

## "OVS" – A misnomer for SVO languages with ergative alignment

### Abstract

Contrary to the classifications in the literature, OVS languages, construed as languages with an [O[VS]] clause structure, do not exist. Virtually all languages filed as “OVS” in typological surveys turn out to be SVO languages with ergative alignment that have been misclassified due to inadequately chosen diagnostics for “S” and “O”. For the same reason, it has been falsely maintained that ergative SVO languages do not exist. What does not exist is [Erg [V Abs]] languages. Modulo alignment, this is the equivalent of likewise inexistent [Acc [V Nom]] languages. It will be shown that an empirically adequate concept of ‘grammatical subject’ avoids the drawbacks of such misconceptions and incurs welcome fringe benefits. It will, for instance, become patent why, modulo alignment, passive and antipassive are identical grammatical functions.

### 1. How (not) to do comparative grammar research

There is an ongoing debate on how to study linguistic diversity. Levinson and Evans (2010: 2733) make out a great divide between what they call C- versus D-linguists, viz. Chomskyan vs. diversity-driven. Understandably, they find fault with the dogmatic approach of C-linguists, since they “draw on a very small subset of the data, presume [...] that the structural analysis of one language can be imported directly into the analysis of another, presume an innate set of principles exclusive to language” and “consequently are interested in internal, structure-based explanations, which often seem circular to outsiders” [Levinson and Evans (2010: 2734)]. D-theories, on the other hand, are “more surfacy (and thus more falsifiable)” and they use “only minimal formalism”. “D-linguists prefer Boasian ‘methodological relativism’ – first analyse a language in its own terms, then compare” [Levinson and Evans (2010: 2733)].

The diagnosis is appropriate but the cure is not better than the disease. “In its own terms” is a carte blanche. Philosophy of science tells us that every scientific observation is theory-laden.<sup>1</sup> A grammar is a theory of the described language, even if it is formulated in terms of a “Basic Linguistic Theory” since even commonsensical approaches lead astray, as will be shown.

Languages can and in fact must be compared with respect to their structures and categories but only after it has been ensured that like is compared with like. This is exactly *not* what we do if we analyse them “in their own terms”. What is a like term is determined by a theory. Davis et al. (2014: e180) suggest the following maxim. “A scientific approach to the study of linguistic diversity must be empirically grounded in theoretically informed, hypothesis-driven fieldwork on individual languages.” This is a scientific road to success.

“Empirically grounded” and “theoretically informed” (without dogmatic subserviency) are the key concepts. C-linguists tend to sacrifice empirical grounding for doctrinaire subservience to cross-linguistically poorly founded axioms. D-linguists tend to forgo theoretically informed grammatical analyses. Why are they reluctant to apply formal categories? One reason seems

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<sup>1</sup> See “theory ladenness of observation”, Brewer & Lambert (2001). “Dryer (2006) refutes the myth that people who write grammars work without a theory and emphasises that there is no such thing as atheoretical or theory-neutral description. According to Gil (2001: 126), it is an illusion to believe that description can be separated from theory and to engage in the former without the latter.” (Nikolaeva 2015: 2041).

to be the idea that observation and description could be done in a theory-neutral way, while formal categories are often model-dependent.

Dryer (2006: 210) envisages a return to traditional grammatical concepts: "*While the typological work of the 1970's freely supplemented traditional grammar with notions required to describe many non-European languages, such as ergativity, an example of the link to traditional grammar was the bringing back to central stage of the notions of subject and object.*"

Another motive of reluctance is the "*Boasian methodological relativism*" that D-linguists are said to endorse. Davis et. als. (2014: e185) complain that "*Haspelmath (2010: 663), for example, claims that 'descriptive formal categories cannot be equated across languages because the criteria for category-assignment are different from language to language', and Croft (2013: 216) propounds that 'there are no grammatical categories independent of constructions, since each construction defines its own distribution'. But their premise is wrong.*"

A third reason for the aversive response to formal concepts and categories seems to lie in their grammatically cross-linked properties which make them difficult to assess for a given language without detailed information. A "*more surfacy*" approach is technically easier to handle since content is easy to grasp while structures are hard to assess. Syntactically, however, forms and their structures matter more than their semantic content. Grammars define structures, and structures constrain the form of the presentation of content rather than the other way round. Haspelmath (2014: 495) contradicts:

*The basic principle is [...] that languages can be readily compared only with respect to meanings and sounds/gestures, but not with respect to their categories, because only meanings and sounds, but not categories, are universal. Thus, instead of saying that English has SVO order, while Japanese has SOV order, we must say that English has agent-action-patient order, while Japanese has agent-patient-action order.*

Regrettably, instead of insisting on the inevitability of providing structurally sound definitions as the basis of any comparative grammar research, he decidedly suggests sticking to Greenberg's *preliminary-shortcut* approach,<sup>2</sup> citing only the first sentence of the quote below. Greenberg himself has been very clear on his recourse to easily applicable criteria for the identification of the subject of a clause and he was well aware of his provisional strategy being just a time-saving shortcut:

*I fully realize that in identifying such phenomena in languages of differing structure, one is basically employing semantic criteria. There are very probably formal similarities which permit us to equate such phenomena in different languages. However, to have concentrated on this task, important in itself, would have, because of its arduousness, prevented me from going forward to those specific hypotheses.* Greenberg (1963:74)

As a provisional strategy, it has been a practicable option but not a sustainable one. Sixty years after, we are in a position to concentrate "*on this task, important in itself*" and we have the means to do so. What matters is not "readily" but "empirically adequately." There is a direct parallel to comparative biology.

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<sup>2</sup> Queixalós and Gildea (2010: 8) are explicit in this respect: "*So for now we adopt the theoretically problematic but heuristically useful practice of relying on intuitive-impressionistic identifications of A and P.*"

Although cross-species differences may be at least as diverse as cross-linguistic differences, biology nevertheless compares *homologically* rather than *analogously*. Analogous structures are seen as the result of (convergent) evolution. Not everything that has fins and lives in water is a fish. There are aquatic mammals that merely look like fish. Biologists compare and identify the corresponding anatomy in the fins of whales, the flippers of seals, the wings of bats, and the claws of cats, but they do not equate the anatomy of the wings of a butterfly with the wings of a bat, falcon or fly. Identical functions do not presuppose identical structures and identical structures may have non-identical ecological functions. Comparative linguistics is bound to fail when it takes the identity of communicative functions or content as the *tertium comparationis*. What one ends up with is a catalogue of *accidentally* analogous properties.

It is the grammatical system and not the respective communicative functions<sup>3</sup> that determines the categorizations and structures (see Haider 2021a: 110; 2021b: 109-113). The time has not yet come for this view to be shared by contemporary schools of linguistics. Right here, we have arrived at the core issue of this paper. If languages are compared "*only with respect to meaning*", the outcome is likely to end up in a confusing maze of patterns, since syntax – the result of cognitively evolutionary grammaticalization (Haider 2021a,b) – overrules semantic distinctions cross-linguistically. It will be shown that a suitably formal approach in terms of syntactic categories<sup>4</sup> rather than semantic content will cut confusion and lead to a more clearcut picture of major cross-linguistically (in)variant properties.

## 2. Grammatical subject – a concept that is relative to the alignment type

The focus of this paper is the empirically adequate account of the concept "grammatical subject" as the key concept for categorising languages in word-order typologies. Although functionalist typologists and Minimalist generativists more often than not disagree, they meet on one point at least, which ironically turns out to be mistaken. This point is the *lexico-semantic* identification of the core argument that is to serve as grammatical subject. For both schools, the prototypical subject is the phrase that represents the agent argument of a transitive agentive verb in a 'simple' finite clause.

Typologists and field linguists customarily identify the core arguments of the main verb of a minimal transitive clause by content,<sup>5</sup> that is, as instantiating agent and patient roles, respectively. In the majority of languages, namely languages with a nom-acc alignment system, a strict *agent-V-patient* order corresponds to a *subject-verb-object* structure. However, when languages with *patient-verb-agent* serialization are classified as "OVS", the alignment system must not be neglected or else a language with ergative alignment will be inevitably misclassified. In such languages, contrary to a widely held view, the agent noun phrase (= ergative NP) is *not* the syntactic subject. The syntactic subject is the noun phrase with the properties of a

<sup>3</sup> As for functionalist accounts, Mayr (1982: 464) emphasizes that Darwin explicitly disqualifies any appeal to function (viz. utility or final causes) in the quest for valid explanations: "*As Darwin rightly said 'Nothing can be more hopeless than to attempt to explain the similarity of pattern in members of the same class, by utility or by the doctrine of final causes.'*"

<sup>4</sup> "I maintain that a level of formal structure has to be taken into account if we are to understand something of how speakers build their utterances and how listeners process them." Queixalós (2010: 261).

<sup>5</sup> "The terms subject and object are used here in a rather informal semantic sense, to denote the more agent-like and more patient-like elements respectively. Their use here can be defined in terms of the notions S, A, and P, where the S is the single argument in an intransitive clause, the A is the more agent-like argument in a transitive clause, and the P is the more patient-like argument in a transitive clause." (Dryer 2013, Ch. 81, Sect.1).

syntactic subject, and this is the phrase with absolutive case, that is, the "patient" argument. Hence, in brief, an ergative language with strict patient-verb-agent order is not OVS but SVX, modulo ergative alignment. This will be demonstrated and documented in detail below.

On the surface, the generativist stance is different, but basically it converges with the functionalist-typological conception. The candidate for what is taken to be the *phrase-structurally* universal subject function is the top-ranked argument in the argument structure, which, for agentive verbs, is the agent argument. Many generativists even hold that this argument is not linked to the lexical verbal head<sup>6</sup> but receives its thematic relation from an empty entity referred to as "little v."

As a consequence of their concept of grammatical subject, linguists of both schools are united in their (mistaken) claim that "ergative SVO languages" do not exist. Typologists [Siewierska (1996)] and historical linguists [Trask (1979)] put it on the list of properties of ergative languages while generativists [Mahajan (1997), Lahne (2008), Taraldsen (2017), Roberts (2021)] are eager to derive it within their axiomatic theories.

