# Ergativity in Amazonia

edited by

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# Manifestations of ergativity in Amazonia

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This book is the result of a three year project *Manifestations of Ergativity in Amazonia*, funded by the Centre National de la Recherche Scientifique (CNRS, France) as part of a programme of joint projects called *Programmes internationaux de coopération scientifique* (PICS). The *Ergativity* project was hosted at the Laboratório de Línguas Indígenas (LALI) of the University of Brazilia, directed by Prof. Aryon Rodrigues. The French collaborator was Francesc Queixalós, Centre d'Etudes des Langues Indigènes d'Amérique. The three annual workshops held during the project gathered colleagues from several countries, including Brazil, France, Peru, the United States, Australia, the Netherlands, and Spain, all but one working on first hand data from living Amazonian languages. The working papers of the project can be accessed at:[1] <http://celia.cnrs.fr/FichExt/Documents de travail/Ergativite/Introductions_ergativite.htm>.

In this introduction,[2] we first briefly define ergativity within the framework of alignment typology, which allows us to characterize the geographical and genetic distribution of main clause ergativity in Amazonia (§1). Next, we provide a brief overview of what we see as the major theoretical issues raised by the phenomenon of ergativity, especially as treated in this volume (§2), followed by a brief introduction to the papers in this volume (§3).

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**1.** Particularly recommended are the synthesis of published material on ergativity throughout the continent by Eva Monrós (2004).

**2.** This introduction has benefited from a substantial amount of cordial disagreement (only occasionally punctuated by epithets), as well as from comments by Katharina Haude, Pilar Valenzuela, Antoine Gillaume, and from some particularly stimulating observations by an anonymous reviewer. We thank them all for their contributions, and absolve them of all responsibility for mistakes in the final result.

### 1.    Distribution of ergative patterns in Amazonia

Ergativity is widely attested in the world, not just in Amazonia, but also in the far north and the center of North America, the Caucasus region of Europe, center and south-east Asia, north-east Siberia, Australia and the Pacific, not to mention the Atlantic end of the Pyrenees (Nichols 1992; Dixon 1994; Haspelmath *et al* eds 2008). However, a quick look at the areas of the world where ergativity is well attested shows that, in terms of published descriptions, Amazonia remains the least documented (Derbyshire and Pullum 1998, Moore 2007).

The definition of ergativity itself is not uncontroversial, especially when considered as an alignment type (cf. DeLancey 2004); in fact, more than one contribution to this volume discusses concerns with the definition. For the purposes of exposition, we adopt the simplest definition used by the authors in the *World Atlas of Language Structures* (*WALS*; Haspelmath *et al,* eds, 2008): The term alignment may be intuitively understood as reflecting how the two arguments of the transitive verb, the agentive argument (A) and the more patient-like argument (P), align with the sole argument of the intransitive verb (S).[3] Patterns that distinguish alignment include nominal case-marking, verbal person-marking, and order *vis-à-vis* the verb. Syntactic criteria commonly used include constituency of the VP, control of coreference with reflexive morphology, control of coreference with core arguments of a conjoined or subordinate clause, and derivational relationships between main clauses and passive, relative clauses, topicalization, etc. Once these grammatical properties are clear for S, A, and P we can ask how (or if) the properties of S **align** with those of either A or P.

The *accusative* type describes the situation where S and A pattern together (the nominative) in opposition to the P alone (the accusative). In contrast, the *ergative* type describes the situation where S and P pattern together (the absolutive) in opposition to the A alone (the ergative). When all three are treated distinctly, the resulting lack of alignment is called *tripartite*.[4] The label *noncanonical marking* (Aikhenvald, Dixon, and Onishi 2001) describes the situation in which either A or P (or both) present more than one grammatical pattern (e.g., dative-subject, locative-object, differential object marking, etc. – more on this in Section 2). Multiple labels have been proposed for the type in which some S are marked like A and

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**3.**    We discuss problems with these notational devices in §2. Much of the next two paragraphs is shared with Gildea and Castro Alves' contribution this volume.

**4.**    Some descriptions have used the term *ergative* whenever the A takes a unique case-marker, regardless of alignment between P and S, and similarly, the term *accusative* has sometimes been used to label a unique marker on P, regardless of alignment between S and A. When A or P bears a unique marker without a concomitant alignment of the other two, we use the term *tripartite*, reserving the terms *ergative* and *accusative* for the patterns with two arguments aligned against one.

other S like P: *Active-Stative, Active-Inactive, Agent-Patient, Split S, Semantic Alignment*, or our preferred label, *split intransitive*. These types are almost universally recognized in typological surveys and textbooks, e.g. Dixon (1979, 1994); Comrie (1989); Payne (1997); Givón (2001); Croft (2003); Creissels (2006); Dryer (2007); Bickel (in press), etc.[5]

Despite the relative lack of documentation, it is clear that ergative patterns seem to pervade the grammars of an unusually high number of languages in lowland South America. Monros (2004) surveys a range of ergative patterns in 25 South American langages, including 19 from four major families: Cariban [7], Panoan [6], Macro-Jê [4], and Tupían [2]. Each of these families contains additional languages with ergative patterns. She also surveys five languages from four small families (Tacanan [2], Arawán, Katukinan, and Yanomam), all of which might once have had many more members, and one isolate (Trumai). Moore (2007) estimates that as of 2000, less than 60% of the languages of Brazilian Amazonia had received even minimal descriptive attention; we confidently assert that the percentage is even lower in the Amazonian regions of neighboring countries. Given what we already know about these families, we conservatively estimate that we could double the number of languages in Monros' survey, and as more languages are described, it is safe to assume that the number of clearly attested cases of ergativity will continue to increase.[6] Several excellent grammars have come out in just the last 10 years documenting ergative patterns in Brazilian and Peruvian Amazonian languages, including Guirardello 1999 (Trumai), Meira 1999 (Tiriyó), Gabas 1999 (Karo), Galucio 2001 (Mekens), Fleck 2003 (Matses), Valenzuela 2003 (Shipibo-Konibo), Castro Alves 2004 (Apãniekrá Timbira), Oliveira 2005 (Apinajé), and Tavares 2005 (Wayana), three of these written by authors of chapters in the present volume.

Turning to more recent worldwide surveys, *WALS Online* (Haspelmath *et al.* eds, 2008) provides four different maps that identify ergative patterns, including in South America. Since WALS represents a survey, rather than an exhaustive

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**5.**    Our definition of ergativity specifically excludes *split intransitive/semantic alignment* and *hierarchical alignment* (in which alignment patterns are, at least in part, conditioned by the relative positions of core arguments on a deictic/animacy/definiteness/topicality hierarchy). cf. § 2 for further discussion.

**6.**    And as pointed out by Pilar Valenzuela in personal communication, given the number of isolates and small language families that still lack an adequate first description, it is likely that additional new and surprising patterns will be attested as descriptive work expands to include them. For example, in recent work with Kawpanan language Shiwilu (Jebero), Valenzuela (2008) identifies a pragmatic ergative clitic =*ler*, which is occurs on the A argument, leaving both S and P unmarked, but is also unusual (at least for South America) because it is not obligatory in any clause type, but is rather utilized only in certain pragmatic situations.

inventory, it naturally under-reports the number of South American languages presenting ergative patterns; from our own knowledge of the literature of the region (including especially the summary in Monros 2004), we can easily multiply the numbers for each map. Map 62, *Action Nominals*, shows 21 ergative patterns in 168 languages sampled worldwide; of these, six are in South America, all from the Cariban family. Such patterns are characteristic of 19 modern Cariban languages (Gildea 1998), over 20 Tupí-Guaraní/an languages (Jensen 1998) as well as all five Northern Jê languages (Castro Alves in press), so this number rises to at least 44 without even counting languages from the other nine families of the Tupían Stock, nor any of the smaller families or isolates that share this pattern. Map 98, *Alignment of Case Marking of Full Noun Phrases*, shows 32 ergative patterns in 190 languages sampled; of these, seven are in South America, six representing language families with one or more additional examples (the number in these six families would add up to at least 20). Beyond the families mentioned in this WALS map, the Cariban family offers another five (Gildea 1998), Northern Jê another three (Castro Alves in press) and Tupían at least another two (Karo and Makens, cf. Gabas 1999 and Galucio 2001, respectively). Thus, the number of documented cases increases to 30 without even counting languages from small families and isolates. Map 99, *Alignment of Case Marking of Pronouns*, shows 20 ergative patterns in 172 languages sampled; of these, 5 are in South America (removing 2 from the list for ergative case-marking of full NPs). Most ergative splits in South America do not involve the NP hierarchy (exceptions include several Panoan languages), so the number of systems with ergative case-marked pronouns will be at least 20 before counting small families. Finally, Map 100, *Alignment of Verbal Person Marking*, identifies only 19 ergative patterns out of 380 languages surveyed; of these, more than one third (7) are in South America. Again, these languages represent six families, each of which contains other languages with ergative (or more precisely, absolutive) verbal person-marking. The two Cariban languages could be expanded to seven, the one northern Jê language to five, the one Tacanan language to five, and the one Tupían language to four, raising the number to 21 in just these four families, again not counting smaller and less-described families.

WALS does not provide maps for ergative syntactic properties, such as word order (e.g. the Abs V Erg order attested in Trumai and several Cariban languages), constituency (e.g. the [Abs V] verb phrase attested in Trumai, Cariban, and Jê languages, or the [Erg V] verb phrase attested in Katukina-Kanamari), or syntactic properties associated with "deep" ergative languages, such as absolutive coreference pivots (Katukina-Kanamari, Yanomami), absolutive-to-absolutive raising (Trumai, Katukina-Kanamari), and others.

As might be expected, given the ubiquity of ergative patterns,[7] the topic of ergativity has attracted the attention of scholars in the region for a number of years. Urban (1985.187) famously predicted that languages of the region could serve as a "laboratory for the study of ergativity", a theme echoed in Dixon (1994) and Dixon and Aikhenvald (1999). It is not easy to find typological information in the descriptive literature from Amazonia: it is somewhat chaotic and is coined in a variety of theoretical and terminological formats, some of which elaborate formal paraphernalia while sacrificing clarity in exposition of data. Ergativity is sometimes not noticed, and when it is, the focus of attention is its more visible facet, morphology. As the community of Amazonian descriptive linguists continues to grow, both in numbers and in linguistic sophistication, it has become clear that the clause structures attested in Amazonia may make a significant contribution to typology. As scholars interested in identifying how the languages spoken in Amazonia could contribute to the general typology of clause structure, for us, the topic of ergativity was a natural selection. Given the limited resources available to us in comparison to the large number of languages presenting ergative patterns, we originally selected colleagues who we knew had been involved in extensive fieldwork on their respective languages (and/or languages families) and who have taken their descriptive work beyond the common (at least in South America) reliance on elicitation of translated sentences by working with recorded discourse data.

Before discussing the typological relevance of the contributions to this volume, we turn to the problem of defining ergativity as a theoretical concept, and the related problem of identifying an ergative pattern in any given language.

## 2.   Theoretical issues of ergativity

### 2.1    Definition of ergativity

Over the years, the standard definition of ergativity has depended on labels for the two arguments of the transitive verb that can then be aligned with the single argument of the intransitive verb. Initial definitions considered ergativity to be any pattern that treats the object of a transitive verb in the same manner as the subject

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7.    Note that we are not evoking here the notion of "Ubiquitous Ergativity", which is named in Bruno *et al* (2008), Queixalós (to appear). *Ubiquitous Ergativity* refers to a number of phenomena, originally noted by Keenan 1984, that create patterns of alignment (not at the core of simple basic clause structure) between P and S. Two examples would be that generally only S and P can be incorporated into the verb, and that frequently number of S/P is indicated by suppletive or reduplicated verb forms. Such patterns are not of interest here precisely because they are widespread in languages of the world regardless of basic alignment patterns.

of an intransitive verb, reserving a unique grammatical treatment for the subject of the transitive verb (Anderson 1976, 1977; Comrie 1978; Plank ed. 1979 *inter alia*; Givón 1984, 2001; Bickel in press, etc.). It has not escaped the attention of theoreticians that this definition carries within it certain problematic assumptions (Melčuk 1988, Manning 1996, Guirardello this volume, Queixalós this volume), especially that the grammatical relation of subject is (by definition) a theoretical universal, which entails that it must also be universally identifiable in the grammar of any language *via* more or less robust morphosyntactic patterns. In order to leave the putative universality of subject as an empirically testable hypothesis, we must find some other definition by which to characterize ergativity in theory, and thus to identify ergative patterns in natural languages.

Various typologists have attempted to get around these presuppositions by adducing an intermediate level of structure. Thus, Dixon (1972, 1979, 1994) proposes the "semantico-syntactic primitives" S, A and O, and Comrie (1978) proposes S, A, and P. As an expository tool, this intermediate level of structure allows for a simple (even elegant) way to represent most attested non-accusative alignment types.[8] Due to their expository usefulness, S, A and P/O have become quite widely used in both typology and description, including in many of the contributions to this volume. However Dixon's 1979/1994 arguments for the theoretical importance of such an intermediate level of structure have been less than convincing (cf. DuBois 1985, Mithun and Chafe 1999, Queixalós 2004, DeLancey 2004, Donohue and Wichmann (eds) 2008 *inter alia*, Haig 2009). The single most compelling argument against this position is that fact that all three categories can receive "split" grammatical treatment: the opposition of active/agentive S and inactive/patientive S is widely attested in split intransitivity, contrasts between nominative and dative A are also widespread and locative/contact objects frequently receive grammatical treatment distinct from patient objects. Obviously, it is problematic for such "primes" to be so readily divisible in the very sorts of data they purport to model and/or explain.

Concern with such splits in A and P has led some (e.g. Andrews 2007) to adopt what Haig (2009) calls a "restrictive view" of transitivity, which then leads to a more restrictive definition of A and P/O. For example, in order to provide formal structure with a more coherent role in defining this intermediate level of structure, Gildea (1998.32) defines A and O in a language-specific way, as the two core arguments found with prototypical transitive verbs (e.g. 'break, kill'). Then to the extent that other two-participant verbs in the same language – regardless of semantics – present the same argument structure as core transitives, the

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**8.**   Excepting only inverse alignment (cf. Gildea 1994, Zúñiga 2006), also closely associated with hierarchical alignment (Nichols 1996).

arguments of such verbs are considered to be A and O also. Such a definition rescues the operational coherence of A and O/P, but at the cost of excluding all noncanonical arguments from consideration,[9] which, as pointed out by Haig 2009, reduces "the domain of alignment generalizations within any given language. In doing so, we abandon conventional alignment typology as a global typology characterizing an entire language." Haig goes on to argue that, in particular, clauses in which one argument is an experiencer NP in an affective construction are better characterized as "extra-transitive", distinct from prototypical agent-patient transitive clauses. He concludes, "Extending conventional alignment typology and the categories of S, A and P to the extra-transitive domain is questionable." While this more restrictive definition of A and P might allow us to avoid splitting them, and thereby potentially rescue their coherence as primes, it is beyond the scope of this work to further explore the theoretical implication of A, S and P – for now, we merely welcome their expository convenience while joining the skeptics in doubting the theoretical validity (or cognitive reality) of such a level of structure.[10]

A different approach to identifying ergative patterns has been to start with semantic roles. This is problematic first because clear definitions of semantic roles are not universally agreed-upon (cf. DeLancey 2003 for a review). It is problematic second because even if everyone were to agree on a single set of semantic roles and their definitions, case-marking patterns do not correspond neatly to semantic roles in either the nominative-accusative or the ergative-absolutive types. For example, the single core argument of an intransitive verb might be an agent, a patient/theme, or a dative/experiencer, and the two core arguments of a transitive verb might be the ubiquitous agent and patient, but they might also be an agent and a location (cf. Fillmore 1970) or an experiencer and a stimulus (cf. DeLancey 2003).

In an attempt to semantically unify these heterogeneous roles, some theoreticians and typologists have proposed superordinate, or "macro-roles", like the aspectually defined Actor and Undergoer of RRG (van Valin and LaPolla 1997), the semantically-defined S, A and P of Radical Construction Grammar (Croft 2001)

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9.   Something not at issue in the data treated by Gildea 1998.

10.   An anonymous reviewer suggests that critiques of the theoretical standing of these notions seems almost superfluous, given that in the work of most typologists, S, A, and O/P serve merely as an abstract starting point for the discussion of non-nominative grammatical patterns. While we hope that this is true for most typologists, we do not see a similar sophistication in their use in descriptive work, where they often are introduced with a simple citation to Dixon, then used without question to stand in for semantic roles, grammatical relations, or whatever is most convenient at the moment of exposition. This is especially problematic for non-canonical argument structures.

or the schematically defined Agent, Theme and Loc of DeLancey's (2003) localist theory of case. Under these models, ergativity would be defined as a pattern that provides a unified treatment to the S/single argument of an intransitive verb and the P/Undergoer/Theme of a transitive verb, in contrast to the treatment of the A/Actor/Agent of a transitive verb.[11] In the end, this definition of ergativity is also unsatisfactory, in that we are forced to adopt a specific model of case before we can even identify the phenomenon in individual languages; we presume that these theoretical models will be superseded in time by newer models that may make different assumptions about the nature of meaning and the relationship between meaning and morphosyntax.

In our view, both the morphosyntactic definition and the semantic definition of ergativity are problematic due to their reliance, whether implicit or explicit, on the grammatical and semantic categories of European languages like English. In the absence of clear morphosyntactic criteria to identify them in individual languages, in practice A and P/O are identifiable as whatever would translate as the transitive subject and object in English. Similarly, semantic definitions are forced to assume translational equivalence into the language of exposition, which then implicitly imports the semantic roles of the translational equivalents into the practical identification of an ergative pattern. In sum, it is not possible even to define the object of study in this volume without either adopting a problematic definition from the literature or proposing a new theory of grammatical relations and alignment typology. We are not prepared to do the latter here (but see Queixalós' contribution to this volume for further discussion). So for now we adopt the theoretically problematic but heuristically useful practice of relying on intuitive-impressionistic identifications of A and P.

This brings us to the question of whether to include split intransitive systems or hierarchical systems in the domain of ergativity. Because a subset of intransitive verbs take a single argument that patterns with the P/O/patient of transitive clauses, Dixon (1979/1994) explicitly calls such systems "verb-based split ergativity". Similarly, Dixon (1994.88) approvingly quotes Derbyshire's (1987) characterization of hierarchical agreement as "split ergative". In a hierarchical agreement system, the transitive verb cross references (whether as agreement or pronominal affixes) whichever of the two arguments is higher on a personal hierarchy – when the higher argument is the agent, this cross-referencing aligns with cross-referencing to the unique argument of the intransitive verb to form a nominative pattern;

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**11.** Non-canonically-marked arguments of two-place verbs would then presumably follow from semantic properties of those arguments (whether because of their semantic role in the predicate, as in the case of dative subjects and locative objects, or because of their pragmatic or inherent semantic properties, as in the case of DOM).

when the higher argument is the patient, the result is an absolutive cross-referencing pattern. In both cases, we are dealing with clause types that trivially contain an absolutive pattern, but in both cases we agree with typologists who see these patterns not as subtypes of ergativity, but as subtypes of distinct phenomena (semantically-based case-marking in the case of split intransitivity and inverse systems in the case of hierarchical alignment).[12] Note that were we to treat these patterns as subtypes of ergativity, we would add to our earlier lists of ergative agreement languages most of the Arawakan family (Split-intransitive word order and verbal clitics), most of the Cariban family (hierarchical verb agreement) and all of the Tupí-Guaranían family (hierarchical verb agreement).

Having attempted to explain what we refer to as Ergativity in this volume, we now turn to contemporary theoretical concerns regarding grammatical systems, one grounded in sychronic structural analysis, the other in the diachronic dimension.

## 2.2    Ergativity and grammatical relations

The core of clause structure is the relation between the predicate and its arguments; the history of our understanding of grammatical relations largely equates subject with nominative (S = A) and object with accusative (P different). As a result, when we encounter an ergative construction, our theories (and to a lesser extent, our typologies) seem to consider the relational structure to be in some way a distorted surface realization of an underlying, or "deep" nominative-accusative system. This distortion is seen in the disjunct terminology often used to define an ergative pattern: the *subject* of intransitive has the same properties as the *object* of transitive, whereas the subject of transitive has different properties. An earlier generation of linguists (among them Pott, Schuchardt, and Uhlenbeck) addressed this asymmetry by assuming that the ergative was merely an obligatory passive; even much later, and more abstract, analyses (e.g. Hale 1983) proposed an obligatory passive transformation. By such analyses, apparently transitive clauses actually contain a derived intransitive predicate whose sole core argument, the subject, is the patient of the transitive verb (cf. Anderson 1976 for discussion).[13] Modern typology has largely set aside such analyses but nonetheless a critical examination of the asymmetry between ergative patterns and (inherently nominative-accusative) grammatical relations raises the whole issue of how we define grammatical relations.

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**12.**    Since we could call either a subtype of accusativity as well, to call either a subtype of ergativity means that we implicitly choose ergativity as the marked (naming) category, which is a strong claim about grammar that some make explicit.

**13.**    Quite different, but still passive-centric, are claims about the passive as a universal *diachronic* source of ergative (Estival & Myhill 1988, convincingly refuted in Dixon 1994, Gildea 1998).

This is particularly true in how we identify the different layers where argument structure settles into patterns (formal behavior, coreference control, constituency, semantic roles, pragmatic hierarchy of referents, semantic hierarchy of referents), and what theoretical importance we assign to each different layer of patterns.

The asymmetry embodied in this definition of ergativity pushes us towards one of two opposed positions in the relativist/universalist dichotomy. The relativist position holds that grammatical relations are not universal notions, and therefore may be different in different alignment systems. In this case, universalist notions like "subject" and "object" are not appropriately used to describe the ergative pattern.[14] From this more relativistic perspective, the terms "absolutive" and "ergative" may have as their scope not only determination of formal coding properties (e.g. case, agreement, and word order), but potentially also the level of grammatical relations (cf. Guirardello's preferred analysis of GRs in Trumai in this volume; Dryer 1997 also proffers a strong argument for this position). The other position holds that grammatical relations remain the same cross-linguistically, embodying a higher (or deeper) level of formal coding. Here, as well, a dichotomy exists: for most, the subject is universally the agent/topic, and as such the ergative pattern is an odd quirk of surface coding – a quirk that of course ultimately requires an explanation, but one that does not have deeper significance for our understanding of grammatical relations (e.g., from very different perspectives, Anderson 1976, 1977, Dixon 1979, 1994, Givón 1997, 2001, and Guirardello's first alternative analysis for Trumai GRs).

But a few admit the possibility of variation in the mapping of semantic roles onto the formal manifestation of arguments. From this perspective, one first defines the arguments by basic coding properties like case-marking, agreement and word order, and ideally also by behavior and control properties. From this perspective, the notions of "subject" and "object" apply accurately wherever a syntactic asymmetry obtains between the two co-arguments of a transitive clause, regardless of the semantic roles that map to each formal argument, and it thus becomes possible to imagine constructions in which the patient of a transitive clause systematically maps to the subject relation and the agent to the object relation (cf. Queixalós' analysis of Katukina in this volume; antecedents of this view include Marantz 1984, Mel'cuk 1988, and Manning 1996).

