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

#### Hubert Haider

Dept. of Linguistics & Centre for Cognitive Neuroscience, Univ. Salzburg

#### **Abstract**

Unequivocal OVS languages are not attested, contrary to claims in the literature. Languages filed as OVS in typological descriptions turn out to be SVO languages with ergative alignment that have been misclassified due to ill-chosen diagnostics for "S" and "O".

### Introduction

Klingon<sup>1</sup> seems to be the only nominative-accusative language with uncontroversial object-verb-subject word order. This is how it has been designed in order to seem and sound alien. Natural languages with this property arguably do not exist. Languages that have been filed as OVS are ill-classified because of the inappropriate characterization of "S", as will be shown below. They are either *ergative SVO* languages or have been prematurely classified as OVS.

Greenberg's (1963) original sample of thirty languages contained only two languages that he classified as OVS (with VOS as alternative word order), namely Siuslaw and Coos (s. Greenberg's Appendix II). Both languages are ergative. How did he arrive at his classification? He looked at simple sentences and the order of "meaningful elements", namely agent, action word and theme (aka 'patient') in simple transitive clauses with an agentive verb. He is very clear about his – preliminary – recourse to easily applicable criteria for the identification of the subject of a clause and that he is aware that his strategy is 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).

A popular on-line encyclopaedia<sup>2</sup> characterizes "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. Both behave differently to the subject of a transitive verb." Evidently, this way of describing the grammatical circumstances is biased towards the majority of languages with nom-acc alignment. The verbal argument that is "the object of a transitive verb" is an object only in a nominative-accusative setting. In an absolutive-ergative system it is arguably the subject of the clause.

A more appropriate rendering would be this: In the vast majority of languages, one of the two arguments of a transitive verb, viz. argument A and B, is aligned with the syntactic subject function and the other one with the grammatical function of an object. Consequently, this opens a system space for two systems. In one system, argument A is the subject, in the other system, argument B is the subject. In each system, the remaining argument will end up as an object.

<sup>2</sup> Wikipedia on "Ergative-absolutive language".

-

<sup>&</sup>lt;sup>1</sup> A language constructed by Marc Okrand for the Star-Trek movies as the language of the fictional Klingons. According to Okrent (2009: 273), meanwhile more than a dozen people claim to be fluent in this language.

If A is the *agent* argument of an agentive verb and it is aligned with the subject function, the alignment system is called *nom-acc*. If B is the *non-agent* argument of an agentive verb and it is aligned with the subject function, the alignment is called *abs-erg*.

The syntactical subject is the morpho-syntactically privileged noun phrase aligned with an argument of the verbal predicate. 'Privileged' is a concept that is relative to the given language, as Keenan (1976) showed, with a cross-linguistically assembled pool of roughly thirty grammatical subject features. Mel'čuk (2014: 179) formulates the following definition:

"The SyntSubj is the most privileged Synt-actant of the syntactic predicate ( $\approx$  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."

'Privileges' show in morphology, as for instance agreement patterns of the finite verb in languages with subject-verb agreement. In languages that provide a unique structural subject position, the subject is structurally privileged, and this is reflected in word order patterns. In genuine [S[VO]] languages, the preverbal position is reserved for the subject while objects follow the verb. Moreover, privileges are also linked with obligations. Subjects, unlike objects, cannot be omitted without signalling this morpho-syntactically (cf. passive in Nom-Acc languages, in direct correspondence to anti-passive in ergative languages). If an argument of the verb can be freely omitted<sup>3</sup> in a finite clause, it is not the subject.

If the alignment system is a system with structural cases, then a dependency relation holds between the assignment of subject case and the direct-object case. The object case is assigned only in the presence of the subject case (Haider 2000). If the primary subject candidate is syntactically unavailable, subject case is passed on and assigned to the object. The consequence is the familiar acc-to-nom (= object-to-subject) switch (1) or an ergative-to-absolutive (= non-subject-to-subject) switch (2), respectively, in passive.

(1) a. La mère a encouragé les filles the mother<sub>Subj</sub> encouraged the daughters<sub>Obj</sub> French

b. Les filles<sub>Subj</sub> ont été encouragées (par la mère) the daughters have been encouraged (by the mother)

(2) a. ?aaček-a kimit?-ən ne-nl?etet-ən Chukchi (Kozinsky et al. 1988: 652) youth-erg load-abs 3pl.subj-carry-aor.3sg.obj

b. ?aaček-ət ine-nl?etet-g?e-t kimit?-e youth-abs antip-carry-aor.3sg.subj-pl load-instr

'The young men carried away the/a load.'