For these authors, "no ergative SVO" means that there are no languages with an [Erg [V Abs]] clause structure. However, this is *not* the clause structure of an ergative [S[VO]] language (see below and Sect. 4). On the other hand, it is almost trivially true that [Erg [V Abs]] languages are inexistent; there are no [Acc [V Nom]] languages either. A non-subject in the structural subject position of an [S[VO]] clause structure and a subject in a VP-internal position is no admissible canonical base structure of clauses in any language.<sup>7</sup>

Those who think the absence of [Erg [V Abs]] needs attention identify ergative case with subject case and absolutive with object case, which is empirically and theoretically inappropriate, as will be shown. Siewierska & Bakkers' classification of subjects across alignment systems is a rare exception in this respect: "*We find case marking (typically Nominative or Absolutive for Subjects; Accusative and Ergative for Objects) and agreement marking on the verb (typically, the marker varies for Person, Number and Gender features of the Subject constituent).*" Siewierska & Bakkers (2007: 292)

Ergative SVO languages *do* exist and they are attested, but incognito. Languages that have uncontroversially been classified as (ergative) OVS languages, in fact, have to be re-classified as "SVO" languages. The preverbal, non-agentive noun phrase is not the syntactic object. It is the syntactic subject of an abs-erg-language. The subtle point is not so much the linguistic description of a particular language but the subsequent typological interpretation, that is, the step from "agent" or "patient" to "subject" and "object", respectively.

Dixon (2010, vol. 2: 119) and other field linguists have tried to circumvent the problem of formally defining and identifying the grammatical subject. In descriptions, "S" is reserved for referring to the single argument of a finite intransitive clause. For the arguments of a minimal

<sup>6</sup> When checked cross-linguistically, this assumption turns out to entirely rest on extrapolations from English (and languages similar to it) and does not pass empirical testing. (Haider 2020).

<sup>7</sup> The research literature is necessarily silent on the issue because of misclassified "OVS" languages. As will turn out, the absence of [O[VS]] is a typological issue, too. A plausible explanation seems to be the following. The structural positioning is *congruent* with grammatical dependency relations. The dependent item (see dependent object case in Section 2.1) is c-commanded by the superordinate item; hence the subject c-commands the object in the base configuration which it would not in an [O[VS]] base structure.

transitive clause, the terms "A" (agent) and "O" (object) are used. "A" is a *content-based* category, viz. agent, while "O" is not so much seen as the *formal* syntactic category "object" but as the noun phrase that represents the logical argument of the verb that is the direct object (in a nom-acc language). This is a dreadful mix-up. Word order typologies consequently take an "O"-V-A order as input information and without further ado interpret it as a sufficient indication of the Greenbergian OVS type.

What should be done, however, is to use strict patient-V-agent order information as input, check the alignment system, and then interpret it, based on syntactic criteria, either as SVO in an abs-erg language or, as OVS if in a nom-acc language. Dixon characterizes ergative alignment as follows: "*The term 'ergativity' will be used in the standard way, for referring to S and O being [grammatically]<sub>HH</sub> treated in the same way, and differently from A. 'Ergative' is then used in relation to A, the marked member of such an opposition, and 'absolutive' in relation to S and O, the unmarked term.*" Dixon (1994: 22).

Although he does not explicitly generalize the term 'subject' across alignment systems here,<sup>8</sup> it follows: If S and O are "*treated in the same way*" in ergative systems, and S is the subject of a finite clause, then "O" will inevitably qualify as the subject of a transitive clause in an ergative system.<sup>9</sup> Astonishingly, Dixon (2010, vol. 2: 119) chooses the following formulation: Cross-linguistically, "*there are two recurrent patterns – S marked like A and S marked like O.*"

This inverts the relevant tertium comparationis. A and O should be compared with S as the *subject* of an intransitive, finite clause, and not the other way round. In nom-acc systems, the A-argument is marked like S, namely by nominative, while in abs-erg systems, the P-argument is marked like S, namely by absolutive. In each case, these arguments are marked like/as the subject of a finite clause. Hence, a clause with strict O-V-A order and ergative alignment is a clause structure of the SVO type in Greenbergian terminology.

In other words, there is no justification for classifying an *ergative* language as "OVS" whenever its obligatory serialization pattern in simple clauses with non-pronominal noun phrases happens to be patient-V-agent. This, however, is exactly what happens in typological surveys, as for instance in WALS (Dryer & Haspelmath 2013) and others. Pări, for instance, is listed as "OVS" (feature 100A) and "ergative" (feature 81A) in WALS, although in an earlier publication, Dryer (2007: 70) himself has explicitly qualified such a classification as "somewhat misleading."<sup>10</sup>

Upon closer inspection it will turn out that in most typological surveys, P-V-A is counted as "OVS" without taking into consideration the particular alignment system of the given language, which is almost always ergative. If type-assigned correctly, these languages have to be registered as SVO languages with ergative alignment. Dixon (1994: 50) explicitly notes that for

<sup>8</sup> He is outspoken in other places: "*A, S, and O are the basic relations. As a secondary step, A and S are grouped together as 'subject'.*" (Dixon 2010: 76). "*Subject is simply the association of S, the only core argument of an intransitive clause, and A, that core argument in a transitive clause which could initiate or control the activity.*" (Dixon 2010: 229).

<sup>9</sup> It depends on the grammar of a given language whether the argument marked with ergative case behaves like a dependent structural case or an oblique case. In the former case, it will surface as absolutive in the anti-passive construction (which, in fact is the passive construction of an ergative alignment system, since it signals the syntactic elimination of the original subject argument).

<sup>10</sup> In Dryer (2007: 70), when referring to Pări, he draws attention to the very problem: "*Characterizing such languages as OVS is somewhat misleading in that the word order really follows an ergative pattern Abs-V-(Erg).*"

"languages with syntactic function shown by constituent order" SV/OVA is a sign of ergativity.

The common opinion is explicated in an on-line encyclopaedia<sup>11</sup> as follows: "*Ergative-absolutive languages, sometimes called ergative languages*" as "*languages where the subject of an intransitive verb and the object of a transitive verb behave the same way in a sentence.*" Evidently, this description is worded in the categories of languages with nom-acc alignment. The argument of the verb that is "*the object of a transitive verb*" is an *object* only in a nominative-accusative setting. In an absolutive-ergative system it is the *subject* of the clause. Contrary to Levinson & Evans' plea – *first analyse a language in its own terms, then compare*" – these languages have been continuously viewed through the lens of biased<sup>12</sup> observers, in the observer's own terms.

An unbiased and empirically adequate rendering is this: In the vast majority of languages, one of the two arguments of a transitive verb, A or B, is aligned with the syntactic subject function and the other one with the grammatical object function. Consequently, this opens a system space with at least two options. In one, argument A is linked with the subject function, in the other, argument B is the subject. In each system, the remaining argument is linked to the object function. If A is the *agent* argument of an agentive verb linked as subject, the alignment system is called *nom-acc*. If B is the *non-agent* argument of an agentive verb linked as subject, the alignment is called *abs-erg*.<sup>13</sup> Here is an example:

(1) Derbyshire & Pullum (1979: 8) on Macushi:

máin̩ z-ai-póŋ-tə-bə Joe-za Osenégu-pə  
 message sent Joe-SM Osenegu-by  
 Joe sent the message by Osenegu.

SM = "subject" marker

Macushi is one of four candidates for OVS in Siewierska's (1996) sample. However, what Derbyshire & Pullum called "SM" is not a marker of the subject but of the agent argument. In terms of alignment, this is an *ergative marker*. WALS (Dryer & Haspelmath 2013) follows Abbott (1991) and classifies Macushi as an ergative language, which is uncontested among typologists. So, Macushi is not OVS but Abs-V-Erg, which is SVO.

The "syntactic subject" must be identified formally since it is the (*morpho-*)*syntactically* privileged noun phrase, linked to an argument slot of the finite verbal predicate. "Privileged" is a concept that is relative to the grammatical means available in a given language, as Keenan (1976) demonstrated, with a cross-linguistically assembled pool of family resemblances of roughly thirty grammatical features of subjects. Mel'čuk suggests the following definition:<sup>14</sup> "*The SyntSubj is the most privileged Synt-actant of the syntactic predicate (≈ Main Verb) in L; what exactly are syntactic privileges in L has to be indicated by a specific list of SyntSubj privileges elaborated for L.*" Mel'čuk (2014: 179)

The central identifying features of the privileged status of a grammatical subject become particularly clear in languages with case and agreement, as will be explained in more detail

<sup>11</sup> Wikipedia on "*Ergative-absolutive language*".

<sup>12</sup> In Queixalós (2010: 276) perception, ergativity is treated as an abnormality: "*Current paradigms – notably built on European languages – are at odds with grammatical systems which seem to suffer from a sort of schizophrenic disease – an object that looks like a subject and so on.*"

<sup>13</sup> There is even room for instantiating both, viz. one for full noun phrases and one for pronouns. This is known as a split ergative system.

<sup>14</sup> I am grateful to Martin Haspelmath for making me aware of Igor Mel'čuk's definition.

in the following section. First, the case of the direct object is dependent on the case of the subject. Second, in languages with subject-verb agreement, the subject obligatorily agrees with the finite verb, and third, the absence of the canonical subject argument is morphologically signalled, also known as passive and anti-passive, respectively.

It is important to realize that “grammatical subject” is not a language universal. If a language with grammatical morphology for nouns or verbs does not show the relevant properties then “grammatical subject” is not defined in the grammar of such a language. That there are such languages is by now well-known, too. In Comrie’s (2005) classification, these languages are listed under the label “tripartite” alignment or under “active/stative” alignment; cf. Mithun (1991) and (2008) for exemplary details. In these languages, an indispensable feature of *grammatical* subjects is missing, namely the dependency between subject and object marking and the grammatical management of subject omission (see the following section).

Another caveat is in order here. Whenever properties of putative subjects of languages whose grammar does not instantiate *grammatical* subjects are raised against definitions of *grammatical* subjects, they could be mistaken as counterevidence. However, such properties are not counterevidence; they are irrelevant evidence for the characterization of *grammatical* subjects, as will be clarified in the following section.

### 2.1. Dependent case, markers for subject elimination, and obligatory agreement

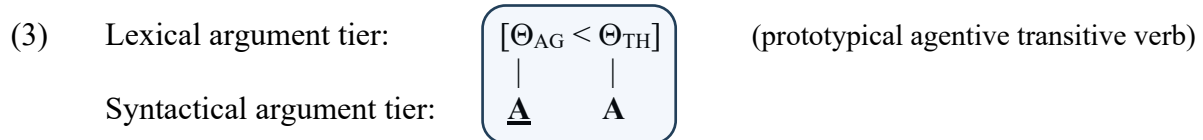
Dependent case and the obligatory morphological signalling of a grammatically eliminated subject candidate are two sides of the same coin. Whenever the assignment of object case is dependent on the prior assignment of subject case, elimination of the subject triggers the object’s “promotion” to subject case. In other words, the structural case of the object is morphologically (or positionally) realized as subject case. In Haider (1985b: 30) the “*basic dependency in the case system*” holds in the realization of *structural* case on the object. It is dependent on the realization of the structural case on the subject, with the effect, that the structural case on an object cannot be realized independently of subject case. This is easy to observe in languages with *morphological* case such as German, see (2), but also in English, with *positionally* coded subjects and objects.

