

1. The study of semantic alignment: retrospect and state of the art

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1.1 Background and definitions¹

This volume grew out of the conference ‘The Typology of Stative-Active Languages’, which took place at the Max Planck Institute for Evolutionary Anthropology in Leipzig, May 20-22, 2005, and which was organized by the editors of the present volume. It contains many of the papers presented at that conference, in addition to a few that were not presented there. The aim of the conference was to explore similarities and differences among languages of the ‘stative-active’ (or ‘split intransitive’, ‘agent-patient’, ‘agentive’, etc.) marking type, in particular similarities and differences regarding issues of argument structure and valency-related phenomena. The original call for papers invited a focus on “classic cases where an agentive S is encoded, through case marking, verbal agreement, or both, in the same way as A and non-agentive S in the same way as P,” and “where the agentive vs. non-agentive distinction is a pervasive feature of the grammar.” In addition, we made an effort to ensure that different relevant geographical regions were all well represented. One does not organize a conference in the expectation of simply getting premeditated results, however, so we were only too pleased to

also see papers addressing ‘non-classic’ instances of the language type under consideration as well as papers considering cases where the ‘agentive vs. non-agentive distinction’ is not necessarily pervasive, but does intrude on morphosyntactic alignment. We were particularly pleased and surprised that many papers addressed the topic suggested from a diachronic perspective and these papers, as a whole, have greatly improved our understanding of the mechanisms by which semantic alignment may develop or disappear, as summarized towards the end of this introduction.

Given the confusion in the literature over terminology related to the topic under consideration, and the proliferation of terms, none of which are quite adequate, we proposed the label ‘semantic alignment’ for the language type under consideration. The term ‘Split-S’ (Dixon 1979) only makes sense when one views semantically aligned languages as somehow derivative of accusative or ergative languages; both accusative and ergative languages have a morphosyntactically relevant ‘S’ category, but since semantically aligned languages do not, it makes little sense to posit such a category, only to have it split up into the subcategories such as Sa and Sp. The term ‘split intransitive’ (Merlan 1985) similarly implies an S category, although less directly so. ‘Stative-active’ or simply ‘active’ are also unfortunate terms since the type of language to which they have been applied include languages for which the dichotomy of stativity vs. activity does not necessarily constitute a major organizing principle. Such terms should only

be used to denote the subtype of semantically aligned languages where the argument of stative verb is treated like the patient of transitive verb, and the argument of an active verb like the agent of a transitive one. A similar problem attaches to the terms ‘agent-patient’ or ‘agentive’, since they carry the assumption that agentivity is *the* factor underlying the differential treatment of arguments of intransitive verbs across languages of the type in question. Again, such terms could be used for the subtype where the implied assumption holds true, but as general terms they are misleading. The advantage of the term ‘semantic alignment’ is that it does not carry any particular assumption about factors affecting the differential treatment of subjects of intransitives, except that they are semantic (rather than syntactic) in nature. Since the broad term ‘semantics’ subsumes both semantic roles, aspect, and Aktionsart (lexical aspect), the term covers different subtypes and also accommodates different ways of looking at one and the same phenomenon: It has been debated whether Aktionsart or semantic roles are more fundamental to the phenomenon at hand; using the term ‘semantic alignment’ avoids the introduction of this controversy into one’s terminology. A potential negative reaction to the proposed term—the only one that I can think of—is that it is not always straightforward to predict, from semantic principles, how the arguments of *all* intransitive predicates in a given language belonging to the type under consideration are going to be treated; there may be—and, indeed, usually are—predicates that behave exceptionally. The existence of such exceptions, which need to be

specified lexically, do not preclude the fact that the differential treatment of intransitive arguments is on the whole semantically motivated, which is what matters. In addition to being broad and theory-neutral, the term ‘semantic alignment’ has the further advantage that it contrasts naturally with the term ‘syntactic alignment’, which, if felt necessary, may be used to subsume ergative and accusative languages under one label (tripartite languages would belong here as well). Common to syntactically aligned languages is that the encoding of verbal arguments depends on the valency, and not the meaning, of predicates. Moreover, most syntactically aligned languages have constructions such as passives that require a disassociation between semantic and syntactic roles, whereas semantically aligned languages tend not to have such constructions (Klimov 1977, Foley and Van Valin 1977, Wichmann [to appear]).

1.2 A brief retrospective overview of the study of semantic alignment

The field of language typology was not designed according to a master-plan, but rather represents a pool of research results and ideas which have accumulated in no small measure as a result of historical accidents. Thus, in order to characterize the motivation behind the present collection of papers it is necessary to trace the histories of some of the ideas around which the papers revolve.

Two of the foundational impetuses for the study of semantic alignment and related issues come from Sapir (1917) and Perlmutter (1987). Sapir's achievement was to set up a clear typology of what is now known as ergative, 'active', accusative, and tripartite languages; he also made the suggestion, reconsidered from a diachronic perspective by some authors in this volume (see below), that inactive predicates in 'active' languages could be interpreted as having unexpressed impersonal subjects, e.g., that 'I sleep' could be interpreted as 'it sleeps me'. Perlmutter explained the distinction between unergative and unaccusative subjects in terms of the Relational Grammar notions of initial and final strata; an unaccusative subject starts out at a deeper level (the initial stratum) as a 2 and an unergative subject starts out as a 1 (an analysis which actually bears some resemblance to Sapir's, although the framework is of course radically different). The traditional approach in the Chomskyan literature is similar inasmuch as the unergative/unaccusative distinction is seen as arising through underlying syntactic structures where the surface subject of unaccusatives is internal to the VP, i.e. underlyingly an object, while the surface subject of unergatives is also underlyingly a subject (Burzio 1981, 1986).

Rather different traditions have arisen from these two stimuli, one being a functionally oriented whole-language typologizing approach, the other being a formally oriented approach to individual constructions (most commonly directed at Romance or Germanic languages). Because of the different traditions the literature has created a sense that 'active

languages' and 'unaccusativity' are somehow different, albeit related, phenomena. To what extent are they similar or different? It seems that the major difference between privileged whole-language typological features, such as alignment, word order, and morphological type, and features that are often considered less important when languages are typologized, such as 'unaccusativity effects', is the number of constructions for which the typological feature is relevant. Once this is realized, it becomes clear that the discrepancy between whole-language typology and construction-specific typology may only be superficial: whole-language typology is construction-specific too, but it happens that the types of constructions which it is concerned with includes the widest possible range of constructions in a given language.

