this pattern can only occur in languages with a morphologically overt ergative Case system, because nominative objects only occur with ergative (or dative) subjects. In the Jacaltec-type of ergative agreement pattern, what corresponds to subject agreement in languages like English surfaces only on ‘ergatives’ (i.e. transitive subjects), because although that agreement is theoretically available to cross-reference intransitive subjects, the language prefers to use a clitic. The Jacaltec-type of ergative agreement is independent of Case, occurring with both ergative and nominative-accusative Case systems. However, because of the strong tendency not to double mark accusative objects with both Case and agreement, we do not see this system in languages with overtly marked accusative Case.

This approach removes the motivation for several devices introduced in other work to account for ergative agreement, including positing completely covert ergative Case systems, positing upside-down syntactic configurations and/or allowing some subjects to trigger object agreement, and stating agreement rules in terms of ergative and absolutive grammatical relations.
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