- (2) a. wenn jemand *den* Stein wegrollt  
if somebody *the<sub>Acc.</sub>* stone away-rolls
- b. wenn *der/\*den* Stein wegrollt [unaccusative]  
if the *Nom./\*Acc* stone away-rolls
- c. wenn *der/\*den* Stein weggerollt wird [passive]  
if the *Nom./\*Acc* stone away-rolled is
- d. wenn jemand *den* Stein wegrollen lässt [causative]  
if somebody *the<sub>Acc.</sub>* stone away-roll lets  
‘if someone lets/makes the stone roll away’ / ‘if someone has the stone rolled away’<sup>15</sup>

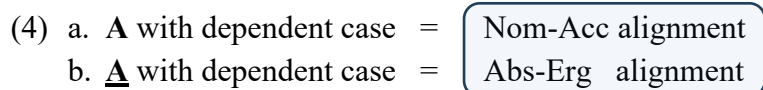
<sup>15</sup> The ambiguity reflects the alternative argument-structure formats of the verb, viz. unaccusative or transitive, with eliminated subject argument (Haider 2001).



An essential part of a case dependency system<sup>16</sup> is the parametric choice of the *dependent* argument in the lexical argument structure. There are two possibilities and each one has found its implementation, cross-linguistically (Haider 1993: 123). In one option (viz. nom-acc), the candidate for the dependent case is the lower argument in the argument structure (3), namely A. In the other option (viz. abs-erg), it is the more predictable argument, which is the higher-ranked one (4b), viz. A.



Under Nom-Acc alignment (4a), the privileged argument is A, that is, the argument associated with the agent. In an Abs-Erg alignment, A, which is associated with the P-argument, is the privileged argument. In so-called split systems, which are infrequent and diachronically unstable, both options are implemented simultaneously, typically one for pronouns and the other for non-pronominal arguments. Analogous splits are known for agreement system.



In (4a), the phrase with nominative is the grammatical subject, equipped with all privileges of grammatical subjects, while in the alignment (4b), the grammatically privileged (see below) core argument is the phrase with absolutive. It is a collateral property that in (4a) the privileged argument is the agent argument of the argument structure, while in (4b) it is the patient/undergoer argument.<sup>17</sup>

There are two immediate consequences, namely for ‘promotion to subject’ and the mandatory ^realizing the subject argument. Promotion-to-subject is triggered by the elimination of the default subject argument. In a nom-acc system, this corresponds to an Acc-to-Nom switch; correspondingly, in an ergative system, Erg is ‘promoted’ to Abs. Note, importantly, that in *no* ergative language, Abs is ‘promoted’ to Erg, which would be expected if ergative were the subject case and absolutive the case of the object.

The obligatory switch from dependent case to subject case blocks the *optional* omission of the subject argument since it would be irrecoverably masked by object-to-subject promotion, as exemplified in (5a,b), with the resultant, unavailable reading. Objects can be omitted, see (5c,d), but subjects cannot.<sup>18</sup> (5a,b) are ungrammatical under the structure indicated.

- (5) a. \*She<sub>i</sub> left e<sub>i</sub>  
‘(someone) left her’

<sup>16</sup> Case dependency properties originally worked out in Haider (1985a: 73; 1985b: 13, 30; 1993: 124; 2000: 31) have been adopted by HPSG (Heinz & Matiassek 1994). Later, Marantz (1991) (re)discovered case dependency and Baker (2015) continued with it.

<sup>17</sup> Queixalós (2010: 276) formulates it as follows: „An ergative pattern is one in which core arguments of a basic divalent construction display a mapping between their semantic roles and their morphosyntactic properties so that the patient formally outranks the agent.”

<sup>18</sup> Please be aware that omission of an argument must not be confused with null pronouns. The omitted argument is interpreted by existential closure, a null pronoun (aka pro-drop) is interpreted referentially. In the following example (i), the objects of ‘forget’ and ‘forgive’ are *omitted*. The subject, however, cannot be omitted (ii.).

i. But Beijing never forgets and certainly does not forgive.

ii. \*But never forgets anything and certainly does not forgive anyone anything.



- b.\*She explained e<sub>i</sub> everything.  
'(someone) explained her everything'
- c. The president is calling (sb).
- d. The gown does not suit (sb.).

In ergative languages, the same conditions apply, modulo alignment. So, the ergative phrase may be optionally missing,<sup>19</sup> but the absolutive is obligatory.

- (6) a. na'e tamate'i ('e 'tevita) 'a koliath. Tongan (Churchward 1953: 68).  
has killed (ERG-David) ABS-Goliath  
'David killed Goliath' [without Erg: 'Sb. killed David' = David has been killed]
- b. (Unai-k) pakete-a-k bidal-i ditu. Basque (Fernández & Berro 2022: 1050)  
(Unai- ERG) package-det-pl[abs] send-pfv have.3plAbs[3erg]  
'Unai has sent the packages.'  
[without Erg: 'Sb. has sent the packages' = 'The packages have been sent']

In sum, the overarching generalization is this. The argument with the dependent case may be omitted optionally. The parent argument must not be omitted. In one type of alignment, this is the nominative phrase, in the other type it is the absolutive phrase.

An analogous relation holds for head-marking systems, that is, agreement relations. If a language has object-verb agreement, it also has subject verb agreement. The obligatory target of agreement is either the nominative or the absolutive, respectively, which are the subjects. Note once more that a mixed type is not excluded. Case assignment may display one way of alignment in (4), while agreement may be governed in the other way, which, once more is an unstable grammatical constellation

## 2.2 Subject as the grammatically privileged core argument

Subject privileges<sup>20</sup> manifest themselves in every grammatical dimension, such as morpho-syntax or clause structure, or even in prosodic phonology, as Yu (2021) has shown for the tonal marking of absolutive in Samoan. In languages that provide a unique structural subject *position*, the subject is phrase-structurally privileged, and this is directly reflected in word order patterns. In genuinely [S[VO]] languages, that is, languages with a structurally defined preverbal subject position, this position is reserved for the subject while objects follow the verb.

The following eight properties listed in (7) are widely acknowledged as typical manifestations of the grammatically privileged status of grammatical subjects in the pertinent literature.

(7)	Grammatical privileges of grammatical subjects	Nom-Acc	Abs-Erg
a.	indispensability	Nom	Abs
b.	omission obligatorily signalled	Nom	Abs
c.	superordinate structural case in case languages	Nom	Abs
d.	target of a promoted NP with dependent case	Nom	Abs

<sup>19</sup> The missing-argument variable is interpreted in the same way as a missing object of a transitive verb is interpreted in Nom-Acc languages, namely as bound under existential closure.

<sup>20</sup> Van Valin (2005: 99) uses the concept 'privileged' differently and applies it in a construction-specific way: „Privileged syntactic arguments are construction-specific, while grammatical relations like subject are not.”

e.	agreement with the finite verb in languages with agreement	Nom	Abs
f.	not lexicalized in infinitival clauses	Nom	Abs
g.	pro-dropped in null-subject languages	Nom	Abs
h.	top accessibility in languages with accessibility restrictions	Nom	Abs

It is hardly possible to overlook that absolutive and nominative pattern alike. Nominative and absolutive are mandatory, accusative and ergative arguments are optional for many verbs. Subjects unlike objects, must not be omitted, see (7a), unless signalled morpho-syntactically, see (7b). Such signals are known as "passive" in Nom-Acc languages and as "anti-passive" in ergative languages, which, in reality, is what passive is in nom-acc languages, namely a means of syntactically eliminating the argument that would otherwise surface as subject. Dixon (1994: 146), and Dixon & Aikhenvald (2000: 9) characterize antipassive as follows:

- (8)a. The *antipassive* construction is formally explicitly marked.  
 b. *Antipassive* forms a derived intransitive<sup>21</sup> from a transitive verb.  
 c. The otherwise *ergative*-marked NP becomes S (viz. subject).  
 d. The otherwise *absolutive*-marked NP goes into a peripheral function and can be omitted.

The four properties characterize the grammar of subject elimination. Modulo alignment, they translate one-by-one into Passive, see (9). In an abs-erg system, the so-called antipassive is what passive is in a nom-acc system. Antipassive and Passive do not deserve to be terminologically separated.<sup>22</sup> They are instantiations of the *very same* thing, namely the signal of the omission of the default subject argument in different alignment systems.

- (9)a. The *passive* construction is formally explicitly marked.  
 b. *Passive* forms a derived unaccusative from a transitive verb.  
 c. The otherwise *accusative*-marked NP becomes S (viz. subject).  
 d. The otherwise *nominative*-marked NP goes into a peripheral function and can be omitted.

In each alignment system, a dependency relation holds between the assignment of the superordinate case, see (7c), assigned to the argument that serves as subject, and the dependent case, assigned to the direct-object. In languages with structurally assigned cases, accusative as object case is assigned only in the presence of the subject case, and ergative is assigned in the presence of an absolutive (Haider 2000). If the primary subject candidate is syntactically unavailable, subject case is passed on and assigned to the object, see (7d). The consequence is the familiar acc-to-nom (= object-to-subject) switch or the ergative-to-absolutive (= non-subject-to-subject) switch, respectively, in passive/antipassive. This is the situation in grammars that define a grammatical subject.<sup>23</sup>

Polinsky (2013) and (2017a: 310), describes passive and antipassive in the traditional way of focusing on a circumstantial property, namely "*In the passive, the suppressed or demoted argument is the agent-like argument, in the antipassive, the patient-like argument*" and in (2017:

<sup>21</sup> The appropriate term for the derived antipassive form of the verb is not 'intransitive' but *unergative*, since the ergative-marked argument of the active construction switches case and surfaces as absolutive, as stated in (8c).

<sup>22</sup> "*Antipassive is the exact opposite of the passive in terms of case change.*" Primus (1995: 1090).

<sup>23</sup> It crucially does not hold in grammars that do not define a grammatical subject, such as tripartite or stative-active systems, in Comrie's (2005) terminology.