It could be claimed, then, that there is no fundamental empirical difference between the observation made by Sapir (1917) and by Perlmutter (1978) or between the two traditions ensuing from these contributions: both address differences in constructions, and any explanation for different alignment patterns should also be applicable to unaccusativity effects and the other way around. Still, more work needs to be done to reconcile the traditions.

There is a third tradition which is fundamentally different from the two just discussed. This is the 'contentive typology' permeating the works of Klimov and defined in Klimov (1983). Klimov (1974, 1977) sees an inherent organic unity between alignment and other features such as the treatment of property concepts, possession, agreement, etc. For Klimov, an 'active'

language is one which fulfills several typological criteria. The idea that there is an overall design uniting apparently disparate features of languages goes back to the Humboldtian notion of the ‘genius’ of a language, and is very different from (any version of) a constructional approach. Klimov’s characterization of ‘active’ languages, however, has been severely criticized. Lazard (1986) has pointed out that all the traits that Klimov considers to characterize the ‘active’ type are common in other languages as well, and in a similar but more explicitly quantitative vein Nichols (1990) showed that three of these ‘active’ traits, namely inalienable possession, inclusive/exclusive pronouns and grammatical gender, are either not or not straightforwardly predicted by the presence of semantic alignment. Thus, Nichols finds that having a contrast between alienable and inalienable possession is correlated with head-marking and only indirectly with semantic alignment; that the presence of an inclusive/exclusive distinction is not predicted by the alignment type; and that gender only correlates with alignment type in so far as the accusative type disfavors gender. As Klimov suggested, the absence of canonical passives does indeed correlate, at least statistically, with semantic alignment (Wichmann [to appear]); other possible correlates may be a preference for aspect rather than tense systems and the verbal encoding of property concepts (Wichmann 2005a), but these two additional possible correlations require further investigation.

In spite of its having been largely debunked, Klimov's theory of an 'active' typology is sometimes still applied in an orthodox way, particularly as a guide to the reconstruction of earlier language stages, cf. Bauer (2000) on Proto Indo-European and Werner (2004) on Proto-Yeniseic.

Another controversial position is that of Dixon (1979), who treated semantically aligned languages as a subtype of ergative languages and saw case alternations in intransitives as being similar to split ergativity. Against this, Dahlstrom (1983) argued that semantically aligned languages are fundamentally different in having case marking alternations in intransitive clauses determined by lexical properties of the verb and, perhaps most importantly, that semantically aligned languages simply do not have a unified category such as 'S' (cf. also Mithun 1991: 542). Although Dixon has continued to push his position (Dixon 1994: 77-78), it is rare nowadays to see semantically aligned languages treated as a subtype of ergative ones.

The introduction of the notion of semantic roles (Fillmore 1968) allowed Van Valin (1977) and Foley and Van Valin (1977) to characterize semantically aligned languages as languages lacking syntactic roles and thus having an orientation towards (semantic) roles rather than reference. Once it was realized that semantic roles are crucial for the description of semantically aligned languages a new problem arose, namely the fact that languages often exhibit mismatches between the semantic status of an argument and its grammatical treatment. This problem has often been noted, e.g., for Georgian (Hewitt 1987), Svan (Sumbatova 1993:

265-267), and various North American languages (Mithun 1991), and it also turns up in studies of individual construction types. In the latter context it has been noted that “unaccusativity diagnostics do not uniformly pick up the same class of verbs, both within and across languages” (Alexiadou et al. 2004: 8-9). There is a growing literature on such ‘unaccusativity mismatches’, e.g., Rosen (1984), McClure (1990), Dowty (1991), Gerdts (1991), Zaenen (1993), and Legendre et al. (2006). Peter Arkadiev’s contribution to this volume (summarized below) addresses the problem of apparent mismatches by proposing to use a fine-grained typology of semantic roles which need not be instantiated in exactly the same way in all languages.

At present it is clear that the systematic study of semantic alignment is still in its infancy, despite the long history of attention to the phenomenon. More descriptive data needs to be brought to the fore, theories need to be tested on a wider range of data, scenarios for the diachronic understanding of the phenomenon must to be developed further, and the discrepancy between the whole-language typologizing approach and the construction-specific one should be addressed. The present volume makes important steps towards accomplishing some of these tasks. In the following summaries of individual chapters it is explained how; towards the end of this chapter the most outstanding overall contribution of the volume, namely new approaches to the diachrony of semantic alignment, is synthesized.

1.3 Summaries of chapters

Donohue's chapter on the what-are-whats and what-are-nots of semantic alignment represents a tour-de-force through cases that usually not taken into purview in discussions of semantic alignment, although the author thinks they should, as well as cases that have or conceivably could be considered instances of semantic alignment, although the author want to exclude some of these. Donohue delimits semantic alignment properly speaking to cases where verbal lexical semantics affects word order, case marking or agreement. Phenomena such as Dutch auxiliary choice (familiar from the literature on unaccusativity) or accompaniment applicatives in *Tukang Besi* (perhaps less familiar) thus do not comply with the definition, even though verbal lexical semantics is involved in both cases. Similar exclusions apply to cases in which a core syntactic phenomenon such as agreement *is* involved in alternations, but is not governed by lexical verbal semantics, e.g., different strategies in Chamorro realis vs. irrealis clauses. Donohue contrasts these more spurious phenomena with true semantic alignment in languages such as Galela (West Papuan), Waris (Border), and Ambonese Malay (Austronesian). Examination of patterns of alignment in the domains of agreement morphology, case marking and word order show that in any of these both nominative-accusative, ergative-absolutive and semantic alignment can be found. Alignment is also relevant for adjunct clauses, relative clauses, conjoined clauses, floating quantifiers, imperatives, secondary predication, and presumably other syntactic phenomena.

There are other kinds of splits, which, although they are not spurious but permeate languages, are to be considered ‘nots’ since they are not semantically governed, e.g., word order alternations conditioned by definiteness of objects in Puare (Macro-Skou), case marking conditioned by subordination in Mamean (Mayan), by tense-aspect in Sindhi (Indo-European), or animacy (many languages).

Early on in the discussion of ergative languages scholars set out to investigate whether accusative or ergative morphologies imply similar kinds of alignments in syntax. Donohue continues this line of investigation, concluding, as others before him, that ergative morphology usually combines with accusative syntax; but he also presents the case of Oirata (Trans New Guinea), which has accusative morphosyntactic alignment although it shows some evidence for a ergative syntactic pivot. A related but less often addressed issue is whether languages that show semantic alignment in their morphology also exhibit semantic alignment in syntax. This is probably seldom the case, but Donohue does cite the case of Eastern Pomo, for which it has been claimed that agentivity is involved in switch-reference.

