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Origins of Differential Unaccusative/Unergative Case Marking: Implications for Innateness

Alice C. Harris

11.1 Introduction

It has recently been emphasized that some linguistic phenomena are best explained not by appeals to innateness, but as epiphenomena, results of their own history (Anderson 2004; Blevins 2004; Blevins and Garrett 1998; Garrett 2008); this view is sometimes referred to as “evolutionary.” While there is much merit to this approach, it is surely not the case that all phenomena can be fully explained in this way. In previous work (Harris and Campbell 1995, chap. 8) I have supported the view that crosslinguistically many word-order harmonies can be elegantly explained as the reanalysis of a harmonizing expression, such as the relative order of noun and adposition resulting from the reanalysis of genitive and noun (see Greenberg 1963, 99, and many other authors, regarding this and other examples). I have proposed two new sources of such harmonies—the verb and auxiliary from complex clauses, and the comparative adjective and standard of comparison from the general position of the complements of adjectives (Harris 2000). Yet in both works I have shown that this is not the only source of word-order harmonies; while many word-order harmonies are epiphenomena, it would be a mistake to attribute all to this source. In the present chapter I argue that the subject case marking differential, too, is partly to be explained as the results of its own history of reanalysis, but that innate or acquired knowledge of unergative and unaccusative¹ verb classes also has a role to play in their explanation. I argue that differential case marking for unaccusative and unergative verbs cannot be entirely explained as an epiphenomenal result of diachronic change.

Differential unaccusative/unergative case marking is illustrated in the contrast between (1) and (2), where the unaccusative verb *darča* requires a subject in the so-called nominative case, while the unergative verb *itamaša* takes a subject in the so-called ergative case.²

- (1) bavšv-i darča saxl-ši³ (author's fieldnotes)
 child-NOM she.remained house-in
 'The child remained in the house.'
- (2) bavšv-ma itamaša ezo-ši (author's fieldnotes)
 child-ERG she.played yard-in
 'The child played in the yard.'

In this chapter I compare the development of differential case marking in Georgian, Udi, and Batsbi (also known as Tsova-Tush or Bats), three languages of the Caucasus. Georgian is not related to the other two, and Udi and Batsbi are only distantly related. Differential case marking is innovative in all three and cannot be attributed to a shared protolanguage. The differential case marking developed in three completely different ways in the three languages.

If synchronic differential unaccusative/unergative phenomena are fully explained through their diachronic origins, the occurrence of an unaccusative/unergative distinction in languages around the world must be viewed as an epiphenomenon. On the other hand, if synchronic phenomena that distinguish unaccusative from unergative are not so explained, the distinction itself is most naturally ascribed to our innate language faculty. For example, if incorporation of an object by a transitive light verb, as in (3), fully accounts for the origins of the unergative/unaccusative distinction in Udi, the synchronic distinction is explained as the result of the reanalysis of such constructions. (This process is described in greater detail in section 11.2.)

- (3) pačay-q'a ič čubux arc-i ixt'ilät-q'un-b-esa-i (Taral)
 king-and self's wife sit-PTCPL conversation-3PL-DO-PRES-PAST
 'The king and his wife, sitting, were conversing.'

I argue that such a reanalysis is indeed part of the explanation in Udi, but that we must refer also to the generalization of the phenomenon within the natural class of unergative verbs. I suggest that the knowledge of this class is innate.

In this chapter I argue that there is no explanation of the origins of the case-marking differential in Batsbi that would attribute it to a similar reanalysis. I show that the differential in Georgian, as in Udi, is partly explained through the constructions from which it developed, but that those constructions cannot explain certain parts of their development. The availability of an innate distinction between unergative and unaccusative classes of verbs is one approach to completing the picture.

I begin by describing the origin of the case-marking differential in Udi in section 11.2; the differential in Udi is largely the result of its history. For this reason, it serves to show both the elegance of this method of explanation and its limitations. In section 11.3 I turn to Batsbi. I have written before on the origins of this distinction in Georgian (Harris 1985), and in section 11.4 I summarize that description. In section 11.5 I discuss the implications of these facts.

11.2 Udi

11.2.1 Description of the Origins of Differential Case Marking in Udi

Udi is a member of the Lezgian subgroup of the Nakh-Daghestanian (or North East Caucasian) languages, rather distantly related to its closest sisters. My examples come from the Vartašen dialect as spoken in the village of Okt'omber, but the other dialect, Nij, is substantially like it in terms of morphosyntax (Harris 2005).