310), as clause "*with a transitive predicate whose logical object is demoted to a non-core argument or non-argument*".

This is both misleading and missing an essential generalization. The syntactically relevant property is *not* the specific thematic role of the demoted argument or its logical argument content. Grammatically relevant is the *syntactic* role, and this role is the grammatical function of a subject. Whenever in a finite clause, the argument of the verb that would otherwise surface as a syntactic subject, viz. as *nominative* or *absolutive*, respectively, is syntactically omitted, this must be morpho-syntactically formally marked. The naming of the semantic role of the suppressed subject is redundant since it is determined by the alignment system in interaction with the lexical argument structure. “Object demotion” is a misleading concept. It provokes the question why antipassive and passive are in complementary distribution. No object is demoted; they are promoted, either acc-to-nom or erg-to-abs.

The missed cross-linguistically valid generalization is this. Ergative and accusative as dependent cases behave alike. When the candidate for the superordinate case – nominative or absolutive – is eliminated, the object with structural case switches into the superordinate case. The NP with dependent case is ‘promoted’. The promotees are accusative and ergative, respectively, but crucially not the absolutive as an alleged object.

Relation changing is asymmetric. There is no language that ‘demotes’ a subject to the object function whenever the object has been eliminated. In other words, no language turns a nominative into an accusative when the candidate for accusative is absent, and by the same token, no abs-erg language would replace an absolutive by an ergative case when the candidate for the ergative case is absent. The dependency works in the opposite direction, and it is perfectly captured once absolutive is recognized as the case of the subject. Note that this is a syntactic property. The usage of the term “morphological ergativity” falsely insinuates that this is a property of morphology. It is a core issue of syntactic alignment that is reflected in grammatical morphology.

Subject-verb agreement, see (7e), is a morpho-syntactic common place. The finite verb agrees with the subject, and there is no language in which an object agrees with the finite verb but a subject does not. The only exception would be an ill-defined ergative language.<sup>24</sup> In the rare cases in which the finite verb agrees with the ergative but not with the absolutive, this is a language with a split. In such a language, the privileged argument for case alignment is A, see (4b), while A is the privileged argument for cross-referencing by agreement.

As for non-finite constructions, see (7f), what is the subject in a finite clause as (10a) is the null-subject of a *sentential* infinitival constructions as (10b).<sup>25</sup> The examples contain an adjunct phrase with an anaphor (“one after the other”) that copies the case of the antecedent. In the case

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<sup>24</sup> ChatGPT is a locus of conventional wisdom. It names Basque as an ‘exception’ to the generalization, referring to object agreement with the absolutive. However, Basque is an ergative language. Agreement with absolutive is subject agreement.

<sup>25</sup> Exceptions only go in one direction: If, as for example in Icelandic, a non-nominative argument may serve as null subject form in the infinitival clause in a given language, the argument that would be the nominative candidate in the finite clause is always a grammatical alternative. In no language, the null-form is restricted to non-subject arguments.

of the infinitival null subject, its case is nominative (10b). For details, please consult Haider (2010: 309-311).

- (10) a. Man hat die Teilnehmer<sup>i</sup> gebeten, [dass *sie*<sup>i</sup> (einer<sup>i</sup><sub>Nom</sub> nach dem anderen) aufstehen]  
 one has the participants asked that they (one after the other) stand-up  
 b. Man hat die Teilnehmer<sup>i</sup> gebeten, [*0*<sup>i</sup> (einer<sup>i</sup><sub>Nom</sub> nach dem anderen) aufzustehen]  
 one has the participants asked (one after the other) to-stand-up

In ergative languages, absolutive case is not licensed in nonfinite clauses, as for example in Dyirbal, Seediq, or Sama Southern (Deal 2015). For objects, such a restriction would be unheard of (cf. Aldridge 2008). As potential counterevidence, Polinsky (2017b: 17) notes that “*many ergative languages, including Inuit, have the absolutive freely available in non-finite clauses*” and that “*the so-called contemporative form of the verb in Inuit/Inuktitut is characterized by agreement with the absolutive but not the ergative.*”

The second part of the quote is the key to the first. The very same constellation is found in Nom-Acc languages, too. Portuguese is the Nom-Acc counterpart of Inuit, with nominative occurring in the so-called inflected-infinitive construction, cf. Madeira & Fiéis (2020). Another example is Hungarian (Tóth 2020). In each case, *agreement* licenses the assignment of subject case. The typical infinitival clause without a lexical subject is a clause *without* subject-verb agreement. Lack of agreement is the blocking factor.

In pro-drop languages, see (7g), the case of the null-subject pronoun is nominative (in the nom-acc setting) or absolutive (in the abs-erg setting). Examples of the latter come, for instance, from Basque or Hindi. The literature on ergative pro-drop is deficient, though. the optional presence/absence of the ergative (with an interpretation of existential closure) tends to be mistaken as a case of pro-drop, which it is not. It is necessary to clearly differentiate between the genuine *referential* pro-drop of the absolutive and the free omission of an ergative as a dependently cased argument (with indefinite existential interpretation).

A clear indicator of a subject function, see (7h), is Keenan & Comrie’s (1977, 1979) accessibility hierarchy. No languages are known in which the subject is generally inaccessible for relative clause formation, but there are many languages in which *only* the subject is accessible. As will be argued in the following section, in ergative languages, the absolutive argument is always accessible, but there are quite a few languages in which the ergative argument (as object) is inaccessible. Evidently, the absolutive is not the case of the object. It is the case of the grammatical subject.

### 2.3 On the alleged disparity of morphological and syntactic ergativity

The established but dispensable distinction between morphological and syntactic ergativity is conceptually and empirically infelicitous. First, it is but an auxiliary assumption needed for compensating the misidentification of subject and object in ergative languages and for explaining away counterevidence. Second, it is based on a questionable interpretation of data. For Polinsky et al. (2012: 69). “*Ergative languages have posed challenges to the AH in that many of them exhibit syntactic ergativity: In many of them, the absolutive arguments (intransitive subject and transitive object) relativize with a gap, but the ergative DP does not.*” This is not an effect of “syntactic ergativity” but merely the backlash of the misidentification of the grammatical subject. If absolutive were acknowledged as subject case, the problem would immediately

disappear. Eventually, the terminological differentiation (morphological vs. syntactical) is misleading. Morpho-syntactically reflected syntactic relations are as much part of syntax as word-order based properties.

For Dixon (2010a: 229), the alignment system – viz. nominative-accusative vs. absolutive-ergative – does not make a difference since “*even in ergative languages, S and A share a number of properties – as addressee in imperative constructions, as controller of reflexive, and so on*”. In his opinion, the agent argument is the subject, no matter whether the case system is a nom-acc or an abs-erg system. The argumentation of the Generative school is more technical but equally problematic. Here is a pertinent statement of Polinsky & als. (2012: 268), who emphasises the company of “*ten other consensual papers*”: “[...] *the ergative DP has all the criterial properties of a subject: it is the addressee of an imperative, it binds the absolutive but cannot be bound by it, it participates in control and raising, and often it has preferential properties in the control of cross-clausal anaphora*”.

First, the properties itemized by Dixon and by Polinsky (et al.) are certainly not “*all the criterial properties of a subject*”. In fact, the relevant criterial properties are missing, see (7). What should have been noted instead is that an *agent* as the top-ranked argument in the lexical argument structure may – irrespective of its grammatical function – be associated with certain properties. Second, the enumerated “criterial properties” do not uniquely identify the syntactic subject of a clause, as the following discussion will demonstrate.

### 2.3.1 Binding of reflexives

A nom-acc language such as German is sufficient for demonstrating that the binding of reflexives is an unreliable criterion for diagnosing subjecthood; see Schäfer (2012), Haider (2013: 86). In German, which is cross-linguistically no isolate in this respect, the subject is not the unique antecedent of reflexives. Antecedents of a reflexive may also be c-commanding objects (11a) as well as ‘demoted’ subjects (11b) in form of a PP, and, crucially, the reflexive may even relate to an implicit and *syntactically* absent argument (11c,d). This is counterevidence for Dixon’s claim<sup>26</sup> that the A argument is always “*fully stated*” in contexts with reflexives or reciprocals.

- (11) a. Du musst diese Zahl<sup>i</sup> mehrmals mit *sich*<sup>i</sup> multiplizieren.<sup>27</sup>  
       you must this number<sub>acc</sub> several-times *with itself* multiply<sup>28</sup>
- b. Taufriten wurden [von jedem<sup>i</sup>] für *sich*<sup>i</sup> allein vorgenommen.<sup>29</sup>  
       baptising-rites were by everyone *for himself/herself* alone undertaken
- c. Es wird zu wenig *mit einander* geredet.<sup>30</sup> (intrans. passive)  
       EXPL is too little *to each-other* talked

<sup>26</sup> In Generative grammar, the very same claim is formulated as an obligatory-antecedent requirement for reflexives and reciprocals: “*An anaphor must have a binder which is in the anaphor’s binding domain. The binding domain of a DP  $\alpha$  is the smallest TP containing  $\alpha$ , if  $\alpha$  is the subject of a tensed TP, otherwise, the smallest TP containing  $\alpha$  and a DP which c-commands  $\alpha$ .*” <http://web.mit.edu/norvin/www/24.902/binding.html> [29.6.2022]

<sup>27</sup> <https://www.youtube.com/watch?v=gUQqWfvqef0>

<sup>28</sup> English is parallel in this respect: “*To square a number means to multiply it by itself.*”

<sup>29</sup> <https://de.wikipedia.org/wiki/Taufe>

<sup>30</sup> <https://kurier.at/politik/inland/live-kurz-und-kogler-geben-statements-ab/401763894>

- d. Im Bewerbungsgespräch wird zu wenig auf *sich* aufmerksam gemacht.<sup>31</sup> (intrans. passive)  
in-the job-interview is too little to *oneself* attention drawn

What these data illustrate does not substantiate the claim that the antecedent relation of a reflexive *uniquely identifies* the syntactic subject of a transitive verb. What the data do imply is that the notion ‘syntactic subject’ must be kept distinct from the notion top-ranked argument in the lexical argument structure of a transitive verb. It is true that the agent argument of a transitive verb will always surface as the syntactic subject in a finite active declarative clause with nom-acc alignment. It is not true, however, that the ‘controller of a reflexive’ is always the subject, neither in nom-acc languages nor in abs-erg languages. On the other hand, a reflexive agent bound by the non-agent argument of a transitive verb may be deviant<sup>32</sup> although its binding relation is structurally well-formed. So, the binding of reflexives combines syntactic as well as lexico-semantic conditions.