The author then goes on to discuss splits in case marking involving more than two categories. Muskogean and Yapen (West-Papuan) languages have three different agreement paradigms by which an S can be marked (nominative, accusative, dative), as well as two different cases for the A (nominative, accusative) and the P (accusative, dative). Icelandic shows

as many as four different cases for S's and (nominative, accusative, dative, genitive) three different ones for A's (nominative, accusative, dative). The question is raised whether such phenomena should be considered under the label of semantic alignment, and if not, why not.

Like Malchukov, Mithun, and Nichols, Donohue also discusses 'transimpersonal' constructions, where the single argument is not in the case normally associated with monovalent subjects (as German *mir ist kalt* 'I am cold'). Variations on this theme is illustrated by the use of the inverse with verbs such as 'to fall' in Tanglapui (Trans New Guinea), the treatment of experiencers as objects in Warembori (Austronesian), and other examples.

Received wisdom has it that semantic alignment is a phenomenon whereby S can align with either an A or a P. Donohue expands this narrow view, exemplifying cases where there are two ways of expressing an S, aligning with two ways of expressing an A (Haida, Isolate) or where more than one way of expressing a P aligns with more than one way of expressing an S (Kolana, Timor-Alor-Pantar). The first phenomenon, exemplified by Haida, recurs in Pilagá, a language to which the last chapter of this volume is devoted (see below).

Donohue's contribution raises more questions than it answers, but nevertheless does offer some conclusions. One is that it is futile to analyze alternations in case marking along the lines of the 'unaccusativity hypothesis', as an alternation between surface and underlying subjects. This analysis is belied by cases such as Haida and Kolana. Another conclusion is that it

makes sense to distinguish between truly semantically aligned languages and more spurious cases of ‘unaccusativity effects’, although it also makes sense to study the semantic conditions for both in unison. Some questions are answered more hypothetically. One such question is whether we can expect semantically aligned languages to also exhibit semantically-conditioned syntax. The hypothesis is that we sometimes can, but in restricted domains. Another question is what we are to do with more than two different case markers for S’s. Is semantic alignment a phenomenon restricted to just two semantic roles—agent vs. patient (or Actor vs. Undergoer)—and why should it be? The hypothesis is that such cases are not necessarily to be excluded. Deconstructing the legacy of Sapirian typology Donohue invites us to approach these questions directing our attention towards individual constructions.

Malchukov explores a particular diachronic path by which semantic alignment (the author chooses the label ‘split intransitivity’) can arise, namely through constructions in which a P is reanalyzed as an Sp under pressure to treat a prominent object as a ‘subject’. As already mentioned, this idea goes back to Sapir (1917: 85), who suggested that object inflecting verbs in some Native American languages could be understood as having impersonal agent and are therefore to be equated with what Haas (1941) termed ‘transimpersonal’ constructions. Following Haas’ treatment of Tunica, Malchukov turns Sapir’s idea into a diachronic explanatory framework which may be applied, if not to all semantically aligned languages, at

least to some of those for which semantic roles rather than verbal aspect determine the differential treatment of arguments of intransitives and where patientive intransitives make up the minority of intransitives (i.e., semantically aligned languages with an ‘accusative base’ in the terminology of Nichols 1992). The author then goes on to present evidence, first from Native American languages and then from Papuan ones.

For Native American languages Malchukov shows how some have transimpersonal constructions that clearly remain transitive because the impersonal subject is expressed overtly, (e.g., West Greenlandic ‘it stormed us’ meaning ‘we were caught by the storm’) whereas in others (e.g., Lakota) there is no overt subject marking on what may have been erstwhile transimpersonals, implying the complete convergence of the two constructions and therefore the existence of a semantic alignment system. Two conditions required for the latter situation to arise seem to be the non-overt (or zero-) marking of third person subjects and the availability of verbal indexing for objects. Given these conditions, a transimpersonal construction may become formally identical to an intransitive construction where the single argument is marked as a patient. Because of the absence of documentation for sufficiently early language stages the evidence must necessarily remain indirect. There is no proof available to show that a situation such as the one in West Greenlandic has, in fact, given rise to a situation such as the one in Lakota, but Malchukov does identify cases where different dialects or related languages show

different stages of reanalysis towards the final stage represented by languages such as Lakota. For instance, in West Greenlandic transimpersonal inflection is restricted to weather expressions, but in Siberian Yupik it extends to any intransitive predicate and conveys a sense of suddenness or non-volitionality, achieving the ability of making semantic distinctions reminiscent of fluid semantic alignment systems.

For Papuan languages, Malchukov shows how object experiencers may develop into non-canonical subjects and eventually into Sp's. Examples of different stages along this trajectory are presented. For instance, in Amele, in a sentence such as 'I am hungry', the experiencer is coded as an object, but also displays a couple of subject properties, namely the ability to appear in topic position and to control switch-reference. In Hua certain experiencer objects are treated as such in the indicative mood, but are reanalyzed as intransitive subjects in the imperative. Finally, in Galela the dummy subject agreement prefix in transimpersonal predicates has become optional on certain verbs and has completely vanished from others, leaving a predicate where the argument is an object intransitive (see also Holton's chapter in this volume).

In a final section the author shows different examples where the path towards semantic alignment is blocked, for different reasons. The Iwaidjan (non-Pama-Nyungan) language Ilgar of Australia has alternative constructions for 'he is sneezing', one following the

transimpersonal pattern, and one leaving out the agent affix from the verb, effectively leaving a object-marked intransitive. However, even if this pattern should generalize, semantic alignment would not arise because person marking operates on an ergative basis. Thus, in an ergative language an object-marked intransitive would be indistinguishable from a subject-marked intransitive. Another type of development of transimpersonals not leading to semantic alignment is found in Germanic language, e.g. the German construction *Mich hungert* ‘I am hungry’, which is sometimes replaced by *Ich hungere*. Here a transimpersonal is simply replaced by a subject-marked intransitive.