Until this point, we have been discussing alignment patterns as they pertain to constructions; it is a separate question whether such patterns can be taken as characterizing entire languages. Certainly many have postulated that grammatical relations are consistent throughout a given language, but obviously, alignment splits exist at the level of construction, or clause type. Another significant asymmetry

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14.   Nor the split intransitive or inverse/hierarchical alignment patterns.

between accusative and ergative alignment is that consistent accusative languages ("ubiquitous ergativity" aside) are not only possible, but they are relatively common. In contrast, most languages that contain ergative patterns present them in only a subset of constructions, alongside other constructions that present other (primarily accusative) patterns. Further, even in constructions that present an ergative coding pattern (typically case-marking), it is not uncommon for another alignment coding pattern to co-occur *in the same construction* (typically nominative-accusative word order and/or nominative-accusative or hierarchical agreement).

In addition, ergative patterns may also become an issue at the interface between grammar and cognition. There appears to be a real asymmetry in the human mind such that, when other aspects of information structure are held constant, in processing a scene where one participant causes a change in the conditions of existence of another participant, the mind is automatically drawn to privilege the agent. We briefly summarize three steps in understanding this phenomenon: first, an elaboration of the internal structure of the attention system in human cognition; second, both theoretical arguments for and empirical experimental tests of the role of attention in grammar; third, studies of endogenous factors that orient attention in human cognition.

Over the last 30 years, the discipline of cognitive psychology has made dramatic advances in the study of the attentional system, first independently of language (e.g. Posner and Snyder 1975; Posner 1980, 1988; Posner and Peterson 1990, Posner and Rothbart 2007). As described in Tomlin and Villa (1994), the system consists of general *alertness* (readiness to deal with incoming data), *orientation of attention* (a bias towards detecting particular kinds of stimuli), and *attentional detection*[15] (the process that selects or registers a particular stimulus in working memory). All three of these components of the attention system may be conscious or subconscious (that is, may or may not be processed via the mechanism of executive attention).

From this more sophisticated understanding of attention came a series of studies that demonstrated how attentional detection could be an independent variable that conditions the dependent variable of selection of grammatical subject in English and a range of other languages (Tomlin 1995, 1997; Rasolofo 2006; Myachykov and Tomlin 2008; for replication of experimental finding accompanied by a critical review of the theoretical interpretation of these findings, cf. Diderichsen 2001; for a positive review of this experimental paradigm,

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**15.**   Also called also called *focus of attention*, e.g. in Tomlin 1995; we prefer to avoid this term due to potential ambiguity with the independent (and probably unrelated) notion of *focus* as developed in the long-standing linguistics literature on, e.g., topic-focus information structure, contrastive focus, focal intonation, etc.

cf. DeLancey 2003, lecture 9). These studies showed that by exogenously manipulating the attention of speakers (that is, by introducing a visual stimulus to cue speaker attention) towards either agent or patient of an event, an experimenter could essentially force speakers to produce either active clauses (cued agent > subject) or passive clauses (cued patient > subject) in accusative languages (English, Japanese, Malagassy, and another 15).[16] Alongside this experimental paradigm, additional studies have expanded on the role of attention in grammar (Henderson and Ferreira 2004; Myachykov and Posner 2005; Myachykov, Tomlin, and Posner 2005; Myachykov, Posner, and Tomlin 2007).

Turning now to the third step of our explanation for cognitive bias towards agent, consider the role in the attention system of orientation of attention. Of course, it is possible to condition an exogenous bias towards certain categories of stimuli, e.g., in many children's games, people are taught to seek a particular shape of stimulus, such as a Volkswagen Beetle in the game "slugbug", or a particular character in any number of picture books that ask the reader to find that particular character in the midst of many distractor shapes. Once the attention orientation is trained, these stimuli will be more easily detected, increasing the statistical frequency with which they will be detected in preference to counterpart stimuli that have not received comparable exogenous orientation of attention.

But there is also a set of endogenous biases that orient attention, for example, our nervous systems are predisposed to attend to stimuli that move in preference to stationary stimuli, to flashing or brightly-colored stimuli in preference to stimuli of either drab or unchanging color, etc. (Posner 1980, Posner and Peterson 1990) We could imagine many variables that distinguish between the prototypical agent and the prototypical patient such that they might bias the orientation of attention towards the agent, but it is perhaps already sufficient to note that with a high statistical frequency, the agent of any event will show more independent motion than the patient, and will therefore receive the cognitive benefit of endogenous orientation of attention. That orientation will increase the statistical likelihood that the agent will be attentionally detected, thereby creating an accusative bias in *cognition* that helps to motivate the robust accusative bias that we observe in *linguistic structure*.[17]

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**16.**    Unfortunately, none of the languages listed in Tomlin 1997 contains a main clause ergative pattern, and no results were obtained in two attempts to use the experiment by authors of this volume (Gildea with Akawaio and Valenzuela with Shipibo-Konibo).

**17.**    We do not discuss the semantic role of the single argument of intransitive verbs because the selection of an intransitive verb logically follows from the selection of the attentionally detected participant (cf. DeLancey's 2003 *Starting Point*). As such, the S is already assured of the grammatical treatment associated with attentional detection, leaving agentivity to be relevant only in

One possible explanation for the statistical prevalence of accusative grammatical patterns is that the grammar of languages somehow directly reflects this asymmetry by predisposing the brains of children to privilege argument alignments on an accusative or semantic basis.[18] While speculative in its current form, if this hypothesis were to be sustained, then ergative patterns should be seen as highly marked (cf. Pye 1990), and additionally, they should be (at least statistically) more unstable diachronically. This diachronic instability would then lead to the relative scarcity of such morphosyntactic patterning, as languages gradually make their way to other types of argument alignments, mainly accusative. This would explain why ergative alignment patterns are a statistical minority (e.g. in the WALS databases), and also why homogenously ergative languages (that is, languages with ergative patterns in both morphology and syntax) are a tiny minority within this minority.[19]

## 2.3    Ergativity and diachrony

If it is true that the human mind is cognitively biased towards privileging the agent of transitive clauses, and that this is reflected in both the creation and diachronic stability of alignment patterns, then we should expect to see some asymmetry in the creation of ergative patterns as opposed to other alignment patterns that code the agent of transitive the same as the sole argument of intransitive. This is a complicated question, involving both diachronic pathways and diachronic mechanisms of change; for this brief introduction, we limit ourselves to the re-accusativization pathway. We posit that languages gain main clause ergative patterns through reanalysis of biclausal constructions (especially nominalizations) and marked voice constructions (especially passives); the earliest stages after reanalysis are those most likely to present ergative syntactic patterns, especially absolutive pivots and control of coreference morphology (like reflexive possessive morphemes). These constructions then drift towards accusativity, losing ergative patterns and establishing accusative patterns one by one, beginning with syntax and later arriving at morphology, until the construction no longer contains any ergative pattern at all (an idea inspired by work like Givón 1980, Estival and Myhill 1988, Gildea 1997).[20]

determining which participant of bi- and trivalent verbs will preferentially receive the grammatical treatment associated with attentional detection.

**18.**    Although note that Goldin-Meadow's (2003) experiments appear to show the opposite bias. (cf. Queixalós' contribution to this volume for more discussion.)

**19.**    This would make investigations into the origins of ergativity more interesting, cf. the next section.

**20.**    An anonymous reviewer asks why we do not join Dixon (1994) and Traugott and Hopper (2003) in endorsing DuBois' (1987) claim that Preferred Argument Structure provides a discourse motivation for the diachronic evolution of ergative grammatical patterns. While this is a

There are three methods by which we might identify such an accusativization path, one based on examination of historical records, the others comparing patterns observed in synchronic languages. Of course, when a written form of language is available across a large span of time, as is the case for the Indo-Iranian group of languages, we have a direct view on both the directionality and pathways of change (cf. Haig 2008). For languages without a record of attested change, we must reconstruct. Comparative reconstruction can depart from the synchronic grammars of genetically related languages or dialects, comparing cognate constructions in which we might observe subtle differences in alignment patterns; these differences would then be evidence for changes. The directionality of changes must ultimately be determined by (a) extrapolation from attested directions of change and (b) an understanding of the mechanisms of change (cf. Gildea 1998, ch. 3). While it is substantially more speculative, the typological method is also a possible tool for proposing pathways of change: we might put the different splits encountered cross-linguistically into an implicational perspective (*a la* Greenberg): given a language, if feature X (e.g. nominal case-marking) aligns accusatively then feature Y (e.g. coreference pivots) also aligns accusatively. (Or conversely, if feature Y aligns ergatively, then feature X aligns ergatively). To the extent that such hierarchies are statistically reliable, they must be taken to reflect the outcomes of statistically more frequent historical changes: feature Y must more frequently lose its ergative pattern before feature X. This diachronic hypothesis would then provide an evolutionary explanation for the synchronic inconsistency of ergative patterns.

In several South American families and isolates, there is growing evidence for the creation of "deep" ergative main clause constructions via the reanalysis of nominalizations. As mentioned in §1, many South American languages show an ergative organization to action nominalizations. In the Cariban (Gildea 1994, 1998; Derbyshire 1994, 1999), Tupían (Derbyshire 1994; Jensen 1998; Rodrigues & Cabral 2004), and Jê (Castro Alves in press, Salanova 2008) families, plus the isolate Trumai (Guirardello 1999), there is solid evidence for reconstructing action nominalizations with the following structure: the verb bears nominalizing morphology (Cariban, Tupían, Jê) or is identified simply by the absence of finite inflectional morphology (Cariban, Trumai); the verb is inalienably possessed by the notional absolutive; the notional ergative is an (optional) adjunct in a postpositional phrase. In Katukina (Queixalós this volume), the nominalization is only possessed if it is transitive, and then it is possessed by the ergative. In Movima (Haude this volume), transitive verbs can be considered patient nominalizations

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logical possibility, it lacks a mechanism by which to create the grammar that it motivates and we consider it speculative in the absence of either an attested case or a plausible reconstruction in which PAS creates a main clause ergative alignment system.

possessed by the agent (direct) or agent nominalizations possessed by the patient (inverse), and intransitive as unpossessed nominalizations. Although they are instantiated differently, each of these relational patterns either establishes a clear ergative pattern already, or else sets the stage for the creation of an ergative pattern when embedded in a complex main clause construction (e.g. the creation of a passive from a stative participle in a predicate nominal clause).

The grammaticalization literature is replete with examples of complement-taking matrix verbs that become conventionalized as auxiliaries, leaving a formerly nonfinite verb form to be the new main verb. Often, that matrix verb is the copula (whether locative or equative), whose subject is either a pleonastic (dummy) or is coreferential with one of the core participants of the embedded clause. In most of the cases in South America where ergatively-organized nominalizations become the nucleus of a main clause predicate, this is the structure that is implicated. In languages with no copula for simple present tense predicate nominal and locative clauses, the nominalized verb (and its arguments) may become the nucleus of a main clause with no need for an auxiliary. Such sentences often translate as pragmatically-marked phrasing for the event described in the nominalized clause, e.g. a passive/resultative (*This beer is a made one by her*; *this beer is a finished one*), cleft-like construction (*She is the maker of this beer*, i.e., *the one who made this beer*; *This beer is her makee*, i.e., *the one she has made*), a hedge (*It's like the making of the beer by her*; *It's like his going*), or a factive (*That was his going*, i.e., *so it was that he went*; *That was the beer's drinking by him*, i.e., *so it was that he drank the beer*). When these complex clauses are over-used, become pragmatically unmarked, and eventually are reanalyzed as straightforward monoclausal constructions, the result is the introduction of the nominalization patterns of ergativity into main clauses.

In terms of argument structure, the biclausal construction may simply make no changes to the ergative patterns in the action nominalization, in which case a pre-existing ergative pattern simply "surfaces" into main clauses. For example, in the hedge and factive illustrations just given, the absolutive possessor of the action nominal becomes an absolutive dependent argument internal to the VP and the agent adjunct phrase becomes the case-marked ergative, both without reference to the pleonastic subject of the matrix clause. In terms of control and behavior properties, they would be expected to hold for the matrix clause subject, but as this is merely a pleonastic reference to the event, it will have no functional need to control coreference with arguments in conjoined clauses, or relative clauses, or possessive morphology. As such, upon reanalysis, syntactic properties such as control of coreference should quickly shift to the primary topic (or attentionally detected participant) of the reanalyzed clause. Even in the absence of any morphological nominative pattern, this shift appears to always single out the nominative argument

(cf. DuBois 1987, Estival and Myhill 1988, Givón 1994, 1997). This appears to be the source of main clause ergative patterns in the Cariban and Jê families, as well as in Trumai (Gildea 2008); in these constructions, main clause ergative morphology and phrase structure did not entail other ergative syntax, such as coreference pivots, and therefore the step to nominative pivots did not entail first losing an absolutive pivot.

Another possibility is that the biclausal source construction contains an absolutive pivot, that is, the subject of the copula is coreferential with the absolutive argument inside the nominalization. For example, in the passive/resultative and a subset of the cleft constructions, the external subject is a grammatical instantiation of the absolutive of the nominalized clause. In this case, after reanalysis, all the properties of subject will belong to the absolutive, meaning that the shift to nominative control of coreference entails that the agent must wrest that control from the patient. Two interesting empirical questions about these shifts present themselves. First, is there a consistent sequence in which such properties shift from the patient to the agent? For example, does the interclausal coreference pivot consistently switch before or after, say, control of coreference with reflexive possession morphology? Second, what steps might such a shift go through? For example, do examples of agent control simply begin to appear alongside patient control, then become more frequent until patient control disappears, or is there a transitional stage during which interclausal coreference is pragmatically determined, not limited to agent and patient?[21]

Interestingly, in this scenario, the reanalysis and subsequent adjustments of control would not be expected to have any effect on other derived constructions that affect argument structure, such as incorporation, applicatives and causation – these derived forms would presumably appear in the innovative constructions exactly as they formerly appeared in the source construction. These are often listed as behavior properties in arguing for the status of grammatical relations, alongside extraction constructions like relative clauses, information questions, and focus/topicalization constructions. Since extraction constructions are often already biclausal, it is not clear to what extent the reanalysis of nominalizations has any repercussions on their structures, and thus whether they would undergo any comparable shift from ergative to accusative patterning or vice versa.

Thus, we can see a range of interesting empirical questions about the nature of alignment change as it relates to ergative patterns, and given the density and

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21.  Thanks to Denny Moore (pc) for proposing the former scenario in a specific case where Gildea was arguing for the latter. Note also that, as Haig argues (2008, 2009), it is possible that the oblique agent phrase already had more subject properties than expected in the "passive" constructions that served as sources for main clause ergative constructions in the Indic and Iranian families.

diversity of ergative patterns in South America, we submit that data from South American languages should play a central role in answering these questions. Given the paucity of grammatical descriptions from preceding centuries, there is no immediate prospect of observing attested change in these ergative constructions in South American languages. Thus, what is needed are more – and more detailed – descriptions of ergative patterns in synchronic languages. This would then allow both the comparative reconstruction of ergative patterns within individual families, as well as further expanding the typological database in search of consistent hierarchies of such patterns.

This volume is a first answer to that need: a series of detailed studies of ergative patterns in a series of languages from the least documented area of South America, some with explicit discussion of theoretical implications, others with explicit discussion of diachronic implications, a few with both. In §3, we provide a brief overview of these contributions.

## 3.  Overview of this volume

This volume presents 8 more papers, based on primary data from 16 languages of lowland South America, two of which are isolates, with the remainder belonging to the Panoan (6), Jê (3), Cariban (3), Tacanan (1), and Katukinan (1) language families.[22] The papers all provide description of details of the synchronic systems, and several also provide diachronic insight into the evolution of these systems. The first five papers comprise Part I, which focuses on languages that limit their ergative patterns primarily to morphology; the remaining three papers consider languages that present ergative patterns in the syntax as well.

### Part 1. Well-Established Systems: Morphological Ergativity

The **Panoan and Tacanan families** are spoken in lowland Peru and Bolivia, and in western Brazil; these two language families, which are possibly genetically related, are known for ergative case-marking on nouns and (in some cases) pronouns, but almost no syntactically ergative patterns.

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**22.**  The informed reader may be surprised that two major language families of Amazonia are not represented in this volume: Arawakan and Tupían. Since we do not consider split intransitivity to be an ergative pattern, the Arawakan family presents little of interest for this volume. In contrast, the Tupían Stock presents a number of examples of ergative patterns in both subordinate clauses (the Tupí-Guaranían family) and main clauses (in other Tupían families), and our failure to secure one or more papers on the Tupían family represents a serious gap in our coverage of the region.

**David Fleck: Ergativity in the Mayoruna Branch of the Panoan Family.** Languages of the Mayoruna branch are spoken in (north)eastern Peru and adjoining areas of Brazil; prior comparative treatments of the Panoan family have had little access to data from the Mayoruna Branch of the family. Fleck's contribution is based on a combination of original fieldwork with all the surviving languages of the branch, plus archival research on earlier descriptions of apparently extinct Mayoruna languages. Fleck describes the ergative alignment patterns in the extant languages of the Mayoruna branch: Matses, Matis, Kulina, Dëmushbo, and Chankuëshbo/Korubo. The patterns that emerge from this comparative study suggest that the Mayoruna languages, particularly Matses, are in the process of developing more uniform ergatively-aligned morphology. The alignment patterns in these languages vary in several details, but overall were found to be much more similar to each other than they are to other Panoan languages, thereby supporting the hypothesis that the languages in the Mayoruna branch compose a linguistic subfamily.

**Pilar Valenzuela: Ergativity in Shipibo-Konibo.** Shipibo-Konibo is spoken in eastern Peru, especially on the banks of the Ucayali River; it is the language spoken by the most populous group in the Panoan language family. Valenzuela describes the consistent morphological ergative pattern found in nominal case-marking and the syntactic ergativity found in internally headed relative clauses. She also describes numerous non-ergative patterns found in morphology and syntax: case-marking on emphatic pronouns, progressive clauses, doubled pronouns, plural marking on the verb, tripartite participant agreement on adjuncts, and same-subject/different-subject constructions.

**Antoine Guillaume: How ergative is Cavineña?** Cavineña belongs to the Tacanan family, about which little typological information is known; it is probably most closely related to the Panoan language family, and so it is not surprising to find pervasive morphological ergativity in Cavineña. Guillaume offers a clear description of morphological ergativity, including case-marking and a system of pronominal enclitics in second position in the clause. Prior analyses of Cavineña argument structure have mistakenly described it as having a complex split system with multiple factors needed in order to predict the form of a particular pronoun (difference between main and subordinate clause, mood/polarity of the clause, constituent order and person hierarchy). Here Guillaume shows that the so-called split is restricted to the pronominal clitics and that it has a morpho-phonological basis rather than a morphosyntactic one. In contrast to the consistent morphological ergativity, syntactic patterns are either neutral with respect to pivot or operate on a nominative-accusative basis.

The **Cariban family** is spoken in northern South America, throughout Venezuela and the three Guianas, across northern Brazil, with eastern outliers in Colombia

and southern outliers in central Brazil. The family is known for morphological ergativity in a range of constructions, including some unusual ergative splits.

**Bruna Franchetto: The Ergativity Effect in Kuikuro (Southern Carib, Brazil).** Kuikúro is among the southernmost of the languages in the family, and one of two that presents almost exclusively ergative morphological patterns. In this paper, Franchetto presents a clear description, based on both elicitation and extensive text data, of the morphosyntactic dimensions of ergativity. Case-marking, verbal cross-referencing and VP constituency follow an absolutive pattern, but the only syntactic subject property in Kuikuro, control of coreference with the third person reflexive possessive prefix, identifies S and A as the subject. In addition, the morphosyntax of verbal clauses is virtually identical to the morphosyntax of possessed nouns (including cognate morphology); Franchetto identifies a second-position element found primarily in texts that (minimally) contains a demonstrative pronoun and the copula, which certainly played an important role in allowing etymological nominalizations to appear as main clause verbs. She additionally explores the range of uses of the ergative suffix/postposition, concluding that a range of oblique uses can be clearly distinguished from its use to mark the agentive core argument of a transitive verb. Finally, she explores some proposals within the generative literature for modeling the parallels between main clauses and nominalizations.

The entire **Jê family** is spoken in central Brazil, and presents split intransitivity and multiple ergative splits, as well as multiple classes of non-canonically marked core arguments for semantic subsets of verbs. We have one paper that combines Jê and Cariban.

**Spike Gildea and Flávia Castro Alves: Nominative-Absolutive: Counter-Universal Split Ergativity in Jê and Cariban.** This paper is a combination of original description from some languages and a reanalysis of previously published descriptions in a comparative and typological framework. Nominative-absolutive alignment is a form of split-ergativity in two ways. The first split is internal to the clause type, which presents both nominative and absolutive morphological patterns with no corresponding accusative or ergative patterns: most present no nominal case-marking (although in two, free pronouns can be used only for nominative arguments); where there is auxiliary agreement, it is always with the nominative; absolutive pronominal enclitics mark the main verb. The label nominative-absolutive follows from the fact that the nominative and absolutive are the marked categories, with no marked accusative or ergative pattern. The second split is based on tense-aspect-mood-polarity, with the nominative-absolutive clause type coding future, imperfective (although also completive in at least one language), irrealis, and negative. These patterns are both counter to the expected universal patterns identified in the typological literature: no other cases have been identified in which (even pronominal) case-marking is nominative while verbal cross-referencing

is absolute, and the universally expected semantic values of the ergative clause type in such a split are, respectively, past, perfective, realis and positive. The authors conclude by asking if the number of counter-examples to putative universals of split ergativity should lead us to question the validity of the definition for the typological category "ergative construction".

**Part II. Recent Diachronic Innovations: Syntactic Ergativity**

All three of the languages discussed in this section share three properties: (i) they are all genetic isolates (or belong to a very small family that has not been firmly linked to any other genetic unit), (ii) ergative patterns – both morphological and syntactic – prevail, and (iii) in all, main clause grammar is isomorphic to possessed nouns in predicate nominal clauses, suggesting that main clauses were recently reanalyzed from nominalizations.

**Raquel Guirardello-Damian: Ergativity in Trumai.** Trumai is an isolate spoken in the Xingu park in central Brazil. It is one of the most consistently ergative languages ever described, with ergative case-marking, absolutive verbal cross-referencing, absolutive VP constituency, and absolutive to absolutive raising from complement clauses. The only grammatical property that presents a nominative alignment is the use of positional auxiliary verbs. This creates a typological dilemma, in which almost no grammatical properties distinguish the traditional notions of subject and object. Guirardello-Damian resolves this problem (in a manner reminiscent of Dryer's 1997 treatment of grammatical relations in Kutenai), arguing that the important generalizations about Trumai alignment can be better captured with the language-specific case categories of *ergative*, *absolutive* and *dative*. Guirardello-Damian also summarizes her internal reconstruction of the recent source of these unusual main clause grammatical patterns.