With respect to the discussion of the proper conception of ‘subject’ in languages with abs-erg alignment, Manning (1996a, 1996b) has argued in detail that in general, binding data are no reliable indicator of syntactic subjecthood of ergative noun phrases since the construal process operates on the one hand on the information provided by the lexical argument structure (w.r.t. the selection of the binder) and on the other hand on the syntactic structure (w.r.t. to c-command of the binder). “*We have to accept that binding in such languages is again not defined on surface phrase structure or grammatical relations, but rather on a level of argument structure or perhaps thematic relations.*” Manning (1996b: 6).

Before, Williams (1987) has argued along the same line, based on data from English.<sup>33</sup> Müller, St. (2021, chapter 20) argues that binding properties are a mix of aspects of thematic and configurational properties. If an absolutive does not anaphorically bind an ergative reflexive, as Polinsky et al. (2012: 268) emphasize, this is not only an asymmetry in terms of syntactic structure but crucially also one in terms of argument structure. The latter asymmetry is as relevant as the former.

### 2.3.2 Imperatives

What would an imperative mean that addresses the *non-agentive* argument of an agentive transitive verb, that is, an absolutive subject? It is unreasonable to expect speakers of an ergative language to use the equivalent of (12a) instead of (12b). We do not direct our requests to objects such as “subject relations”. We address a *communicating* participant. If the grammar of an ergative language would indeed require to relate the imperative to the absolutive, it would almost always fail to relate it to the listener. So, an imperative request would have to address a non-agentive argument, as in (12a), rather than the communicating addressee in (12b). One can be sure that the historical development of grammars would have led to grammars that provide the option (12b) rather than (12a), irrespective of the alignment system.

(12) a. (Dear subject relation, I want you to) be the target of a re-consideration event!

<sup>31</sup> <https://docplayer.org/5868059-Schwierigkeiten-mit-dem-einstieg-in-den-arbeitsmarkt.html>

<sup>32</sup> The 14 billion *Word Web Corpus* does not contain a single token of “*was photographed by himself*” or “*was shot by himself*”.

<sup>33</sup> As for Generative Grammar, Truswell (2014: 236) summarizes: “*After fifty years of binding-theoretic research, and over thirty years after Chomsky (1981), we are still far from a definitive binding theory.*”

- b. (Dear listener, I want you to) reconsider the subject relation!

The *imperative* is a verbal form belonging to the mood system and a given grammar determines which argument of the verb is interpreted as the addressee. In both types of alignment, it is the *agent* argument. Grammars do not systematically impede pragmatics. Imperatives with non-agentive subjects are odd also in nom-acc languages, for pragmatic reasons<sup>34</sup> and are understood metaphorically if directed to inanimate participants. Again, the lens of the observers is biased towards their “basic linguistic” nom-acc point of view.

### 2.3 Control interpretation and raising

A *control interpretation* is no *cross-linguistically* valid criterion for the exclusive subjecthood of agent noun phrases, neither in nom-acc nor in abs-erg languages. Agent-to-Agent is a frequent control constellation, but we know from nom-acc languages such as Icelandic that even an oblique argument in a structural subject position may represent the controlled null-subject (Thráinsson 2007: 420). Furthermore, it is known that in an abs-erg language such as Basque, both absolutive and ergative may serve as controllers or controlees (Arrieta et al. 1986: 31). So, the translational counterparts of English control constructions are no reliable criterion. Moreover, in many languages, embedded infinitival constructions are not (always) clausal. Clause union with verbal clusters may produce the same result, and in this case, there is no PRO-subject involved (see Haider 2010, ch. 7.5) and hence no subject involved.

Raising is no reliable criterion either. In many languages, as for instance in German (Haider 2010: 298-308), the construction that corresponds to an English raising construction is a clause union construction, without any process of subject-to-subject raising. Here is an illustration with two *subjectless* clause, see (13a,b). Such clauses do not exist in SVO languages like English, since in this type of languages, the preverbal subject position must not be left empty. Hence, a so-called German ‘raising’ construction is technically not a subject-to-subject raising construction. It is safe to expect the same for various ergative languages.

- (13) a. Dem User scheint *geholfen worden zu sein*.<sup>35</sup>

the user<sub>Dat</sub> seems helped been to be  
(‘The user seems to have been helped’)

- b. Überhaupt scheint in der Sache nicht ganz redlich *gehandelt worden zu sein*.<sup>36</sup>

generally, seems in this matter not quite honestly dealt been to have  
(‘In-general, the matter does not seem to have been dealt with quite honestly’)

Finally, if binding partially operates on information provided by the argument structure, this information is available also for cross-clausal anaphora. So, in all, the criteria typically invoked for regarding the ergative noun phrase as the *syntactic* subject are not compelling. They are not exclusively associated with the function of a syntactic subject.

<sup>34</sup> i. #Last for an hour! ii. #Cost five Euros! iii. #Owe 3 bucks! iv. #Be unknown!

<sup>35</sup> <https://www.lima-city.de/thread/fast-einen-tag-nur-404>

<sup>36</sup> <https://books.google.at/books?id=qHg-AAAAYAAJ&q=%22gehandelt+worden+zu+sein%22&dq=%22gehandelt+worden+zu+sein%22&hl=de&sa=X&ved=2ahUKEwiP-wcGpmMH6AhVshv0HHaCkCgs4FBDoAXoECAwQAg>



### 3. "OVS" languages are SVO with ergative alignment

The lengthy overture of the preceding sections is necessary for preparing an adequate ground for this section, which will succinctly demonstrate that virtually all of the hitherto undisputed candidates for the category "OVS language" are Abs-V-Erg languages. The syntactic subject of an ergative language is the *non-agentive* argument, that is, the so-called patient-argument. Hence in (syntactic) reality, an ergative "OVS" language is an SVO language with Abs-Erg-alignment. What is the source of the present misperception? The source is the non-structural characterization of grammatical functions, namely the equivocation of a lexico-semantic stereotype, viz. agenthood, with "syntactic subject".

In a recent survey, Hammarström (2016: 25) calculated the constituent orders of 5252 languages partitioned into 366 language families. His count yields 40 OVS languages (out of 5252), belonging to three language families (out of 424). The corresponding percentages are 0,7% of the total number of languages and 0,8% of the total number of language families.

Greenberg (1963: 76) describes OVS as one of the types that "*do not occur at all or, at least are excessively rare*", and this has proven correct, contrary to positions held in the typological literature. Greenberg's (1963) original sample of thirty languages contained only two languages classified as OVS, with VOS as alternative word order, namely Siuslaw and Coos (s. Greenberg's Appendix II). Both languages are ergative; see Mithun (2005), Frachtenberg (1913: 128, 154).

Dixon (1994: 50-52) itemizes the following ergative languages as instances of SV/OVA, that is, *ergative* "OVS" languages: Kuikúro, Macushi,<sup>37</sup> Maxakalí, Pári, and Nadëb. Further confirmation can be found on Kuikúro in Franchetto (1990, 2010), on Macushi in Abbott and Foster (2007) and in Carson (1982), on Maxakalí in Popovich (1986), on Pári in Andersen (1988), and on Nadëb in Martins & Martins (1999).

Dixon also refers to a second pattern, namely VS/AVO, and illustrates it with Huastec and Paumarí. Huastec is described as an SVO language by Edmonson (1988). It is a Mayan language which Edmonson (1988: 116, 570) describes as an ergative language, with the basic order A-V-O-IO. Her crucial sample, however, consists of exactly *five* sentences with a structure in which *both* arguments of a transitive verb are present as full noun phrases. "*Sixteen clauses have a variant order (O TV, TV A, etc.)*" (Edmonson 1988: 568). Since Mayan languages are predominantly V-initial (England 1991), the Huastec data does not provide convincing evidence for a *basic* OVS structure.

Paumarí has been characterized as split-ergative language by Chapman & Derbyshire (1991: 267, 271) with ergative-absolutive for full noun phrases and nom-acc alignment for pronominal arguments and only the immediately preverbal noun phrase is case-marked. Chapman & Derbyshire (1991: 164, 250) assign "SVO" as basic word order to Paumarí. This deserves a comment, since in an *ergative* setting, "AVO" would *structurally* be OVS. On the other hand, the language has a passive construction, but no antipassive. Zwart & Lindenbergh (2021: 30) argue that when case is coded (viz. only in the preverbal position, S, A, and O are coded

<sup>37</sup> Dixon (1994:138) classifies Macushi as ergative. Dixon (2010, vol.1: 73) criticizes Ethnologue: "Macushi [...] is given as OVS, despite the excellent grammar of this language specifying that the 'basic orders' are OVA (although AOV also occurs frequently) and SV."

differently, which is a tripartite system. It does not qualify as an ergative language and consequently not as an [O[VS]] language.

In a study on word order type and alignment, Siewierska (1996) lists four languages as "OVS" out of a sample of 237 languages, namely Macushi and Pãri, as in Dixon's sample, plus Hixkaryána, and Southern Barasano. For the latter, Jones & Jones (1991) presented a syntax monograph that has been reviewed by Dryer (1994). He criticises their type assignment<sup>38</sup> and concludes: "*It is possible that it is best treated as indeterminately SOV/OVS, a word order type that appears to be quite common in the Amazon basin.* (Dryer 1994: 63). Hixkaryána will be discussed together with the following set of languages.

In WALS<sup>39</sup> (Dryer & Haspelmath 2013), the following languages are listed as "OVS". Four of them are plainly ergative, namely Kuikúro, Macushi, Pãri, and Tuvaluan.<sup>40</sup> Four are caseless (i.e. 'neutral' alignment) but with ergative properties: Asurini, Selknam,<sup>41</sup> Tiriyo,<sup>42</sup> Ungarinjin.<sup>43</sup> According to Primus (1995:1089), "*The Tupi-Guarani languages Asurini and Oiampi have ergative marking in dependent clauses.*"

Four potential candidates of OVS languages have to be discussed in detail further, namely Kxoe, Cubeo, Urarina,<sup>44</sup> and Hixkaryána. For Kxoe, Fehn's (2015: 214) grammar of Ts'ixa (Kalahari Kxoe) is very explicit: "*There are three patterns available for transitive clauses: AOV, AVO and OAV, with the latter occurring less frequently than the other two. Although the dominant word order of the Khoe languages is thought to be AOV (cf. Heine 1976, Güldemann 2014), AVO is just as frequent.*" The type-assignment in WALS exclusively follows Köhler (1981).<sup>45</sup> In sum, Kxoe does not seem to qualify as a reliable testimony of OVS. So, we are left with Cubeo, Urarina, and Hixkaryána.