Arkadijev addresses the issue of how best to characterize the semantic parameters that determine argument encoding in semantically aligned languages. Arguing against a recent proposal by Primus (1999), he suggests that it is not so much the sheer number of Proto-Agent or Proto-Patient properties which determines whether the single argument of an intransitive verb will be encoded as Agent-like or Patient-like, but rather the presence of a particular distinctive property (or combination of different properties) in a given language. Through different case studies it is demonstrated that different languages may select different properties as being distinctive. Thus, the South-Western Mande language Loma is sensitive to the aspectual distinction stative vs. dynamic, the Kartvelian language Georgian is sensitive to telicity, the Nakh-Dagestanian languages Bats and Tabassaran to volitionality, and the Pomoan language

Central Pomo to affectedness. The fact that individual languages select certain properties does not mean that there is no structured relationship among these different properties from a typological point of view. Thus, [\pm volitionality] and [\pm change of state] correlate inasmuch as [+volitional, -change of state] normally imply agentive marking and [-volitional, +change of state] normally imply patientive marking. The marked combination [+volitional, +change of state] will result in either agentive or patientive marking, depending on whether [\pm volitionality] is more prominent than [\pm change of state] or the other way around in a given language. Arkadiev goes on to show how the approach of Levin & Rappaport Hovav (1995, 2000) to unaccusativity in English can achieve the same kind of cross-linguistic explanatory adequacy as the specification and ranking of proto-properties provided that their ‘linking rules’ for the assignment of deep subject (roughly = actor) and deep object (roughly = undergoer) status are ranked and their default rule is made to assign either deep subject or deep object status (and not just the latter) to arguments of intransitive predicates depending on the language in question. Arkadiev thus paves the way for a refined theoretical approach to the semantics of semantic alignment systems, an approach which uses the solid foundation of the ‘proto-properties’ of Dowty (1991) and which, as the author shows, may be recast along the lines of Levin & Rappaport Hovav (1995, 2000). Although this is not said explicitly, the approach is perhaps even more close in spirit to Optimality Theory with its notions of constraint ranking (Prince and

Smolensky 2004). In short, Arkadiev's paper should have an appeal to theorists of a variety of persuasions.

From a whole-language typologizing approach to construction-specific approaches a logical next step is lexical typology. In what, in this regard, is a unique contribution to this volume **Nichols** takes such an approach, surveying argument encoding for verbs corresponding to 20 verb glosses across 41 languages of Eurasia, the Pacific and the Americas. The glosses were chosen such as to have a mixture of agent, patient, and experiencer subjects, semantically speaking. Plots showing the percentages of A- vs. O-coded Ss for the sample of verb meanings in the various languages show a continuum where ergative and accusative languages cluster towards opposite extremes and languages normally classified as semantically aligned fall in between. A similar results obtains from plotting the number of A vs. non-A coding of S and A. From such plots she concludes that "from a lexical-typological perspective, 'split subject' covers a diffuse and fairly diverse range of languages, without a very clear distinction from ergative and one end of the range and from accusative at the other." It is perhaps not surprising that as one moves from a categorical whole-language approach to a statistical approach the results will begin to show clines rather than clear-cut distinction, but, as Nichols admits, the sample can also be manipulated so as to bring out more vs. less clear clusters. In so far as the results partly follow from the approach, using the new approach explored will be motivated by the kinds of results

that can be obtained. This could, for instance, be to reveal more subtle areal distributions than will emerge from the whole-language approach.

Other than developing a new type of methodology Nichols also achieves an important insight into the question of why, in the traditional understanding, semantic alignment is rare in Eurasia. Whether semantic alignment is, indeed, rare here, she argues, depends on one's point of view. If verbs that take dative subjects in Eurasia are treated on a par with verbs that take O-marked subjects in semantically aligned languages in Americas and the Pacific then the two group of languages begin to look much more similar. As Nichols points out, there is a good reason to equate the two kinds of argument encoding: a direct object language will typically use dative marking for non-A coded subjects whereas a primary object language will use O coding, and direct object languages dominate in Eurasia whereas primary object languages are somewhat more frequent than direct object languages in the Pacific and the Americas. The insight that "the uneven geographical distribution of classic stative-active languages worldwide is connected to, and probably a consequence of, large areal differences in object alignment" of course begs the question of why there are distributional differences in object alignment. Still, the hypothesis may turn out to be crucial for the diachronic understanding of semantic alignment in so far as it identifies a possible necessary-though-not-sufficient condition for the development of semantic alignment. Thus Nichols' paper provides a corollary to the hypothesis of other contributors to

this volume (Malchukov, Mithun, Donohue, Holton) that transimpersonal constructions have paved the way to the development of semantic alignment by suggesting, indirectly, that such constructions need to occur in the context of a primary object language in order to develop into semantic alignment systems.

Ket, which belongs to the small Yeniseic language family all of whose other members are extinct, has sometimes been described as semantically aligned. **Vajda** disputes this and instead described the language as one which possesses a number of lexically selected conjugation classes that are not easily fit into a single overall alignment type; according to Vajda (2004: 49) one of the classes, which he calls the ‘Active Conjugation’, is all there is left of an agentive-patientive contrast. In his contribution to the present volume Vajda deals in greater detail than in earlier works with diachronic issues, pursuing the hypothesis—accepted by most specialists—that proto-Yeniseic had a semantic alignment system, and tracing the changes to modern Ket through comparisons with data from other Yeniseic languages. A model of proto-Yeniseic verbal inflection is offered as a point of departure for understanding the situations in the daughter languages.² In this model, only 1st and 2nd person patientive subjects are indexed on the verb by means of pronominal prefixes. Agreement with 3rd persons was expressed by means of animacy classifiers, also prefixed. Free pronouns (perhaps sometimes cliticized) later became part of the verbal morphology either as prefixes (e.g., in Ket) or suffixes (e.g., in Kott). Contact

with suffixing Samoyedic, Turkic, and Tungusic languages appears to have been responsible for much of today's complexity by causing affix positions to get shuffled.

Traces of an erstwhile semantic alignment system are said to best have been preserved in Kott, which has an intransitive conjugation used with “active” verbs involving a “sentient or at least an active subject” and two intransitive conjugations for “inactive” verbs. A fourth intransitive conjugation is reserved for change-of-state or resultative verbs. There are no direct identities of expression such that $A = S_a$ and $P = S_p$, so ‘semantic alignment’ in Vajda’s usage does not refer to the canonical type of system. Rather—and this seems to hold for the reconstructed system as well—the term simply refers to a differential treatment of subjects of intransitives, in this case through different conjugations separate from transitive conjugations. That is, we are witnessing i.e. a four-way distinction between A, S_a , S_p , and P, where each can be encoded in multiple ways. Since such a system could potentially have developed into true semantic alignment the title of the paper should perhaps have referred to the failure to acquire semantic alignment rather than the “loss” of such a system. In any case, the paper demonstrates how formal expressions of grammatical relations can become highly idiosyncratic when different factors such as semantics, language contact, preservation of inherited structure, prosody, economy of expression and the lexicon pull in each their directions.

