

## **Ergative diagnostics: *temptatio redux***

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### **Abstract**

In the past 20 years, a new class of verbs has seen the light of existence: 'unaccusative' or 'ergative' verbs. These verbs are intransitive, but different from the traditional notion of intransitive to the extent that their subject valency behaves like a direct object distributionally. Ever since the introduction of this new grammatical notion in (typologically non-ergative, i. e., accusative) languages like English a vast bulk of literature on this topic has come forth. The present article takes issue with this mainly Anglophil notion of unaccusativity/ergativity. The claim is that this notion does not make sense in languages which provide aspectual or aktionsart distinctions of perfectivity. 'Unaccusatives' are intransitive perfectives. This argument is carried through primarily on the empirical basis of German.

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### **1 The state of the art: the cross-linguistic diagnostics of predicative ergativity**

Ergativity, or Unaccusativity, as a verbal class with idiosyncratic, yet allegedly predictable distributional behaviour, have been the target of heated debates in the recent linguistic discussions (see, for example, Reuland (e.) 2001, Peeters 2002). While the discussion around a clearly defined status of verbal ergativity as well as an exhaustive list of ergative predicates in English has remained somewhat shady and undecided (see, for example, Keyser/Roeper 1984, Levin/Rapaport 1995), both for Dutch and German the diagnostics have turned out to be clearer (Haider 1984, Abraham 1993, 1995). These are the most reliable distributional assets.

- (1) Past participles of eV select the equivalent of be, not of have, as a supporting auxiliary.
- (2) Past participles of eV are grammaticized as attributes to their underlying subjects.
- (3) eV cannot derive agentive nominals.
- (4) eV cannot be passivized.

There are other such diagnostic properties which have gained somewhat less fame of reliability, some legitimately so, some not. It is safe, with respect to material in German and Dutch, to add the imperative shibboleth to (1)–(4).

(5) eV does not derive imperative form and its illocutive content

Others, such as McCloskey (1993), have not been discussed seriously. According to McCloskey, certain English swear words are able to identify unergativity and thus separate ergative from unergative verbs. See (6).

- (6) a They wrote *fuck all* this year.  
       'I've written absolutely nothing this year'  
       b They've done *bugger all* about this year.  
       'They've done absolutely nothing this year.'  
       c I know *sod all* about connectionism.  
       'I know absolutely all about connectionism.'

According to Abraham (2002), however, this claim rests on opaque assumptions, which, if transferred to and checked carefully on the typological comparison with German and Dutch, turn out to be arbitrary and non-conclusive.

The goal of this paper is to reduce the list of diagnostic properties of ergatives in (1)–(5). The methodological motivation for this attempt is the following. It would appear to be arbitrary, and therefore methodologically unsatisfactory, to assume that 5 different distributional properties account for the one ergative concept. If such were indeed the case, then one would expect that there is an inner link to the 5 distributional properties. To detect this is indeed the goal of this paper. It will be seen that what underlies (1)–(5) is the auxiliary selection criterion. Everything else can be derived from that. In following this explanatory path, however, properties of verbal ergativity will emerge that demonstrate that verbal ergativity is far from atomic classificatory status. Rather, verbal ergativity will emerge as an epiphenomenon of perfectivity, at least for languages that provide morphological signals for perfectivity (in terms of clausal aspect or lexical aktionsart). This is how this article is organized. Section 2 discusses the thematic implications of ergativity (diagnostics (3)–(5) above). In section 3, the diathetic property of verbal ergativity will be interlinked with non-agentivity of eV. And in section 4 the selection of *BE* will be seen to be at the bottom of the tripartite motivation for (1)–(5). Since English does not identify eV on the basis of (1)–(5), English is exempted from the aspectual identification of verbal ergativity. However, since English does not identify ergativity with empirical clarity equivalent to German and Dutch, the conclusion will be drawn in section 5 that, while ergativity is a universal property for verbal predicates, the respective morphological properties need to substantiate eV as a language-inherent phenomenon. Otherwise, it does not make sense to try to identify an ergative class of verbs in the first place. This conclusion appears to be substantiated by the fact

that in languages where aspectual paradigms play a prominent grammaticized role, the discussion persevered in the English linguistic literature plays hardly any role. In other words, eVs are identified as perfective intransitives in the first place – an insight of long standing common cross-linguistically to traditional grammars.