**Francesc Queixalós: Grammatical Relations in Katukina-Kanamari.** Katukina-Kanamari belongs to a very small language family, which has yet to be related to any other languages. KK is another strongly ergative language, with ergative case-marking, ergative verbal cross-referencing and ergative VP constituency, plus an absolutive pivot for focalization, WH questions, and relative clauses. An antipassive is available (and must be utilized) in order to make focalization, WH questions and RCs available to the agent. A little-used nominative-accusative transitive clause type exists alongside the ergative clause type. The reflexive, applicative, and noun incorporation all uniquely target the P, providing limited domains for the expression of a nominative-accusative pattern. This creates real problems for the traditional grammatical notion of subject, which Queixalós resolves differently from Guirardello, arguing that the absolutive is best analyzed as the synchronic subject in KK, leaving the ergative to be the direct object.

**Katharina Haude: The Intransitive Basis of Movima Clause Structure.** Movima is an isolate spoken in lowland Bolivia. Movima presents a strong inverse system in transitive clauses, with participants assigned to Proximal or Obviative argument status based on relative location on an ontological salience hierarchy: 1 > 2 > 3human > 3animate > 3inanimate. When participants are equal on the hierarchy, the primary topic becomes proximate. Grammatically, the proximate argument is internal to the VP, with special cliticization patterns for pronouns and articles and rigid postverbal order; the obviative argument is external to the VP, has distinct cliticization patterns, and order flexibility. The single argument of intransitive clauses is always obviative, reinforcing the conclusion that obviative is the privileged syntactic argument, a typologically uncommon phenomenon. When the agent is Proximate (roughly 80% of clauses in natural texts), the verb bears the Direct suffix and when the agent is Obviative (20%), the verb bears the Inverse suffix; so 80% of the time, P and S pattern together (as Obviative), the rest of the time A and S pattern together. Of particular relevance for this volume, Haude shows that in discourse, there are numerous violations of the saliency hierarchy, all in a single direction: sometimes a definite lower-ranking agent is not assigned to obviative, which would have entailed an inverse clause; in these cases, instead of following the hierarchy, the lower-ranking agent is assigned to the Proximate grammatical role, making the clause Direct and resulting in a more consistent ergative-absolutive pattern. Haude also shows that transitive main clauses are precisely parallel to predicate nominal constructions with a possessed predicate noun – this provides a ready internal reconstruction of the grammatical properties of proximate (possessor of the predicate noun) and obviative (subject of the predicate nominal clause), leading Haude to explore a synchronic analysis of all verbal clauses as predicate nominals, which would mean that all clauses in Movima are intransitive.

As seen in §1, there are many more languages in Amazonia and other parts of lowland South America that present ergative patterns. Most have not been described to the level of detail seen in the studies in this volume. We hope that the increasing academic concern with language documentation will lead to the necessary descriptions that will allow the next steps in theoretical and diachronic studies, and that volumes like this one can help to inform the kinds of questions that are addressed in those descriptions.

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# Well-established systems

Morphological ergativity

# Ergativity in the Mayoruna branch of the Panoan family

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The present paper describes the ergative alignment patterns in the extant languages of the Mayoruna branch: Matses, Matis, Kulina, Dëmushbo, and Chankuëshbo/Korubo. The patterns that emerge from the present comparative study suggest that the Mayoruna languages, particularly Matses, are in the process of developing more uniform ergatively-aligned morphology. The alignment patterns in these languages vary in several details, but overall are found to be much more similar to each other than they are to other Panoan languages, thereby supporting the hypothesis that the languages in the Mayoruna branch compose a linguistic subfamily.

## 1.    Introduction

The Panoan family has been described as being relatively uniform linguistically (e.g., d'Ans 1970: 13; Lathrap 1970: 79; Erikson 1993; Erikson *et al.* 1994: 4; Loos 1999). Despite this relative uniformity, my preliminary studies show that several Panoan languages from the Javari River basin are so divergent linguistically that the Panoan family can readily be divided into two main branches. The languages in the first hypothesized branch are those in the Mayoruna branch, which includes 5 known extant languages (Matses, Matis, Kulina, Dëmushbo, and Chankuëshbo/Korubo), 2–3 additional extinct languages, and possibly one or more languages spoken by hitherto uncontacted groups. The second branch, which I will label the "Mainline branch," would include the rest of the Panoan languages.

All Panoan languages studied so far have been found to be morphologically ergative (e.g., Loos 1999, 2005; Valenzuela 2000, 2004). The present paper is dedicated to the description of alignment patterns in the extant Mayoruna languages, based exclusively on my original field data. In Fleck (2005, 2006a) I proposed the hypothesis, based on language-internal patterns, that Matses was in the process of increasing the consistency of the ergative pattern, specifically with respect to

various aspects of its morphology. This being an extremely rarely attested direction of change, the main theme in the present paper is to see if evidence from other Mayoruna languages supports or discourages this hypothesis, and whether other languages in the Mayoruna branch also show signs of developing a more uniform ergatively-aligned morphology. A secondary aim of this description is to provide further evidence for the classification of the Mayoruna languages as a linguistic subfamily, showing that they are more similar to one another than to the rest of the Panoan languages.

## 1.1    The Mayoruna branch

Anthropologist Philippe Erikson (1990, 1992, 1994) first proposed the existence of the Mayoruna branch to describe several linguistically and culturally similar groups of people living in westernmost Brazil and northeastern Peru. More recently, I have conducted several studies treating various aspects of Mayoruna linguistics, history, and ethnography (Fleck 2003:Chapter 1, 2007a, 2007c; Fleck and Voss 2006). Furthermore, I am currently preparing a monograph (Fleck in progress) that treats all linguistic and historical aspects of the Mayoruna branch. Here I provide Table 1 and Figure 1, adapted from Fleck and Voss (2006), as a summary.

Table 2, based on data collected by me, provides the results of lexical comparisons that help judge the relative lexical similarities among the extant Mayoruna languages.[1] While I would not classify languages based solely on lexical comparison, it is still possible to make several observations based on Table 2, mainly to see if these trends are paralleled in the grammatical descriptions that follow. First, we note the clear gap between the Mayoruna languages and the Mainline (non-Mayoruna Panoan) languages. Second, Matis appears to be the most distinct from the other Mayoruna languages, especially from Matses and Dëmushbo. Matis also seems to be the most similar to the Mainline languages, while Matses and Dëmushbo appear to be the most distinct lexically from the Mainline languages. Chankuëshbo and especially Kulina could be seen as intermediate lexically within the Mayoruna branch. Also, it is clear that there is much more lexical differentiation within the Mayoruna branch than among Mainline varieties, such as Shipibo and Kapanawa, that are traditionally considered separate languages by Panoan scholars.

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1.    I emphasize that these values should be interpreted as **relative** figures, not necessarily valid for lexico-statistic evaluation.  Name taboo and lexical borrowing from captives' languages are two confounding factors that have potentially affected Mayoruna lexical (dis)similarity.  These factors are discussed in Fleck and Voss (2006).

**Table 1.** Languages known to be in the Mayoruna branch

| Group/language | Speakers[a] | Identification (see Figure 1 for locations) |
|---|---|---|
| Mayoruna languages spoken by extant groups: | | |
| Matses | *ca.* 2400 | independent Mayoruna language |
| Matis | 269[b] | independent Mayoruna language |
| Kulina | 3[c] | independent Mayoruna language |
| Korubo | *ca.* 300?[d] | undocumented, dialect of Chankuëshbo |
| Mayoruna languages/dialects spoken by captives living among the Matses: | | |
| Kulina (Kapishto) | *ca.* 40/30[e] | 3 dialects of this language exist: |
| | | Kapishtana, Mawi, Chema |
| Chankuëshbo | 5/2 | independent Mayoruna language, cf. Korubo |
| Dëmushbo | 4/1 | independent Mayoruna language |
| Paud Usunkid[f] | 1/0 | Mayoruna variety, possibly dialect of Matses |
| Historical Mayoruna: | | |
| Maxuruna[g] | | Mayoruna language |
| Castelnau's Mayoruna[h] | | Mayoruna language, two dialects recorded: |
| | | Mayorunas civilisés, Mayorunas sauvages |
| Alviano's Maioruna[i] | | Mayoruna language, most similar to Matis |

[a] Includes only competent speakers, excluding captives that were taken before they could speak well. Figures without footnote references are from my own field notes.
[b] Nascimento 2005.
[c] This figure includes only speakers not captured by the Matses, who live in Tabatinga, Brazil.
[d] Erikson (1994).
[e] For captives' languages, number of speakers captured precede the slash, those still living follow it; for Kulina the number 30 includes only speakers living among the Matses.
[f] 265-word Spanish-Paud Usunkid (called "Matses" by Fields) lexicon in Fields (1970).
[g] 137-entry Latin-Maxuruna lexicon in Martius (1867).
[h] 80-/54-entry French-Mayoruna lexica in Castelnau (1851); also in Martius (1867).
[i] 503-entry Portuguese-Maioruna lexicon in Alviano (1957).

## 1.2    Data and methodology for grammatical comparisons

The data collection situations differ considerably for the different languages. Data is most complete and reliable for Matses, a language I have been studying since 1998. I have lived among the Matses for a total of more than five years since 1994, the first two years conducting ethnobiological research and the rest of the time studying the language. I speak Matses fluently, I have recorded and analyzed many hours of texts, and have conducted exhaustive elicitation on Matses alignment

**Figure 1.**  Location of all Matses villages inhabited in 2005 (17 in Peru and 6 in Brazil), nearby non-tribal towns, and neighboring tribes. Uncontacted groups are marked with an asterisk; groups that are extinct or no longer active speech communities are marked with a cross; non-Panoan languages are followed by their linguistic family affiliation in parentheses (the linguistic affiliation of the uncontacted Maya and Flecheiros is unknown).

patterns along with other topics in the language. See Fleck (2003) for details on my linguistic doctoral fieldwork among the Matses.[2]

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2.    Other studies of the Matses alignment patterns include Carvalho (1992) and Dorigo (2002). The latter of these, in particular, reaches conclusions in direct contradiction to those proposed here.  I do not address this author's analyses because, in checking her examples with both Peruvian and Brazilian Matses, I was unable to confirm about half.

**Table 2.** Lexical comparisons of five Mayoruna languages with each other and three Mainline (non-Mayoruna Panoan) languages. Figures are percentages of clear root matches based on 178–192 terms from the Swadesh (1952) 200 list

| Mayoruna languages | | | | | Mainline languages | | |
|---|---|---|---|---|---|---|---|
| **Matses** | | | | | | | |
| 71 | **Chankuëshbo** | | | | | | |
| 69 | 72 | **Kulina**[a] | | | | | |
| 68 | 69 | 73 | **Dëmushbo** | | | | |
| 57 | 63 | 70 | 56 | **Matis** | | | |
| 30 | 31 | 34 | 27 | 38 | **Marubo** | | |
| 26 | 32 | 32 | 30 | 38 | 60 | **Kapanawa** | |
| 25 | 30 | 31 | 26 | 35 | 55 | 90 | **Shipibo** |

[a] The Kapishtana dialect is used in this table. Comparisons among the Kulina dialects: Kapishtana-Mawi = 95%; Kapishtana-Chema = 88%; Mawi-Chema = 84%.

I also have fairly complete and reliable data for alignment patterns in the language of the Matis, with whom I have carried out field research in the Brazilian towns of Tabatinga and Atalaia do Norte with six different speakers. With Matis speakers I have elicited data with focus on alignment patterns, specifically for the purpose of writing the present paper. Some of this research was conducted in conjunction with Brazilian linguist Rogério Ferreira, who has been researching the Matis language since 1995. I also collaborated with Hilton Nascimento and Matis bilingual teachers as linguistic consultants in the production of a Matis reader (Nascimento 2005) composed of 22 short texts written or dictated by Matis speakers.[3]

With Kulina, Dëmushbo, and Chankuëshbo speakers, data is relatively less reliable and less complete, principally because these are no longer spoken as everyday languages and there is a tendency for speakers to mix their language with Matses, particularly in the texts that I have recorded. There are still a fair number of Kulina speakers (see Table 1), so it was possible to double-check the data with multiple speakers and obtain a fair degree of confidence in their reliability. Because there is only one living Dëmushbo speaker and only one competent Chankuëshbo speaker, despite my personal confidence in these speakers, data

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**3.** Other sources on Matis alignment patterns are by Ferreira (2000, 2001, 2005). Many of the errors in Ferreira (2000, 2001) — which led to conclusions inconsistent with the ones reached in this paper — have been corrected in Ferreira (2005), so the conclusions of the first two will not be addressed here. While Ferreira (2005) is fairly consistent with my own findings, its main contribution to the current study was to contribute to my understanding of Matis, and to provide much of the necessary background for my own collection of primary data.

from these two languages is limited to a supporting role, leaving the present grammatical descripion to be based primarily on Matses, Matis, and Kulina.

Most alignment patterns were found be essentially the same in the extant Mayoruna languages; when this is the case, rather than providing examples for all the languages, I simply illustrate each point with one or two examples from any of the languages, choosing the most illustrative and reliable data. Where the languages differ significantly in some point, this is stated explicitly, and when helpful, examples for different patterns are provided.

The state of knowledge of all but a few Panoan languages is not far along enough to carry out a definitive comparative study of the Mayoruna languages with the whole Panoan family. I make reference to some of the more reliable sources in this paper to provide a feel for how the Mayoruna alignment patterns compare with the rest of the family, but it should be kept in mind that future study of these languages will likely discover grammatical features hitherto undocumented in these languages, and lead to significant evolution in our understanding of partially-documented constructions.

## 1.3    Brief typological overview of the Mayoruna languages

The Mayoruna languages are uniform phonologically, having the exact same inventory of contrastive segments, facilitating the use of a unified phonemic orthography in this paper.[4] Morphologically, the Mayoruna languages (and Panoan languages in general) are primarily suffixing and could be called highly synthetic due to the large number of morphological possibilities and potentially very long words. Most Panoan languages have closed sets of about 30 prefixes, mainly designating body-part notions, which attach phonologically to nouns, adjectives and verbs. The ergative pattern associated with the Mayoruna prefixes is that when attached to verbs, the meaning of the prefix is always associated with the absolutive argument, adding locative orientation information or specifying part-whole relations. See Fleck (2006b) for full details on prefixation in Matses, and Fleck (in progress) for a comparative overview of this topic in the Mayoruna languages. Table 3 summarizes the valence-changing processes in the Mayoruna languages.

Valence increase of transitive verbs results in trivalent verbs that head double-object clauses (§4). Antipassives are described in detail in Fleck (2006a), and Fleck (in progress) compares antipassives and passives in the Mayoruna languages. The

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4.    Orthography: *a, e, ë* (ɨ), *i, o, u, p, t, k* (= unreleased syllable-finally in Matis, and glottal stop syllable-finally in other Mayoruna languages), *b* (sometimes pronounced with some friction), *d* (= flap intervocalically), *m, n* (= velar nasal before *k*), *s, sh* (ʃ), *şh* (ʂ), *ts, ch* (tʃ), *çh* (tʂ), *w, j*. Basic forms, rather than conditioned allomorphs, are used in examples.

**Table 3.** Summary of valence-adjusting suffixes in Mayoruna languages

| Suffix | Gloss | Valence adjustment | Type of verb stem it can occur on |
|---|---|---|---|
| *-me* | 'Causative' | +1 | any except (intransitive) *ke* verbs |
| *-şhun/-kuan* [a] | 'Applicative' | +1 | only transitive |
| *-nan* | 'Reciprocal' | −1 | only transitive |
| *-an* | 'Antipassive' | −1 | only transitive |
| *-ad* [b] | 'Reflexive' | −1 | only transitive |
| *-ad* [b] | 'Anticausative' | −1 | only transitive |
| *-ad* [b] | 'Passive' | −1 | transitive, some intransitive |

[a] In Matses, *-şhun* marks either benefactive or malefactive; in Matis and Kulina *-şhun* marks only benefactive and *-kuan* marks malefactive.

[b] These three can be considered a single polysemous suffix.

Mayoruna languages have no syntactic pivots; in other words, inter-clausal syntax either exhibits universal or trivial nominative-accusative patterns (Dixon 1994: 131), or, more frequently, no clear alignment patterns at all, and will not be discussed in detail in this paper.

## 2.   Dependent marking

Main intra-clausal alignment patterns are ergative case marking (§2.1) and nominative person agreement marked on verbs (§3.1). Other than idiosyncratic singular/plural splits in the pronoun systems (§2.2), there are no typical split alignment systems in Mayoruna languages, such as splits conditioned by tense/aspect/mood or by the semantic nature of NPs.

### 2.1   Nominal case marking: Ergative-absolutive

Grammatical relations are distinguished primarily by strict ergative-absolutive case marking where absolutive (S/O) case is unmarked (-Ø) and ergative (A) case is marked with the phrase-level enclitic *-n*, as illustrated in the examples in (1) and (2). The ergative case marker is an **enclitic**, rather than a suffix, since it functions at the phrasal level, attaching phonologically to the final element in the noun phrase, as can be seen in (2a) and (2b).

Matis:

(1)  a.  *tumi-**Ø**          dëndu-**n**          pëdka-a-ṣh*
        man's.name-ABS electric.eel-ERG shock-IMM.PAST-3
        'An electric eel shocked Tumi.'

     b.  *dëndu-**n**          tumi-Ø          pëdka-a-ṣh*
        electric.eel-ERG man's.name-ABS shock-IMM.PAST-3
        'The/an electric eel shocked Tumi.'

     c.  *tumi-Ø          tunke-a-ṣh*
        man's.name-ABS fall-IMM.PAST-3
        'Tumi fell.'

Matses:

(2)  a.  *[dada iksa]-**n** [tumi-n          opa]-Ø kues-o-ṣh          kueste-n*
         man bad-ERG man's.name-GEN dog-ABS hit-REC.PAST-3 stick-INST
        'The bad man hit Tumi's dog with a stick.'

     b.  *kueste-n [tumi-n          opa]-Ø kues-o-ṣh          [dada iksa]-**n***
        stick-INST man's.name-GEN dog-ABS hit-REC.PAST-3   man bad-ERG
        'The bad man hit Tumi's dog with a stick.'

     c.  *tumi-Ø          uṣh-o-ṣh*
        man's.name-ABS sleep-REC.PAST-3
        'Tumi slept.'

As can be seen in (1a, b) and (2a, b), constituent order, which is unrestricted and sensitive to animacy and discourse factors, gives no clue about grammatical relations.

On full nouns, ergative case is marked identically to the instrumental and genitive cases (2a, b); all other noun phrases are obliques (optional, peripheral participants) and overtly marked as such by either phonologically bound or free postpositions (e.g., *-no* 'Locative,' *ëkëduk* 'inside,' *-bëd* 'Comitative').[5] In all the Mayoruna languages, ergative/instrumental/genitive *-n* has the allomorph *-ën* [ɨn] following consonants. This is noteworthy in that in all the other Panoan languages studied so far, *-n* has been described as having multiple allomorphs, exhibiting often complex and idiosyncratic patterns. For example, Marubo: *-nVn, -tun, -pa*, and nasalization on preceding vowel (Costa 1998); Kashinawa: *-n -in, -ën, -an,* and *-tun* (Montag 1981); Yaminahua: *-ṣhon, -ton*, nasalization, and extra syllables on ergative nouns in addition to nasalization (Faust and Loos 2002).

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**5.** One postpositional enclitic, *-n* 'Locative/Temporal' has the same form as the ergative/ instrumental/genitive case marker, but, as argued in Fleck (2003; Chapter 11), it is grammatically (and possibly etymologically) quite different; in some of the non-Mayoruna languages, such as Kashinawa (Montag 1981), Kapanawa (Loos and Loos 1998), and Yaminawa (Faust and Loos 2002), there is also a vocative marker *-n*.

## 2.2    Pronominal paradigms: Split

As can be seen in Tables 4–8, ergative pronouns can be analyzed as containing the ergative/genitive/instrumental enclitic -*n* and the emphatic enclitic -*bi/-i*, but for several reasons (explained in Fleck 2003: 248ff and Ferreira 2005: 176), they are best not segmented synchronically. The lexicalization of -*bi/-i* as part of most of the personal pronouns is common to all the Mayoruna languages and absent in the rest of the Panoan family. The only possible exception is the extinct language, Pano, where pronouns were apparently always followed by -*bi* in S and A functions (Valenzuela 2004). As opposed to full nouns, ergative and genitive personal pronouns differ in form (Tables 4–8). Instrumental pronouns have been attested only for the first and second person singular, and these are identical to the ergative pronouns (Table 4–8), but it should be kept in mind that personal pronouns occur in Instrument position only in passive constructions. These morphological and distributional differences among the pronouns is part of the justification for distinguishing the ergative, genitive, and instrumental cases. The most salient variation in alignment among the Mayoruna languages is in their pronoun paradigms, which, nevertheless, are more similar to one another than to those of other Panoan languages.

**Table 4.**  Matis personal pronoun paradigm

|  | **A** | **S** | **O** | **Genitive** | **Instrumental** |
|---|---|---|---|---|---|
| Ergative: | | | | | |
| 1 (1 Sg. or 1+3) | *ëmbi* | *ëbi* | *ëbi* | *nukun* | *ëmbi* |
| 2 Sg. | *mimbi* | *mibi* | *mibi* | *min* | *mimbi* |
| 4 Sb.[a] or 3 Sg. Emphatic | *ambi* | *abi* | *abi* | — | — |
| Neutral: | | | | | |
| 1+2 | *nuki* | *nuki* | *nuki* | *nukin* | — |
| 3 Sg. (Non-emphatic) | Ø | Ø | Ø | *awën* | — |
| Accusative: | | | | | |
| 2 Pl. | *mikui* | *mikui* | *mitso* | *mitson* | — |
| 3 Pl. (Non-emphatic) | Ø | Ø | *ato* | *aton* | — |
| 4 Pl. or 3 Pl. Emphatic | *akui* | *akui* | *ato(-bi)*[b] | — | — |

[a] fourth-person = third-person inter-clausal coreferential

[b] *ato* can be coreferential or non-coreferential; it can express emphasis only with the emphatic enclitic -*bi*.

**Table 5.**  Kulina personal pronoun paradigm

|  | A | S | O | Genitive | Instrumental |
|---|---|---|---|---|---|
| **Ergative:** | | | | | |
| 1 (1 Sg. or 1+3) | *ëmbi* | *ëbi* | *ëbi* | *kun* | *ëmbi* |
| 2 Sg. | *mimbi* | *mibi* | *mibi* | *min* | *mimbi* |
| 4 Sg. or 3 Sg. Emphatic | *ambi* | *abi* | *abi* | — | — |
| **Neutral:** | | | | | |
| 1+2 | *nuki* | *nuki* | *nuki* | *nukin* | — |
| 3 Sg. (Non-emphatic) | Ø | Ø | Ø | *awën* | — |
| 3 Pl. (Non-emphatic) | Ø | Ø | Ø | *aton* | — |
| **Accusative/Tripartite:** | | | | | |
| 2 Pl. | *miki* | *miki* | *mitso* | *mitson* | — |
| 4 Pl. or 3 Pl. Emphatic | *akbi/aton*[a] | *akbi* | *ato* | — | — |

[a] In the Mawi dialect, the two forms *akbi* and *aton* are used interchangeably in A position, in the Kapishtana and Chema dialects only *akbi* is used.