Udi, like its sisters, inherited strictly ergative case marking, with the subject of a transitive marked with the ergative case and the subject of an intransitive and the direct object in the zero-marked nominative (absolutive) case. In Udi, some changes in case marking have been made, and, under the influence of Azeri, definite direct objects are now marked with the dative. In pre-Udi a large number of verbs could incorporate nouns, adjectives, adverbs, or (locative) preverbs; the number of incorporating verbs has sharply decreased, and the incorporating verbs, now light verbs, have become in part markers of verb categories (see Harris 2002, 2008). I refer to the combination of a light verb and an incorporated element as a complex verb.

There are only about eight light verbs; the basic meaning of a complex verb is expressed by the initial (or incorporated) element. In addition to classifying, the light verbs carry the tense-aspect-mood suffixes and in this sense make the word a verb.

Direct objects were often incorporated by transitive verbs, as in (3) and (4). Many of these incorporated verbs were reanalyzed as intransitives, and as a consequence there arose a group of intransitive verbs that occurred with ergative subjects.

- (4) Luiza-n udi-n muz-in äit-ne-p-e
 Louisa-ERG Udi-GEN language-INST word-3SG-SAY-AORII
 ‘Louisa spoke in Udi.’ (Author’s fieldnotes)

In Udi I identify a verb as an unergative if it requires an ergative case subject and does not subcategorize an object external to the verb, as in (4). I identify a verb as unaccusative if it is intransitive and requires that its subject be in the nominative case. Clearly these diagnostics would not work in all languages, but it emerges below that the verbs they identify correspond to the crosslinguistic sets of unergatives and unaccusatives, respectively.

The development from light verb to classifier in Udi is ongoing; these elements have a mixture of the properties of light verbs, on the one hand, and of merely classificatory morphemes, on the other. The properties that identify these as light verbs are the following: (i) Some, *b-* ‘do’, *bak-* ‘be, become’, and *p-* ‘say, speak’ can be used independently—that is, without an initial (incorporated) element. (ii) Many initial elements are also used independently, and thus some collocations are transparent, as are (3) and (4) above. (iii) A few verbs that are not light verbs occur with an incorporated element—for instance, *c’i-lax-* ‘give a name to’ (*c’i* ‘name’, *lax-* ‘lay, place,

put'), *c'ap-duγ-* 'applaud' (*c'ap* 'applause', *duγ-* 'hit, beat'). (iv) The light verb *p-* 'say, speak' is multiply suppletive, and the alternation of unrelated stems is required for this light verb, just as for the independent verb from which it derives.

The properties that suggest that these so-called light verbs have already been reanalyzed as mere classificatory elements are the following: (i) Some, namely *-d-*, *-(e)γ-*, *-č-*, and *-k'-*, cannot occur independently (without an initial element). (ii) Some initial elements cannot be used independently, and thus for some collocations one cannot identify a meaning for the light verb. An example is *fal-le-d-e* 'she swung, flourished, flapped', where neither the light verb nor the initial element can be glossed independently. (iii) As we see below, for those verbs that do have identifiable meanings, the meaning of the whole verb is often noncompositional. (iv) According to Wolfgang Schulze (personal communication), in the Baku dialect the verbs I have identified as unergatives occur with nominative subjects, in spite of the fact that the light verbs require an ergative case subject when used independently. Because of these conflicting characteristics, I believe that this change is ongoing and has affected some light verbs before others.

A summary of the ways in which light verbs classify complex verbs in Udi is given in (5).

- (5) i. Inchoatives are marked with *-bak-*.
- ii. Other unaccusatives are marked with *-(e)γ-*.
- iii. Unergatives are marked with *-p-*.
- iv. Transitive verbs of inherently directed motion are marked with *-č-*.
- v. Transitive change-of-state verbs are marked with *-b-*.
- vi. Other transitives are marked with *-d-*, *-t'-*, or *-k'-*.

As an independent verb, *bak-* means 'be, become'; *-(e)γ-* cannot occur alone, but etymologically it is 'come, go'. As intransitive verbs, these inherited government of an nominative (nominative) case subject, and all of the dozens of verbs formed with these take nominative case subjects today, with the exception of two transitives, *i-bak-* 'hear' and *aba-bak-* 'learn, know'.⁴

- | | |
|---|--------------|
| <p>(6) <i>šonor qai-q'un-bak-sa</i> (Taral)
 they.NOM back-3PL-BE-PRES
 'They returned.'</p> | Unaccusative |
| <p>(7) <i>me biric' c'or-eγ-al-le</i> [Recipe 4]
 this rice.NOM drain-GO-FUTII-3SG
 'The rice will drain [in the collander].'</p> | Unaccusative |

I assume that unaccusative verbs are formed with *-bak-* 'be, become' and *-eγ-* 'go, come' because their meanings are compositionally related to the meanings of these light verbs. Thus, the fact that the light verbs that form these complex verbs are

themselves intransitive, together with the fact that Udi inherited an ergative case system, explains the use of the nominative case with these unaccusatives.