As for Cubeo, according to the typological platform SAILS [South American Indigenous Language Structures, Muysken et al. (2016)], "*the patterns in the order of frequency in the data [are]<sub>HH</sub>: OVS, SVO, VSO, SOV, and (least common) VOS (M&M 1999:142).*" WALS, which

<sup>38</sup> "A count of all examples in the grammar shows both SV and VS order common, with SV slightly more common, though numbers of examples cited in a grammar is a poor source of data. [...] If we interpret the notion of an OVS language as referring to clauses with a noun object and a noun subject (the standard usage in word order typology), it is not clear that Barasano qualifies." (Dryer 1994: 63).

<sup>39</sup> In the introduction to chapter 82 of WALS, Dryer (2013) writes: "*There are also languages [...] in which the order can be described as Absolutive-Verb-Ergative: these languages are shown as OVS on Map 81A and as SV on this map. In fact, three of the six OVS languages shown on Map 81A are of this type: Pãri (Nilotic; Sudan; Andersen 1988), Mangarrayi (Mangarrayi; northern Australia; Merlan 1982) and Ungarinjin (Wororan; north-western Australia; Rumsey 1982).*"

<sup>40</sup> Besnier 1986: 245: "*Despite the word-order freedom exhibited by Tuvalan, there is a basic order, and this order is verb initial.*" Besnier (2000: xxiv): "*Case marking follows an ergative-absolutive pattern.*"

<sup>41</sup> "*Selk'nam seems to be an ergative language as to word order and verbal marking. Nevertheless, case marking is still an issue that remains to be debated, since the data now available is not sufficient to determine the typological nature of the language, which appears to have been an S marking/A-O unmarked language till the beginning of the twentieth century.*" Rojas-Berscia (2014: 23).

<sup>42</sup> Rill (2017: 430): "*In the end, Tiriyo verb agreement is best analyzed as ergative in alignment.*"

<sup>43</sup> Rumsey (1982:145) summarizes the "ordering norms": S precedes V, O precedes V, while A follows. This is exactly the order one expects to find if a language is an SVO language with ergative alignment.

<sup>44</sup> A text count based on 445 main clauses sampled from seven texts produced the following frequencies:<sup>44</sup> 3% OVA and 4% AOV orders (Olawsky 2006: 653; 2007: 45). 93% are clauses with null-subjects and/or null-objects. For dependent clauses, Olawsky (2006: 658) reports 0,3% VA and 0,8% AV orders.

<sup>45</sup> Köhler's reliability has been questioned: "*He himself reduced the richness of Khwe cultural and linguistic expressions in his documentation by increasingly limiting field methods.*" (Boden 2018: 142).

refers to the same source, namely Morse & Maxwell (1999), lists Cubeo as a nom-acc OVS language<sup>46</sup> that is generally head-final (postpositions, Gen-N, V-neg) and of the nominative-accusative type, with passive. This is crucial information for the analysis discussed below, since these properties are also shared by Hixkaryána and Urarina.

The essential issue to be settled for the three languages is this: Are these languages head-initial or head-final? If their VP is head-final, [OV] is likely to be a constituent. If they are head-initial, [VA] is a constituent preceded by O. The latter case would make them [O[VA]] languages, with "O" being the structurally highest argument in the clause. What are the relevant facts?

Cubeo, Urarina, Hixkaryána, are post-positional as well as Gen-N. According to Dryer (2007: 69) "*the fact that the characteristics in other languages pattern with the order of object and verb would lead us to expect both OVS and OSV languages to pattern with SOV languages. In so far as we have evidence, this prediction seems to be true. For example, Hixkaryána is post-positional and GN.*" The same is true for Urarina. In addition, as Kalin (2014: 1096) emphasizes, the adjective phrase is head-final, too. Olawsky (2006: 667-668) provides information on the V+Aux order of Urarina, an order that is completely absent in V-initial languages. Finally, Olawsky (2006: 662) notes that in negated sentences, AOV is an unmarked order, that is, A is not focussed. "*In a transitive clause, constituent order can be AOV as the result of negation.*" Taken together, these grammatical features are good indicators for a head-final organization of the verb phrase in the three languages.

The cumulative evidence for a head-final VP has lead Kalin (2014) to the conclusion, that Hixkaryána is an [[OV]S] language, with the VP<sup>47</sup> in a secondary, that is, fronted position.<sup>48</sup> This would support Derbyshire's (1981) conjecture that the OVS clause structure is the result of the loss of ergative case marking in the Carib languages. An [[OV]...S...] structure is the likely outcome when in an Abs-V-Erg system, case distinctions are lost and the alignment system is reinterpreted as nom-acc, while the word order is preserved. The result is a nom-acc system, with OVS order, at the price of a complication in clause structure by VP fronting. However, if the analysis of Kalin (2014) turns out to be robust enough, then we see a rare constellation of clause structure with a preposed head-final predicate phrase in these three languages.

Strong indirect support for such an analysis comes from Queixalós (2010: 241, 254). He argues that the clause structure of Katukina-Kanamari is basically [[O V] S], and shows in great detail that this structure remains constant under *alternative alignments*. The frequent clause type is [[Erg V] Abs] and a less frequent one is [[Acc V] Nom]. Note that the arguments of the verb change places in the two clause types, but the structure of the clauses remains constant in terms of the formal grammatical functions, namely [[O V] S]. In the traditional terminology, one clause type would wrongly be classified as ergative "SVO", and the other also wrongly as accusative "OVS".

<sup>46</sup> Ethnologue classifies this language as SOV. Wals follows the misleading maxim of classifying a language according to the most frequent pattern.

<sup>47</sup> "*Transitive clauses have a tightly bound OV verb phrase constituent that is usually followed by the subject NP. Des had actually said so in a dense 1961 paper I had not seen (IJAL 27, 125-142), packed with obscure formulae.*" (Geoffrey Pullum, Obituary: Desmond Derbyshire, *Linguist List* 19.1, Jan 03 2008).

<sup>48</sup> The same analysis, modulo head-initial V, is the standard structure of Malagasy, a head-initial language with VOS order. Its clause structure is taken to be [[V O] S], that is, with a clause-initial VP. (Paul 1999, Pearson 2001). Keenan & Manrohanta (2004: 178) formulate it as follows: S = [[Pred V<sup>o</sup>(Θ) + (X)] + DP].

All in all, no language is known whose clause structure would be an instance of [O [VS]], which would be the structure of a genuine *structural* OVS language. There is no compelling evidence for a basic [O[VS]] clause structure.

As for ergative languages, the traditional "OVS" classification means Absolutive-V-Ergative order, and this is *subject-verb-object* order under ergative alignment. It is a consequence of the above discussion that the *structural* identification of grammatical relations is an indispensable basis for cross-linguistic comparisons of clause structures.

#### 4. On an alleged ergative-SVO lacuna

The above considerations have implications for syntactic typology in general and for the grammatical appraisal of ergative languages in particular. Siewierska (1996) identifies and summarizes the following positions arrived at in the literature, all based on the Greenbergian, viz. semantic, definition of subject and object. In her study, she notes that there is "*an association between ergative alignment and non-SVO order*" and "*an association between ergative alignment and object-before-subject order*" (Siewierska 1996: 149). Within Generative Grammar, Mahajan (1997) has claimed that ergative languages may be SOV or VSO, but not SVO, and others followed him and construed ergative-V-absolutive as SVO.

Given the fact that SVO is one of the two major word-order types, its absence in languages with abs-erg alignment would indeed call for an explanation. However, there is no such lacuna. If the misleading semantic identification of "subject" is duly replaced by morpho-syntactic criteria of subject identification, the cross-linguistically attested patterns turn out as expected. Ergative alignment is found in each major type, namely SOV, SVO, and VSO. What is absent is a language with [[OV] S] architecture, and [[erg [V abs]] would be an instance of it.

The explanation for the apparent "*association between ergative alignment and non-SVO order*" should be evident by now. It is a merely terminological misunderstanding. Ergative languages with "SVO-order" exist, erroneously labelled as OVS. Siewierska's *second* point, the "*association with object-before-subject order*" of ergative languages, is the well-known prevalent pattern of subject-before-object. Nominative before accusative is the common serialization in Nominative-Accusative languages, and grammatically, absolutive precedes ergative. Subjects precede objects. In languages with variable word order, information structuring takes advantage of the grammatically permitted variability and ergative-before-absolutive may be a frequent variant.

On the other hand, *ergative* languages classified as "SVO" in the traditional terminology would structurally be *OVS* language, with ergative-V-absolutive order. Structural [O[VS]] languages, however, are inexistent, under abs-erg alignment as well as under nom-acc alignment. This is what Siewierska (1996) has found out (without being aware of it).

In sum, ergative languages pattern just like Nom-Acc-languages, modulo alignment, with SOV and SVO as the most frequent word-order types. The allegedly inexistent "ergative SVO" languages do exist, in the form of ergative languages misidentified as OVS languages. The alleged "object-subject" order of ergative languages is in fact the cross-linguistically pervasive subject-object order, modulo ergative alignment. Hence, there is no reason for being surprised that an

ergative "SVO" language (in traditional terminology), which structurally would be an [O[VS]] language, has not been detected and with great likelihood, does not exist at all.<sup>49</sup>

## 5. Conclusion

The *structural* identification of grammatical functions is the necessary, appropriate, and indispensable basis for cross-linguistic comparisons.