**Table 6.**  Dëmushbo personal pronoun paradigm

|  | A | S | O | Genitive | Instrumental |
|---|---|---|---|---|---|
| **Ergative:** | | | | | |
| 1 (1 Sg. or 1+3) | *ëmbi* | *ëbi* | *ëbi* | *kun* | *ëmbi* |
| 2 Sg. | *mimbi* | *mibi* | *mibi* | *min* | *mimbi* |
| 4 or 3 (Sg. or Pl.)[a] | *ambi* | *abi* | *abi* | — | — |
| **Neutral:** | | | | | |
| 1+2 | *nuki* | *nuki* | *nuki* | *nukin* | — |
| 3 (Non-emphatic; Sg. or Pl.) | Ø | Ø | Ø | *awën* | — |
| **Accusative:** | | | | | |
| 2 Pl. | *miki* | *miki* | *mitso* | *mitson* | — |

[a] It has not yet been determined if these pronouns are also optional third-person emphatic pronouns (as in Matis and Kulina) or essentially only coreferential (as in Matses). The form *ato* (cf. Matis and Kulina form *ato* in Tables 4 and 5) means 'other(s)' in Dëmushbo.

Unlike full nouns and noun phrases, which without exception take ergative case marking, in all the Mayoruna languages the first-person plural inclusive pronoun *nuki* is invariant. In Chankuëshbo and Matses (Tables 7 and 8), the second-person plural pronouns, *miki* and *mitso*, exhibit a neutral pattern similar to that of *nuki*. Meanwhile, in Matis, Kulina, and Dëmushbo (Table 4–6), the corresponding second-person plural forms follow an accusative pattern: *mikui/miki* occurs only in

**Table 7.** Chankuëshbo personal pronoun paradigm

|  | A | S | O | Genitive | Instrumental |
|---|---|---|---|---|---|
| Ergative: |  |  |  |  |  |
| 1 (1 Sg. or 1+3) | *ëmbi* | *ëbi* | *ëbi* | *nukun* | *ëmbi* |
| 2 Sg. | *mimbi* | *mibi* | *mibi* | *min* | *mimbi* |
| 4 or 3 (Sg. or Pl.)[a] | *ambi* | *abi* | *abi* | — | — |
| Neutral: |  |  |  |  |  |
| 1+2 | *nuki* | *nuki* | *nuki* | *nukin* | — |
| 2 Pl. | *miki* | *miki* | *miki* | ?[b] | — |
| 3 (Non-emphatic; Sg. or Pl.) | Ø | Ø | Ø | *awën* | — |

[a] It was not possible to determine with certainty if these pronouns are also optional third-person emphatic pronouns or essentially only coreferential.

[b] The speaker was unsure if a genitive second-person plural form existed.

**Table 8.** Matses personal pronoun paradigm

|  | A | S | O | Genitive | Instrumental |
|---|---|---|---|---|---|
| Ergative: |  |  |  |  |  |
| 1 (1 Sg. or 1+3)[a] | *umbi/ëmbi* | *ubi/ëbi* | *ubi/ëbi* | *kun* | *umbi/ëmbi* |
| 2 (Sg. or Pl.) | *mimbi* | *mibi* | *mibi* | *min* | *mimbi* |
| 4 (Sg. or Pl.) | *ambi* | *abi* | *abi* | — | — |
| Neutral: |  |  |  |  |  |
| 1+2 | *nuki* | *nuki* | *nuki* | *nukin* | — |
| 2 Pl. (archaic) | *miki, mitso* | *miki, mitso* | *miki, mitso* | *mitson* | — |
| 3 (Sg. or Pl.)[b] | Ø | Ø | Ø | *aton* | — |

[a] First person variants beginning with *ë* are archaic.

[b] A few speakers report that there is a very archaic third-person plural pronoun, *ato* (cf. Matis and Kulina form *ato* in Tables 4 and 5), but none were certain of its alignment properties.

subject (S/A) position, in contrast with *mitso*, which occurs in O position (*mitso* also occurs as postpositional object and in the genitive form). Likewise with the Matis and Kulina third-person plural (coreferential/emphatic) pronouns, *akui/akbi* and *ato*. Thus, for Matses and Chankuëshbo, we can say there is an ergative-neutral case-marking split in the pronoun system, and in Matis, Kulina, and Dëmushbo, it is a three-way ergative-neutral-accusative split. These are not typical nominal-hierarchy-based splits since the split is essentially a singular-plural split, with the singular pronouns following the same (ergative) pattern as full nouns.

The patterns in Tables 4–8 raise an important question about diachrony: what alignment did the proto-Mayoruna **plural** pronouns follow? If ergative-absolutive or neutral, it would suggest that the pronouns are in the process of switching to an overall more accusative alignment, and if nominative-accusative, it would suggest the opposite, that they are moving toward an overall more ergative alignment. It is also possible that the proto-Mayoruna pronoun paradigm already had a mixed system. The first thing to note is that Dëmushbo, Chankuëshbo, and Matses have evidently lost the plural third/fourth-person distinction altogether and Matses is in the process of losing the plural second-person forms; as these plural forms are lost, the remaining pronouns follow a more consistently ergative paradigm.[6] For the second-person plural pronouns, we must consider whether the neutral pattern (Matses and Chankuëshbo) or the accusative pattern (Matis, Kulina, and Dëmushbo) was prior. The most likely scenario is that the Matis/Kulina/Dëmushbo pattern was prior, and that as the second-person plural pronouns fell out of use in Matses, speakers stopped making the nominative-accusative distinction for these pronouns, perhaps in analogy to *nuki*. For Chankuëshbo, the *mitso* form would have fallen out of use, with *miki* taking over the non-subject positions. As a final observation this topic, I point out that in Mawi-Kulina the form *aton*, which is also the third-person plural genitive pronoun, alternates with the third-/fourth-person plural pronoun *akbi*, but only in A position, suggesting further evidence for a tendency to move away from the accusative alignment patterns. Based on this information, I offer the reconstruction in Table 9: a mixed system.

Valenzuela (2000, 2004) proposes that the nominative alignment in the personal pronoun paradigm of the extinct language Pano evolved from an ergative pronoun alignment pattern in an earlier stage of this language. In light of that conclusion and considering that alignment splits in the nominal hierarchy are almost always accounted for diachronically as changes from an ergative to a nominative alignment, one might expect that proto-Panoan personal pronouns followed an ergative alignment that gave rise through such changes to the various splits found in most Panoan pronominal paradigms. The Mayoruna data and changes suggest another possibility, particularly in light of the observation that the (accusative) plural pronouns appear older than the (ergative) singular ones. At this point I propose the following hypothesis. Proto-Panoan had a typical nominal-hierarchy-based split system, with ergative alignment for full nouns, and nominative alignment in the pronouns (as in Pano). The idiosyncratic splits we find in

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6.    It seems unlikely that the plural third-/fourth-person forms in Matis and Kulina are innovative, particularly in light of the fact that *ato* or *hato* occurs in all the non-Mayoruna Panoan languages as a third-person plural pronoun (Zariquiey 2006), and as noted in footnote b in Table 8, older Matses speakers remember a very archaic third-person plural pronoun *ato*.

**Table 9.** Reconstruction of the Proto-Mayoruna pronoun paradigm

|  | A | S | O | Genitive |
|---|---|---|---|---|
| Ergative: |  |  |  |  |
| 1 (1 Sg. or 1+3) | *ë-n-bi | *ë-bi | *ë-bi | *nuku-n |
| 2 Sg. | *mi-n-bi | *mi-bi | *mi-bi | *mi-n |
| 3 Sg. | *a-n-bi | *a-bi | *a-bi | *awë-n |
| Neutral: |  |  |  |  |
| 1+2 | *nuki | *nuki | *nuki | *nuki-n |
| Accusative: |  |  |  |  |
| 2 Pl. | *mikui | *mikui | *mitso | *mitso-n |
| 3 Pl. | *akui | *akui | *ato | *ato-n |

Note: the following further segmentations suggest themselves based on recurring forms: *nuku-n* = *nu-ku-n*, *nuki* = *nu-ku-bi*, *mikui* = *mi-ku-bi*, *mitso* = *mi-tso*, *akui* = *a-ku-bi*, and *ato* = *a-to*. However, reconstruction of the meanings is problematic; for example, *-ku* cannot be assigned the meaning 'Plural' or 'Nominative', since it also occurs in the genitive first-person singular/ exclusive pronoun and the accusative first person inclusive pronoun.

most Panoan pronoun paradigms would then reflect a gradual switch of pronouns to an ergative alignment, making their patterns more consistent with those of full nouns. (It is this type of extension of the ergative marker *-n* that we find evidence for in various parts of Mayoruna grammar, as will be shown below.) It is also possible that proto-Panoan had a tripartite case-marking system (Valenzuela 2003: Chapter 20), or a split in its pronoun paradigm, though it should be kept in mind that Zariquiey (2006) concluded that it is not yet possible to reconstruct the proto-Panoan pronoun case system, especially for plurals; and it is hard to say whether such a reconstruction will ever be possible. Whichever the direction of the changes in the Panoan pronoun paradigms, they would be chiefly the result of extension, which, as pointed out by Gildea (personal communication) makes it particularly difficult to reconstruct the changes. For now, both directions of change should be treated as viable hypotheses.

As illustrated in Tables 4–8, the simple (non-emphatic, non-coreferential) third-person anaphoric pronoun is Ø in all the Mayoruna languages. Because overt first- and second-person arguments are almost always required and case-specific, and there are no ambitransitive verbs, the simple absence of one or more expected arguments reveals the third-person anaphora. For Matis and Kulina, the forms *ambi*, *abi*, *akui/akbi/aton* can be used optionally instead of Ø to express emphasis; likewise *ato* in Kulina. Matses differs in that Ø is the only way to express third-person anaphora in finite clauses in almost all situations.

Apparently uniquely among the Panoan languages, Mayoruna languages have fourth-person (= "inter-clausal third-person coreferential") pronouns (Tables 4–8) that are used in subordinate clauses to indicate coreference with an argument in a higher clause (3).

Matis:

(3) *[akui      tëk-akid]-Ø*              ***dada**-n   pe-esma*
    **4PL:NOM** kill.with.dart-PAT.NZR-ABS **men**-ERG  eat-NEG:HAB
    '**Men**$_i$ do not eat what **they**$_i$ (themselves) kill.' (i.e., specifies that the subordinate **A** [the "killers"] is the matrix **A** [the "eaters"])

My current diachronic hypothesis is that these forms were once simple (i.e., not necessarily emphatic and/or co-referential) third-person pronouns (as in Table 9) whose main function was replaced by zero-anaphora. A second stage would be their optional use, contrasting with Ø, as emphatic pronouns. A third stage, still current in Matis and Kulina, would be their obligatory use to specify inter-clausal coreference in subordinate clauses, while maintaining their optional use as emphatic forms in main/simplex clauses. The fourth stage, observed in Matses, would be the loss of this optional emphatic use in main/simplex clauses. The details of the synchronic fourth-person coreference patterns are too elaborate to be explained fully here, so I refer the reader to Fleck (2008) for a description of this phenomenon in Matses and to Fleck (in progress) for a comparative overview in the Mayoruna languages. Table 10 summarizes the interaction of ergative and accusative alignment patterns in Mayoruna fourth-person coreference.

**Table 10.** Coreference relations marked by the fourth-person pronouns *ambi* and *abi* (in all the Mayoruna languages), and the plural fourth-person pronouns *akui/akbi* and *ato* (in Matis and Kulina)

|  | Nominalized clauses | | | Adverbialized clauses | | |
|---|---|---|---|---|---|---|
|  | subordinate (pronoun) |  | matrix (antecedent) | subordinate (pronoun) |  | matrix (antecedent) |
| *ambi* | A | = | A/S/O | A | = | A/S |
| *abi* | S/O | = | A/S/O | S/O | = | A/S |
| *akui/akbi* | A/S | = | A/S/O | A/S | = | A/S |
| *ato* | O | = | A/S/O | O | = | A/S |

## 3. Head marking

Mayoruna verbs are minimally inflected for tense, and generally also for mood, evidentiality, and/or subject person agreement using portmanteau suffixes and/or suffix combinations (Fleck 2007b). Person agreement suffixes, which are present in all the Mayoruna languages, may be replaced by first-person pronominal enclitics, which are present in only some of the Mayoruna languages. Both the agreement suffixes and the clitics show interesting alignment patterns, and will be discussed in turn in the subsections of the present section.

### 3.1 Verb agreement suffixes: Nominative-accusative

Verbal person subject agreement distinguishes only first/second person vs. third person, occurs only with some inflections, and is usually redundant due to case marking on nouns. Therefore, it is of limited use for identifying grammatical relations. In contrast to case marking, person agreement follows a nominative-accusative pattern, agreeing with the A (4a, b) or S (4c, d), and never with objects or obliques (Table 11). (In this paper, "subject" refers to A and S arguments, including copula subjects, which are identical to intransitive subjects, and "object" refers to the O of a monotransitive verb or to either O of a ditransitive verb.)

Dëmushbo:

(4) a. *dunu-n      mibi kues-bonda-ṣh*
man's.name-ERG 2ABS hit-DIST.PAST-**3**
'Dunu hit you.'

**Table 11.** Matis and Matses person agreement paradigms for the intransitive verb *kuan/ nid* 'go' with the inflectional suffixes *-e* 'Non-past' and *-bonda/-onda* 'Distant Past'

| | Nonpast | | Distant Past | |
|---|---|---|---|---|
| | Indicative | Interrogative | Indicative | Interrogative |
| Matis person agreement suffixes: | | | | |
| 1/2 | *kuan-e-**k*** | *kuan-e-Ø* | *kuan-bonda-**k*** | *kuan-bonda-Ø* |
| 3 | *kuan-e-**k*** | *kuan-e-Ø* | *kuan-bonda-ṣh* | *kuan-bonda-ṣh* |
| Matses person agreement suffixes: | | | | |
| 1/2 | *nid-e-**k*** | *nid-e-Ø* | *nid-onda-**k*** | *nid-onda-Ø* |
| 3 | *nid-e-**k*** | *nid-e-**k*** | *nid-onda-ṣh* | *nid-onda-ṣh* |

    b.   *dunu-Ø*          *mimbi kues-bonda-k*
         man's.name-ABS  2ERG   hit-DIST.PAST-INDIC:**1/2**
         'You hit Dunu.'

    c.   *dunu-Ø*          *uṣh-bonda-ṣh*
         man's.name-ABS  sleep-DIST.PAST-**3**
         'Dunu slept.'

    d.   *ëbi*   *uṣh-bonda-k*
         1ABS  sleep-DIST.PAST-INDIC:**1/2**
         'I slept.'

Verbal person subject agreement is common to all the extant Mayoruna languages, and is rare in the other Panoan languages. Kashinawa (Montag 1981) is one of the few Panoan languages that has been described as having person subject agreement suffixes on some verbal inflections, but the forms are not cognate with the Mayoruna suffixes. Person subject agreement suffixes were also reported for Chakobo (Zingg 1998), but are better described as pronominal clitics (Iggesen 2006).

### 3.2   Pronominal enclitics: Ergative-absolutive

Matses, Kulina, Dëmushbo, Chankuëshbo, and apparently also Alviano's Maioruna have pronominal enclitics, but only for the first person (singular/plural exclusive). With some Mayoruna inflections, when one of the core arguments is first person, a first-person pronominal enclitic is usually used instead of the full pronoun, as in (5).

Matses:
   (5)  a.   *mibi  kues-e-**mbi***
         2ABS  hit-NPAST-**1A**
         'I'm going to hit you.'

      b.   *mimbi  kues-e-**bi***
         2ERG   hit-NPAST-**1s/o**
         'You are going to hit me.'

      c.   *di-n*        *uṣh-e-**bi***
         hammock-LOC  sleep-NPAST-**1s/o**
         'I'll sleep in a hammock.'

These enclitics typically occur at the end of verbs in place of the person agreement marker, but they can also attach to some particles, some adverbs and most types of adverbial clauses, as opposed to person agreement suffixes, which are restricted to finite verbs. These enclitics can be called **pronominal** enclitics because they can

occur instead of an otherwise required overt first-person pronoun, as opposed to the agreement suffixes, which have no bearing on whether or not any argument can be elided. There are certain inflection-specific patterns, but usually the enclitics occur in place of the person agreement markers (the exception being -*i* '1O,' attested only in Matses and Dëmushbo, which occurs following -*şh* 'third-person subject agreement'). Table 12 illustrates the different paradigms for pronominal enclitics in Matses. Dëmushbo pronominal enclitics appear to follow the same pattern as Matses, but Kulina and Chankuëshbo pronominal enclitics are restricted to S and A arguments.

An alternative analysis (see Kneeland 1979: 5) is that Matses pronominal enclitics do not substitute for inflections, but are allomorphs of full pronouns that lose the word-initial vowel when they attach to a preceding element. And when they follow verbs with an inflection ending in *k*, the *k* is elided.[7] But if the verbal inflection ends in *şh* '3rd Person Subject Agreement' (not possible when the first-person pronoun represents an A or S) the *şh* is not elided, but rather the pronoun is reduced further, hence the -*i* '1st Person O' form with some inflections. This analysis is very plausible as the etymological source of the enclitics, and accounts well for the allomorphy in Table 12. In fact, this analysis appears to be valid for Matis, where full first-person pronouns can attach phonetically to preceding verbs, generally without phonological reduction (6a), except for minor segment elision with the immediate past inflection -*a-k* (6b).

Matis:

(6)  a.  *chobokëbi*
         *cho-bo-k*                    *ëbi*
         come-REC.PAST-INDIC:1/2  **1ABS**
         'I arrived (yesterday or up to one month ago).'

**Table 12.** Matses pronominal enclitic paradigms for the intransitive verb *nid* 'go' and the transitive verb *kues* 'hit' with the inflectional suffixes -*e* 'Non-past' and -*bonda/-onda* 'Distant Past' (compare with Table 11)

|          | Nonpast    | Distant Past    |
|----------|------------|-----------------|
| 1S       | *nid-e-**bi*** | *nid-onda-**bi***   |
| 1A       | *kues-e-**mbi*** | *kues-onda-**mbi*** |
| 1O (2A)  | *kues-e-**bi*** | *kues-onda-**bi***  |
| 1O (3A)  | *kues-e-**bi*** | *kues-onda-şh-**i*** |

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7.   Kneeland (1979) does not segment inflections like -*e-k*, or -*onda-şh*, as I do.

    b.  *choaëbi*
        *cho-a-k*                 *ëbi*
        come-IMM.PAST-INDIC:1/2  **1ABS**
        'I have arrived (today, or said as a greeting when entering a house).'

However, Kneeland's analysis is problematic synchronically for the rest of the Mayoruna languages, including Matses—in all these languages, a free pronoun can co-occur with a pronominal enclitic to express a higher level of emphasis, as in (7c) and (8c).

Kulina:

    (7)  a.  *kuan-bo-bi*
           go-REC.PAST-**1S**
           'I went.'

        b.  *ëbi*    *kuan-bo-k*
           **1ABS** go-REC.PAST-INDIC:1/2
           '*I* went.'

        c.  *ëbi*    *kuan-bo-bi*
           **1ABS** go-REC.PAST-**1S**
           '*I* (am the one who) went.'

Kulina:

    (8)  a.  *na-bo-mbi*
           do(transitive)-REC.PAST-**1A**
           'I did it.'

        b.  *ëmbi*  *na-bo-k*
           **1ERG** do-REC.PAST-INDIC:1/2
           '*I* did it.'

        c.  *ëmbi*  *na-bo-mbi*
           1ERG do-REC.PAST-**1A**
           '*I* (am the one who) did it.'

Thus, it appears that in Matses, Kulina, Dëmushbo and Chankuëshbo, in a past system the enclitics simply represented an optional placement of the pronoun, as in Matis, but they have begun to function more like agreement markers. And, as can be seen in Table 12, since the Matses (and Dëmushbo) enclitics follow for the most part an ergative-accusative pattern, an ergative element is being incorporated into a previously completely nominative-absolutive agreement system. For Kulina and Chankuëshbo, since pronominal enclitics do not occur in O position, the incorporation of the enclitics into the agreement systems does not introduce an ergative element, but it does result in an interesting "agreement" pattern, where

transitive verbs carry one form and intransitive verbs another (compare 7a with 8a). Thus, some Mayoruna languages are remarkable in that the sole ergative agreement morpheme is first person, in explicit violation of the nominal hierarchy.

Most Panoan languages do not have pronominal clitics at all. Chakobo, Marubo, and possibly Kasharari are the exceptions, but their pronominal clitics differ completely in form and distribution from the Mayoruna pronominal enclitics. Chakobo, as mentioned above, has pronominal enclitics for all persons, but these enclitics **precede** TAM marking on the verb. Marubo and apparently Kasharari (Sousa 2004) have pronominal **pro**clitics for all persons.

## 4.    Extended intransitive verbs and other special verb types

Valence (number of core/obligatory arguments coded: 1, 2 or 3) and transitivity class (intransitive vs. transitive, which governs marking of arguments, selection of transitivity-conditioned allomorphs of verbal suffixes, selection of proverbs, and adverbial transitivity agreement) are rigidly coded in all verb roots, and their valence can be altered only via overt verbal suffixes (causative, applicative, reflexive/passive/anticausative, reciprocal or antipassive; see Table 3 in §1.3). Table 13 summarizes the different transitivity classes of verbs in the Mayoruna languages. All the Mayoruna languages studied so far have this same inventory of verb classes, though with different numbers of verbs in each category, notably in the extended intransitive and ditransitive categories.

**Table 13.**  Transitivity classes of verbs in Mayoruna languages

| Transitivity class Subtype | Valence | Core functions and marking | Number of roots | Examples |
|---|---|---|---|---|
| Intransitive: | | | | |
| (simple) intransitive | 1 | S-Ø | >300 | run, cry, bloom, die |
| extended intransitive | 2 | S-Ø, E-Ø | 1–4 | want, forget, not share |
| copulas | 1 or 2 | S-Ø, CC-Ø | 1–2 | be, exist |
| Transitive: | | | | |
| (mono)transitive | 2 | A-*n*, O-Ø | >300 | kill, see, eat, flirt with |
| ditransitive | 3 | A-*n*, O-Ø, O-Ø | 1–8 | give, take from, tell |

Symbols: S = intransitive/copula subject, E = extended intransitive argument, CC = copula complement, A = transitive subject, O = transitive object.