Notice that our aspectual identification of ergativity requires us to consider the following proportional equivalence. [iV=intransitive verb, ueV=unergative verb, tV=transitive verb].

$$(7) \text{ the ergative-transitive link: } iV(=ueV) : eV \text{ .} = . tV : ?$$

In other words, eV identified on the basis of perfective iV(=ueV) would allow for a transitive relation with respect to imperfective versus perfective transitive verbs. We shall see that this extension is indeed possible.

## 2 The syntactically deep properties of verbal ergativity

### 2.1 The thematic criterion of ergativity

From the fact that eV cannot be a bearer of an agentive external argument follows with some probability for any language that ergativity is derived. And, if the prederivate predicates of eV select internal accusative objects, that such accusatives have to raise to derived subject status [eA = external argument/subject; AG = agentive thematic role; ACC = structural accusative object]:

$$(8) [eA_{eV} \Rightarrow \neg AG] \Rightarrow [eV \Rightarrow * \_ [ACC \_]]$$

Compared with passivization, (8) would seem correct. Accusatives cannot remain once the original external argument is demoted as in  $\_ [ACC \_]$ . From  $eV \Rightarrow * \_ [ACC \_]$  follows that the derived subject of eV, while occurring overtly as a nominative, would somehow betray its original properties as a direct object of some pre-derivative verb (notice that this is the motivation for the original term of *unaccusative* for eV).

Two questions arise at this point of the discussion. First, how can one substantiate empirically the conclusion that the external argument of eV is equivalent to an internal structural accusative, at least partially? And, second, what is the pre-derived, preergative, predicate like? Is this a virtual category, i. e. is it a category without any overt appearance? If we draw the parallel on a clausal level to the diathetic change between active and passive and if eV is the passive equivalent in this pairing on the lexical level, then what would be the active lexical equivalent? Can we decide this only on the level of paradigmatic comparison, as between iV(=ueV) and eV? Or do we have verb stem-identical lexical pairs distinguished, for example by different Aux selection?

Typologically speaking, the ergative languages provide the missing answer to the lexical pairing. (9) provides the structure of the lexical derivation: in (a) for ergative-absolutive languages, in (b) for nominative-accusative languages. [Erg(ative case)=non-pivot case, Abs(olutive case)=pivot case]

- (9) a Erg<sub>i</sub> [Abs<sub>j</sub> ] ⇒ Abs<sub>j</sub> [ ]  
 b Nom<sub>i</sub> [Acc<sub>j</sub> ] ⇒ Nom<sub>i</sub> [ ]  
 c Nom<sub>i</sub> [Acc<sub>j</sub> ] ⇒ Nom<sub>j</sub> [ ]

In German, (9b,c), we have two such derived structures: in (b) the derivation under ellipsis (the pivot case), and in (c) the derivation under demotion and raising, such as in *kochen* "cook".

- (10) a elliptic derivation – pivot case:  
*den Hund schlagen* AG<sub>i</sub> [TH<sub>j</sub> ] – *schlagen* AG<sub>i</sub> [e<sub>j</sub> ]  
 where the derived ellipsis has an existential reading for the deleted object *reference* (*er schlägt jemanden* = *er ist ein Schläger* "he hits someone" = "he is a hitter/batterer").  
 b diathetic/decausative derivation:  
*Mutter kocht Suppe* AG<sub>i</sub> [TH<sub>j</sub> ] – *die Suppe kocht* TH<sub>j</sub> [e<sub>j</sub> ]

e<sub>j</sub> in (10b) has a status which is different from that in (10a). It signals in (a) that the verb has simply muted its object, while retaining its valence identity. *schlagen* is a tV even under use as a one-place verb. In (10b), however, *kochen* has a derived one-place status: the prederivative object obtains the derived subject status. Notice that aside from the fact that one-place *kochen* "boil" is clearly derived from transitive two-place *kochen* "cook/boil", the derived intransitive has a perfective meaning (despite the fact that it takes *haben* as Aux). The relations can be sketched as in (11).