Polinsky (2013) characterizes passive and antipassive in the common way that focuses on the circumstantial property: "In the passive, the suppressed or demoted argument is the agent-like argument, in the antipassive, the patient-like argument." The property that is syntactically relevant is not the thematic role of the demoted argument, it is the syntactic role, and this role is the grammatical function of a subject. Whenever the argument of the verb that would otherwise

<sup>&</sup>lt;sup>3</sup> "Omission" must not be confused with the pronominal null-subject phenomenon. In the following example (i), 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.

surface as a syntactic subject, viz. as nominative or absolutive, respectively, in a finite clause, is syntactically left out, this must be morpho-syntactically signalled. In French (1), the combination of a particular verb form (participle) and a particular auxiliary ('be'-type auxiliary instead of the 'have'-type one), blocks the primary subject argument. This is the way how Indo-European languages typically implement the syntactic elimination of the subject argument. Since French is a language with an [S[VO]] clause structure, the argument that is the direct object in (1a) surfaces in the position of the subject in (1b) and enters the typical agreement relation with the finite verb. In Chukchi (2), a prefix<sup>4</sup> of the verb is the morphological signal of the syntactically suppressed would-be subject argument. As a consequence, the ergative-marked noun phrase of (2a) switches its case to absolutive as the subject case.

# 2. What matters is the syntactical function not the thematic quality

Content is easy to grasp; structure is hard to assess, but syntactically, structure matters more than content. Grammars define structures, and structures constrain the form of the presentation of content. Haspelmath (2014: 494) justly asks: "Saying that Japanese generally has SOV order while English has SVO order is far more problematic, because it seems to presuppose that we can identify subjects, objects and verbs, i.e. abstract syntactic categories, in both languages. But on what basis?" Regrettably, instead of insisting on the inevitability of providing structurally sound definitions as the basis of any comparative grammar, he suggests to stick to Greenberg's preliminary shortcut approach.

"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. This is not the normal notation." (Haspelmath 2014: 495).

Such a strategy is not promising. What matters is not "readily" but "correctly". Languages can and in fact must be compared "with respect to their categories", but only after having ensured that one is comparing identical categories. This is exactly not what we do if we compare "agent-patient" order. Here we are at the core issue of this squib. If languages are compared "only with respect to meaning", the outcome is likely to end up as a confusing maze of patterns, since syntax – the result of evolutionary grammaticalization (Haider 2020a) – overrules semantic distinctions.

The obvious instance of a syntax-semantics incongruence is the categorization of the parts of speech, and linguists would not refrain from categorizing lexical items by categories. Nobody would insist on a 1-to-1 relation between lexical category and lexical semantics. Most languages distinguish nouns, verb, and adjectives (3) and semanticists are convinced they all are just predicates. However, it is common knowledge that the syntactic category determines the syntactic behaviour, and not so much the semantic content, since even the very same content

\_

<sup>&</sup>lt;sup>4</sup> In Indo-European languages, affixal passive is suffixal, as for instance Latin ("-ur") or the Scandinavian s-passive with the verbal suffix "-s", which is the continuation of the cliticized reflexive of a middle construction.

<sup>&</sup>lt;sup>5</sup> This is a direct parallel to comparative biology. Although cross-species differences may be at least as pronounced as cross-linguistic differences, biology compares homologically nevertheless. Analogous structures are seen as the result of convergent evolution. It is the structure that determines the functional content (see Haider 2020).

can be categorized differently, as for instance in (3). The verbal form behaves syntactically like a verb (1a), the nominal form in (3b) behaves syntactically like a noun, and the participial form like an adjective. The shared semantic content does not determine the syntactic behaviour.

(3) a. vom theoretischen Wert *abweich*-en<sub>V°</sub> from-the theoretical value deviate-*Inf* 

German

- b. ein [vom theoretischen Wert *abweichen*-d-er<sub>A°</sub>]<sub>AP</sub> Wert a [from-the theoretical value deviate-*participle-Agr*] value
- c. das [*Abweich-en*<sub>N°</sub> des Wertes vom theoretischen Wert]<sub>NP</sub> the [deviate-Inf the value<sub>Gen</sub> from-the theoretical value]

Analogously, the fact that a noun phrase represents the agent-argument does not fully determine its syntactic status. In each of the following examples in (4), an agentive NP is present. However, nobody would claim that it is the syntactic subject of the clause in each case.