The paper by **Khanina** deals with Tundra Nenets, a language belonging to the Samoyedic group of Uralic. Samoyedic languages are spoken to the north of the former Yeniseic area, and, as mentioned by Vajda, languages of the two groups are likely to have been in contact. Like proto-Yeniseic (and Amis, see below), Tundra Nenets is an example of a language which, even if it does not meet the definition of canonical semantic alignment, exhibits a semantically-conditioned argument encoding. It exhibits accusative alignment (at least in part³) and a mixture of head- and dependent-marking. The focus of Khanina's description is the differential treatment of argument encoding for intransitives. There are two inflectional paradigms, A and B, and a given verb will either take one or the other or may alternate between the two, with consequences for the semantic interpretation. Of importance for the selection of paradigm is whether an action is 'homogenous', i.e., not decomposable into different phases or 'non-homogenous', i.e., spanning an inception phase. Paradigm A is used for the former and B for the latter type of action. 'Fluid' verbs describe the inception ('non-homogenous') phase of a given action when taking paradigm B and the stable ('homogenous') phase when taking paradigm A. The contrast of 'homogeneity' is related but not identical to that of telicity inasmuch as homogenous actions are telic, whereas non-homogenous actions may be either telic or atelic. The North Samoyedic languages are the only ones in the Uralic family that exhibit the B paradigm. Khanina therefore assumes that the differential S marking is an innovation in North Samoyedic. Given the affinity

between the kinds of semantic distinctions involved in differential S marking in Tundra Nenets and the telic vs. non-telic distinction underlying at least some systems of semantic alignment (Van Valin 1990, Arkadiev, this volume: section 4.2.2) Khanina draws a parallel between Tundra Nenets and semantic alignment.

In his contribution on Basque, **Aldai** describes the historical evolution from what he describes as a ‘loose ergative alignment’ system in 15th-17th century Basque (‘Old Basque’) to a ‘patientive semantic’ case-marking system in Western Basque. Data are also presented from Eastern and Central Basque, the former of which remains more conservative, while the latter represents an evolutionary stage intermediate between Old Basque and Western Basque. ‘Strict’ ergative alignment, known from many languages in the world, is a situation where all subjects of intransitives are marked as absolutive and where non-canonical transitive sentences, including sentences involving non-definite or oblique objects, similarly require subjects to take absolutive case. In a ‘loose’ ergative system such as that of Old Basque, there is no requirement that non-canonical transitive sentences have absolutive subjects. Finally, a ‘patient semantic alignment system’, such as that of modern Western Basque, extends the range of intransitive constructions allowing for ergative marking further to agentive intransitives. In this system, subjects of intransitives which combine features of agentivity and patientivity (typically motion verbs) are treated like subjects of intransitives which are purely patientive (‘die’, ‘fall’, etc.), taking

absolutive marking. In Western Basque, then, agentive verbs of manner of motion ('dance', 'jump', etc.) typically take ergative subjects, whereas they take absolutive subjects in Central and Eastern Basque, and the same is true of agentive activity verbs such as 'fight' or 'play'. This paper breaks new empirical ground by describing differences across constructions and across dialects. No attempt is made here to inquire into the motivations for the changes that led to the current Western Basque situation, but the observations made should feed into future comparative work on other languages exhibiting similar changes and thereby help to disclose the ultimate mechanisms behind the particular pathway towards semantic alignment that led to the modern Western Basque system.

Klamer presents an overview of semantic alignment systems in the Austronesian languages Acehnese, Kambara, Kedang, Taba, Larike, Selaru, and Dobel and the Timor-Alor-Pantar languages Klon, Abui, and Tanglapui. All but one of these languages are spoken in eastern Indonesia. In most of these languages the properties of arguments rather than properties of inherent verbal aspect determine the encoding of arguments of intransitives. Klamer finds that in eight of them, Dowty's (1991) agent proto-role [\pm volitional] adequately accounts for the differential marking, whereas in the two remaining languages (Klon and Tanglapui) the patient proto-role [\pm undergoer of change of state] is distinctive. In the two languages where verbal aspect does play a role, Taba and Dobel, semantic features of the arguments nevertheless co-

determine argument encoding, so for all the languages studied by Klamer the generalization holds that such features are crucial. Another similarity is that all the languages surveyed use dependent pronouns (affixes or clitics) to encode S and to encode either A or P or both A and P. This is not just a peculiarity of these eastern Indonesian languages; as noted by several scholars (Nichols 1990, Mithun 1991, Siewierska 2004), semantic alignment is normally associated with head-marking morphology. There are naturally also differences among the languages observed (and they furthermore as a set contrast with numerous other languages in Indonesia which do not exhibit semantic alignment). The literature on semantic alignment as concerns the Indonesian area has been dominated by references to Acehnese (though see Donohue 2004b). Klamer's paper is therefore a welcome step towards widening the horizon and bringing more of the existing diversity to the fore.

While Klamer took an areal and synchronic approach, **Holton's** approach is genealogical and diachronic. He provides an overview of alignment patterns in the small North Halmahera family of non-Austronesian languages (North Maluku, eastern Indonesia). These languages present what may be interpreted as stations along a diachronic development from syntactic (accusative) alignment (Tobelo), over canonical semantic alignment (Galela), back to syntactic alignment (W. Makian). Holton shows that these differences are actually rather superficial, inasmuch as they relate to formal constraints on the occurrence of pronominal

markers on verbs rather than to deeper differences in semantic distinctions among predicate classes. The starting-point of the proposed development is a type where stative predicates carry an impersonal agent, as in the ‘it-sleeps-me’ of Sapir (1917). This is attested in Tobelo. From this type there is only a small step to canonical semantic alignment, since all it takes to develop such a system is for the impersonal marker to be lost. How small this step is, is demonstrated by contrasting 19th century Galela, where the impersonal marker is often still retained, with modern Galela, where it is lost. Like 19th century Galela, Tabaru, in which the impersonal marker of the transimpersonal construction only shows up in the 1st person plural, represents an intermediate type. If pronominal P markers on predicates become optional and eventually get lost, as happens in some North Halmahera languages, a movement away from semantic alignment sets in. Now it is only the presence vs. absence of A markers on intransitives which may signal a semantic distinction; but since arguments of stative intransitives are not exactly expressed like patients of transitives a language of this type can hardly be described as being standardly semantically aligned. This exact intermediate stage seems not to be represented within the family, but the final stage, where all intransitives carry A markers, is. Holton hypothesizes that this stage may be arrived at by an extension of the use of A markers in analogy with active intransitives.

The paper by **Tsukida** rounds off the set of papers discussing languages of the Pacific moving the perspective to Taiwan, the homeland of the widespread Austronesian family.