- (11) *kochen*<sub>1</sub> AG<sub>i</sub> [TH<sub>j</sub> ] ⇒ *gekocht*<sub>1</sub> *werden* [-perf] TH<sub>j</sub> [e<sub>j</sub> ]  
*kochen*<sub>2</sub> [-perf] TH<sub>j</sub> [e<sub>j</sub> ]  
*kochen*<sub>3</sub> TH<sub>j</sub> [e<sub>j</sub> ] = *gekocht*<sub>1</sub> (worden) *sein* [+perf] TH<sub>j</sub> [e<sub>j</sub> ]  
 = TH<sub>j</sub> [<sub>sc</sub> t<sub>j</sub> gekocht worden] *sein*

*kochen*<sub>3</sub> ('boil') entspricht der passivartigen, ergativischen Ableitung in (9c), *kochen*<sub>2</sub> ("being cooked" oder "be boiling") der intransitiven (unergativischen) in (9b). Notice that we would not identify *kochen*<sub>3</sub> as eV because it takes *haben* as an Aux in any of its uses.

## 2.2. The auxiliary criterion of ergativity

While the second question has not been discussed at all for English (to the best of my knowledge), answers to the first one are (1)–(2) above. See the illustrations in (12)–(13) below.

- (12) AUX-diagnostics: iV: *geschlafen haben*/\**sein* 'slept have/be'  
 eV: *eingeschlafen \*haben/sein* 'in-slept have/be'

(13) Past participle attribute diagnostics:

iV: \**die Geschlafenen (Kinder)* 'the slept (ones/children)'

eV: *die Eingeschlafenen (Kinder)* 'the in-slept  
(ones/children)'

It is interesting to see that the attribute test does not yield conclusive results with respect to attribution status of the respective verbs. Rather, what appears to be at hand is the question whether or not case, gender, and number agreement are expressed. See (14).

(14) iV: *die Geschlafen- (-en/seiend-en)/\*(habend-en)*

eV: *die Eingeschlafen- (-en/seiend-en)/\*habend-en*

The agreement features required in general in German can be signalled on the adjectival attribute for the *sein*-bearing eV, but not for the *haben*-bearing iV. To the latter, agreement must be expressed on the present participle of *haben*. Once you add the agreement bearing *habenden* in (14)-iV, the attribute is grammatically (though not stylistically) correct. This would allow another independent argument to the derivability of *HABEN* from *SEIN*, much in the sense of Kayne 1983.

If we pursue further the question as to the preergative verb we find an answer by looking at passivization in German. Is there a passive form that allows *sein/be* as distinguished from the event passive auxiliary, *werden/become*? There is, in fact. See the illustration in (15).

(15) [-perfective] \**der geschobene Wagen*/\**der Wagen ist geschoben*

'the pushed car/the car is pushed'

[+perfective] *der EINGeschobene Wagen/der Wagen ist EINGeschoben*

'the in-pushed car/the car is pushed'

*schieben* 'push' is transitive. There are two passive forms: the event passive with *werden* 'become', which can be formed for any transitive or intransitive, the only condition being agentivity (agentivity for the external argument of the respective verb); and the resultative passive, whose formation is restricted to perfective predicates. The latter passive, but not the former, appears to be at the bottom of verbal ergativity. In other words, eV are resultative states. They are not, of course, passives. But their participial forms are on a par with past participles of transitives with respect to resultative stativity.

Criterion (2), the attributive use of the past participle of eV, thus conflates (1) and (2). (2) necessarily implies (1). Used predicatively the past participle implies (1) also.

### 2.3 The necessary link between the Aux criterion and the theta role criterion

Both uses of the past participle, that as an attribute to its subject and that as a predicative adjective, have an aspectual root: only perfective verbs can derive this past participle irrespective of whether it occurs passively or actively. In other words, in the collocation with *SEIN/BE* the past participle suspends the distinction between active and passive. What it means in this merger of active and passive ANTERIOR is a nominalization (or a nominalized attributive adjective) as in (16).

(16) *der Eingeschlafene/Eingefahrene*

The participle of eV, *der Eingeschlafene*, or of tV, *der Eingefahrene*, neutralizes the two diatheses, active and passive. Naturally, the past participle of tV, then, must allow for both readings: that of a passive participle as well as that of an active ergative. Compare *der Eingefahrene*, which attests to this conclusion. *Eingefahren* can derive from (*in die Garage*) *eingefahren sein* as an eV as well as from *einfahren* as a tV (*eingefahren werden*).