Unique among other Mayoruna verbs, copulas can, except in Matses, be elided in finite equative and attributive clauses in the present tense, sometimes obligatorily and sometimes optionally. This will become relevant in Section 6. Copular subjects are essentially identical to intransitive subjects, but nominal copula complement (i.e., the second argument in equative clauses) do differ from other grammatical relations.

Mayoruna ditransitive clauses are of interest in that they can have two absolutive-marked ("zero-marked") noun phrases, and these can occur in the same set of syntactic positions (9 and 10).

Dëmushbo:

(9)  *kida-n*          *dunu-Ø*        *witsun-Ø*       *mene-bo-ṣh*
     woman's.name-ERG man's.name-ABS wristband-ABS give-REC.PAST-3
     'Kida gave Dunu wristbands.'

Matis:

(10) *Ø   Ø   [awën   champi]-Ø    mene-bonda-ṣh*
     3(A) 3(O)  3GEN:SG daughter-ABS give-DIST.PAST-3
     'He gave his daughter away (to him).'/'He gave it to his daughter.'

This applies to trivalent roots as well as valence-increased bivalent verbs, that is, causatives and applicatives. See Fleck (2002, 2003: 864–881) and Ferreira (2005: 95) for further details in Matses and Matis. The relevant ergative pattern to note here is that in Mayoruna languages, the ergative A contrasts with absolutive S/O/O, not just with S/O.

The most interesting minor verb type for the study of ergativity is the class of extended intransitive verbs. Almost all verbs that require two core arguments, including psych-verbs like Matses *tantia* 'think, understand, remember, know, believe' and Matis *dais* 'desire, covet,' are treated as transitive with the more agentive argument or the Experiencer marked in the ergative case, and the other core argument in the absolutive. The exceptions are a small set of 2–4 bivalent intransitive verbs that are atypical: they have two obligatory arguments, but are treated as intransitive by transitivity-conditioned verbal suffixes, adverbial transitivity agreement, case marking of the subject, etc. As can be seen in Table 13 and examples (11)–(13), the coding of both arguments as absolutive in extended intransitive clauses represents a deviation from the overall ergative case-marking pattern in the language (recall that non-core arguments are always marked with enclitics or free postpositions).

Kulina:

(11) *[kun   kuku]-Ø        [awën nini]-Ø       kudas-bonda-ṣh*
      1.GEN cross.uncle-ABS  3.GEN daughter-ABS not.share-DIST.PAST-3
     'My uncle was stingy with his daughter (i.e., would not give her away).'

Matis:

 (12) *tumi-Ø*    *tonkate-Ø* *cho-e-k*
    man's.name-ABS firearm-ABS have-NPAST-INDIC
    'Tumi has a shotgun.'

Matses:

 (13) *debi-Ø*  *chompian-Ø bëşhun-ak*
    Davy-ABS firearm-ABS forget-INFER:REC:PAST
    'Davy forgot the shotgun.'

Matses and Dëmushbo are unique within the Mayoruna family in that they are the only two that have the extended intransitive verb *bun* 'want,' which can also mean 'like (with amorous interest)' with a second human argument. In contrast to clauses formed with typical bivalent verbs, clauses with *bun* are potentially ambiguous when they involve two people, as can be seen in the alternate translations of (14a). The interesting bit is that in Matses, when both arguments are human, it is possible to mark one of them (the "liker") as ergative, by cliticizing a noun with *-n* (14b) or by selecting an ergative pronoun (14c), creating an ergative construction and eliminating any possible ambiguity. The use in Matses of constructions like (14b) and (14c) to resolve ambiguity, suggests that this is an innovative use of the ergative case. The fact that the ergative marker cannot be used when one of the arguments is inanimate (and therefore devoid of potential ambiguity), as in (14d), suggests that the extension of the ergative pattern into these clauses is recent and functionally motivated.

Matses:

 (14) a. *debi-Ø*  *mibi bun-e-k*
     Davy-ABS 2ABS like-NPAST-INDIC
     'Davy likes you.'/ 'You like Davy.'

    b. *debi-**n***  *mibi bun-e-k*
     Davy-ERG 2ABS like-NPAST-INDIC
     '**Davy** likes you.'

    c. *debi-Ø*  ***mimbi** bun-e-k*
     Davy-ABS 2ERG like-NPAST-INDIC
     '**You** like Davy.'

    d. *\*debi-**n***  *chompian-Ø bun-e-k*
     Davy-ERG firearm-ABS want-NPAST-INDIC
     ('Davy wants a shotgun.')

In Matses, when the verb *kudas* 'not share/be greedy with/not be generous'[8] is used with two overt participants (similarly to the Kulina example in 11 above), speakers occasionally mark the "refuser" as ergative. Other speakers insist that this is ungrammatical, but nevertheless these "errors" support the hypothesis that there is tendency to extend the ergative case marking pattern to extended intransitive verbs. Kulina also has the verb *bun*, but it is a simple intransitive verb meaning 'be hungry.' The verb *bun* in Matses and Dëmushbo also has 'be hungry' as the default meaning when no desired entity is mentioned or implied, suggesting this may have been the original meaning.

At this point, we can speculate that one way (actually, the only way we have suggestive evidence for) that intransitive verbs become transitive verbs is by going through a stage as extended intransitive verbs, as appears to be happening with *bun* and *kudas* in Matses. Considering the very small number of extended intransitive verbs in the Mayoruna languages, the extended intransitive pattern may be only an intermediate stage, rather than a stable verb subclass in the language, due to the tendency to extend the use of the ergative enclitic. The stability of this category is further called into question by the fact that no two Mayoruna languages have the same (cognate or semantically equivalent) set of verbs in this class, and that no one verb exists in the extended intransitive class in all the Mayoruna languages.

## 5.  Transitivity agreement

Panoan languages have the rare and interesting property that adverbials (adverbs, adverbial clauses and postpositional phrases) agree with the transitivity of the matrix verb (Valenzuela 2003, 2005). In Mayoruna languages, two pairs of enclitics occur attached to adverbs and postpositional phrases indicating transitivity agreement: (i) manner transitivity agreement enclitics and (ii) event initiation transitivity agreement enclitics. The manner transitivity agreement enclitics, *-ek* 'Manner: Intransitive Agreement' and *-en* 'Manner: Transitive Agreement', occur obligatorily with some Matses, Kulina, Dëmushbo, and Chankuëshbo manner adverbs (15), and occur with pro-adverbs in all the Mayoruna languages in certain syntactic positions (16).

Matses:

(15) a.  *debi-Ø*     *kumanpen-ek*        *kapu-o-şh*
Davy-ABS  intensely-MANR:INTR  walk-REC.PAST-3
'Davy walked fast/strongly.'

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8.   The Spanish/Portuguese terms *mezquinar*/*mesquinhar* are more accurate translations.

b. *debi-n    kumanpen-**en**    kues-o-şh-i*
Davy-ERG intensely-**MANR:TR** hit-REC.PAST-3–1O
'Davy hit me hard (forcefully).'

Kulina:

(16) a. *apad-**ek**         kuan-wa-şhun*
like.that-**MANR:INTR** go-again-after:S/A→A
'After leaving like that again...'

b. *apad-**en**         kun   chibi-n        chui-bonda-şh*
like.that-**MANR:TR** 3GEN younger.sister-ERG tell-DIST.PAST-3
'That's how my sister told it.'

Of particular interest for the description of Mayoruna alignment patterns are the event initiation transitivity agreement enclitics, *-wëşh* 'Event Initiation: Intransitive Agreement' and *-şhun* 'Event Initiation: Transitive Agreement.' The presence of *-wëşh* or *-şhun* on an adverbial indicates that the location or other adverbial notion specified in the adverbial refers to the beginning of the event. With locative adverbials, the event initiation meaning is very clear: when the adverbial is associated with the initiation of the event and the verb is intransitive, it takes the enclitic *-wëşh* (17), and when the verb is transitive, it takes the enclitic *-şhun* (18, 19 and 20a). If the adverbial refers to the end or the middle of the event, then it takes no agreement enclitic, regardless of the verb's transitivity (17, 18 and 20b).

Matses:

(17) *[tied     nantan]-**wëşh** [şhubu nuntan] cho-o-bi*
  swidden on-**INIT.INTR**   house inside   come-REC.PAST-1s/O
'I came home [lit. 'in the house'] **from** the swidden.'

Kulina:

(18) *ëmbi maë-no-**şhun**      şhubu-no   nona-Ø*
1ERG swidden-LOC-**INIT.TR** house-LOC plantain-ABS
*bë-bo-k*
bring-REC.PAST-INDIC:1/2
'I brought plantains home **from** the swidden.'

Matses:

(19) *këwëte-wa-şhun          Ø     tonkodo-Ø     kuës-kid*
hook-VZR:make-after:S/A→A 3ERG tree.species-ABS gather-HAB
*[kuëte     utsi]-n-şhun*
dicot.tree other-LOC-**INIT:TR**
'They make a hook, and then gather *tonkodo* fruits **from** another tree (i.e., by climbing an adjacent tree).'

Matis:

(20)   a.   *idancha-n-ṣhun*           *ëmbi nawa-Ø*        *is-bo-k*
        river.boat-LOC-**INIT.TR** 1ERG nonIndian-ABS see-REC.PAST-INDIC:1/2
        'I saw the non-Indian **from** the river boat.' [the first person is on board
        the boat and the non-Indian probably on shore, though the non-Indi-
        an's location is ambiguous]

      b.   *idancha-**n***           *ëmbi nawa-Ø*        *is-bo-k*
        river.boat-**LOC** 1ERG nonIndian-ABS see-REC.PAST-INDIC:1/2
        'I saw the non-Indian **on** the river boat.' [the non-Indian is on board
        the boat and the first person could be on shore, on the same boat, or
        elsewhere]

Examples (19) and (20) above show that when a transitive verb codes an event that
involves the A and O arguments in two **separate** locations with no movement across
space by the arguments, an adverbial with *-ṣhun* will be associated with the A (19
and 20a), and an uncliticized adverbial will be associated with the O (20b). As has
been noted before (e.g., Delancey 1981, 1982), event initiation is one of the criteria
that semanticians utilize to identify the Agent, so it is not surprising that transitiv-
ity agreement associated with event initiation will in some cases also be associated
with the Agent. Given the overlap between Agent and A argument, this association
between Agent and transitivity agreement may lead some to assume that adverbial
agreement is not with transitivity, but is rather controlled by the A argument. How-
ever, it is clear from sentences like (17) and (18) that in a synchronic description of
the Mayoruna languages it is not possible to analyze the system as involving a con-
sistent association of *-ṣhun* with A, *-wëṣh* with S, and *-Ø* with O.

The association of event initiation transitivity agreement enclitics with par-
ticipants is even stronger with quantifier adverbials because quantifiers tend to
semantically modify nominal constituents rather than events/clauses.[9] Event ini-
tiation transitivity agreement enclitics occur on quantitative adverbials when they
modify three types of participants: (i) subjects, (ii) Instruments, and (iii) genitive
elements (i.e., possessors). Here, only modification of subjects is relevant for the
description of Mayoruna alignment patterns; Fleck (in progress) describes these
other uses of the transitivity agreement suffixes in the Mayoruna languages.
Table 14 provides a summary:

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**9.**   Quantifier words (e.g., Matses *dadpen* 'many,' *tema* 'few,' *daëd* 'two') are a subclass of ad-
verbs. They are morpho-syntactically similar to locative and manner adverbs and quite different
from adjectives and nouns/pronouns. See Fleck (2003: 515–519) for further details on the clas-
sification of quantifiers as adverbs.

**Table 14.** Paradigms for event initiation adverbial transitivity agreement enclitics

| | Agreement controller | | |
|---|---|---|---|
| | **Transitive verb** | **Intransitive verb** | **Phrase head** |
| Manner adverbial: | *-en* | *-ek* | |
| Locative indicating... | | | |
|    event initiation | *-şhun* | *-wëşh* | |
|    event end/middle | *-Ø* | *-Ø* | |
| Quantifier modifying a(n)... | | | |
|    instrument: | *-şhun* | *-wëşh* | |
|    subject: | *-şhun* | *-wëşh*[a] | |
|    object: | *-Ø* | *N/A* | |
|    genitive: | | | *-şhun*[b] |

[a] Only in Matses, restricted and apparently archaic.

[b] In Matses, Kulina, and Dëmushbo; Matis speakers use *-n*.

Let us look then at how transitivity agreement suffixes modify quantifiers:

Dëmushbo:

(21)  a.  *abitedi-**wëşh**   chidabo-Ø    kuan-bo-şh*
        all-INIT.INTR  woman-ABS  go-REC.PAST-3
        'All the women went.'                                    adverb modifies **S**

     b.  *abitedi-**wëşh**   Ø    kuan-bo-şh*
        all-INIT.INTR  3(s)  go-REC.PAST-3
        '(They) all went.'                              adverb modifies (covert) **S**

     c.  *abitedi chidabo-Ø    kuan-bo-şh*
        all      woman-ABS  go-REC.PAST-3
        'All the women went.'                                    adverb modifies **S**

Kulina:

(22)  a.  *akbitedi-**şhun** dada-**n**    nëish-Ø        pe-bo-şh*
        all-INIT.TR   man-ERG  game.animal-ABS  eat-REC.PAST-3
        'All the men ate game.'                                  adverb modifies **A**

     b.  *akbitedi-**şhun** Ø    nëish-Ø        pe-bo-şh*
        all-INIT.TR   3(A)  game.animal-ABS  eat-REC.PAST-3
        '(They) all ate game.                           adverb modifies (covert) **A**

     c.  *akbitedi nëish-Ø        pe-bo-şh*
        all      game.animal-ABS  eat-REC.PAST-3
        '(They) ate up all the game.'                            adverb modifies **O**

Older Matses speakers still occasionally use *-wëşh* in sentences like (21a) and (21b), and young people recognize these constructions, but sentences like (21c) are now preferred by even the old people. Dëmushbo and Kulina (only the Kapishtana and Chema dialects) also use *-wëşh* optionally in this context, though no socio-linguistic information was recoverable. Also, of all the Mayoruna quantitative adverbs, *abitedi/akbitedi* is the only one with which *-wëşh* is still used in this context, that is, modifying an intransitive subject (but *-wëşh* **can** be used with other quantifier adverbials when modifying an Instrument in an intransitive clause; Fleck in progress). By contrast, *-şhun* is used with all the Mayoruna quantitative adverbs in all the languages in any context, and is even obligatory in most instances where the quantifier is associated with the A argument. It is noteworthy that the omission of *-wëşh* with quantitative adverbs does not alter the basic meaning of the (always intransitive) sentence (21a vs. 21c), but its omission with locative/directional adverbials **does** make a significant difference (20a vs. 20b). This would facilitate the loss of *-wëşh* with quantifiers and motivate its retention with locatives, if an earlier system actually consistently allowed *-wëşh* with any quantifier modifying an intransitive subject. Meanwhile, the omission of *-şhun* with either type of adverbial results in a difference in meaning (20a vs. 20b; 22a vs. 22c).

When arguments occur as covert third-person pronouns instead of full nouns, a quantifier modifying the covert pronoun will look like it itself is the argument (21b and 22b). So as suggested for Matses in Fleck (2006a), it is possible that all Mayoruna speakers have reanalyzed quantifiers, in these constructions, as being a subcategory of nouns (or a separate noun-like word class), simultaneously reanalyzing *-şhun* as an ergative marker specific to quantifiers.[10] Table 15, from Fleck (2006a), illustrates this possible diachronic scenario.

**Table 15.** Paradigms for event initiation adverbial transitivity agreement enclitics

| Located/modified argument | Locative adverbs (with no locomotion) | Quantifier adverbs | |
|---|---|---|---|
| | | Old pattern | New pattern |
| A | *-şhun* | *-şhun* | *-şhun* |
| S | *-wëşh* | *-wëşh* | *-Ø* |
| O | *-Ø* | *-Ø* | *-Ø* |

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**10.**   Ferreira (2001, 2005) described *-şhun* as an ergative marker for quantifiers in Matis.

## 6.   Reanalysis of biclausal constructions

### 6.1   Negative clauses

Sentential negation in all the Mayoruna languages is expressed as a single clause, with a complex predicate composed of a non-finite main verb and an auxiliary verb (23b, 24b, 25b). In Matis, the auxiliary verb *ik* can be elided in the present tense (25c), as in finite copular clauses.

Matses:        S
  (23)   a.   *debi-Ø     chonoad-e-k*
             Davy-ABS  work-NPAST-INDIC
             'Davy works.'

              S
         b.   *debi-Ø     chonoad-**enkio** ik-e-k*
             Davy-ABS  work-**NEG**        be(AUX)-NPAST-INDIC
             'Davy does not/will not work.' [lit. 'Davy is non-working.']

 Kulina:        A               O
  (24)   a.   *dabi-**n**     maë-Ø        dëd-bo-şh*
             David-**ERG**  swidden-ABS  fell-REC.PAST-3
             'David felled the swidden.'

              A               O
         b.   *dabi-**n**     maë-Ø        dëd-**empa** ik-bo-şh*
             David-**ERG**  swidden-ABS  fell-**NEG**     be(AUX)-REC:PAST-3
             'David did not fell the swidden.'

Matis:        A    O
  (25)   a.   ***ëmbi** du-Ø              pe-e-k*
             **1ERG**  howler.monkey-ABS  eat-NPAST-INDIC
             'I eat/am eating/will eat howler monkey.'

              A        O
         b.   ***ëmbi** du-Ø              pe-**emen**(-pa)   ik-e-k*
             **1ERG**  howler.monkey-ABS  eat-**NEG**-INTENS  be(AUX)-NPAST-INDIC
             'I (truly) do not eat/am not eating/will not eat howler monkey.'

              A        O
         c.   ***ëmbi** du-Ø              pe-**emen**(-pa)   Ø*
             **1ERG**  howler.monkey-ABS  eat-**NEG**-INTENS  be(AUX):PRESENT
             'I (truly) do not eat howler monkey.'

Here I present the following diachronic hypothesis: Mayoruna sentential negation constructions are derived historically from subordinated adjectivalized clauses in the copula complement slot of attributive matrix clauses headed by the copular verb *ik*. The fact that this is the only sentential negation strategy in the Mayoruna languages is itself one argument for clause fusion through reanalysis, but much more concrete and convincing evidence exists, which will be presented in the remainder of the present section.

Adjectivization of verbs (26b) is accomplished essentially by treating a verb as an adjective (26a).

Matses:

(26)   a.   *nënë-Ø*      *tanun-kio*     *ik-e-k*
             tobacco-ABS dry-**INTENS**  be-NPAST-INDIC
             'The tobacco is dry.'

       b.   *nënë-Ø*       *chonoad-kio*  *ik-e-k*
             tobacco-ABS work-**ADJZR**   be-NPAST-INDIC
             '(Preparing) tobacco is a lot of work.' [lit. 'Tobacco is workful.']

Subordination in Mayoruna languages is based on class-changing derivation, and morphemes like *-kio* can derive an adjective from a noun (as in 26b), or they can function as subordinating morphemes that create a clause that can occur in most adjective slots. Negative clauses are variations of adjectivalized clauses. Negative subordinate clauses still occur when the matrix verb is not a copula (27a), making directionality fairly transparent from these to the Mayoruna sentential negation constructions (27b).

Matses:

(27)   a.   *tumi-Ø*        *[senad-Ø*  *pe-en-kio]*     *tsad-o-şh*
             man's.name-ABS   deer-ABS eat-**NEG-ADJZR** sit-PAST-3
             'Tumi sat there without eating deer.' or '… without having eaten.'

       b.   *tumi-n*         *pe-enkio ik-o-şh*     *senad-Ø*
             man's.name-ERG eat-**NEG** AUX-PAST-3  deer-ABS
             'Tumi did not eat deer.'

Observe in (27a) that the status of the negative verb as a distinct clause is clear when the matrix verb is not a copula, as opposed to the sentence in (27b), where the constituency status of the erstwhile subordinate clause has been lost and the arguments can freely occur in any position.

In Matses, intensifier morphemes are obligatory and some are semantically empty in attributive clauses (26a) and all function as subordinating morphemes in adjectivalizations (27b and 26b). This makes Matses negative clauses formally very

similar to attributive clauses with an adjectivalized verb in the copula complement slot (i.e., in the place of the adjective), as in (26b). In Matis, the intensifier morpheme in the negative construction is optional and still has intensification semantics, as can be seen in (25b) and (25c).

Subordinate clauses with intransitive verbs are not very interesting since the subject of the subordinated verb and the subject of the copular verbs are both expected to be marked as absolutive arguments (23). But with adjectivalized **transitive** verbs we can observe some interesting effects (24 and 25). The use of the ergative marker in (24b), (25b) and (27b) reveals that the verb *ik* is no longer a copular main verb, but an auxiliary, and that the ergative case-marking pattern has been extended to negative constructions.

An interesting comparison is between the Matis extended intransitive verb *bëama* 'forget' (28a) and the negated verb *bë* 'bring' (28b).

Matis:

(28)  a.  ***ëbi***   *mente-Ø*       ***bëama-bo-k***
          1ABS   fire.drill-ABS   **forget**-REC.PAST-INDIC:1/2
          'I forgot the fire drill.'

      b.  ***ëmbi***   *mente-Ø*       ***bë-ama***              *ik-bo-k*
          1ERG   fire.drill-ABS   **bring-NEG:PAST**   AUX-REC.PAST-INDIC:1/2
          'I did not bring the/a fire drill.'

If indeed the verb *bëama* is an archaism whose source is the negated verb *bë-ama*, my diachronic hypothesis would explain why it is today an extended intransitive verb (i.e., a verb with two zero-marked participants, as described in Section 4). That is, when the negated verb was reanalyzed as a new lexeme meaning 'forget,' the case-marking pattern, where the forgetter was the (intransitive, zero-marked) subject of the copula, was fossilized. The ergative marking pattern in modern negative sentences like (25) and (28b) would then be innovative, and more recent than the lexicalization of the verb *bëama*.

In summary, the case-marking patterns, the presence of intensifiers/adverbializers, the constituency statuses, and perhaps the Matis verb *bëama* all indicate that negative constructions are reanalyzed one-clause constructions, and the ergative case marker was extended when the erstwhile transitive subordinate verbs became main verbs.

## 6.2   Abilitative constructions

Abilitative constructions express the ability to perform an action, and can also have a desiderative meaning in most contexts (29–31). They are adjectivalizations,

structurally similar to the negative constructions described in the preceding section. For Matses and Kulina, abilitative constructions could also be argued to have been reanalyzed as single clauses with complex predicates, but for these constructions there are no signs of extension of the ergative pattern or other evidence of reanalysis (yet). For Matis, on the other hand, the ergative case marking pattern has been extended to abilitative constructions (31b), similarly to negative constructions.

Matses:       S
  (29)  a.  *debi-Ø*     *chonoad-tiad-kio  ik-e-k*
            Davy-ABS work-ABIL-ADJZR  be-NPAST-INDIC
            'Davy can/wants to work.' [lit. 'Davy is work-able/work-wanting.']