- (4) a. The president/He messed up their lives.
  - b. Their lives were messed up by the president/him.
  - c. We shouldn't let the president/him mess up their lives.

The subtle point is not the linguistic description but the subsequent interpretation, that is, the step from "agent" or "patient" to "subject". Dixon (1994) is very cautious in this respect and separates description from interpretation. He reserves "S" for the single argument of a finite intransitive clause. For transitive clauses, he uses "A" and "O". The grammatical alignment system, he characterizes as follows (Dixon 1994:22).

"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."

He does not explicitly generalize the term 'subject', but 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 qualify as subject in an ergative system. Hence, there is no justification for classifying ergative languages as "OVS", whenever their preferred serialization pattern in simple clauses with non-pronominal noun phrases happens to be OVA. However, upon closer inspection it turns out that "OVA" is indeed counted as "OVS" in many typological surveys without taking into consideration the particular alignment system of the given language. These languages have to be counted as SVO languages with ergative alignment. Dixon (1994: 49-50) explicitly notes that for languages with syntactic function shown by constituent order, SV/OVA is likely to be a sign of ergativity.

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

Let's remember that the two "OVS" languages of Greenberg's original sample are ergative languages, that is, SVO languages with ergative alignment. Fifty years later, in WALS (Dryer & Haspelmath 2013), the following languages are listed as "OVS". *Five* of them have an ergative

<sup>-</sup>

<sup>&</sup>lt;sup>6</sup> It depends on the grammar of a given language whether the argument marked with ergative case behaves like an oblique noun phrase or is treated like a structural object. In the latter case, it will surface as absolutive in the anti-passive construction (which, in fact is the passive construction in an ergative alignment system, since it signals the syntactic elimination of the original subject argument).

case-system (Kuikúro, Mangarrayi, Macushi, Päri, Tuvalan). *Six* are caseless (i.e. 'neutral') but show ergative properties (Asurini, Hixkaryána, <sup>7</sup> Nadëb, Selknam, Tiriyo, Ungarinjin). The two remaining languages are Kxoe and Urarina. This means that structurally, eleven of the thirteen languages are in fact "SVO" languages, modulo ergative alignment. As for the two alleged nominative-accusative OSV languages, the evidence is questionable.

For Urarina, Olawsky (2007: 45), who published a comprehensive grammar of this language, notes: "The language has a nominative-accusative system but case is marked by constituent order only." How can one be sure that the system is nominative-accusative in Urarina if all we have is a semantically identified constituent order? Passive is inconclusive in this language since it is formed periphrastically through a nominalized verb functioning as a copular complement. The 'passivized' verb can take nominal morphology. However, there is an intransitivizer, viz "ne-" that produces O>S derivations of transitive verbs; see Olawsky (2006: 600), Muysken et als. (2016, Feature ARGEX8-1). In a Nom-Acc system, an intransitivizer is expected to produce SO>S, but not O>S. In ergative languages, an intransitivizer is expected to produce SO>S, which in typological terminology is O>S. This seems to be exactly what happens in Urarina.

For Kxoe, Fehn's (2015:214) grammar of Ts'ixa (Kalahari Kxoe) is very clear: "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). Kxoe is not a reliable testimony of OVS.

In a study on word order type and alignment, Siewierska (1996) lists four languages as "OVS" in her own sample of 237 languages, namely Macushi, Hixkaryána, Päri and Southern Barasano. Päri is an ergative language, according to Andersen (1988). Makushi is ergative according to Abbot (1991). Hixkaryana has been mentioned already above. As for Southern Barasano, Jones & Jones (1991) presented a syntax monograph which was reviewed by Dryer (1994). He points out a crucial weakness of their type assignment:

"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." "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).