The light verb *-p-* ‘say’ forms unergatives, it but also forms quite a few transitives; and conversely, the light verb *-b-* ‘do, make’ is especially associated with transitives but also forms many unergatives.

- | | |
|--|------------|
| (8) <i>xinär-en gölöš-ne-p-e</i> (Author’s fieldnotes)
girl-ERG dance-3SG-SAY-AORII
‘The girl danced.’ | Unergative |
| (9) <i>nana-n lek’er-ax⁵ xaxa-p-e</i> (Author’s fieldnotes)
mother-ERG dish-DAT break-SAY-AORII
‘Mother broke the dishes.’ | Transitive |
| (10) <i>taral-en t’ik’-n-u bui-ne-b-sa xe-n-en</i> (Taral)
Taral-ERG wineskin-OBL-DAT fill-3SG-DO-PRES water-OBL-INST
‘Taral fills the wineskin with water.’ | Transitive |
| (11) <i>išq’ar-muγ-on höjät-b-esa-i</i> (Author’s fieldnotes)
man-PL-ERG argue-DO-PRES-PAST
‘The men were arguing.’ | Unergative |

Thus, the classifiers (light verbs) do not draw a sharp line between unergatives and transitives. On the other hand, few unaccusatives are formed with *-p-* (e.g. *čur-p-* ‘stand’) or *-b-* (e.g., *port-b-* ‘endure’), and it appears that no unergatives are formed with *-bak-* or *-eγ-*.

It was natural for transitives to be formed with *-b-* ‘do, make’ because it is a part of the compositional meaning of change-of-state transitives (such as the verb *tämiz-b-* ‘clean’, from the adjective *tämiz* ‘clean’) and of transitives with an incorporated noun (e.g., *gom-b-* ‘paint’, from *gon* ‘color’). ‘Do, make’ also forms a natural compositional part of unergatives such as *aš-b-* ‘work’ from the noun *aš* ‘work, business’.

As (8–9) illustrate, as a light verb, *-p-* no longer means ‘say’ in many examples. As shown in Harris 2002, 202–206, this verb was probably first used in the expression of language and nonlanguage noises made with the mouth (e.g., *bifar-p-* ‘curse’ from the noun *bifar* ‘curse’, and *axšum-p-* ‘laugh’ from the noun *axšum* ‘laughter’). This light verb was later extended to noises not made with the mouth (such as *gürü-p-* ‘thunder’) and to other verbs related to the mouth (e.g., *q’uč’-p-* ‘swallow, gulp’), and finally to verbs unrelated semantically, such as *ači-p-* ‘play’.

The fact that the transitives and unergatives in (8–11) are formed with light verbs that are themselves transitive explains the use of the ergative case with these complex verbs.⁶

There are few simplex verbs in the language (i.e., verbs lacking light verbs); (12) provides some examples.

(12) a. *Transitives*

<i>aq</i> - ‘take, get, receive, buy’	<i>bəɣ</i> - ‘see, look at’
<i>biq</i> - ‘get, catch; build’	<i>box</i> - ‘boil’
<i>ef</i> - ‘keep, hold’	<i>uɣ</i> - ‘drink’
<i>sak</i> - ‘push’	<i>(u)k</i> - ‘eat’

b. *Unaccusatives*

<i>ač</i> - ‘get lost’	<i>ayz</i> - ‘stand up’
<i>bap</i> - ‘reach, arrive’	<i>bi</i> - ‘die’
<i>bit</i> - ‘fall, stay’	<i>bu</i> - ‘be’

Note that because I identify a verb as an unergative only if it takes an ergative subject and does not subcategorize a direct object, we do not expect to find inherited unergatives in a language that inherited ergative case marking. Before incorporation and complex verbs became prevalent, all intransitive verbs would have taken nominative subjects, since there was no differential case marking for intransitive verbs.

11.2.2 Implications of the Origins of Differential Case Marking in Udi

The use of the ergative case for subjects of simplex transitives and the use of the nominative for subjects of simplex unaccusatives in Udi was inherited from the protolanguage. The use of the nominative in complex unaccusatives, such as those in (6–7), was continued because the new unaccusatives were formed with light verbs that were themselves intransitive. The use of the ergative for subjects of complex transitives was similarly continued because these were formed with light verbs that were themselves transitive. The use of the ergative with unergative verbs, such as those in (8) and (11), originated through the use of transitive light verbs and the reanalysis of the resulting complexes as intransitive. The transitive light verbs, *-p*- ‘say’ and *-b*- ‘do’, were a natural choice from a semantic point of view, as shown above. Thus the case-marking differential in complex verbs, by far the majority of verbs in the language, is clearly an epiphenomenon, a result of the history of complex verbs in Udi. Complex verbs provide an elegant explanation of split intransitivity in Udi.