              S            O
        b.  *debi-Ø*     *[nuëkkid-Ø pe-tiad-kio]      ik-e-k*
            Davy-ABS fish-ABS    eat-ABIL-ADJZR be-NPAST-INDIC
            'Davy can/wants to eat fish.'

Kulina:        O            S
  (30)  *[main-Ø pe-tiad-kio]     **ëbi**   ik-e-k*
        fish-ABS eat-ABIL-ADJZR 1ABS be-NPAST-INDIC
        'I can/want to eat fish.'

Matis:         S
  (31)  a.  *dabi-Ø*     *chonoad-tepad ik-nëda-ṣh*
            David-ABS work-ABIL     AUX-DIST.PAST-3
            'David was able/willing to work.'

                A          O
        b.  *dabi-**n***     *du-Ø*               *pe-tepad (ik-e-k)*
            David-ERG howler.monkey-ABS eat-ABIL AUX-NPAST-INDIC
            'David can/would eat howler monkey.'

Matis, then, appears to be further along in the process of "ergativizing" the adjectivalized constructions. Perhaps the optional elision of the copula/auxiliary and optional lack of an emphatic/adjectivalizing morpheme may have speeded the analogy to simple transitive clauses.


7.    Conclusions

The hypothesis that Matses is in the process of becoming morphologically more ergative seems to be borne out by the present study. In Fleck (2005, 2006a) I proposed the following five ways in which Matses appears to be becoming more ergative:
i.    Loss of two of the three non-ergatively patterned pronouns.

ii.  Use of the ergative case marker to disambiguate double-absolutive clauses.
iii.  Introduction of an ergative element (pronominal enclitics) into the person agreement system.
iv.  New ergative pattern for marking quantifier adverbs and possible reanalysis of the transitivity agreement enclitic -*ṣhun* as an ergative marker for quantifiers.
v.  Extension of ergative marking pattern from simple active sentences to reanalyzed negative constructions.

With respect to (i), it is now evident from the pronoun paradigms in Section 2.2, that, as Matses speakers claimed, the second-person plural pronouns are archaic, and it is now additionally apparent that Matses has lost the accusatively-aligned third-person plural forms. Furthermore, while in Fleck (2006a) I suggested that this change in the pronoun paradigm might be a trivial byproduct of the loss of plural forms, it looks now like a much more significant regularization is in process across the Mayoruna branch. With respect to (ii), the presence of this same construction (i.e., with the verb *bun* 'want X') in Dëmushbo without the ability to use the ergative case marker, and the existence of the verb *bun* in other languages as a monotransitive verb (§4), supports the assertion that the Matses use of the ergative case marker with the verb *bun* is innovative. With respect to (iii), as was shown in Section 3.2, it is evident that indeed the enclitics evolved from an optional placement of first-person pronouns at the end of the verb. With respect to (iv), it appears that all the languages are treating -*ṣhun* more like an ergative marker for quantifiers by eliminating the use of -*wësh* with quantifiers, particularly where they modify the S. With respect to (v), we note that the Mayoruna languages all have reanalyzed the negative construction as a one-clause construction and extended the ergative marking pattern to it, and in a parallel reanalysis, the ergative marking pattern has been extended to Matis abilitative clauses. The diachronic change in (v) is not only significant, but is transparently reconstructable.

In short, the Mayoruna languages appear to be becoming gradually more ergative in that all identified changes in alignment are in the direction of increasing the consistency of the ergative pattern. This is not a commonly attested phenomenon (see Creissels 2008 for one of the few documented parallel examples, in the Caucasian language Avar), and I suspect the following factors contribute to make this possible in the Mayoruna languages. (i) Only morphological patterns are becoming more uniformly ergative, not the syntax. (ii) There are no accusative (or ergative) pivots in these languages, and therefore there is no motivation for the morphology to "follow suit" with the syntax. (iii) There are no significant ergative-accusative splits, only a few minor non-ergative details to regularize. Thus I propose that non-ergative case-marking patterns are being regularized by analogy to the overwhelmingly ergative case marking alignment in the Mayoruna languages.

The alignment patterns described in this paper indicate that the languages in the Mayoruna branch are more similar to one another than to other Panoan languages. The Mayoruna pronoun paradigms differ from each other in several respects, but at least the forms are fairly consistent across the languages, particularly as compared to those of other Panoan languages. The forms that mark grammatical relations, specifically the case enclitics *-n* and *-Ø* and the person agreement markers, *-şh*, *-k* and *-Ø*, and also the transitivity agreement enclitics *-ek*, *-en*, and *-wëşh* and *-şhun* are identical formally, despite the agreement and transitivity agreement suffixes having some differences in distribution and function. Meanwhile, the case and transitivity agreement morphemes have cognates in the other Panoan languages, but with differences in basic form and/or allomorphy patterns, in addition to differences in distribution and function. The fourth-person and the adding of an extra participant to clauses headed by prefixed verbs are characteristics common to all the Mayoruna languages, and unknown in the other Panoan languages. However, it should be kept in mind that almost all Panoan languages are underdescribed and, upon further investigation, some of these processes may turn up elsewhere in the family. Likewise, to conduct a responsible grammatical reconstruction of the Panoan family will have to wait until more detailed and reliable information becomes available, and only through reconstruction can the validity of the Mayoruna branch be definitively demonstrated. The present study is meant to contribute toward such a reconstruction, and to inform other Panoanists that Mayoruna alignment patterns are fundamentally different in several respects, and so generalizations about the Panoan family should not be made without close inspection of this most divergent branch of the family.

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## Morpheme gloss abbreviations

| | | | |
|---|---|---|---|
| 1. | first person | INTENS | intensifier |
| 2. | second person | INTR | intransitive agreement |
| 3. | third person | LOC | locative |
| 4. | fourth person | MANR | manner |
| A | transitive subject | NEG | negative |
| ABIL | abilitative | NOM | nominative |
| ABS | absolutive case | NPAST | non-past |
| ADJZR | adjectivalizer | NZR | nominalizer |
| AUX | auxiliary verb | O | transitive object |
| DIST | distant | PAT | patient |
| ERG | ergative case | PL | plural |
| GEN | genitive | REC | recent |
| HAB | habitual | S | intransitive subject |
| IMM | immediate | SG | singular |
| INDIC | indicative | TR | transitive agreement |
| INFER | inferential | VZR | verbalizer |
| INIT | event initiation | → | argument tracking (subordinate→matrix) |
| INST | instrumental | | |

# Ergativity in Shipibo-Konibo, a Panoan language of the Ucayali

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Shipibo-Konibo (a Panoan language from the Peruvian Amazon) has a highly consistent ergative-absolutive case-marking system that operates all along the Animacy Hierarchy. The marker *-n* (which exhibits a rich allomorphy) indicates ergative, genitive, instrumental and other oblique functions. Through internally-headed relative clauses it is possible to relativize on S/O but not on A arguments; this constitutes the only instance of syntactic ergativity. Different types of non-ergative arrangements are present in a variety of constructions: accusative case-marking on emphatic pronouns, accusative distribution of emphatic pronouns and of the verbal plural agreement marker *-kan*, neutral case-marking in a dedicated progressive construction, a very idiosyncratic A/O/S$_a$ vs. S$_o$ pattern in the occurrence of doubled pronouns, and tripartite configuration of inflectional morphology on adjuncts.

**Keywords:** Shipibo-Konibo, Panoan, ergative-absolutive case-marking, syntactic ergativity, tripartite marking

## 1. Introduction[1]

The Shipibo or *Jonikon*, "Core People," are a Panoan ethnic group who live in the Peruvian Montaña, between approximately six and ten degrees south latitude, and

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seventy-four to seventy-five degrees west longitude. Unlike the interfluvial Panoans such as the Oni,[2] Amawaka, and Kashinawa, the Shipibo are dominantly riverine people; most of them are settled in separate villages along the meandering Ucayali River and its main tributaries and ox-bow lakes, in the Departments of Ucayali and Loreto. The Shipibo consider themselves *kikin Paro ibo*, that is, "real owners of the Ucayali."

With an estimated population size of over 30,000 individuals, the Shipibo are by far the most numerous people among the Panoan and the third most numerous of the Peruvian Amazon, after the Ashaninka (Arawak family) and the Aguaruna (Jivaroan family). In the past, the *Jonikon* considered themselves as three different ethnic units: *Shipibo*, the Tamarin Monkeys; *Konibo*, the Electric Eels; and *Xetebo*, the *Rinahuis*, a kind of small vulture. Presently these three groups constitute almost a single people and call themselves "Shipibo," although in the Upper Ucayali some adults may still identify themselves as "Konibo." Their language is usually referred to in the literature as "Shipibo-Konibo."[3]

The present article examines the different configurations of core arguments in Shipibo-Konibo, both at the morphological and syntactic levels. Ergative alignment is found in Shipibo-Konibo's fairly consistent ergative-absolutive case-marking system, as well as in internally-headed relative clauses. On the other hand, different types of non-ergative arrangements are present in a variety of constructions

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The core of the data upon which the present study is based, originates from my own work among the Shipibo and consists of oral text gathered and recorded during several field stays of varying duration particularly between 1996 and 2002. Other text data include printed materials addressed to a Shipibo audience; these texts extracts were always checked by native speakers. The text data have been complemented with plenty of elicited materials and other kinds of field notes, such as data overheard from native speakers, and native speakers' intuitions and grammaticality judgements (though trying to embed the constructions in question within adequate non-linguistic contexts). The analysis of syntactic structures is based on text data. Elicited materials have been used in further exploration of phenomena first identified in spontaneous speech, or to deal with specific points for which answers are not commonly found in spontaneous text. The illustrative examples throughout this article have a variety of sources: text extracts (e.g., (v), (vi), (12), (16), (32), (53), (65), (67), (68)); slightly modified versions of text extracts (e.g., (13), (26), (44), (58), (66)); data overheard from native speakers (e.g., (1), (2), (7), (75b)); slightly modified data overheard from native speakers (e.g., (10), (11), (70)); invented examples judged (un)acceptable and interpreted by native speakers (e.g. (14–15), (40–43)), etc. Every illustrative example has been checked by at least two other native speakers.

**2.**    Also known as Kashibo and Kakataibo.

**3.**    Ethnographic information on the Shipibo people can be found in Eakin, Lauriault and Boonstra (1986), Morin (1998), Tournon (2002), Valenzuela and Valera (2005), among others. As for their language, a detailed grammatical treatment is offered in Valenzuela (2003); also, there is a Spanish-Shipibo dictionary by Loriot, Lauriault and Day (1993).

and are realized through different means such as case-marking on emphatic pronouns and progressive clauses, distribution of doubled pronouns, plural marking in the verb, and Participant Agreement on adjuncts. Only two of the aforementioned features are attested across Panoan languages, (split)ergative case-marking and Participant Agreement on adjuncts. The latter operates on a tripartite basis, and diachronically involves case agreement (Valenzuela 2003, Chapter 20).

The organization of the present study is as follows. In the remainder of this section, I introduce relevant concepts and conventions and offer an overview of central grammatical features found in Panoan languages, particularly in Shipibo-Konibo. This will provide the necessary background to discuss ergative and non-ergative alignments in Sections 2 and 3, respectively. Finally, concluding statements, a table summarizing the different configurations and additional remarks are given in Section 4.

## 1.1    Conceptual and terminological issues

In studies dealing with alignment it has become customary to employ the symbols $S_a$, $S_o$, A and O. $S_a$ and $S_o$ refer, respectively, to the single argument of an active and inactive intransitive clause. With verbs involving two or more obligatory arguments, the assignment of A and O relations depends on the prototypical meaning of the verb in question. A refers to the most agentive-like argument, whereas O refers to the most patient-like counterpart (Dixon 1979, 1994). This approach, which considers S, A, and O as semantico-syntactic primitives, is not uncontroversial. The main criticism has been its inadequacy in the treatment of languages that morpho-syntactically distinguish different types of intransitive clauses (Harris 1997, Mithun and Chafe 1999). Nevertheless, I will adopt these symbols as a matter of convenience, especially since arguments in $S_a$ and $S_o$ functions are predominantly treated as a single category in Panoan (but see 3.3).

It is often agreed that there are three major alignment types found cross-linguistically: nominative-accusative, ergative-absolutive, and active-inactive. Two other configurations are also attested, neutral and tripartite; in the latter alignment type all three categories are given a different treatment. Although typologically uncommon, tripartite alignment is especially relevant in Panoan languages. As mentioned above, Participant Agreement on adjuncts, a salient feature found in the family, works on this basis and employs explicit morphological marking for the S category (3.6). However, it is important to stress that there are several languages that do not follow any of the above described systems, but exhibit instead inverse/hierarchical alignment patterns (see Queixalós and Gildea, as well as Haude in this volume; Guillaume 2009; among others.)

### 1.2   Grammatical features of Panoan and Shipibo-Konibo

The Panoan Family is a well-established genetic grouping in South America; it comprises close to thirty languages (that used to be) spoken in the Amazon regions of Peru, Brazil, and Bolivia. Among the major shared grammatical features are:

a.   Dominantly agglutinative morphology with polysynthetic tendencies in the verb.

b.   Predominant use of suffixes except for a set of reduced body-part roots which function as prefixes on verbs, nouns, and adjectives, and play an oblique function (exx. (8), (9), (66)) (some languages have developed suprafixes and circumfixes).

c.   Basic head-final type. The possessor precedes the possessum and there are postpositions rather than prepositions. Basic constituent order is AOV/SV; there is flexibility in (most) main clause types but rigid verb final order in dependent clauses.

d.   No, incipient, or little developed argument marking in the main verb or auxiliary (Fleck's contribution in this volume addresses subject agreement suffixes and pronominal enclitics in Northern Panoan languages).

e.   Split-ergative case-marking systems expressed through enclitics attached to the last word of the corresponding NP (exx. (14)–(16)).

f.   Polyfunctionality-syncretism with regard to the "ergative" case marker, so that it may also mark genitive (exx. (3), (14)), instrument/means (exx. (18), (24)), and other oblique functions (exx. (47b), (64), (66)).

g.   Tendency to mark the two objects of a three-place predicate in a similar fashion (except for Chacobo) (exx. (32)–(34)).

h.   Highly complex switch-reference systems. In addition to indicating subject[4] coreferentiality and the relative temporal or logical order of the events in the main and dependent clauses, same-subject markers correlate with the transitivity status of the matrix verb. (Most) same-subject markers take part in the Participant Agreement system and may also be found on conjunctions.

i.   "Participant Agreement" system; i.e., adjuncts that predicate of a core clause participant bear a specific inflectional marking in agreement with the syntactic function of this participant (Section 3.6).

j.   Evidential systems with predominantly non-cognate morphology across languages from the different branches of Panoan.

To the general grammatical characteristics listed above some refinements for Shipibo-Konibo can be added. In Shipibo-Konibo (henceforth, SK) word order flexibility is also found within the NP since adjectives, certain quantifiers, and

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4.   In this article "subject" refers to the conflation of S and A arguments, whereas "object" refers to the O argument of a transitive verb as well as either object of a ditransitive verb. For a discussion of grammatical relations in Shipibo-Konibo, see Valenzuela (2003, Chapter 12).

relative clauses may either precede or follow their head noun with no obvious semantic consequence. In addition, there is word order flexibility between a semantically main verb and its auxiliary, and between a dependent clause and its matrix clause.

Although morphology is predominantly agglutinative, monomorphemic words are common. The verb exhibits a polysynthetic tendency in that it often incorporates nominal and adverb-like markers; however, unlike some sister languages (e.g., Chacobo, Matses), SK has not developed argument marking on the verb (with the partial exception of the plural *-kan*, see ex. (64)–(66)), and hence one of the most defining criteria of polysynthesis does not apply to this language. In addition, diffuse morphemic boundaries are not infrequent and there are instances of internal change and suppletion with the verbs 'come' and 'go' (the latter might be a general Panoan feature). Also, SK has different types of enclitics; some of these (like the direct and reportative evidentials) are second position clitics that when attached to a verb stem precede the plural and aspect suffixes.

## 2. Ergative alignment

### 2.1 Case-marking

#### 2.1.1 *Case-marking in intransitive and transitive clauses*
SK exhibits an ergative-absolutive case-marking system. With a transitive verb, the most agent-like participant is marked ergative, while the most patient-like one occurs in the absolutive case. With an intransitive verb there is a neutralization of semantic roles with regard to case-marking, since the S can be an agent, an experiencer, or a patient. This argues for the existence of a syntactic rather than a semantic relation, even though this restrictive neutralization involves intransitive verbs rather than transitives (Van Valin and LaPolla 1997). Semantically, the A argument is generally an agent or force, sometimes an experiencer or even a body-part stimulus when the verb *chexa-* 'ache' is involved (exx. (30)–(31)), but not a patient. The O argument may be a patient, a recipient or an experiencer, but not an agent.

SK case-markers are enclitics that attach to the last word of the corresponding NP. In addition to conveying ergative, the morpheme *-n* indicates instrument/means, genitive (except for 1st and 3rd sing.), interessive[5] (except for 1st, 2nd and 3rd sing., as well as 1st pl.), locative/allative, and temporal. While it is the only means to convey ergative and instrument/means, there are alternative ways to

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5.    The interessive marks an optional participant in whose interest the S argument of a certain type of extended intransitive verb feels an emotion (see Valenzuela 2003, 8.2.2.2).

encode genitive and interessive with certain pronouns, as well as locative/allative and temporal with certain nouns.

To a large extent, the description of the SK case-marking system provided so far also applies to several sister languages. However, two peculiarities are to be highlighted with regard to SK: the high consistency of the ergative-absolutive alignment and the rich allomorphy exhibited by the ergative or *-n* marker. The latter has a diachronic explanation in a change that affected trisyllabic words in most Panoan languages, and which involved the loss of the last unstressed vowel or syllable (Shell 1975, Valenzuela 1998).

It is widely known that most languages exhibiting an ergative-absolutive alignment resort to one or more other configurations in certain parts of their grammar. The distribution of the different systems is generally associated to animacy or NP-type, the opposition between free NP and argument marking in the verb, tense-aspect-mood distinctions, syntactic status of the clause, or discourse-pragmatic factors (Dixon 1994, Givón 1984, Harris and Campbell 1995, Blake 1977, Blake and Dixon 1979: 6–9, among others). This common feature, known as "split-ergativity," is not immediately evident in SK in contrast with the situation found in several sister languages where at least some personal pronouns follow a non-ergative distribution (e.g. Wariapano and Yaminawa (Valenzuela 2000), Kashinawa (Camargo 2002), Matses (Fleck 2005), Kashibo-Kakataibo (Wistrand 1969), Chacobo (Zingg 1998, Córdova, Valenzuela & Villas to appear.).

As for the rich allomorphy of the ergative morpheme in SK, *-n*-marked forms display the following endings:[6] *-n*; *-an, -en, -in*; *-kan, -ten, -tan*; *-man*; *-nin*; *-ton*,

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**6.** The SK data throughout this article are given in the practical orthography employed in the bilingual schools. In the practical alphabet <e> stands for the high central unrounded vowel /ɨ/, <b> for the bilabial fricative /ß/, <h> for the glottal stop /ʔ/, <x> for the voiceless retroflex sibilant [ç], <r> for the retroflex approximant /ɻ/, and <Vn> for a nasalized vowel. As in Spanish, the following conventions apply in SK: <ch> corresponds to the palato-alveolar affricate /tʃ/, <j> to the glottal fricative /h/, and <hu> and <y> to the semiconsonants /w/ and /j/ respectively. Primary stress falls on the first syllable of the word, unless the second syllable is heavy in which case this latter syllable attracts the stress. Deviation from this basic pattern is indicated through an acute accent.

The following glosses and symbols are used in the present article: 1 first person singular, 2 second person singular, 3 third person singular, 1p first person plural, 2p second person plural, 3p third person plural, A transitive subject (orientation), ABL ablative, ABS absolutive, ACC accusative, ALL allative, AUX auxiliary, BEN benefactive, CAUS causative, CMPL completive aspect, COM comitative, DES desiderative, DIM diminutive, DIST distal, DISTR distributive, DS different-subject, EMPH emphatic, ERG ergative, EV direct evidential, FRUSTR frustrative, GEN genitive, I intransitive, INC incomplete aspect, INT interrogative, INTENS intensifier, INSTR instrumental, LIG ligature, LOC locative, MIDD middle voice, NEG negative, NMLZ nominalizer, NOM nominative, non-SG non-singular, O object (orientation), OBL oblique, ONOM onomatopeya, P.O=S/A previous event, dependent object is coreferential with matrix

*-tonin.* The distribution of these alternate forms (illustrated in Table 1) is, to a large extent, morpho-phonologically conditioned (Valenzuela 1998, 2003: 118–126). Disyllabic nouns exhibit the marker *-n* when ending in an unstressed vowel (*Wesna, ino, jene*), and *-Vn* (with certain vowel harmony) when ending in a sibilant (*jisis, kamox*). Disyllabic nouns whose final segment is a stressed vowel or a nasal exhibit the endings *-kan* (*iná, Wexá*) and *-man* (*Sanken, kinan*), respectively; the first segments in *-kan* and *-man* have been analyzed as neutralized realizations of a final root consonant (Valenzuela 1998). After addition of *-n*, disyllabic nouns undergo stress shift according to the rule stated in note 6; e.g., /ˈino/ > /iˈnon/, /hiˈsis/ > /ˈhisisin/. Trisyllabic nouns, most of which are loanwords, add the marker *-nin* (*ochíti, tohati*); stress remains unaffected. Derived nominals and nominalized clauses take the endings *-to ~ -tonin* (*nokot-a*). Finally, addition of *-n* to NPs ending in the plural/collective *-bo* (*jonibo, rawíbo*) results in *-baon*, *-boan*, and even *-boon* for some speakers. In contrast to the formal complexity of ergative marking, absolute case is indicated through zero or *-a*; the latter allomorph is manifested on the following pronouns: 1st and 2nd sing., 1st pl., and the interrogative *tso-* 'who.' Table 1 provides genitive, ergative, and absolute forms in SK. Paradigms are asymmetrical in that certain pronouns exhibit more case distinctions than other pronouns and nouns.

Sentences (1)–(6) illustrate the first person singular pronoun and common nouns in $S_o$, $S_a$, A and O syntactic roles (note also in (3)–(6) the genitive function played by *-n*):

(1) *E-a*-ra    isin-ai.                                                                 $S_o$
1-ABS-EV be.sick-INC
'I am sick.'

(2) *E-a*-ra    Kako-nko ka-iba-ke.                                         $S_a$
1-ABS-EV Caco-ALL go-PST2-CMPL
'I went to Caco yesterday.'

(3) *E-a*-ra    nawa-n    *ochíti-nin* natex-ke.                     O/A
1-ABS-EV mestizo-GEN dog-ERG   bite-CMPL
'The mestizo's dog bit me.'