The focus is on Amis, an Austronesian language of eastern Formosa. In the context of this book Amis is interesting even if it does not exhibit semantic alignment in any canonical sense: given its relatedness to and similarities with languages that do, it contributes with a comparative perspective on semantic alignment. Amis exhibits a variant of the well-known Philippine-type ‘focus system’ where one argument is selected as subject (marked by nominative case) and where the semantic role of this subject is marked on the verbs by means of either an Agent Voice pre- or infix (for As of transitives or Ss of intransitives) or a Goal Voice suffix (signalling other semantic roles). Case marking is carried by free pronouns and determiners. Agent Voice marking is distributed over four conjugations which specify various combinations of values of the features [\pm state], [\pm affected], and [\pm control] for the subject. Many verbs can alternate between different conjugations with concomitant semantic changes relating to causation, control, volitionality, affectedness, effectedness, etc. Tsukida briefly discusses similarities and differences between the the four conjugations classes of Amis and the system that has been reconstructed for Proto-Austronesian, which also exhibits multiple verb classes. She also discusses similarities with canonical semantic alignment systems, pointing out that “[t]he *ma* conjugation is used when the notional Patient is the subject and *mi* conjugation when the notional Agent is the subject. Most of the intransitive stems take either *mi* conjugation or *ma* conjugation in Amis. This is strikingly analogous to P-marking and A-marking in ordinary semantic

alignment systems.” She furthermore notes that the same semantic features that had served to describe the functions of the conjugation classes in Amis are also customarily used to describe semantic alignment systems.

If, indeed, Amis is relatively conservative with regard to its conjugation classes and the absence of canonical semantic alignment, then languages such as those discussed by Klammer would represent innovations. Much in the spirit of Holton one could then infer that the existence of semantic distinctions among predicate classes is a more stable feature than the formal encoding of arguments. Indeed, an important difference between Amis and the semantically aligned Austronesian languages is that the latter normally exhibit pronominal markers bound to the predicates, following a head-marking pattern, whereas the former has free, case-marked pronouns. Given the already-mentioned correlation between head-marking and semantic alignment the hypothesis might be ventured that the general conditions for the development of semantic alignment in many Austronesian languages was a combination of shifts from dependent-marking to head-marking morphology and the prior existence of semantically defined predicate classes.

In her overview of semantic alignment systems in selected areas of North America, i.e. Northern California, the Northwest Coast, and the Southeast, **Mithun** claims that such systems are not necessarily as stable as has been assumed by some scholars (E. Sapir in Golla

1984: 349, Nichols 1992), and that that they may arise under the stimulus of diffusion and suggests various mechanism by which this may happen (see also Donohue 2004b on the existence of an areally-defined semantic alignment zone in eastern Indonesia). The case studies presented include the following:

(i) Yuki (northern California) is shown to have pronouns similar in shape to related Wappo, but their functions are more similar to unrelated Pomoan languages. Thus both Yuki and Pomoan mark S as either A or P, depending on the parameters of affectedness and control. An erstwhile accusative alignment system in Yuki could have been reanalyzed as a patientive system if transitive clauses where third person subjects are omitted were reanalyzed as intransitive, former objects now being treated as grammatical patients. (ii) Remaining in Northern California, we encounter Karuk, which exhibits features of semantic alignment and may have been influenced in this regard by Chimariko. This could have happened through the same type of reanalysis as posited for Yuki. (iii) Wiyot (also Northern California) does not have a fully developed semantic alignment system, but still offers some insight into yet another way in which such a system could develop. It appears that an erstwhile passive suffix followed by pronominal subjects markers have been reinterpreted as markers of a patientive argument. (iv) On the Northwest Coast of the Americas we encounter Tlingit, which is the only member of the Tlingit-Eyak-Athabaskan family to show semantic alignment. Mithun suggests that Tlingit subjected its

nominative-accusative system to reanalysis under contact with Haida and that the mechanism whereby this happened was to reinterpret indefinite subject verbs as intransitives without specified agents. (v) In the Southeast semantic alignment permeates both the Muskogean family of languages as well as the isolates Atakapa, Chitimacha, Tunica, and Natchez. The author considers it likely that semantic alignment is an innovation in at least some of the languages and that areal influence is involved, either from within or from outside of the Southwest.

While the author admits that the types of reanalyses discussed in her chapter could happen spontaneously in any language given the right conditions, she considers it likely that language contact is an additional factor which facilitated the development and spread of semantic alignment in Native North American languages.

The absence of devices such as passives and antipassives, which serve to foreground an argument to the expense of another, have been claimed to be characteristic of semantically aligned languages (e.g., Foley and Van Valin 1984: 155-59). The contribution of **Pustet and Rood** presents a detailed analysis of the exceptional case of Lakota (Siouan). As with some other semantically aligned languages, Lakota may employ a third person plural actor in an impersonal sense to convey agent backgrounding (as in ‘they shot him’), Lakota has taken this type of construction one step further, allowing for the agent to be expressed. A construction such as (1) literally means ‘they, the bear, chased that man’ but is reanalyzed as a passive

construction—the *-pi* third person plural marker now functioning as a valency-decreasing derivational affix.

- (1) Wichás☒a hé mathó Ø-khuwá-pi.
man that bear 3SG.PAT-chase-PASS
'That man was chased by bears/a bear/the bear(s).' (= ex. 67)

The authors suggest that the development of a passive could have taken place under the influence of English, but also discuss the possibility that *-pi* already in early Siouan times indicated 'marked focus', i.e. indicated a shift from default attention focused on the actor to attention on the undergoer, and that the plural meaning in fact is a later development. An argument for this is that the cognate of *-pi* in Omaha includes 'marked focus' as one of its functions and that the Caddoan language Wichita, which may be a distant relative, has a suffix with a similar range of meanings. Other affixes in the language serve to dereferentialize patients: *wa-* 'patient dereferentializer (usually of inanimates)', *taku-* 'inanimate patient dereferentializer', and *wicha-* 'animate patient dereferentializer'. Just like *-pi* derives from a third personal plural agent marker, *wicha-* derives from a third person plural patient marker.