Adjectives never bear an agent for the external argument because adjectives are *SEIN/BE* predicates only. Since past participles of perfectives are states, generally and without exception, and since therefore they are closely akin to adjectives past participles of perfectives cannot be bearers of agent arguments either.

The link between ergative Aux and unergative AG thus lies in the fact that eV project (are?) adjectival, or statal, past participles that have adjectival category status. Adjectivals always select *SEIN/BE* and are diathesis-neutral in that they project properties or states. However, the ergative component of eV are more than adjectives at the same time to the extent that they are result states, which means that they necessarily imply a phase of emergence of this telic result. One can say that resultatives are both V and A, thus [+V,-N] as well as [+V,+N]. The fashion in which these two features are combinable and project into one single word is sketched in (17).

	V	A <sub>i</sub>
	t <sub>1</sub>	t <sub>k</sub> t <sub>n</sub>
(17)	>>>>>>>	-----
	[+V,-N]	[+V,+N]
	<i>A<sub>i</sub> werden</i>	<i>A<sub>i</sub> sein</i>

To speak about ergative/unaccusative verbs is a misnomer to the extent that the ergative properties show only on the past participle. The fact that the non-past (un)inflected forms of eV bear a thematic role that cannot be agent and that is considered to be derived from a structural accusative bears on the properties of the past participle of eV only. Notice that diathetic neutralization (i. e. neutrali-

zation of active and passive) holds only for perfective past participles. It is in this sense that the traditional claim that eV project derived accusative properties onto the external argument is imprecise – in fact, it is completely pointless, since unexplained unless related by the idiosyncartic perfectivity relation the category property for the approach phase, [+V,-N], in  $t_1$  to  $t_k$ , and [+V,+N] in the result phase in  $t_k$ , to  $t_n$ . Going beyond the list of the 5 ergative diagnostics we can thus say that the unifying property of ergatives is the statal past participle. It is the ergative event component expressed by the statal, or adjectival, past participle that combines the event-specific Aux selection (*SEIN/BE*), non-agentivity of the external argument, unaccusativity (adjectives deselect structural accusatives), and, finally, the implied emergent phase (see  $A_i$  *werden* in (17) above) leading to the adjectival result ( $A_i$  *sein*). Lexical ergativity thus consists of the combined properties in (18).

- (18) (Past participle of) eV: atomic components
- a Aux selection (*SEIN/BE*)
  - b non-agentivity of the external argument
  - c unaccusativity (adjectives deselect structural accusatives)
  - d implication of the emergent phase (see  $A_i$  *werden* in (17) above) leading to the adjectival result ( $A_i$  *sein*)

The diagnostic property in (18d) diverges crucially from normal adjectivals in that it presupposes an emergent phase and in that it makes the whole e-reference biphasic.

### 3 Formal perfectivizers in German

If eV are indeed intransitive perfectives in German (and Dutch) – and I have no doubt that they are – we shall have to ask ourselves what it is that makes a non-perfective verb unmistakably perfective. I believe we can do with the following 4 morpho-syntactic signals. It goes without saying that such perfectivizing morphological means are used across different valences (i. e. irrespective of (in)transitivity).

- (19) a verbal prefixes (non-separable, unfocussed): *ertragen, verkaufen, zerreißen*  
 b verb particles (separable, necessarily focussed): *ausweichen, aufsteigen, einkaufen, vortragen*  
 c affixoids: adjectives such as *breit, müde, kaputt, schwulstig* as in *sich müde laufen, sich die Lippen schwulstig lachen*  
 d telic accusative constituents: *in den Graben (hinein)springen, auf den Tisch (hinauf)steigen*

Each of the items classified in (19a–d) satisfies the diagnostic properties in (1)–(5). Let this be shown for the attribute diagnostics only.

- (20) *die zerrissene Bluse* ( $\Leftarrow$  *die Bluse zerriß*); *das ausgewichene Auto* ( $\Leftarrow$  *das Auto wich aus*); *der müde gelaufene Held* ( $\Leftarrow$  *der Held lief sich müde*); *der in den Graben (hinein)gesprungene Junge* ( $\Leftarrow$  *der Junge sprang in den Graben hinein*)

Notice that the inclusion of transitives into the discussion of 'ergatives as perfective intransitives' allows us to complete the proportion gap in (7). See (21).