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subject, P.SS.A previous event, same-subject, A-oriented, P.SS.S previous event, same-subject, S-oriented, PL plural, GEN genitive, PP1 present/incompletive participle, PP2 past/completive participle, PROGR progressive, PROPR proprietive, PST2 yesterday past, REM.PST remote past, REP reportative evidential, REP2 short reportative evidential, S intransitive subject (orientation), $S_a$ active intransitive subject, $S_o$ inactive intransitive subject, SIM simultaneous event, SIM.SS.A simultaneous event, same-subject, A-oriented, SIM.SS.S simultaneous event, same-subject, S-oriented, SIML similative, T transitive, TEMP temporal, TRNZ transitivizer, VBLZ verbalizer.

**Table 1.** Shipibo-Konibo Genitive, Ergative and Absolutive Paradigms

| Pronoun / Noun type and example number | Genitive | Ergative | Absolutive |
|---|---|---|---|
| 1. singular (1–4), (19–21), (42) | nokon | e-n | e-a |
| 2. singular (8)–(10) | mi-n | mi-n | mi-a |
| 3. singular (13), (47b), (59a), (68b–c) | jawen | ja-n | ja |
| 1. plural (12), (37), (v), (vi) | no-n | no-n | no-a |
| 2. plural (57) | mato-n | mato-n | mato |
| 3. plural (11)–(14) | jato-n ~ jabaon | jato-n ~ jabaon | jato ~ jabo |
| 'who?' (7)–(9) | tso-n | tso-n | tso-a |
| female proper name (50)–(52) | Wesna-n | Wesna-n | Wesna |
| 'jaguar' (24) | ino-n | ino-n | ino |
| 'flowing water' (25)–(26) | jene-n | jene-n | jene |
| 'ischimi (k. ant)' | jisis-in | jisis-in | jisis |
| 'shushupe (k. snake)' | kamox-en | kamox-en | kamox |
| 'domesticated animal' | inakan | inakan | iná |
| male proper name (18), (23)–(24) | Wexakan | Wexakan | Wexá |
| male proper name | Sankeman | Sankeman | Sanken |
| 'vomit' (22) | kinaman | kinaman | kinan |
| 'dog' (3)–(6) | ochíti-nin | ochíti-nin | ochíti |
| 'shotgun' (24) | tohati-nin | tohati-nin | tohati |
| 'the one who arrived' | nokot-a-tonin | nokot-a-tonin | nokot-a |
| 'men' | jonibaon | jonibaon | jonibo |
| 'enemies, rivals' (26) | rawí-baon | rawí-baon | rawí-bo |

(4)  *E-n*-ra    nawa-n    *ochíti*    jamá-ke.                                    A/O
    1-ERG-EV mestizo-GEN dog:ABS kick-CMPL
    'I kicked the mestizo's dog.'

(5)  Nawa-n    *ochíti*-ra    siná-yora    iki.                                    S_o
    mestizo-GEN dog:ABS-EV fierce-very COP
    'The mestizo's dog is very fierce.'

(6)  Nawa-n    *ochíti*-ra    jojo    ik-ai.                                       S_a
    mestizo-GEN dog:ABS-EV ONOM.bark do.I-INC
    'The mestizo's dog is barking.'

Examples (7)–(10) show the distribution of the interrogative pronoun *tso-* 'who?' as well as of the second person singular personal pronoun:

(7)  *Tso-a*-ki    noko-t-a?                                                       S_a
    who-ABS-INT meet-MIDD-INT:CMPL
    'Who arrived?'

(8)  *Tso-a*-ki    *mi-n* ma-rishki-a?                                        O/A
     who-ABS-INT 2-ERG HEAD-hit.w/stick-INT:CMPL
     'Who did you hit (with a stick) in the head?'

(9)  *Tso-n*-ki    *mi-a* ma-riski-a?                                        A/O
     who-ERG-INT 2-ABS HEAD-hit.w/stick-INT:CMPL
     'Who hit you (with a stick) in the head?'

(10) *Mi-a*-ra   kikin          yopa joni iki.                               S$_o$
     2-ABS-EV true/extremely *afasi* man COP
     'You are a complete *afasi* (bad hunter/fisherman).'

Finally, sentences (11)–(13) illustrate the ergative alignment of the third person plural pronoun:

(11) Moa-ra    *jato*   bo-kan-ai.                                           S$_a$
     already-EV 3p:ABS go.non.SG-PL-INC
     'They are leaving already.'

(12) Jaská-a-xon-ki *ja-baon* no-a    onan-ma      iki.                      A
     so-do.T-A-HSY2 3-PL:ERG 1p-ABS know-CAUS-PP2 AUX
     'And then they (our grandmothers) taught us (the activities that are proper of women).'

(13) Ja-n-ra    *jato*    keyo-ke.                                          A/O
     3-ERG-EV 3p:ABS finish-CMPL
     'S/he exterminated them.'

As mentioned earlier, case-markers are enclitics operating at the NP level; they attach to the last NP word but precede second position evidential/modality clitics:

Attached to a coordinated NP

(14) [Tita    betan papa]-*n*-ra    jato-n   bake-bo      ese-ai.
     mother and   father-ERG-EV 3p-GEN child-PL:ABS advise-INC
     'Mother and father [ERG] advise their children'.

Attached to a modified head

(15) [Wiso ino    sina]*kan*-ronki joni    rabé     pi-ke.
      black jaguar fierce:ERG-REP person two:ABS eat-CMPL
     '(It is said that) the fierce black-puma [ERG] ate the two men.'

Attached to a relative construction serving as a core argument

(16) [Ja xontako         [mapó ak-ai]]-*tonin* onan-ti   ja-ke
      that unmarried.woman pottery do.T-PP1]-ERG know-INF exist-CMPL

> jaska-a-xon…. kené    a-ti.
> so-do.t-a    design do.t-inf
> 'The young woman who makes pottery has to know….how to design.'

The ergative-absolutive configuration is kept even with unexpressed arguments. Unless otherwise indicated by the context, the absence of arguments required by the verb is interpreted as third person singular:

(17)  a.  E-*a*-ra    jamá-ke.
          1-abs-ev kick-cmpl
          'He/she kicked me.'

      b.  E-*n*-ra    jamá-ke.
          1-erg-ev kick-cmpl
          'I kicked him/her.'

Communication, cognition and perception verbs are morpho-syntactically treated as prototypical transitive. See Examples (32) and (46) which involve the verb *yoi-* 'say' and *onan-* 'know.'

### 2.1.2   *Case-marking in less prototypical transitive clauses*

The ergative pattern in SK is (in most cases) realized through a syntactically based case-marking system (see Dixon's distinction between semantically vs. syntactically based case-marking systems, 1994: 23–5). That is, "the marking of core arguments that a verb requires has been grammaticalized based on the prototypical meaning of the verb, without regard to the actual instances of use." This means that the subjects of verbs such as "kill," "hit" or "defeat" will always be marked as ergative and their objects as absolute, even if in particular sentences they lack crucial agent or patient properties. The following sentences (taken from Valenzuela 1997) show that the ergative-absolutive case-marking is maintained even in cases of less prototypical transitive events:

Non-volitional, non-controller, non-initiator agents

(18)  Oin-xon-ma-bi        yexké-kin-ra,    Sani-*n*    Wexá
      see-p.ss-a-neg-emph turn-sim.ss-a-ev Sani-erg Wexá:abs
      jiwi-n        rishki-ke.
      stick-instr hit.w/stick-cmpl
      'Turning without realizing, Sani hit Wexá with a stick.'

(19)  A-kas-kin-ma-bi-ra                  e-*n*  Sani    rete-ke.
      do.t-des-sim.ss-a-neg-emph-ev 1-erg Sani:abs kill-cmpl
      'Against my will, I killed Sani.'

(20)  Reoko-xon-ra e-*n*    onpax              xea-ke.
      turn-P.SS.A-EV 1-ERG contained.water:ABS drink-CMPL
      'Falling (from the canoe), I drank water.'

Inanimate agents

(21)  Aros sako-*n*-ra   e-a    ares-ke.
      rice  sack-ERG-EV 1-ABS defeat-CMPL
      'The sack of rice overcame me (with its weight).'

(22)  Mano-ra        kina*man*  rete-ke.
      Mano:ABS-EV vomit:ERG kill-CMPL
      'The vomiting killed Mano.'

Non-reached target:

(23)  Wexa*kan*-ra jiwi-n      Sani      a-kean-ke.
      Wexá:ERG-EV stick-INSTR Sani:ABS do.T-FRUSTR-CMPL
      'Wexá almost hit Sani with a stick.'

(24)  Wexa*kan*-ra tohati-nin     ino          kene-ke.
      Wexá:ERG-EV shotgun-INSTR jaguar:ABS miss-CMPL
      'Wexá missed the jaguar with the shotgun.'

In SK it is possible to encode natural forces as A arguments. Ex. (25) illustrates the equivalent of English 'drown.' The <ergative absolutive> pattern is used so that the flowing water is encoded as A argument, while the animate patient is encoded as O:

SK 'drown' <ERG (flowing water) – ABS (animate patient)>.

(25)  Jene-*n*-ronki        bake-bo     rete-ke.
      flowing.water-ERG-REP child-PL:ABS kill-CMPL
      '(I heard that) the children drowned (lit. the flowing water killed the children).'

The SK equivalent of the transitive 'drown (someone)' is a causativized predicate:

(26)  Rawí-baon-ronki     bake-bo       yatan-xon jene
      enemy-PL:ERG-REP child-PL:ABS grab-P.SS.A flowing.water:ABS
      rete-ma-pake-a         iki.
      kill-CAUS-DISTR-PP2 AUX
      'The enemies grabbed the children and drowned them one by one. (lit. and had/made the flowing water kill them one by one).'

As noted by DeLancey (1984: 208) several languages allow forces to be coded in A function, given that they are interpreted as direct, ultimate causes. However, since forces are incapable of volitional action, languages usually have preferred alternative

constructions where these are rather coded as obliques.[7] Therefore, SK 'drown' is note-worthy not because of the flowing water's potential to function as transitive subject, but because of the fact that the structure at hand is the only possible way to convey this meaning (Valenzuela 2002a:436; see also ex. (22) where *kinan* 'vomit' functions as A).

One means to express volitive modality in SK is through the desiderative *-kas*. Attaching *-kas* to a transitive stem results in an intransitive construction, with both arguments taking absolutive marking. However, when *-kas* is added to cer-tain high frequency verbs, alternate ergative marking on the experiencer-subject is possible to indicate that the patient-object is referential (*pi-* 'eat'), or to individual-ize its referent from other similar entities (*pi-* 'eat,' *xea-* 'drink,' *bi-* 'get'):

(27)  a.  *E-a-*ra       yapa       pi-kas-ai.
          1-ABS-EV   fish:ABS   eat-DES-INC
          'I want to eat fish.' (the preferred interpretation is non-referential)

      b.  *E-n-*ra       yapa       pi-kas-ai.
          1-ERG-EV   fish:ABS   eat-DES-INC
          'I want to eat the fish.' (for example, that I see on the table)

While native speakers generally agree on the acceptability and interpretations of (27a) and (27b), some consider (28b) and (29b) ungrammatical:

(28)  a.  *Bima-*ra       atsa       xea-ti              xea-kas-ai.
          Bima:ABS   manioc   drink-NMLZ:ABS   drink-DES-INC
          'Bima wants to drink manioc beer.'

      b.  *Bima-n-*ra       atsa       xea-ti              xea-kas-ai,
          Bima-ERG-EV   manioc   drink-NMLZ:ABS   drink-DES-INC
          wetsa   jawéki-bo       a-kásham-ai.
          other   thing-PL:ABS   do.T-DES:NEG-INC
          'Bima wants to drink <u>manioc beer</u> and not any other drink.'

---

7.   Consider the following English and Hare examples (from DeLancey 1984: 208, cited in Valenzuela 2002a:436):

POSSIBLE
(i)    Lightning killed him.
(ii)   'idikóné'   ye-wéhxi̧
           lightning 3OBJ-killed
           'Lightning killed him.'

PREFERRED
(iii)  He was killed by lightning.
(iv)   'idikóné'   ke̋ lánįwe
           lightning     died
           'He died from/due to lightning.'

(29)   a.   *Bima*-ra      xawi                 bi-kas-ai.
           Bima:ABS   sugar.cane:ABS   get-DES-INC
           'Bima wants to bring sugarcane (e.g., from the chacra).'

     b.   *Bima-n*-ra      xawi         bi-kas-ai,
           Bima-ERG-EV   caña:ABS   conseguir-DES-INC
           wetsa jawéki-bo       bi-kásham-ai.
           other  thing-PL:ABS  get-DES:NEG-INC
           'Bima wants to bring <u>sugarcane</u> (e.g., from the chacra) and not anything else.'

In addition, SK has various kinds of extended intransitive clauses involving an absolutive-marked experiencer subject and a stimulus second argument which bears some kind of oblique marking (see endnote 8). With some of these verbs it is possible to have either oblique or absolutive marking on the second argument, although the conditioning factors that trigger the alternation are not clear (this is shown through the discussion on *keen-* 'want' and *shinanbenot-* 'slip the mind' in Valenzuela 1997).

### 2.1.3   *The verb* **chexa-** *'ache'*

The verb *chexa-* 'ache' represents an interesting situation. Whereas the affected participant is the highest in topicality and animacy, the less topical stimulus is her own body-part. *Chexa-* takes the <ABS *-n*> pattern, which could be interpreted either as a type of extended intransitive clause <ABS OBL>[8] or as a transitive one <ERG ABS>:

(30)   Xeta-*n*-ra            e-*a*       chexa-ai.
        tooth-OBL?/ERG?-EV  1-ABS  ache-INC
        'I have a toothache.'

An examination of the construction above beyond formal marking demonstrates that the second alternative is the correct one. Syntactic operations show that we are dealing with a transitive clause where the stimulus or body-part plays the A function

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**8.**   An example of an extended intransitive verb exhibiting the <ABS OBL *-n*> case-marking frame follows:

     v.   [Mawat-ax]-ra   [no-*a*    jawe-*n*-bi         maxká-yama-ke].
          die-P.SS.S-EV   1p-ABS   what-OBL-EMPH  lack-NEG-CMPL
          'When we die, we do not lack anything.'

The same-subject marker *-ax* signals that the first person plural participant is the subject of the two clauses. Note that although the formal marking on the finite, second clause above and that in Example (30) appear to be the same, the two clauses have, in fact, very different argument structures and case-marking frames.

and the animate patient is the object. The next example is composed of two dependent clauses followed by a finite one. The interclausal reference marker *-a* on *chexa-* indicates that its object has the same reference as the subject in the matrix clause. Since the subject in the following two clauses is the speaker, this means that he is also the object of *chexa-* in the first clause while *xeta* is the subject:[9]

(31) Xeta-*n*      chexa-*a*-ra
     tooth-ERG ache-P.O=S/A –EV
     rimon bero     chaka-xon   rao-n-ke.
     lemon seed:ABS grind-P.SS.A medicine-VBLZ-CMPL
     'Since I had a toothache, I ground lemon seeds and cured it.'

Expressions involving verbs such as *chexa-* also show that A and O are syntactic relations and do not correspond to any pragmatic function. In (31), the speaker talking about himself is the topic of all three clauses, but the syntactic role switches from O to A after the first clause.

### 2.1.4 *Case-marking in clauses involving ditransitive verbs*

Ditransitive verbs are a subtype of transitive verbs. As anticipated in 1.2 the two objects are not morpho-syntactically differentiated. Both occur in the absolute case, <ERG (agent) ABS (recipient) ABS (patient)>

                                          REC
(32) ...bakish-ra            tsinkíti-ain-xon e-a   yoi-iba-kan-ke
     one.day.from.today-EV meeting-LOC-A 1-ABS say-PST2-PL-CMPL
     PATIENT
     meskó    keská shinan.
     different SIML idea:ABS
     'Yesterday, during the meeting I was given all kinds of ideas.'

and may exchange positions without any change in meaning (see also exx. (47a–b)). Furthermore, when the dependent clause is ditransitive, either object, the recipient or the patient, can be selected for object-to-subject coreferentiality in a *-a*-marked interclausal construction (Valenzuela 2003):

(33) Pena-*n*   bake-shoko   meni-*a*-ra
     Pena-ERG child-DIM:ABS give-P.O=S/A-EV
     ainbo       xobo-n    ka-ke.
     woman:ABS house-ALL go-CMPL
     'After Pena gave (her) the baby, the woman went home.'

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9.   Since a dependent clause and its corresponding matrix do not need to be contiguous to each other, in Example (31) either the second or the third clause could serve as matrix of the first one.

(34)  Pena-n   ainbo      meni-*a*-ra
       Pena-ERG woman:ABS give-P.O=S/A-EV
       bake-shoko    wini-ke.
       child-DIM:ABS cry-CMPL
       'After Pena gave (it) to the woman, the baby cried'.

In causative and applicative constructions involving a transitive base verb both objects are marked absolutive, and any of them can be interpreted as causative or applicative object (see Examples (48)–(49)). Finally, as will be discussed in 2.2, both objects are given a similar treatment with regard to relativization.

### 2.1.5   *Case-marking on doubled pronouns*

Although by no means a common construction, in SK a pronoun may be repeated for emphatic purposes. These doubled pronouns maintain the ergative-absolutive case-marking:

(35)  E-n   *e-n*   a-res-ke.
       1-ERG 1-ERG do.T-just-CMPL
       'I defeated him / her (on my own). / Only I hit him / her.'

(36)  E-a   *e-a*   a-res-ai.
       1-ABS 1-ABS do.T-just-INC
       'Only s/he is defeating / hitting me (I cannot hit back).'

Doubled pronouns are also dealt with in 3.3; however, that section focuses on the possible syntactic contexts in which doubled pronouns occur rather than on case-marking.

   After this account of the SK case-marking system, the next section describes the single instance of interclausal or syntactic ergativity that has been attested in the language, internally-headed relative clauses.

## 2.2   Internally-headed relative clauses and syntactic ergativity

In SK almost all interclausal control properties operate on a nominative-accusative basis. For example, when two conjoined clauses with coreferential subjects are juxtaposed, the subject of the second clause, whether S or A, is elided. The same principle is found in biclausal constructions involving the verb *keen-* 'want.' Nevertheless, SK has one instance of syntactic ergativity, internally-headed relative clauses.

   As in many languages of the world, in SK nominalized clauses may function as relatives.[10] Relative clauses resemble main finite clauses in various ways. Both of

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**10.**  A detailed treatment of relativization in Shipibo-Konibo can be found in Valenzuela (2002b), on which this section is based.

them exhibit the same number of arguments and case-marking frame, and there is no distinction with regard to the way the Participant Agreement system operates. However, whereas main clauses have flexible constituent order, relative clauses are obligatorily verb final. A relative verb is more restricted than a finite verb with regard to the morphology it receives; though it combines with most verbal morphemes (body-part prefixes, causatives, applicatives, middle, adverb-like clitics, tense, negative, plural, etc.), it cannot carry finite aspect/illocutionary force markers. Also, certain tense plus nominalizer combinations are not possible. The following nominalizing morphemes are found in SK: -*ai* incompletive participle (PP1), -*a* completive participle (PP2), -*a iki* perfect/narrative past, -*0* (+ stress shift with a monosyllabic base) + -*ni* remote past, and -*ti* infinitive, irrealis. Crucially, these markers do not constitute a differential nominalization strategy; i.e., it is not possible to distinguish the grammatical role (A, S, O, etc.) of the relativized element through the use of different nominalizers. Thus an expression such as *pi-a* [eat-PP2] is ambiguous in that it may be interpreted as 'the one who ate' or as 'the thing eaten.'

SK has prenominal, postnominal and internally-headed relative clauses. As shown below, these three positional types may relativize the same syntactic position:

Prenominal relative clauses

(37)  [Papa-n       rete-ibat-a]    jono-ra
      father-ERG kill-PST2-PP2 collared.peccary:ABS-EV
      moa      no-n   keyo-ke.
      already 1p-ERG finish-CMPL
      'We already finished the collared-peccary father killed yesterday.'

Postnominal

(38)  Jono            [papa-n     rete-ibat-a]-ra
      collared.peccary   father-ERG kill-PST2-PP2:ABS-EV
      moa      no-n   keyo-ke.
      already 1p-ERG finish-CMPL
      'We already finished the collared-peccary father killed yesterday.'

Internally-headed

(39)  [Papa-n    jono                  rete-ibat-a]-ra
      father-ERG collared.peccary:ABS kill-PST2-PP2:ABS-EV
      moa      no-n   keyo-ke.
      already 1p-ERG finish-CMPL
      'We already finished the collared-peccary father killed yesterday.'

In several languages, internally-headed relative clauses allow a certain degree of ambiguity, since (except for the discourse context) there is no way to decide which argument of a transitive relative clause is to be interpreted as coreferential with a matrix clause argument. However, this is not the case in SK, where in transitive, internally headed relative clauses it is always the O argument which must be interpreted as head, and therefore as coreferential with the matrix clause argument:

(40)  [Joni-n   <u>ino</u>      rete-a]-ronki
     man-ERG jaguar:ABS kill-PP2:ABS-HSY
     kikin      siná       ik-á     iki.
     extremely brave/fierce do.I-PP2 AUX
     'The jaguar that the man killed was extremely fierce.'
     *'The man who killed the jaguar was extremely brave.'

(41)  [Bawa-n   <u>bake</u>     natex-a]-ra      nokona iki.
     parrot-ERG child:ABS bite-PP2:ABS-EV mine    COP
     'The child the parrot bit is mine.'
     *'The parrot that bit the child is mine.'

Moreover, the O argument of an internally-headed relative clause is interpreted as head even when this reading would run against semantico-pragmatic feasibility:

(42)  [Joni-n   <u>yawa</u>                     rete-ibat-a]-ra
     man-ERG white-lipped.peccary:ABS kill-PST2-PP2:ABS-EV
     nokon koka           iki.
     1GEN   maternal.uncle COP
     'The white-lipped peccary that the man killed is my maternal uncle.'
     *'The man that killed the white-lipped peccary is my maternal uncle.'

Given that the main clauses in (40)–(42) are intransitive, one may speculate that the interpretation of the O arguments as head is due to some kind of absolutive arrangement. This is not the case, however. In (43) the O argument is read as head even when the coreferential participant plays the A function in the main clause:

(43)  [Bawa-n   <u>bake</u>     natex-a]-tonin-ra joshin      pi-ke.
     parrot-ERG child:ABS bite-PP2-ERG-EV   banana:ABS eat-CMPL
     'The child the parrot bit ate the banana.'
     *'The parrot that bit the child ate the banana.'

To relativize on the A argument, an externally-headed relative clause construction must be used:

(44)  [Yawa                     rete-ibat-a]        <u>joni</u>-ra
     white-lipped.peccary:ABS kill-PST2-PP2:ABS man:ABS-EV

nokon koka          iki.
1GEN   maternal.uncle COP
'The man who killed the white-lipped peccary is my maternal uncle.'