In his contribution, **Palancar** examines the coexistence of the two major subtypes of semantic alignment—agent/patient as well as active/stative patterns—in a single language, namely (the San Ildefonso Tultepec variant of) Otomi (Otomanguean, Mexico). The agent/patient pattern concerns a distinction between a small set of intransitive verbs whose single arguments are expressed by means of the same verbal suffixes as objects of transitives and which are opposed to the rest of the intransitives, which take subject markers. In the author’s materials only 10 patientive intransitives have been identified, including ‘be/get tired’, ‘be/get burnt’, ‘be/get pale’, and others. The active/stative pattern is constituted by a class of semantically stative verbs which describe property concepts and take patientive inflection. They are moreover recognizable by certain morphological peculiarities, including a special paradigm of proclitics, a nasal prefix, and the lack of a contrast between forms used before a prosodic and/or a clausal boundary (‘free forms’) and forms used intraclausally (‘bound forms’). The author proposes that the agent/patient pattern is old, whereas the category of stative verbs is a more recent innovation, which adopted some characteristics of what Palancar calls ‘stative forms’ of agentive verbs (these have also been designated ‘participles’ by others)—a category already existing in the language. Stative forms are impersonal forms that describe the resulting state of an action corresponding to a transitive verb. These verbs take a dummy third person proclitic to express tense-aspect-mood categories. Thus, morphologically a stative form such as ‘I am comforted’

inflects like a transitive ('s/he comforted me') but has an impersonal reading. The same transitive morphology is carried over to stative verbs. So a stative verb such as 'I am tall' also takes the dummy third person proclitic and an object marker for the single argument ('me'). Since active/stative distinctions are rarely reported in Otomanguean languages, and since little is known about how such distinctions emerge in general, Palancar's paper is an interesting contribution to description and diachrony.

In her study of Guaraní (Tupí-Guaraní, Paraguay), **Velázquez-Castillo** investigates the closest equivalents of voice categories in this language, i.e., the categories labelled 'inverse' and 'reflexive/passive' by some other linguists. She argues that these labels are inadequate for the description of Guaraní, as are analytical concepts such as 'subject' and 'object'. Instead, she operates with the grammatical relations coined 'event source' and 'event site' in Velázquez-Castillo (2002). In her own words, "the event SOURCE is a participant construed as the initiator or origin of a dynamic event, which may or may not have control over the situation. The event SITE is a participant construed as containing the situation denoted by the predicate."

The 'inverse' does function as a normal inverse in transitive contexts. The highest-ranking participant on the hierarchy $1 > 2 > 3$ is indexed on the verb, and inactive pronominal markers are selected when 1st person is acted upon by a 2nd or 3rd person or when a 2nd person is acted upon by a 3rd person. When a speech act participant acts upon a 3rd person or when a 1st

person acts upon 2nd person an active pronominal marker is selected. An analysis in terms of direct-inverse, however, has limited applicability. Guaraní (like some other Tupi-Guaraní languages) exhibits a prefix *r-*, which, when brought into the purview, requires the analysis to be modified. This prefix turns up between the person marker and the stem in inverse constructions (when the verb is vowel-initial), and could thus be interpreted as an inverse marker (as done by Payne 1994). A problem for this analysis, however, is that *r-* also turns up when inalienable nouns are possessed and on monovalent inactive predicates designating physical or emotional conditions. Therefore Velázquez-Castillo argues that what *r-* marks is proximal argument-predicate connections in inactive situations.

The second problem discussed by Velázquez-Castillo relates to constructions involving a prefix *je-*. It is exemplified by a sentence such as *Toma o-je-japi* (Toma 3ACTIVE-*je-*shoot), which can mean either ‘Tomas was shot’ or ‘Tomas shot himself’. This accounts for the traditional analysis invoking the notions of passive or reflexive. The author, however, argues that the function of *je-* is better described as signalling “the cancellation of the default outward projection (i.e., outward directionality) inherent in an active predicate” and should be analyzed as a kind of middle voice. Various pieces of evidence is mustered, the most compelling perhaps being the occurrence of *je-* with monovalent predicates, e.g., *Kañada-pe o-je-jeroky. . .* (Kañada-in 3ACTIVE-MIDDLE-dance) ‘in Kañada there is dancing. . .’.

The description of what would be the closest equivalents to voice in Guaraní, then, shows that they are insensitive to transitivity and that what matters is rather semantic relations. New theoretical notions must be developed to adequately describe these relations, and Velázquez-Castillo's contribution does precisely this.

Danielsen and Granadillo introduce the agreement systems of two Arawak languages, Kurripako of the North Arawak subgroup (spoken in the border zone of Venezuela, Columbia and Brazil) and Baure from the South Arawak subgroup (Bolivian Amazonia). Kurripako verbs exhibit subject agreement prefixes (A markers) and object agreement suffixes (P markers), the latter for third person objects only. Some intransitive verbs, described by the authors as “stative” take agreement markers that are identical with the P set, others—the “active” ones—take A markers. Thus, Kurripako behaves like a prototypical semantically aligned language—more specifically, it is argued, one which is sensitive to the parameter of eventhood, rather than agentivity. In contrast, Baure behaves more like an accusative language in that nearly all intransitive verbal predicates take the same nominative agreement markers that also express subjects of transitives. Here the differential marking of subjects of intransitives mainly involves verbal predicates as opposed to predicates derived from nouns and adjectives, the latter taking accusative agreement markers. There are, however, some verbs which fail to conform to the general accusative system, the clearest case of an intransitive being *kwo-* ‘exist, be’, which takes

accusative agreement markers. Moreover, the verbal base *-moro'in(o)-* has alternate usages, one of which involves the meaning 'to be thirsty' and triggers accusative agreement for its experiencer argument. On the basis of these pieces of evidence the authors hypothesize that earlier stages of Baure may have had a semantic alignment system involving some fluid marking similar to that of Kurripako, but that it now shows only a few traces. This case study appears to confirm Mithun's suggestion that semantic alignment is not as stable a genetic marker as has been claimed.

Vidal presents the system of semantic alignment in Pilagá (Guaykuruan, Argentina). This is highly unusual typologically. It is not the case that S is expressed either like A or like P depending on some semantic parameter, as in canonical cases of semantic alignment. Rather, there are two different markers, called set A and set B, which can both be used to express A or S. P is marked by a third set, different from sets A and B. While markers from either set A or set B are always present, the P markers are mutually exclusive with an overt (nominal or pronominal) expression of the corresponding argument. Vidal does not treat differential marking of the agent of transitives in any degree of detail but concentrates on the distribution of set A and B markers over different classes of intransitives. The kinds of events that take set A include most physical activities where the single argument is a performer of the action, but also some events of perception and involuntary bodily processes as well as states (e.g., 'be sick', 'have a