There are, however, some loose ends that this does not explain. First, we have no explanation for the extension of *-p*- to form unergatives and some transitives entirely unrelated to its original meaning, ‘say’. It is expected that the sphere of use of a grammatical morpheme of this kind will expand historically, and it is not at all surprising that it comes to be used with verbal meanings unrelated to ‘say’. What is unexplained is why ‘say’ was extended only to verbs with the semantics of unergatives and transitives (with two exceptions described below). That is, why are there so many unergative and transitive verbs like those in (8) and (9) above, semantically unrelated to ‘say’, but only a tiny handful of unaccusative ones? For example, why was *-p*- ‘say’ extended to form *gölöš-p*- ‘dance’, rather than to *uk-eɣ*- ‘be eaten, be edible’, when the latter might be seen as more semantically related? Complex verbs

explain the origin of the case-marking differential only if the light verb is semantically motivated and requires, in the ergative input case system, the case used in the split case output system. We can only explain the fact that ‘dance’ is formed with the light verb ‘say’ by noting that this light verb, requiring an ergative subject, was extended to the classes of unergatives and transitives, and that this extension is thus based on these classes, which must be either innate or learned from the nature of actions. Thus, the synchrony-as-epiphenomenon explanation fails for all unergatives and transitives where the notion ‘say’ is not semantically motivated, a sizable portion of the verbal lexicon.

The other side of this problem is that there are a few unaccusatives formed with *-p-*.

- (13) *künj-i sa beγ-k’ena xinär čur-p-i-ne* (Taral)
 corner-DAT one sun-like girl.NOM stand-SAY-PTCPL-3SG
 ‘In the corner stood a girl like the sun.’
- (14) *käix iša kāravan gal-[l]e-p-e* (Taral)
 dawn near caravan.NOM place-3SG-SAY-AORII
 ‘Near dawn the caravan moved.’

How can we explain the use of the nominative case with complex unaccusatives formed with *-p-* ‘say’, if it is the subject case of the input light verb that determines the case of the output complex verb? Again, the case-marking differential can only be explained as epiphenomenal if the choice of light verb is semantically motivated, and the subject case of the new lexeme is explained by that of the light verb. In these examples, neither of the conditions is met. Thus, the case marking of the verbs in (13–14) cannot be explained as a result of their history. The fact that the derived verbal lexemes require a case other than that required by the light verb demonstrates the importance of a force other than history—reference to an innate or learned distinction between classes of verbs.

A further problem is related to the lack of inherited unergative verbs. I explained above that there cannot be any because of the way I identify them. However, there are likewise no simplex verbs that one would expect to be unergative in a language with differential case marking—with one possible exception.

- (15) *ək t’i-ne-st’a⁷ düz-i* (author’s fieldnotes)
 horse.NOM run-3SG-PRES field-DAT
 ‘The horse is running in the field.’

The verb ‘run’ might be expected to be unergative, but it requires a nominative case subject.⁸ The case is easily explained as the inherited construction with this simplex intransitive verb. But how do we explain the general lack of inherited verbs of this type? That is, with this single exception, all verbs that might be expected on semantic

grounds to be unergative have acquired a light verb and with it an ergative case subject. Although there are only some forty to sixty simplex verbs in the language, other things being equal, we would expect more of them to be like ‘run’—of the semantic type expected to be unergative. This fact cannot straightforwardly be attributed to the history.

Can the Udi use of the ergative case with unergatives be attributed to Georgian influence? Udi speakers were already in the Transcaucasus at the earliest historical times and are known to have been in contact with Georgians. In recent centuries Udi speakers have had much closer contact with Azeri, a Turkic language, and Armenian (Indo-European), both entirely nominative-accusative. Then, in 1921 a group of Udis established a new village on Georgian territory. The construction at issue here is abundantly attested in nineteenth-century texts, long before the new village was founded. Palimpsest texts of Old Udi thought to be from approximately the eighth to the tenth century A.D. were discovered in 1975, but have not yet been published. Evidently these texts have the construction, but little information has been released as yet. In view of the apparent age of the construction and the lack of information about the extent of Udi contacts at that period, we can really say only that Georgian contact cannot be ruled out as an influence in the innovative Udi case marking.