Dixon (1994: 50-52) itemizes the following ergative languages as instances of SV/OVA, that is, ergative SVO languages: Päri, Kuikúro, Macushi, Maxakalí, and Nadëb. But, he also refers to a second pattern, namely VS/AVO, and exemplifies it by reference to Huatec and Paumarí, which has been characterized as ergative by Chapman & Derbyshire (1991). This

\_

<sup>&</sup>lt;sup>7</sup> According to Derbyshire (1979), an *object* receives the same morphology as an *intransitive* subject when verbs take on derivational morphology. This is an ergative feature, with separate morphology for objects and transitive subjects. As Birchall (2014:101) emphasizes, "two commonly occurring verbal marking patterns in South American languages that are difficult to characterize as strictly ergative or accusative: hierarchical marking and split intransitivity." Kalin (2014) tries to motivate an SOV-based analysis with VP fronting.

deserves a comment, since "AVO" in an *ergative* setting would structurally be OVS. Chapman and Derbyshire (1991: 164-166) classify the language as SVO, and not as OSV. In Paumarí, only the immediately preverbal noun phrase is case-marked (Chapman & Derbyshire 1991: 250). The neutral word orders is S-V<sub>trans.</sub>O and V<sub>intrans.</sub> S. The language has a passive construction, but no antipassive. It does not qualify as ergative. Zwart & Lindenbergh note that its coding is incomplete, for case as well as for agreement and conclude: "*It seems, therefore, that the pattern is basically accusative (agreement only with*  $S^T/S^I$ ), and that on top of that verbal agreement is sensitive to transitivity (in the 3rd person singular)."

In sum, there is no compelling evidence for OVS from non-ergative languages. For ergative languages, "OVS" means Absolutive-V-Ergative order, and this is *Subject-verb-object* order, under ergative alignment.

## 4. Properties shared by ergative languages

Siewierkska (1996:149) identifies and summarizes the following positions arrived at in the literature, based on a semantic definition of subject and object. Typologists agree that there is "an association between ergative alignment and non-SVO order" and "an association between ergative alignment and object-before-subject order". This would be surprising, given the fact that SVO is a major type.

In the literature Siewierska refers to, "SVO" and "OS" order is understood as "Agent-Action-Patient" and "Patient-Agent" order, respectively. What this neglects is the fact that 'ergative alignment' ought to be read as follows: The argument of a transitive verb that is a direct object in nominative-accusative alignment is the syntactic subject under ergative alignment, if 'subject' is construed grammatically. If we apply structural criteria, Siewierska's findings turn out as expected, straightforward, and cross-linguistically uniform properties of syntactic subjects across alignment systems.

First, an *ergative* language that would 'semantically' be identified as "SVO" is structurally an *OVS* language, with ergative-V-absolutive order. Structural OVS languages, however, are extremely rare if not inexistent.

Siewierska's *second* point, the "object-before-subject order" of ergative languages is in reality the Patient-before-Agent order, or Absolutive-before-ergative. Structurally, in ergative languages, this is subject-before-object, that is, the noun phrase with absolutive case precedes the noun phrase with ergative case. This – nominative before accusative – is the common serialization in Nominative-Accusative languages as well. Subjects precede objects. In sum, ergative languages pattern just like Nom-Acc-languages, modulo alignment, with SOV and SVO as the most frequent types. The allegedly non-existent "ergative SVO" do exist, as ergative languages that have been 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 "agent-V-patient" language, which would in fact structurally be an OVS language, has not been detected and presumably does not exist.

## 5. Conclusion

The structural identification of grammatical functions is the necessary, proper, and inevitable

basis for cross-linguistic comparisons. 'Semantic' classifications of grammatical relations obviously lead astray. They rest on a hidden but wrong premise, namely, that universally, for verbs with an agent and a patient argument, the agent argument is the subject in a 'plain' clause. This is true for Nom-Acc-languages, but crucially not for languages with ergative alignment. The equation of Agent with Subject works for Nom-Acc languages, but not for Abs-Erg languages. In these languages, the patient of a transitive verb is the grammatical subject. If 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 such ill-defined "subjects" do not share relevant *grammatical* properties. If compared properly, that is, structurally, several puzzles disappear:

- Structural OVS languages are not only rare; they are virtually inexistent.
- The "OVS" languages listed in typological literature are SVO languages with ergative alignment.
- SOV and SVO are the most frequent types, both for nom-acc languages as well as for languages with abs-erg alignment.

Acknowledgements: Without Gisbert Fanselow's encouragement and generous intellectual support, this squib would have remained in its larval stage, as sect. 2.3 in Haider (2020b).