headache'). Verbs that exclusively take set B are a small minority and include certain state verbs ('be happy', 'be sincere'), verbs of bodily postures or spontaneous bodily processes, and certain activity verbs ('to drink', 'to run'). The difficulty in establishing clear differences between set A- vs. set B-taking verbs suggests that much lexicalization has been going on. On the other hand, the vast majority of intransitive stems can alternate between the two sets, and these alternating verbs are more clearly circumscribed semantically. When events are induced (externally caused), non-reflexive or involve intentionality, set A is employed, whereas when events are spontaneous (inchoative), reflexive or non-intentional, set B is used. With motion verbs and other verbs that may be said to imply motion in some way (e.g., 'to give', 'to learn', etc.), the alternation between person marker paradigms acquires deictic implications, such that set A generally implies motion away from the speaker's vantage point (the deictic center) and set B motion towards it. In Velazquez-Castillo's treatment of the Guaraní construction which some have labelled 'reflexive' (see above) it was argued that default outward projection or direction of actions described by active verbs is a grammatically relevant notion in Guaraní. The behavior of the Pilagá motion verbs demonstrates in a very concrete way that such a notion may, indeed, sometimes be relevant for the understanding of case marking. Applying Velazquez-Castillo's notions to Pilagá, forms taking set A may be said to imply default, outward projection, while those taking set B 'cancel'

this default direction, implying an inward projection. Vidal herself analyzes the case alternation in terms of the notions ‘viewpoint’ and ‘affectedness’.

3. The diachrony of semantic alignment

Since the literature on semantic alignment systems has not hitherto addressed questions regarding how such systems develop, one of the most outstanding new features of the present collection of papers is a set of approaches to this problem.

At the beginning of this introduction I defined a “classic” semantically aligned language as one where an agentive S is encoded, through case marking, verbal agreement, or both, in the same way as A and non-agentive S in the same way as P. As several contributions to this book show, the definition at best applies to a prototype. Languages can differ in many ways from the proto-type and yet exhibit a case marking or agreement system which is organized according to semantic principles. Nevertheless, the prototype remains a useful point of view from which the various deviant cases may be studied, since it can be argued that there are natural pathways by which the proto-type may develop, and the failure of all the conditions for its development to take place or certain further developments may then explain the less prototypical cases.

Which, then, are the natural pathways and conditions for the development of semantic alignment? Malchukov and Mithun, in particular, argued that transimpersonal constructions may lead to the reanalysis of an erstwhile transitive construction with an experiencer undergoer as an intransitive carrying object person markers. By this mechanism syntactic objects become semantic patients. This diachronic hypothesis finds support in the fact that semantically aligned languages tend to be head-marked. This fact can be explained if a requirement for the development of semantic alignment is zero-marking of third person subjects. In languages having free pronouns third persons will tend to not be zero-marked. In her contribution Nichols suggested a further correlate, noting that most semantically aligned languages have primary/secondary objects rather than direct/indirect ones. In languages having indirect objects, experiencers will tend to be treated as datives, which is why such languages (e.g., Icelandic, discussed by Donohue) do not develop canonical semantic alignment. Finally, Malchukov made the observation that if a language changes a syntactically aligned system to a semantically aligned one through the reanalysis of transimpersonal constructions the point of departure has to be an accusative system—in an ergative system there would be no difference between the erstwhile experiencer object and arguments of intransitives (incidentally this provides a good diachronic reason for not viewing semantically aligned languages as subtypes of ergative ones, as Dixon 1979 did). This last observation means that we should look for different

kinds of mechanisms when dealing with semantically aligned languages that have developed out of ergative ancestors, such as Western Basque (discussed by Aldai) or the Mayan languages Chol and Chontal (Gutiérrez and Zavala 2005). Indeed, Aldai showed that Western Basque has extended the marking of subjects as ergative to intransitive contexts, which is in a sense the opposite development. To sum up: the pathway from accusative to semantic alignment goes through the extension of the domain of the accusative argument to intransitive contexts, whereas the pathway from ergative to semantic alignment goes through the extension of the domain of the ergative argument to intransitive contexts.

The existence of the various highly specific conditions on the rise of semantic alignment helps us understand why there should be certain areas in the world from which such systems are absent or rare (Africa, SE Asia, Eurasia). On the other hand, Mithun's contribution, which demonstrates that semantic alignment is prone to diffusion, helps us to understand why semantic alignment can be very widespread in other areas (the Americas, insular Southeast Asia).

Holton's small-scale but highly revealing case-study also suggests that the presence of semantic alignment is prone to change, given that it is no more stable than the phonological shapes of its exponents. Holton suggested that the semantic verbal distinctions that underlie the differential treatment of pronominal arguments of intransitives are more stable and fundamental

than the pronominal markers themselves. Tsukida's study points in a similar direction: Proto-Austronesian seems to have been somewhat similar to the Formosan language Amis with respect to the existence of semantically distinct verb classes; it would not have exhibited the prototypical semantic alignment that is found in some daughter languages (cf. Klamer's chapter), then, but it would have had the semantic 'ingredients'. Similarly to Holton's study of Halmaheran, Vajda's study of Yeniseic shows how formal changes affecting verbal person markers can lead to the loss of semantic alignment.

The above observations on the rise of semantic alignment apply to the patientive subtype. The active-stative subtype is rarer and perhaps somewhat less well understood. Palancar suggested that the stative verbs in Otomí were modelled on certain participle-like forms, and a comparison of the agreement systems of the Arawak languages Kurripako and Baura described by Danielsen and Granadillo suggest that a differential treatment of the marking of subjects of verbal and nominal or adjectival predicates (as in Baure) could be the basis from which a semantic alignment system based on stativity (as in Kurripako) might develop.⁴ Both the Otomí and the Arawak case studies, then, suggest a scenario whereby the argument coding associated with an inherently stative part-of-speech (noun, participle, adjective) may spread to some intransitive verbs that have a stative meaning. This scenario may well apply to other cases of stative-active languages, although this remains to be seen.

We hope that, partly as a result of the materials and hypotheses presented in this volume, and partly as a result of the dissemination of new data from less well-known parts of the world, we shall soon have more discussion leading to the development of more complete theories of semantic alignment.

¹ I would like to acknowledge comments from my coeditor as well as from Andrej Malchokov.

² The model seems to have been arrived only partly by systematic reconstruction of individual morphemes using the comparative method and is thus somewhat more abstract and hypothetical than normal reconstructions.

³ A, S, and P are expressed in distinct ways (typically) when a referential P is involved, following a tripartite pattern, whereas (typically) non-referential Ps are indexed by means of the set of pronominals that also express an S involved in a ‘homogenous’ action (see below), following an accusative pattern.

⁴ Alternatively, Arawak may historically have had a more widespread split based on eventhood which is reflected in a reduced way in Baure.