11.3 Batsbi

Batsbi is a member of the Nakh or Vainakh subgroup of the Nakh-Daghestanian family; it is only very distantly related to Udi. Proto-Nakh-Daghestanian had true ergative case marking, and Proto-Nakh had the same. That is, in these protolanguages, subjects of transitives were marked with the ergative case, and direct objects and subjects of all intransitives with the nominative (absolutive) case. Batsbi, however, permits two different subject cases—ergative and nominative—for first- and second-person subjects of intransitive verbs.⁹ Batsbi is unusual in that while there are unaccusatives that only take a nominative case subject, (16), and unergatives that only take an ergative subject, (17), many intransitive verbs may take a subject in either case, with a difference of meaning, as indicated in (18–19) (Holisky 1987). I assume that this is an example of conversion—that is, I assume that ‘fell’, for example, is an unaccusative verb from which a derived unergative can be formed without morphological marking on the verb form, other than that provided by the agreement marker.

- (16) (so) xe-n-mak qac'-u-sõ
 1SG.NOM tree-DAT-on hang-PRES-1SG.NOM
 ‘I am hanging in a tree.’

- (17) (as) *daḥ y-apx-yail-n-as*
 1SG.ERG PV CM-undress-AUX-AOR-1SG.ERG
 'I got undressed.'
- (18) (so) *vož-en-sõ*
 1SG.NOM fell-AOR-1SG.NOM
 'I fell down, by accident.'
- (19) (as) *vuiž-n-as* (All, Holisky 1987, 105)
 1SG.ERG fell-AOR-1SG.ERG
 'I fell down, on purpose.'¹⁰

The independent subject pronoun is found only in emphatic contexts.

The development of the ergative/nominative subject case distinction in Batsbi involved (i) development of differential case marking on pronoun subjects, though they are not generally overt, (ii) cliticization of pronouns, then (iii) change of clitics into affixes. I begin with the inherited system of agreement.

From the protolanguages, Batsbi inherited a system of class (gender) agreement. Nouns are divided into some eight classes (Dešeriev 1953; Č'relašvili 1967), and some verbs, but not all, indicate class agreement. Agreeing verbs indicate the class of the subject of an intransitive, as illustrated in (20), or that of the direct object of a transitive, as in (21).

- (20) a. *vašõ* **v**-axeⁿ 'Brother (**v**-class) left.'
 b. *yašõ* **y**-axeⁿ 'Sister (**y**-class) left.'
 c. *bader* **d**-axeⁿ 'The child (**d**-class) left.'
- (21) a. *nanas vašõ* **v**-ik'eⁿ 'Mother took brother (**v**-class).'
 b. *nanas yašõ* **y**-ik'eⁿ 'Mother took sister (**y**-class).'
 c. *nanas bader* **d**-ik'eⁿ 'Mother took the child (**d**-class).'
 (Holisky and Gagua 1994, 177)

In addition to the inherited system that is illustrated in (20) and (21), Batsbi developed an innovative suffixal agreement.¹¹ (22) lists the ergative and nominative case forms of the independent pronouns of Batsbi; the breve (˘) represents reduction of a vowel, a process that applies to word-final vowels (except *a*) in polysyllabic words.

- (22)
- | | <i>Nominative</i> | <i>Ergative</i> |
|-----|-------------------|--|
| 1SG | <i>so</i> | <i>as</i> |
| 2SG | <i>ho</i> | <i>aḥ, aḥõ</i> |
| 1EX | <i>txo</i> | <i>atx, atxõ</i> |
| 2PL | <i>šu</i> | <i>aiš, aišũ</i> (Data from Holisky and Gagua 1994, 173) |

The first-person inclusive, *vai*, behaves differently (see Holisky and Gagua 1994, 173), and the demonstrative pronouns that are used for third-person reference also behave differently. Neither conditions suffixal agreement.

A different possibility is that split intransitivity might have diffused from Georgian. The Batsbi live in the village of Alvani in Georgia and have been there for centuries. All Batsbi are fluent in Georgian, and schooling has long been provided in Georgian. It is thus possible that the unaccusative-unergative case split described above (and more completely in Holisky 1987) is to be attributed in part to diffusion from Georgian. However, there are many differences, which pose problems for such an account. First, none of the morphology of case marking is borrowed from Georgian or is similar in structure to that in Georgian. Second, the Batsbi derivation of unergatives from unaccusatives and vice versa (or optional, alternating case), as illustrated in (18–19), is not found in Georgian. On the contrary, in Georgian a given verb strictly requires a subject in one case or another. Third, the Batsbi restriction to first and second persons is not found in Georgian; indeed, in Georgian, the case distinction is actually neutralized in the first and second persons, and the case differential shows up only in the third person. Fourth, the Georgian restriction of the case differential to certain tense-aspect-mood paradigms is not found in Batsbi. Finally, there is no specific evidence of diffusion. In spite of all these differences, we cannot rule out the possibility that transfer from Georgian is partly responsible for these patterns in Batsbi.