The lexico-semantic classification of grammatical relations tends to lead astray. It rests on a hidden but wrong premise, namely, the premise that, universally, for verbs with an agent and a patient argument, the agent argument is the subject of a 'plain clause'.<sup>50</sup> This is only true for Nom-Acc-languages, but crucially not for languages with ergative alignment. The equivocation of agent with subject works for Nom-Acc languages, but not for Abs-Erg languages. In these languages, the non-agentive argument of a transitive verb is the grammatical subject. So, whenever one compares Agent-V-Patient patterns cross-linguistically, one compares the *subject* of Nom-Acc systems with a non-subject of Abs-Erg systems. It is not astonishing at all that the elements of such an ill-defined sample of "subjects" do not share relevant *grammatical* properties. If compared properly, that is, structurally, several puzzles disappear immediately. In a nutshell:

- 'Grammatical Subject' is *relative* to the alignment system of a language.
- The grammatical subject under *ergative* alignment is the *absolutive* noun phrase; the grammatical subject under *nom-acc* alignment is the *nominative* noun phrase.
- [Abs [V erg]] is not OVS but SVO. By the same token, an [Erg V abs] language is not SVO, but [OVS].
- Virtually all OVS languages (in the traditional terminology) listed in the typological literature are SVO languages with ergative alignment. [O[VS]] languages do not exist. What exists are rare cases of languages with an [[OV]S] clause structure, as ergative and also as nom-acc languages.
- Passive and Antipassive are instances of the same grammatical device, modulo alignment, signalling the grammatical omission of the default subject argument.
- Ergative languages do not demote objects (see the traditional characterization of antipassive); they promote objects to subjects (i.e. ergative to absolutive), just like nom-acc languages do with accusative-to-nominative, in passive and 'antipassive', respectively.

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**Data availability statement:** The data that the conclusions are based are taken from published research literature, with the respective references indicated.

<sup>49</sup> This is exactly what Greenberg (1963:76) had foreseen: "*The three which do not occur at all, or at least are excessively rare, are VOS, OSV, and OVS.*" He is right. These are no base-order types. The orders can be achieved only by reordering base orders (unless "O" is the misinterpreted subject of an ergative language).

<sup>50</sup> 'Plain clause' should be understood as a simple, finite (present tense) declarative clause that is not passivized, is no middle construction and no outcome of a relation changing device.

## Bibliography

- Abbott, Miriam. 1991. Macushi. In Desmond C. Derbyshire and Geoffrey K. Pullum (eds.), *Handbook of Amazonian Languages* 3, 23-160. Berlin: Mouton de Gruyter.
- Abbott, Miriam & Patrick Foster. 2007. Macushi. In Mary R. Key (ed.), *Intercontinental dictionary series*. Leipzig: Max Planck Institute for Evolutionary Anthropology.
- Aldridge, Edith. 2008. Generative approaches to ergativity. *Language and Linguistics Compass: Syntax and Morphology* 2(5). 966-995.
- Andersen, Torben. 1988. Ergativity in Pāri, a Nilotic OVS language. *Lingua* 75. 289-324.
- Arrieta, Kutz, Brian D. Joseph, & Jane Smirniotopoulos. 1986. How ergative is Basque? *Proceedings of the Third Eastern States Conference on Linguistics*. 25-36. Columbus: OSU Dept. of Linguistics.
- Bakker, Dik & Anna Siewierska. 2007. Another take on the notion Subject. In Mike Hannay & Gerard J. Steen (eds.), *Structural-functional studies in English grammar*, 141-158. Amsterdam: Benjamins.
- Besnier Niko. 1986. Word order in Tuvaluan. In Paul Geraghty, Lois Carrington, & Stephen A. Wurm (eds.), *FOCAL I: Papers from the Fourth Int. Conference on Austronesian Linguistics*, 245-268. Canberra: Research School of Pacific and Asian Studies, Australian National University.
- Besnier, Niko. 2000. *Tuvaluan: A Polynesian Language of the Central Pacific*. London: Routledge.
- Boden, Gertrud. 2018. The Khwe collection in the academic legacy of Oswin Köhler: Formation and potential future. *Senri Ethnological Studies* 99. 129-146.
- Brewer, William & Bruce Lambert. 2001. The theory-ladenness of observation and the theory-ladenness of the rest of the scientific process. *Philosophy of Science*, 68. 176-186. doi:10.1086/392907.
- Carson, Neusa Martins. 1982. Phonology and morphosyntax of Makuxi (Carib). Lawrence: University of Kansas PhD-dissertation.
- Chapman, Shirley & Desmond C. Derbyshire. 1991. Paumarí. In Desmond C. Derbyshire & Geoffrey K. Pullum (eds.) *Handbook of Amazonian languages*, vol. 3, 161-352. Berlin: De Gruyter.
- Chomsky, Noam A. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chung, Sandra. 2006. Properties of VOS Languages. In Martin Everaert & Henk van Riemsdijk (eds.), *The Blackwell Companion to Syntax*, 685-720. Oxford: Blackwell Publishing.
- Churchward, C. Maxwell. 1953. *Tongan Grammar*. London: Oxford Univ. Press.
- Comrie, Bernard. 2005. Alignment of case marking of full noun phrases. In Martin Haspelmath, Matthew Dryer, David Gil & Bernard Comrie (eds.), *The world atlas of language structures*, 398-403. Oxford: Oxford University Press
- Croft, William. 2013. Radical construction grammar. In Thomas Hoffmann & Graeme Trousdale (eds.), *The Oxford handbook of construction grammar*, 211-232. Oxford: Oxford University Press.
- Davis Henry, Carrie Gillon & Lisa Matthewson. 2014. How to investigate linguistic diversity: Lessons from the Pacific Northwest. *Language* 90, e180-e226.
- Deal, Amy R. 2015. Ergativity. In Artemis Alexiadou & Tibor Kiss (eds.), *Syntax – Theory and Analysis*. (vol. 1), 654-707. Berlin: De Gruyter.
- Deal, Amy R. 2016. Syntactic Ergativity. Analysis and Identification. *Annual Review of Linguistics* 2. 165-185.
- Derbyshire, Desmond C. 1979. *Hixkaryana*. Amsterdam: North-Holland.
- Derbyshire, Desmond C. 1981. A diachronic explanation for the origin of OVS in some Carib languages. *Linguistics* 17. 209-220.
- Derbyshire, Desmond C. & Geoffrey K. Pullum. 1979. Object initial languages. *Working Papers of the Summer Institute of Linguistics*, Vol. 23, Article 2. DOI: 10.31356/silwp.vol23.02
- Dixon, Robert M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Dixon, Robert M. W. 2010. *Basic Linguistic Theory*, vol. 1-3. Oxford: Oxford University Press.
- Dixon, Robert M. W. & Alexandra Y. Aikhenvald. 2000. Introduction. In Robert M.W. Dixon & A.Y. Aikhenvald (eds.), *Changing valency: Case studies in transitivity*, 1-29. Cambridge University Press.
- Dryer, Matthew S. 1994. Review of Wendell Jones and Paul Jones, *Barasano Syntax*. *Word* 45. 62-65. DOI: 10.1080/00437956.1994.12098343
- Dryer, Matthew S. 2006. Descriptive theories, explanatory theories, and Basic Linguistic Theory. In Felix Ameka, Alan Dench & Nicholas Evans (eds.), *Catching language: Issues in grammar writing*, 207-234. Berlin: Mouton de Gruyter.
- Dryer, Matthew S. 2007. Word order. In Timothy Shopen (ed.), *Clause structure, language typology and syntactic description*, Vol. 1, 2<sup>nd</sup> edition, 61-131. Cambridge University Press.

- Dryer, Matthew S. 2013. Order of Subject and Verb. In Matthew S. Dryer & Martin Haspelmath (eds.), *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at <http://wals.info/chapter/82>)
- Dryer, Matthew S. & Martin Haspelmath (eds.). 2013. *The world atlas of language structures online*. Leipzig: Max Planck Institute for Evolutionary Anthropology.
- Edmonson, Barbara Wedemeyer. 1988. *A Descriptive Grammar of Huastec (Potosino Dialect)*. Ph.D. dissertation. New Orleans: Tulane University.
- England, Nora C. 1991. Changes in basic word order in Mayan languages. *International Journal of American Linguistics* 57. 446-486.
- Fehn, Anne-Maria. 2015. *A Grammar of Ts'ixa (Kalahari Khoe)*. Unpubl. doct. diss. Univ. Köln, Inst. f. Afrikanistik.
- Fernández, Beatriz & Ane Berro. 2022. Basque impersonals in comparison. *Linguistics* 60. 1039-1101.
- Fleck, David William. 2003. *A Grammar of Matses*. PhD dissertation. Rice University.
- Frachtenberg, Leo J. 1913. *Coos Texts*. New York: Columbia University Press.
- Franchetto Bruna. 1990. Ergativity and nominativity in Kuikúro and other Carib languages. In Doris L. Payne (ed.), *Amazonian linguistics: Studies in lowland South American languages*, 407-428. Austin: University of Texas Press.
- Franchetto, Bruna. 2010. The ergativity effect in Kuikuro (Southern Carib, Brazil). In Spike Gildea & Francesc Queixalós (eds.), *Ergativity in Amazonia*, 121-158. Amsterdam: Benjamins.
- Gil, David. 2001. Escaping Eurocentrism: Fieldwork as a process of unlearning. In: Paul Newman & Martha Ratliff (eds.), *Linguistic Fieldwork*, 102-132. Cambridge: Cambridge University Press.
- Greenberg, Joseph H. 1963. Some universals of grammar with particular reference to the order of meaningful elements. In Joseph H. Greenberg (ed.), *Universals of Language*, 73-113. Cambridge, Mass.: MIT Press.
- Haider, Hubert. 1985a. The case of German. In Jindřich Toman (ed.), *Studies in German Grammar*, 65-102. Dordrecht: Foris.
- Haider, Hubert 1985b. A unified account of case and  $\Theta$ -marking: the case of German.“ *Papere zur Linguistik* 32. 3-36.
- Haider, Hubert. 1993. *Deutsche Syntax, generativ*. Tübingen: Niemeyer.
- Haider, Hubert. 2000. The license to license. In Reuland, Eric (ed.), *Argument & Case: Explaining Burzio's Generalization*. 31-54. Amsterdam: Benjamins.
- Haider, Hubert. 2001. Heads and selection. In Norbert Corver & Henk van Riemsdijk (eds.), *Semi-lexical categories*, 67-96. Berlin: Mouton de Gruyter.
- Haider, Hubert. 2020. *Against severing the external argument from its verb*. [lingbuzz/005467]
- Haider, Hubert. 2021a. Grammar change – a case of Darwinian cognitive evolution. Target paper for *ELT – Evolutionary linguistic theory*. 3. 6-55.
- Haider, Hubert. 2021b. Responses to the responses. *Evolutionary Linguistic Theory* 3. 109-121.
- Hammarström, Harald. 2016. Linguistic diversity and language evolution. *Journal of Language Evolution*. 1. 19–29. doi:10.1093/jole/lzw002.
- Haspelmath, Martin. 2010. Comparative concepts and descriptive categories in crosslinguistic studies. *Language* 86. 663-687.
- Haspelmath, Martin. 2014. Comparative syntax. In Carnie, Andrew, Yosuke Sato & Dan Siddiqi (eds.), *The Routledge handbook of syntax*, 490-508. London: Routledge.
- Heinz Wolfgang & Johannes Matiasek. 1994. Argument structure and case assignment in German. In John Nerbonne, Klaus Netter & Pollard (eds.), *German in Head-Driven Phrase Structure Grammar*, 199-236. CSLI Lecture Notes #46. Stanford: Center for the Study of Language and Information.
- Jones, Wendell & Paul Jones. 1991. *Barasano Syntax*. Studies in the languages of Colombia 2. Summer Institute of Linguistics & University of Texas at Arlington.
- Kalin, Laura. 2014. The syntax of OVS word order in Hixkaryana. *Natural Language & Linguistic Theory* 32, 1089-1104. DOI 10.1007/s11049-014-9244-x
- Keenan, Edward. 1976. Towards a universal definition of “Subject.” In Charles Li (ed.), *Subject and topic*, 305-333. New York: Academic Press.
- Keenan, Edward L. & Bernard Comrie. 1977. Noun phrase accessibility and universal grammar. *Linguistic Inquiry* 8. 63-99.
- Keenan, Edward L. & Bernard Comrie. 1979. Data on the noun phrase accessibility hierarchy. *Language* 55. 333-351.