- (21) the ergative-transitive link:  $iV(=ueV)[-perf] : eV[+perf] \text{ .} = \text{ .} tV[-perf] : tV[+perf]$

This is so because (22) holds as we have seen.

(22)	[- perfective]	[+ perfective]
Intransitive	iV	eV
Transitive	tV	tV

#### 4 Perfective syntax

Syntactically, perfectives characterized by any of the morpheme (constituents) in (19a–d) are predicatives, or object predicates, or small clauses (Abraham 1993). The predicate of the small clause is any of the morphemes in (19a–d). See (23)–(23a) for a perfective transitive, (23b) for  $eV$ =perfective  $iV$

- (23) a *Der Athlet lief sich müde (der müde gelaufene A.)*:  
 $[_{CP/IP} \text{ der Athlet}_i \text{ } [_{SC} \text{ sich}_i \text{ (COP) müde}] \text{ lief}]$   
 b *der Bürgermeister starb (der gestorbene B.)*:  
 $[_{CP/IP} \text{ der B.}_i \text{ } [_{SC} \text{ t}_i \text{ (COP) tot}] \text{ wurde}]$

#### 5 Typological parallels

Truly ergative or split ergative languages (Abraham 2001) exhibit a structural relation between the external and internal arguments which are quite similar to the ones postulated by initiators of the ergative discussion for Indo-European languages (Perlmutter/Postal 1984, Burzio 1989). The terminology varies between the grammatological traditions of the different languages (e. g. 'nominative' instead of 'absolutive').

- (24) 2-place lexical: ERG [ ABS  $\square$  ]  
 1-place lexical: ABS [  $\square$  ] ... ABS being the pivot case  
 (Dixon 1995)

Notice that in Nominative-Accusative languages such as the European Indo-European ones, the paradigmatic relation exhibits the external argument position, the nominative, as the pivot case as in an ellipsis of a  $tV$  or with English *I walk (the dog)*.



- (25) 2-place lexical: NOM [ ACC  $\square$  ]  
 1-place lexical: NOM [  $\square$  ] ... NOM = pivot case

However, eV behaves exactly as in (24). See (26) as well as the argument parallel in the attribute diagnosis in (27).

- (26) a *einschläfern*: AG [PAT<sub>i</sub>  $\square$  ]  
 b *einschlafen*: PAT<sub>i</sub> [  $\square$  ]  
 (27) a *der Eingeschläfer* (PAT<sub>i</sub>)  
 b *der Eingeschlafene* (PAT<sub>i</sub>)

Both (26b) and (27b) follow from (26a)/(27a), but not vice versa, since the causative is not necessarily presupposed for eV/perfective iV. In other words, eV need not be derived from causatives.

## 6 The erroneous case of VP-internship and ergativity

There are attempts to refer to cases without nominative subjects as eV. Consider Italian *Mi piace* (Belletti 1988). Other cases concern seeming nominatives within VP (*Mich interessiert gar nichts*; den Besten 1984).

It is easy to see that even under a considerably extended (and vaguer) understanding of verbal ergativity, such cases have nothing to do with what we discussed to be eV. Non-definite NPs are generally in positions structurally low, i. e. inside of VP. This has nothing to do with their basic order, but with discourse functionally motivated positions. On the other hand, subjectless verbs, to the extent that they occur at all, cannot be said to have any structural arguments (passivizability of *mi* in *mi piace*?). Ergativity never had anything to do with non-structural case. *Mi* is not a structural case, nor is the German accusative *mich schaudert* me-shudders "I shudder". Attempts to see those cases as eV are fundamentally mistaken.

## 7 Conclusion

Why is it that the discussion about the new verbal class of ergatives has played such a prominent role in English (see Keyser/Roeper 1984, Levin/Rapaport 1995, Reuland (ed.) 2000 – see Abraham 2000)? Quite clearly, had the authors on 'English ergativity' read Haider 1989 (in German) or had they followed the non-existing literature on lexical ergativity in Russian, their attempts had been more careful with respect to their far-reaching conclusions. Lexical ergativity is not a universal property. We saw on what the appearance of this phenomenon depends: on morphological signals of perfectivity and the ensuing diagnostics, as in (1)–(5). Both is severely suppressed in modern English. As little as that is responsible for this apparently redundant chapter in the modern literature in linguistics.

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