11.4 Georgian

Georgian is unrelated to Batsbi and Udi, but like them it inherited a system of true ergative case marking (Harris 1985 and sources cited there). Fortunately, the latter part of the change from true ergative case marking to differential case marking for intransitive verbs is attested.

There are no additional languages in contact with Georgian that could be responsible for differential case marking with intransitive verbs, so “the buck stops here.” Georgian has had contact with languages of the Northwest Caucasian and Nakh-Daghestanian families, each with ergative marking except in Udi and Batsbi. It has had contact with the Turkic languages Azeri and Turkish, and with several Indo-European languages, including Greek, Armenian, Russian, and several Iranian languages. It was probably also in contact with Aramaic or other Semitic languages. The sister languages of Georgian have case marking related to that found in Georgian (see Harris 1985 for details); but Svan, Laz, and Mingrelian have been influenced by Georgian, not the other way around. There is no language other than Georgian itself to which the development of differential intransitive case marking can be attributed.

Harris (1985) shows that earlier stages of Common Kartvelian had ergative case marking, and that an antipassive developed and was later reanalyzed as basic, leaving the ergative construction used only in what is now known as Series II

forms of the verb. In early Old Georgian, unergative verbs very seldom occur in Series II forms. This is due to the fact that unergatives are primarily atelic (Holisky 1981; Levin and Rappaport Hovav 1995) and so do not distinguish perfective versus imperfective aspect, while in Old Georgian Series II marked perfective aspect (Mač'avariani 1974; Schmidt 1963). The two were thus naturally incompatible. In Old Georgian, unergative verbs lacked forms in Series III. This chapter is limited to the development of the case-marking differential in Series II.

Unergative verbs are atelic and intransitive, but in Georgian and other languages some of them can take an optional direct object. Typically, an unergative verb with a direct object is telic. For example, 'dance' as an intransitive denotes an activity without an inherent end point, but 'dance the samba' is telic. 'Dance the samba' can be made perfective, while 'dance' ordinarily cannot. Thus the infrequent occurrences of unergatives in Series II in Old Georgian often have an object and so are actually transitive. For instance, *t'irili* 'cry' is ordinarily intransitive, but in (16) it has a direct object, *dac'uway* 'burning'.

- (28) [mat] dait'ir-on dac'uva-y
 they.ERG cry-3PL burning-NOM
 'Let them bewail the burning' (Leviticus 10:6, G, cited by Abulaze 1973, 412b)

- (29) nu uk'ue(y) marxva-y imarxet čem tvis (Zak 7, 5)
 whether fasting-NOM you.fast me for
 'whether you fasted (a fasting) for me'

- (30) ayixil-n-a tual-ni zeca-d (Luke 9:16)
 look-them-he eye-PL.NOM heaven-TRANS
 'He looked up toward Heaven.'

A few unergative verbs, such as *marxvay* 'fast' in (29), could appear with a cognate object, which, like other direct objects, made the verb telic. And a very few unergative verbs could take a body part direct object, as illustrated in (30). These transitive constructions took ergative subjects and nominative case direct objects, just as other transitives did. The plural object (*tualni* 'eyes' in (30)) triggers plural agreement, *-(e)n*, limited to plural direct objects. These transitive constructions in Old Georgian may have made common the use of the ergative subjects with verbs that were ordinarily unergative, thus paving the way for the general use of ergative subjects with intransitive unergatives. Moreover, because Georgian permits widespread pro-drop for objects, as well as subjects, some examples of the kinds illustrated in (28–30) had no overt object and thus were indistinguishable from intransitives.

In Old Georgian, some unergatives were made telic through incorporation; a light verb, such as 'do, make' could incorporate the stem of the unergative verb, as in (31).

- (31) *γayad-q'o q'ovel-man er-man*
 shout-make all-ERG people-ERG
 'All the people shouted, gave a shout.' (Joshua 6:20, M, cited by Abulaze 1973, 460b)

Like the optional direct object, the incorporated object construction in (31) makes it possible for the unergative to become telic, to be perfective, and to occur in the perfective Series II. At the same time, the unergative occurs in a transitive construction with an ergative subject. This construction was seldom used in the imperfective Series I; rather, a form such as *γayadebda* 'he was shouting, crying out'—with the same root but without *q'o* 'make, do'—was used.

Finally, some unergatives are the reflexive intransitive counterparts of transitive verbs. In Series II, there were four constructions in which such verbs could, in principle, occur; these are indicated in (32).

- (32) a. ERG verb NOM
 b. ERG verb self-NOM
 c. NOM verb
 d. ERG verb

That is, the verb could occur (a) as a transitive, with ergative subject and nominative direct object, (b) as a grammatically transitive reflexive, (c/d) as a grammatically intransitive verb, also with reflexive semantics. Possibility (c), with a nominative subject, represents the inherited construction, while (d), with an ergative subject, represents a later development, probably influenced by (32b). The examples in (33) are from the modern language, and (34) provides similar examples from Old Georgian.