- Keenan, Edward L. & Cecile Manorohanta. 2004. Malagasy Clause Structure and Language Acquisition. [Proceedings of AFLA 11]. *ZAS Papers in Linguistics* 34. 178-202.
- Köhler, Oswin. 1981. La langue Kxoe. In Jean Perrot (ed.), *Les langues dans le monde ancien et moderne*, 483-555. Paris: Centre National de la Recherche Scientifique.
- Lahne, Antje. 2008. Excluding SVO in Ergative Languages: A new view on Mahajan's generalization. In Fabian Heck, Gereon Müller & Jochen Trommer (eds.), *Varieties of competition*, 65-80. *Linguistische Arbeitsberichte* 87. Leipzig: Universität Leipzig.
- Levinson, Stephen & Nicholas Evans. 2010. Time for a sea-change in linguistics: Response to comments on 'The myth of language universals'. *Lingua* 120. 2733-2758.
- Madeira, Ana & Alexandra Fiéis. 2020. Inflected infinitives in Portuguese. In Ludovico Franco & Paolo Lorusso (eds.), *Linguistic variation: structure and interpretation*, 423-438. Berlin: Mouton De Gruyter.
- Mahajan, Anoop. 1997. Universal grammar and the typology of ergative languages. In Artemis Alexiadou & Tracy A. Hall (eds.), *Studies on universal grammar and typological variation*, 35-57. Amsterdam: Benjamins.
- Manning, Christopher D. 1996a. *Ergativity: Argument Structure and Grammatical Relations*. Stanford, CA: CSLI Publications/Cambridge University Press Dissertations in Linguistics series.
- Manning, Christopher D. 1996b. Argument structure as a locus for binding theory. *Proceedings of LFG-96, the First International LFG Colloquium and Workshops*. Grenoble, France.
- Marantz, Alec. 1991. Case and licensing. *Proceedings of ESCOL '91*: 175-195. Ithaca: Cornell Linguistic Club.
- Martins, Silvana and Valteir Martins. 1999. Makú. In Robert M. W. Dixon, & Alexandra Y. Aikhenvald (eds.), *Amazonian Languages*, 251-267. Cambridge: Cambridge University Press.
- Mayr, Ernst. 1982. *The growth of biological thought*. Cambridge, MA: Harvard University Press.
- Mel'čuk, Igor, A. 2014. Syntactic Subject: Syntactic relations, once again. In Vladimir Plungjan, Mixail Daniël', Ekaterina Ljutikova, Sergej Tatevosov & Olga Fedorova (eds), *Jazyk. Konstany, Peremennye* [Language. Constants, variables], 169-216. Sankt-Petersburg: Aleteja.
- Mithun, Marianne. 1991. Active/agentive case marking and its motivations. *Language* 67. 510-546.
- Mithun, Marianne. 2005. Ergativity and language contact on the Oregon Coast: Alsea, Siuslaw and Coos. In Andrew K. Simpson (ed.), *Proceedings of the Twenty-Sixth Meeting of the Berkeley Linguistics Society*, 77-95. Berkeley: Berkeley Linguistics Society.
- Mithun, Marianne. 2008. Does passivization require a subject category? In Greville Corbett & Michael Noonan (eds.), *Case and Grammatical Relations*, 211-240. Oxford University Press.
- Morse, Nancy L. and Maxwell, Michael B. 1999. *Gramática del cubeo*. Santafé de Bogotá: Instituto Lingüístico de Verano.
- Müller, Stefan. 2021. *Head-Driven Phrase Structure Grammar: The handbook*. Berlin: Language Science Press.
- Muysken, Pieter, Harald Hammarström, Olga Krasnoukhova, Neele Müller, Joshua Birchall, Simon van de Kerke, Loretta O'Connor, Swintha Danielsen, Rik van Gijn & George Saad. 2016. *South American Indigenous Language Structures (SAILS) Online*. Jena: Max Planck Institute for the Science of Human History. (<https://sails.ehld.org>).
- Nikolaeva, Irina. 2015. Reference Grammars. In Tibor Kiss & Artemis Alexiadou (eds.), *Syntax – theory and analysis* (vol. 3), 2036-2063. Berlin: De Gruyter Mouton.
- Olawsky, Knut J. 2006. *A Grammar of Urarina*. Berlin: Mouton de Gruyter.
- Olawsky, Knut J. 2007. ObViuS OVS in Urarina syntax. In: Andrew Simpson & Peter K. Austin (eds.), *Endangered languages*. [Special issue] *Linguistische Berichte*, 45-72. Hamburg: Buske Verlag.
- Paul, Ileana. 1999. *Malagasy clause structure*. Montreal: McGill University. PhD Diss.
- Pearson, Matthew. 2001. The clause structure of Malagasy: A Minimalist approach. UCLA Dissertations in Linguistics. (#21). Los Angeles: UCLA.
- Polinsky, Maria. 2013. Antipassive Constructions. In Matthew Dryer, S. & Martin Haspelmath (eds.) *The World Atlas of Language Structures Online*. Leipzig: Max Planck Institute for Evolutionary Anthropology. (Available online at <http://wals.info/chapter/108>, Accessed on 2021-01-10).
- Polinsky, Maria. 2017a. Antipassive. In Jessica Coon, Diane Massam, & Lisa de Mena Travis (eds), *The Oxford handbook of ergativity*, 308-31. Oxford: Oxford University Press.
- Polinsky, Maria. 2017b. Syntactic ergativity. In Martin Everaert & Henk C. van Riemsdijk (eds.), *The Wiley Blackwell companion to syntax*, 2nd edn., 1-37. Hoboken, NJ: Wiley-Blackwell.

- Polinsky, Maria, Carlos Gómez Gallo, Peter Graff & Ekaterina Kravtchenko. 2012. Subject preference and ergativity. *Lingua* 122. 267-277.
- Popovich, Harold. 1986. The nominal reference systems of Maxakalí. In Ursula Wiesemann (ed.), *Pro-nominal System*, 351-358. Tübingen: Narr.
- Primus, Beatrice. 1995. Relational typology. In Joachim Jacobs & Arnim von Stechow (eds.), *Syntax. Ein internationales Handbuch zeitgenössischer Forschung*, vol. 2, 1076-1109. Berlin: De Gruyter.
- Queixalós, Francesc. 2010. Grammatical relations in Katukina-Kanamari. In Spike Gildea & Francesc Queixalós (eds.), *Ergativity in Amazonia*, 235-283. Amsterdam: Benjamins.
- Queixalós, Francesc & Spike Gildea. 2010. Manifestations of ergativity in Amazonia. In Spike Gildea & Francesc Queixalós (eds.), *Ergativity in Amazonia*, 1-25. Amsterdam: Benjamins.
- Rill, Justin. 2017. The morphology and syntax of ergativity: a typological approach. Newark: University of Delaware PhD dissertation.
- Roberts, Ian. 2021. Smuggling, ergativity, and the final-over-final condition. In Adriana Belletti & Chris Collins (eds.), *Smuggling in Syntax*, 318-352. Oxford University Press.
- Rojas-Berscia, Luis Miguel. 2014. A Heritage Reference Grammar of Selk'nam. Nijmegen: Radboud University. Master thesis.
- Rumsey, Alan. 1982. An intra-sentence grammar of Ungarinjin. *Pacific Linguistics*. Series b, no. 86. Canberra: National University of Australia.
- Schäfer, Florian. 2012. The passive of reflexive verbs and its implications for theories of binding and case. *The Journal of Comparative Germanic Linguistics* 15. 213-268
- Siewierska, Anna. 1996. Word order type and alignment type. *STUF - Language Typology and Universals* 49: 149-176.
- Taraldsen, Tarald. 2017. Remarks on the relation between case-alignment and constituent order. In Jessica Coon, Diane Massam, & Lisa D. Travis (eds.), *The Oxford Handbook of Ergativity*, 332-354. Oxford: Oxford Univ. Press.
- Thráinsson, Höskuldur, 2007. *The Syntax of Icelandic*. Cambridge: Cambridge University Press.
- Truswell, Robert 2014. Binding theory. In Andrew Carnie, Yosuke Sato & Daniel Siddiqi (eds.), *Routledge Handbook of Syntax*, 214-238. Abingdon: Taylor & Francis.
- Tóth, Ildikó 2000. Inflected Infinitives in Hungarian. PhD dissertation. Tilburg University
- Trask, Robert L. 1979. On the origins of ergativity. In Frans Plank (ed.), *Ergativity: toward a theory of grammatical relations*, 385-404. London: Academic Press.
- Van Valin, Robert D. 2005. *Exploring the syntax-semantics interface*. Cambridge: Cambridge University Press.
- Williams, Edwin. 1987. Implicit arguments, the binding theory, and control. *Natural Language and Linguistic Theory* 5. 151-180.
- Yu, K.M. 2021. Tonal marking of absolutive case in Samoan. *Natural Language and Linguistic Theory* 39. 291–365
- Zwart, Jan-Wouter & Charlotte Lindenbergh. 2021. Rethinking alignment typology. In András Bárány, Theresa Biberauer, Jamie Douglas & Sten Vikner (eds.), *Inside syntax III: Syntactic architecture and its consequences*, 23-50. Berlin: Language Science Press.