## **Bibliography**

Abbott, Miriam. 1991. Macushi. In Derbyshire, Desmond C. and Pullum, Geoffrey K. (eds.), Handbook of Amazonian Languages 3. 23-160. Berlin: Mouton de Gruyter.

Andersen, Torben. 1988. Ergativity in Pari, a Nilotic OVS language. Lingua 75: 289-324.

Birchall, Joshua. 2014. *Argument marking patterns in South American languages*. LOT Dissertation series, number 352.

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.

Derbyshire, Desmond C. 1979. *Hixkaryana*. (Lingua Descriptive Studies 1) Amsterdam: North-Holland.

Dryer, Matthew S. 1994. Review of Wendell Jones and Paul Jones, Barasano Syntax. *Word* 45(1): 62-65. DOI: 10.1080/00437956.1994.12098343

Fehn, Anne-Maria. 2015. A Grammar of Ts'ixa (Kalahari Khoe). Unpubl. doct. diss. Univ. Köln, Inst. f. Afrikanistik

Franchetto Bruna. 1990. Ergativity and nominality 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.

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. 2000. The license to license. In Reuland, Eric (ed.) *Argument & Case: Explaining Burzio's Generalization*. 31-54. Amsterdam: Benjamins.

Haider, Hubert. 2020a. Grammar change – a case of Darwinian cognitive evolution. Target paper for *ELT – Evolutionary linguistic theory*. [lingbuzz/005134]

<sup>&</sup>lt;sup>8</sup> 'Plain' means: non-passivized, non-middle, etc., or, in other words, in non-derived form.

- Haider, Hubert. 2020b. Towards a structure-based typology. [lingbuzz/005617]
- Haspelmath, Martin 2014. Comparative syntax. In Carnie, Andrew, Yosuke Sato, and Dan Siddiqi (eds.) *The Routledge handbook of syntax*. 490-508. London: Routledge.
- Jones, Wendell & Jones, Paul. 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: Li, Charles ed.Subject and topic. 305–333.New York: Academic Press.
- Köhler, Oswin. 1981. La langue kxoe. In Perrot, Jean (ed.) *Les langues dans le monde ancien et moderne*. 483-555. Paris: Centre National de la Recherche Scientifique.
- Kozinsky, Isaac and Nedjalkov, Vladimir and Polinskaja, Maria. 1988. Antipassive in Chukchee. In Shibatani, Masayoshi (ed.), *Passive and Voice*, 651-706. Amsterdam: John Benjamins.
- Mel'čuk, Igor, A. 2014. Syntactic Subject: Syntactic Relations, Once Again. In Plungjan, V. with Danièl, M., Ljutikova, E., Tatevosov, S. Fedorova, O. (eds.), (eds.) *Jazyk. Konstanty, Peremennye. Pamjati.* 169–216. Sankt-Petersburg: Aletejja.
- Mithun, Marianne. 2000. 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* (Special issue on the Syntax and Semantics of the Indigenous Languages of the Americas), 77-95. Berkeley: Berkeley Linguistics Society.
- 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. (<a href="https://sails.clld.org">https://sails.clld.org</a>).
- Okrent, Arika. 2009. In the land of invented languages: Esperanto rock stars, Klingon poets, Loglan lovers, and the mad dreamers who tried to build a perfect language. New York: Spiegel & Grau.
- Olawsky, Knut J. 2006. *A Grammar of Urarina*. (Mouton Grammar Library, 37) Berlin: Mouton de Gruyter.
- Olawsky, Knut J. 2007. ObViouS OVS in Urarina syntax. In: Simpson, A. & P. Austin (eds.), *Endangered languages*. Special volume of *Linguistische Berichte*. 45-72. Hamburg: Buske Verlag.
- Polinsky, Maria. 2013. Antipassive Constructions. In: Dryer, Matthew S. & Haspelmath, Martin (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).
- Siewierska, Anna (1996). Word order type and alignment type. STUF Language Typology and Universals 49(2): 149-176.
- Zwart, Jan-Wouter & Lindenbergh, Charlotte. (in press). Rethinking alignment typology. In Bárány, András, Theresa Biberauer, Jamie Douglas & Sten Vikner (eds.) Inside syntax III: Syntactic architecture and its consequences. Berlin: Language Science Press.