- (33) a. *deda-m švil-i dabana* (Author's fieldnotes) Modern Georgian
 mother-ERG child-NOM bathe
 'The mother bathed her child.'
 b. *deda-m t'an-i daibana* (Author's fieldnotes)
 mother-ERG body-NOM bathe
 'The mother bathed her body.'
 d. *deda-m daibana* (Author's fieldnotes)
 mother-ERG bathe
 'The mother bathed [herself].'
- (34) c. *[ganis]uen-n-e-t* (Mt 26:45, Birdsall 1971, 65) Old Georgian
 rest-PL-AOR-PL
 'Rest [yourselves].'
 d. *ganisuenos mis zeda sul-man γmrt-isa-man* (Isaiah 11:2)
 it.rest him on spirit-ERG god-GEN-ERG
 'The spirit of God shall rest [itself] upon him.'

The point here is that a reflexive with an overt object, as in (32b, 33b), may have influenced the use of the ergative case in a reflexive without an overt object, as we see in (32d, 33d, 34d). The construction in (32d) is continued in Modern Georgian, both for the verbs illustrated here, and as a productive construction. (32c) is maintained in a few old verbs, such as *moemzada* ‘he prepared’, but is discontinued as a productive construction.

In the transition from Old Georgian to Modern Georgian, Series II ceased to be strictly associated with perfective aspect. In the modern language one finds both perfective and imperfective forms in both Series I and Series II. In this newer system, unergatives have become common in Series II.

The examples above suggest how optional direct objects, object incorporation, and reflexive constructions have contributed to the innovation of ergative case subjects for unergative verbs in Series II in Georgian. This change for unergative verbs marked the beginning of differential case marking for intransitives in Series II in Georgian. These three constructions may have established for the first time a pattern for the use of the ergative case with verbs that were otherwise intransitive.

The three constructions described here do not, however, explain how the ergative case marking was generalized to unergative verbs as a class. On the basis of evidence in Old Georgian, Modern Georgian, and sister languages, we believe that only a small number of unergatives could occur in transitive constructions similar to (28–30). On the same basis, it is reasonable to assume that only a small number of verbs occurred in reflexive constructions of the types illustrated above. It is possible that the Old Georgian texts, primarily biblical and hagiographical, do not represent the full extent of the use of the incorporated object construction.¹³ Whatever its status in Old Georgian, it is not reasonable to attribute the introduction of the ergative with intransitives primarily to the incorporated object construction, since it was not continued into the modern language, while the use of ergative marking with unergatives was. In the modern language new Series II forms were based, not on the incorporated object construction, but on the stem of the unergative alone. For example, corresponding to *γayad-q'o* in (31), the modern language has *i-γayad-a* ‘he cried out’, and in this form there is no reflex of the light verb *q'o*.¹⁴ All this means that the new unergative pattern—ergative subject with intransitive verb—was generalized from a small number of verbs to hundreds of regular unergatives (see Holisky 1981 on the regularity of this construction in Modern Georgian). There is no explanation for this generalization without recognizing the existence of unergatives as a natural class of verbs, either innate or learned.

11.5 Conclusion: Implications

Three languages in the Caucasus have developed in relatively recent times constructions in which case assignment distinguishes between unaccusative and unergative

verbs. In Udi the mechanism is quite apparent; light verbs were paired with semantically appropriate incorporated elements, and the case assignment was determined by the light verb. After these were reanalyzed, unergatives were left with ergative subjects, while unaccusatives had nominative subjects. While this accounts for most of the facts, some residue can be explained only by appeal to an innate or acquired knowledge of the classes of unaccusative and unergative verbs. Georgian influence cannot be ruled out, although it is not apparent.

In Batsbi, on the other hand, there is no evidence of any comparable mechanism that introduced ergative subjects to intransitive sentences. Contact with Georgian may have played a role in the Batsbi change.

In Georgian, in spite of abundant evidence, the generalization of ergative subjects to all unergative verbs cannot be attributed to any specific construction. Several constructions played a role in “seeding” the innovative case marking, but none was widespread. Only a learned or hardwired sense of these verbs can explain the generalization of the innovative construction.

Several recent works (listed in the introduction) have explained the occurrence or distribution of some linguistic phenomena as the result of historical change. It is absolutely correct to do so, and innateness should be called on as the explanation only after all other possibilities have been exhausted. Nevertheless, the fact that many phenomena are the natural result of regular change does not mean that innate knowledge of language structure does not also play a role. I have shown here that explanation of differential case marking in these languages must make reference to knowledge of unaccusative and unergative verb classes.

Notes

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1. On the terms *unergative* and *unaccusative*, see, for example, Perlmutter 1978. For a complete history of the Unaccusative Hypothesis, see Pullum 1988.
2. In this chapter I use *ergative* and *nominative* as the conventional names of two cases. In each language, the case called ergative was historically a true ergative but has come to have mixed use, for which there is no crosslinguistically standard name. In each language, the case called nominative was historically the absolutive.
3. Abbreviations used in glossing examples include the following: AOR aorist (Batsbi and Georgian), AORII aorist II (Udi), AUX auxiliary, CM (gender-) class marker, DAT dative, ERG

ergative, EX exclusive, FUTII future II, GEN genitive, IMPF imperfective, INST instrumental, NOM nominative, OBL oblique, PL plural, PTCPL participle, PRES present, PV preverb, SG singular, TRANS transitive case. My glosses of Batsbi follow Holisky and Gagua 1994, but I use the symbols ⟨y⟩ for the palatal glide, ⟨h⟩ for the voiceless pharyngeal fricative, and breve (˘) for reduced vowels. Neither Udi nor Georgian distinguishes gender, and glosses use ‘he’ or ‘she’ indiscriminately. In Udi, light verbs are glossed with the meaning of the corresponding independent verb, DO, BE, GO, SAY, even where the meanings are not compositional. The imperfect is composed of the present suffix plus a clitic with a past sense and is glossed PRES-PAST. “Taral” is the title of a text I have recorded.

4. These are so-called inversion verbs and earlier governed a dative case experiencer and nominative case stimulus; today the subject is in the ergative.
5. Recall that definite direct objects are put in the dative.
6. Little is known of the nature of the remaining light verbs. Wolfgang Schulze has suggested (personal communication) that *-d-* may have meant ‘give’. It is the productive formant of causatives and of some other transitive verbs, and we may assume that it derives from a transitive. The light verb *-č-* forms four transitive verbs: *e-č-* ‘bring’, *la(y)-č-* ‘carry up’, *ba(y)-č-* ‘carry in’, *č’i-č-* ‘carry out’; *ta-š-* ‘take’ may be related. Similarly, *-k-* forms a few transitives, and we may assume that both of these derive from transitive verbs.
7. The form *t’i-ne-st’a* may contain the root *t’it-* ‘run’, which is regularly split by the agreement marker *-ne-*; the *t’* element then metathesizes regularly with *s* of the present tense marker, *-sa*. An alternative analysis is that this is from **t’i-ne-t’-sa*, where *-t’-* is a light verb. The comparative evidence is weak, and the etymology is thus indeterminate at this time.
8. The sentence corresponding to (15), but with the ergative (-instrumental) case (*ek-en*), is grammatical, but it means ‘He ran across the field by means of (i.e., on) a horse.’
9. A handful of verbs have this feature for third person, as well as first and second. See Holisky 1987 for further details.
10. There are other languages with a volitional/nonvolitional distinction marked by a case-marking differential, notably Northern Pomo, a Pomoan language of northern California (O’Connor 1986, 1992).
11. I assume here the correctness of Holisky and Gagua’s statement that these are affixes, though nothing here hinges upon their being affixes, rather than clitics.
12. Batsbi also makes use of light verbs (or auxiliaries), but they are less prevalent than in Udi (cf. Črelašvili 1990). Batsbi has two, *dar* ‘make, do’ and *dalar*, which intransitivizes verbs. While light verbs in Udi mostly incorporate nouns or adjectives, Batsbi *dar* and *dalar* mostly cooccur with verb roots; partly as a result of this, they develop in very different ways in the two languages. In particular, *dalar* is found with some intransitives of every type—those that take only nominative case subjects (e.g., *k’ac’k’ar-dalar* ‘become smaller, shrink’), those that take only ergative subjects (e.g. *prena(d)-dalar* ‘fly’), those that take a subject in either case (e.g., *k’urč-dalar* ‘go by rolling, roll’) (data from Holisky 1987). A very small number of intransitives in Batsbi are formed with *dar* ‘do, make’. While one would expect them to take only an ergative subject, in fact more of those listed by Holisky (1987) fall into the category of intransitives that take only nominative case subjects, such as *xauk’-dar* ‘be thirsty’, than into the category that take only ergatives, with none in the category that takes either case. I conclude that light verbs did not play a role in the origin of differential case marking in Batsbi.

13. On the other hand, it is possible that this construction was somewhat artificial, originated through translation, and was limited to the written language.
14. The development of this morphology, which is characteristic of unergatives in Georgian, is discussed in Harris 1985, 347–350, and the entire transition is described in greater detail in chapter 14 of the same work.

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