(45) [Bake      natex-a] <u>bawa-n-ra</u>   joshin      pi-ke.
child:ABS bite-PP2 parrot-ERG-EV banana:ABS eat-CMPL
'The parrot that bit the child ate the banana.'

The next example shows that it is also possible to relativize on an S argument through internally-headed relativization. Note that the relative verb is semantically active; i.e., it is O/S arguments and not patients that serve as pivot in this specific construction:

(46) [Mi-bé <u>ainbo</u>      ransa-a]-ra        e-n      onan-yama-ke.
2-COM woman:ABS dance-PP2:ABS-EV 1-ERG know-NEG-CMPL
'I don't know the woman who danced with you.'

Therefore, internally-headed relativization exhibits an absolutive pivot and probably constitutes the only instance of interclausal syntactic ergativity in SK; note, however, that S's and O's can be linked with the A of a matrix clause (ex. (43)).

As discussed earlier, in SK there is no independent morpho-syntactic basis for grammatically distinguishing direct from indirect object (or primary vs. secondary object). Through Examples (32)–(34) it was shown that both patient and recipient arguments are marked absolutive and that any of them may serve as pivot in object-to-subject coreferentiality. In addition to this, the two objects are treated similarly with regard to relativization:

(47) a.  [Tsoma-n    joni      koríki      meni-a]-ra
Tsoma-ERG man:ABS money:ABS give-PP2-EV
ono   yaká-ke.
DIST  sitting.position.I:MIDD-CMPL
'The man to whom Tsoma gave money is sitting further over there.'

     b.  [Tsoma-n    joni      koríki      meni-a]-ra jawen pisha-n iki.
Tsoma-ERG man:ABS money:ABS give-PP2-EV 3GEN  bag-LOC COP
'The money that Tsoma gave to the man is in his bag.'

Furthermore, internally-headed relativization does not differentiate between base and applicative objects:

(48) Beso-n-ra    ainbo      bake      kena-xon-ke.
Beso-ERG-EV woman:ABS child:ABS call-BEN-CMPL
'Beso called the child for the woman / Beso called the woman for the child.'

(49)  E-n-ra     bena-[a]i
      1-ERG-EV look.for-INC
      [Beso-n     ainbo      bake      kena-xon-a].
       Beso-ERG woman:ABS child:ABS call-BEN-PP2:ABS
      'I am looking for the woman that Beso called for the child.'
      'I am looking for the woman for whom Beso called the child.'
      'I am looking for the child that Beso called for the woman.'
      'I am looking for the child for whom Beso called the woman.'

In summary, internally-headed relative clauses exhibit an ergative-absolutive distribution, since only O and S arguments can be read as coreferential with a main clause argument. When three-place relativized verbs are involved, either object may be read as coreferential with a matrix clause argument. The significance of this ergative interclausal construction in SK is addressed in Section 4.

## 3. Non-ergative alignments

This section treats a variety of constructions that follow different types of non-ergative alignments. Although in most instances the specific configuration at work can be easily identified (e.g. the verbal plural *-kan* operates in the nominative-accusative fashion), in other cases the answer to this question is not straightforward.

### 3.1 Case-marking in progressive clauses

As treated in 2.1, SK has a very consistent ergative-absolutive case-marking system. When one-word predicates are involved, there are no case-marking splits triggered by the inherent semantics of the noun phrase, the status of the clause, or tense-aspect-mood distinctions. Nevertheless, transitive verbs may combine with the semantically generic intransitive verb *ik-* to yield different kinds of less transitive clauses. In these instances, both arguments occur in the absolutive case (although for some speakers it is still possible to mark the agent ergative). Consider the following examples involving the dedicated progressive form *VERB-i i-t-ai*:

(50)  Wesna-n-ra     wame pi-ai.   *Wesna-ra       wame       pi-ai
      Wesna-ERG-EV paiche eat-INC   Wesna:ABS-EV paiche:ABS eat-INC
      'Wesna is eating/eats paiche.'

(51)  a.  Wesna-ra       (wame)       pi-i        i-t-a
          Wesna:ABS-EV   paiche:ABS eat-SIM.SS.S do.I-PROGR-INC
          'Wesna is eating (paiche).'

    b.   ˀWesna-n-ra   (wame)   pi-i      i-t-ai.
        Wesna-ERG-EV  paiche:ABS eat-SIM.SS.S do.I-PROGR-INC
        'Wesna is eating paiche.'

Out of three speakers consulted, only one judged (51b) as acceptable. A similar situation was observed with regard to constructions involving the locative interrogative *jawe(ra)no* 'where,' which receives Participant Agreement marking (see Section 3.6). Addition of the marker *-xon* to the locative interrogative signals semantic orientation towards an A argument of the clause, and therefore it cannot be used when an intransitive verb is involved. However, some speakers may allow the use of *-xon* when a transitive base verb occurs in the dedicated progressive construction:

(52)  a.  *Jaweno-xon*-ki Wesna-n    pi-i      i-t-ai?
         where-A-INT   Wesna-ERG eat-SIM.SS.S do.I-PROGR-PP1
         'Where is Wesna eating?'

Although (52a) is acceptable to native speakers, it must be pointed out that an alternate expression where *jaweno* occurs unmarked is the preferred one:

    b.  *Jaweno*-ki Wesna     pi-i      i-t-ai?
        where-INT  Wesna:ABS eat-SIM.SS.S do.I-PROGR-PP1
        'Where is Wesna eating?'

Therefore, it can be concluded that SK does exhibit a kind of split-ergativity triggered by an aspectual distinction. In this construction, the semantically main verb is non-finite and takes the marker *-i* while the intransitive semantically-generic verb *ik-* functions as auxiliary carrying tense-aspect-mood information.

    Interestingly, the morpheme *-i* that attaches to the semantically main verb is the same as the same-subject marker used when the events in the dependent and matrix clauses are simultaneous or overlapping, and the matrix verb is intransitive. The following sentence illustrates the function of *-i* as same-subject marker:

(53)  Ja-tian     [nawarin-shin-*i*]
     that-TEMP  perform.*nawarin*-all.night.long-SIM.SS.S
     nete-kan-ai.
     stay.up.until.next.day-PL-INC
     'Then, they would stay up until the next day, performing *nawarin* dances and songs all night long.'

A comparison of the data in examples (51)–(53) strongly suggests that the dedicated progressive resulted from the reanalysis of a biclausal construction such as (53) as monoclausal. Thus compare (54a) and (54b) which illustrate the proposed change:

(54)  a.  Wesna-ra        [pi-i]         i-t-ai.
         Wesna:ABS-EV  eat-SIM.SS.S do.I-PROGR-INC

      b.  Wesna-ra [pi-i i-t-ai].

In (54a), the marked clause *pi-i* is embedded in a matrix intransitive clause. The matrix verb *i(k)-* 'be, do (intransitive)' requires that its subject *Wesna* be marked absolutive and also that the same-subject morpheme *-i* be selected (over its "transitive" counterpart *-kin* as in (18) and (19)). In turn, (54b) corresponds to a second stage where the boundary between the matrix and dependent clauses is lost and the sequence *pii itai* is interpreted as a single complex finite predicate. Although there is no formal modification of the expression in (54a), the two sentences are in fact syntactically different. Consequently, *Wesna* becomes the subject of a predicate involving 'eat' thus giving rise to an instance of split-ergativity where the A participant is marked absolutive rather than ergative. Note that this change results in a neutral distribution with respect to case-marking since all three arguments take the absolutive.[11] Interestingly, (51b) and (52a) would represent the speakers' attempt to reintroduce the ergative-absolutive alignment in this new construction so that it resembles the dominant pattern in the language.

### 3.2    Case-marking and distribution of emphatic pronouns

Emphatic pronouns are used to highlight that the subject (S/A) participant carried out the action herself. Emphatic pronouns are formed by a nominative (*-n*) marked pronoun, followed by the lexicalized emphatic clitic *-bi*, and either the morpheme *-x* to signal semantic orientation towards an S participant or simply zero when the emphatic pronoun is A-oriented. Sentences (55)–(58) illustrate that emphatic

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**11.**   A comparable construction involving an intransitive base verb is offered below:

    vi.  Jawe-tian-ki      no-n  Inka     jo-ai,
        what-TEMP-REP2 1p-GEN Inka:ABS come-INC
        ja-tian-ra       no-a  i-nox iki weni-t-i.
        that-TEMP-EV 1p-ABS do.I-FUT standing.position-MIDD-SIM.SS.S
        'The day our Inka comes back, we will stand up (from among the dead).'

Similarly to (54b), *inox iki* and *weniti* form a complex predicate that conveys a single event. The semantically-generic verb *i(k)-* carries tense-aspect-mood information while the semantically main verb *wenit-* bears a same-subject marker for simultaneous events.

pronouns occur with S and A, and that NP arguments may be omitted (exx. (56)–(58) are taken from Valenzuela 2005: 282–283):

(55)  (Mane-ra)    *ja-n-bi-x*        mawá-ke.
        Mane:ABS-EV 3-NOM-EMPH-S die-CMPL
        'Mane himself died / died by his own actions.'

(56)  (Nokon tita-n-ra)      *ja-n-bi*      e-a    ja    joni
        1GEN   mother-ERG-EV 3-NOM-EMPH 1-ABS that man:ABS
        bi-ma-ke.
        get-CAUS-CMPL
        'My mother herself made me accept that man in matrimony.'

(57)  *Mato-n-bi-ni-x*        (mato) rami-t-ai.
        2p-NOM-EMPH-LIG-S  2p:ABS harm-MIDD-INC
        'You yourselves get harmed / You harm yourselves.'

In (58) *-bi* is attested twice on the emphatic pronoun; as mentioned above, the first occurrence is an instance of lexicalization whereas the second one is a productive emphatic:

(58)  (E-a-ra)  *e-n-bi-x-bi-shaman*          beno-ke.
        1-ABS-EV 1-NOM-EMPH-S-EMPH-INTENS marry.a.man-CMPL
        'I (woman speaking) got married by myself (i.e., without my parents' intervention).'

In contrast to the situation described for S/A arguments, a pronoun marked by *-bi* cannot refer to an already expressed O. This is taken as evidence in support of the analysis that emphatic pronouns are restricted to subjects:

(59)  a.  Nokon  poi-n-ra                   *ja-bi*       mee-ke.
            1GEN   opposite.sex.sibling-ERG-EV 3:ABS-EMPH hit.w/hand-CMPL

      b.  *Nokon  poi-n-ra               *Sani    ja-bi*
            1GEN   opp.sex.sibling-ERG-EV Sani:ABS 3:ABS-EMPH
            mee-ke.
            hit.w/hand-CMPL

      c.  *Nokon  poi-n-ra                   *jabi*  Sani
            1GEN   opposite.sex.sibling-ERG-EV 3:ABS Sani:ABS
            mee-ke.
            hit.w/hand-CMPL
            'My opposite sex sibling hit HIM/HER (with the hand).'

Changing the subject in the (b-c) examples above from 3rd to 1st or 2nd person does not yield a grammatical expression.

In conclusion, emphatic pronouns show a nominative-accusative alignment in two different ways. First, they may refer to an S or A argument (although arguments may be left unexpressed) but not to an O argument, thus treating S and A differently from O. Secondly, emphatic pronouns are case-marked in the nominative-accusative fashion. Note, however, that emphatic pronouns referring to S and A end in *-x* and *-0*, respectively; i.e., they receive different Participant Agreement marking (see 3.6).

### 3.3  Distribution of doubled pronouns

As treated in 2.1.5, a pronoun may be repeated for emphatic purposes. In these instances, the doubled pronoun keeps its ergative or absolutive form. Examples (35) and (36) are repeated below for convenience:

(60)  *E-n    e-n    *a-res-ke.
       1-ERG  1-ERG  do.T-just-CMPL
       'I defeated him / her (on my own). / Only I hit him / her.'

(61)  *E-a    e-a    *a-res-ai.
       1-ABS  1-ABS  do.t-just-INC
       'Only s/he is defeating / hitting me (I cannot hit back).'

However, when examining the syntactic contexts in which doubled pronouns occur, a kind of non-ergative pattern apparently distinguishing $S_a$ from $S_o$ is attested. Sentences such as (62) involving an active intransitive verb were considered acceptable by most of ten language consultants, whereas those involving an inactive intransitive like (63) were consistently judged ungrammatical:

(62)  *E-a    e-a    *ka-ke.
       1-ABS  1-ABS  go-CMPL
       'I myself left.'

(63)  *\*E-a    e-a    *onitsapit-ai.
        1-ABS  1-ABS  suffer-INC
       'I myself suffer.'

Therefore, with intransitive verbs, all speakers consulted rejected repetition of an unaccusatively used pronoun, while some but not all accepted repetition of a unergatively used pronoun. Note that this construction cannot be said to follow an active-inactive distribution, since a doubled pronoun referring to an O participant is perfectly possible as illustrated in (61).

### 3.4   Plural marking on the verb

The verbal plural agreement marker *-kan* is obligatory when plurality is not indicated in the NP. *-Kan* operates in a nominative-accusative fashion since it can only agree with S and A arguments. Thus attaching *-kan* to the verbs in (67) would be ungrammatical for the indicated meaning:

$S_o$ is plural

> (64)   Ja-bo-ra      pishiman      yaká-*kan*-ke.
>        3-PL:ABS-EV rush.mat:LOC sitting.position.I:MIDD-PL-CMPL
>        'They are sitting on the rush mat.'

$S_a$ is plural

> (65)   Jaino-a-x        bo-*kan*-ai      chiponki....
>        there:LOC-ABL-S go.PL-PL-INC down.the.river
>        'Then, they went down the river.'

A is plural

> (66)   Ani nonti-n        westíora atsa      xeati chomo
>        big canoe-LOC:O one        manioc drink jar:ABS
>        na-yása-n-*kan*-a                      iki.
>        INTERIOR-sitting.position.T-TRNZ-PL-PP2 AUX
>        '…they placed a jar of manioc beer inside the big canoe.'

O is plural (S and A are singular)

> (67)   …ja joni      icha piti-[y]a      bané-ni-ke;
>        that man:ABS much food-PROPR stay-REM.PST-CMPL
>        jatíbi roo                    rete-kin      keyo-ax.
>        all    howler.monkey:ABS kill-SIM.SS.A finish-P.SS.S
>        '…the man ended up with a lot of food, after having killed all the howler monkeys.'

### 3.5   Different-subject marking

Different-subject marked clauses in SK can be divided into (a) those which lack an object that is coreferential with the matrix clause subject (including intransitive ones), and (b) those whose object is coreferential with the matrix clause subject (i.e., instances of object-to-subject coreferentiality). What is relevant here is to show that the latter construction does not necessarily present an absolute alignment (cf. Valenzuela 1997).

The idiosyncratic reference-marker -*a* has already been introduced when dealing with the argument structure of the verb *chexa-* 'ache' in sentence (31) as well as with ditransitive verbs in (33) and (34). Recall that -*a* signals that the object of a dependent clause conveying a previous event is coreferential with the subject (S/A) argument of its matrix clause. (In a converse situation, i.e. when the dependent subject and the matrix object are coreferential, different-subject marking must be employed.) Through the marker -*a* a participant can be kept, introduced, or re-introduced as discourse topic even when being the patient rather than the agent of an event. In this respect constructions involving -*a* can be viewed as fulfilling the pragmatic function of the passive voice in languages like English (see also (31)).

(68)   a.   Ja   Inka Ainbo-ronki      ik-á    iki   tama   pi-kas.
            that Inka Woman:ABS-REP   be-PP2 AUX  peanut eat-one.who.likes.to
            'It is said that the Inka woman loved to eat peanut.'

       b.   Ja      i-t-ai-bi,                     westíora Shipibo ainbaon-ki
            3:ABS do.I-PROG-SIM:DS-EMPH   one      Shipibo woman:ERG-REP2
            ak-á     iki   tama    toban   washí-kin.
            do.T-PP2 AUX  peanut  roasted be.stingy.about-SIM.SS.A
            'Then, a Shipibo woman denied her toasted peanut.'

       c.   Ja      washit-*a*-ronki       ka-a   iki.  O = S
            3:ABS be.stingy.about-P.O=S/A go-PP2  AUX
            'Being denied (the toasted peanut), (the Inka Woman) left.'

Although instances of O=S coreferentiality are much more frequent (exx. (33), (34), (68)), -*a* may also signal that the O argument of the marked clause has the same reference as the A argument of the matrix clause, and hence it does not present an absolutive distribution (Example (31) is repeated below for convenience):

(69)   Xeta-n      chexa-<u>*a*</u>-ra
       tooth-ERG ache-P.O=S/A−EV
       rimon bero      chaka-xon   rao-n-ke.
       lemon seed:ABS grind-P.SS.A medicine-VBLZ-CMPL
       'Since I had a toothache, I ground lemon seeds and cured it.'

There is no dedicated morpheme, equivalent to -*a*, coding object-to-subject coreferentiality with simultaneous events. However, the restriction that "different-subject" entails object-to-subject non-coreferentiality still holds.

As argued earlier, when the dependent clause is ditransitive, either the recipient or the patient object, can be selected for object-to-subject coreferentiality (recall (33) and (34)). As is also the case with same-subject markers, -*a*-marked object-to-subject coreferentiality constructions can be said to follow some kind of

nominative-accusative arrangement given that S and A are treated as a single category as opposed to O.

## 3.6    Participant agreement

In SK and other Panoan languages certain adjuncts must be interpreted as predicating of a core clause participant rather than of the event as a whole. This semantic orientation is signaled through the use of a distinct inflectional morphology on the adjunct, in agreement with the syntactic function (S/A/O) of the participant serving as controller. Valenzuela (2003) refers to this feature as Participant Agreement (henceforth, also PA) and considers it the "typologically most salient feature of Panoan languages." Interestingly, PA follows a tripartite alignment where both A and S receive overt marking.[12] In sentences (70)–(75) the locative adjunct takes the markers *-x, -xon* or *-0* when oriented towards the S, A, or O participant, respectively:

S-orientation

> (70)  E-a-ra     *bochiki-a-x* paké-ke.
>       1-ABS-EV up-ABL-S   drop:MIDD-CMPL
>       'I came down/fell from high up.'

The agreement marker *-xon* signals semantic orientation of the adjunct towards the A participant, but does not provide any information with regard to the O participant:

A-orientation (A and O share the same location)

> (71)  E-n-ra     yami kentí   *bochiki-xon* tan    tan    a-ke.
>       1-ERG-EV metal pot:ABS up-A        ONOM ONOM do.T-CMPL
>       'I hit the pot (being) high up (I am high up with the pot).'

A-orientation (A and O are at different locations)

> **(72)**  Bake-n-ra    e-a    bimi-n    tsaka-ke *jiwi bochiki-xon*
>       child-ERG-EV 1-ABS fruit-INSTR hit-CMPL tree up-A
>       wino-t-ai-tian.
>       pass.by-MIDD-SIM-DS
>       'The boy on the tree threw a fruit at me while I was passing by.'

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O-orientation

(73)  E-n-ra      yami kentí    *bochiki* a-ke.
      1-ERG-EV metal pot:ABS up:O    do.T-CMPL
      'I put the metal pot high up (only the pot is high up).'

Because of the PA system, expressions that are ambiguous in languages like Spanish or English have a single interpretation in SK. Thus compare the sentences in (74) and (75):

(74)  a.  -Jaweno-ki   Kaisi-nin Sanken      ransa-ma-aˀ O-orientation
          where:O-INT  Kaisi-ERG Sanken:ABS dance-CAUS-PP2:INT
          'Where did Kaisi make Sanken dance?'

Unlike its English or Spanish translation equivalents, the interrogative sentence above can only refer to the location of *Sanken*. Similarly, the answer given below indicates that only *Sanken* is 'in the middle of the people,' while *Kaisi* is somewhere else:

      b.  -Joni-bo    xaran.
          person-PL in.the.middle.of
          'In the middle of the people (e.g., while Kaisi remained seated in a corner).'

In contrast to (74a-b), the PA marker *-xon* in (75a-b) indicates that *jawenoxonki* and *escuelainxon* refer to the location of *Kaisi*:

(75)  a.  -Jaweno-*xon*-ki Kaisi-nin Sanken      ransa-ma-aˀ
          where-A-INT      Kaisi-ERG Sanken:ABS dance-CAUS-PP2:INT
          'Where did Kaisi make Sanken dance?'

      b.  -Escuelain-*xon*.
          school:LOC-A
          'In the school (i.e., either both Kaisi and Sanken were in the school or only Kaisi was in the school and Sanken may have been in the school or outside of it. (e.g. if Kaisi were yelling at Sanken to dance.)).'

It must be pointed out that this kind of tripartite distribution is not attested on all adjunct types.[13] Recall that A-orientation is not overtly marked on emphatic pronouns (3.2).

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13.  In SK, PA is found on expressions of location and direction, quantification and distribution, manner, emphatic pronouns, "interessives" (benefactives/malefactives), conjunctions, as well as dependent clauses expressing events that are previous, simultaneous or subsequent with respect to the matrix clause event. However, PA is not attested on adjectives or adjectival phrases, which

PA also works at the interclausal level. The markers *-xon* and *-ax* attach to dependent clauses to indicate that the event in the marked clause precedes the event in the matrix clause, and that the subjects in the two clauses have the same reference. Moreover, the A-orientation marker *-xon* occurs when the matrix clause subject plays the A function, whereas the S-orientation marker *-ax* must be selected when the matrix clause subject is an S (see exs. (18), (20), (26) and (31) for illustration of *–xon*, as well as (67) and (v) in endnote 8 for *-ax*).

Crucially, the PA morphology is not synchronically transparent. Through a comparative analysis Valenzuela (2003) has shown that markers such as *-xon* and *-ax* diachronically involve case agreement. That is, these morphemes might have resulted from the combination and fusion of a specialized oblique case marker (such as *-(ʔ)a* and *-xo*) with a core case marker (i.e., *-x*, *-n*, and *-0*). The author also concludes that the current distribution of PA, which involves different markers for S, A, and O orientation, reflects the presence of a tripartite case-marking system in certain parts of Proto-Panoan grammar (this feature is maintained in the case-marking of the sister languages Kashibo-Kakataibo and Amawaka).[14] Nevertheless, PA does not present any traces of either morphological or syntactic ergativity.

### 4.    Summary and final remarks

It has been shown that SK has an exceptionally consistent ergative-absolutive case-marking system. To my knowledge it is the only Panoan language where all personal pronouns follow an ergative-absolutive distribution. With the exception of the dedicated progressive construction, which most probably is a relatively recent innovation, there are no instances of case-marking splits of the familiar sort. There may be attempts by some speakers to readjust the case-marking in this construction, so that it resembles the dominant pattern in the language. Another interesting feature of the SK case-marking system is the relatively large set of allomorphs through which the ergative is realized.

There is an instance of interclausal or syntactic ergativity in SK: internally-headed relativization. However, as discussed with regard to ex. (43), the S's and O's

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are the most widely-recognized instances of participant-oriented adjuncts / secondary predicates (Schultze-Berndt & Himmelmann 2004, Himmelmann & Schultze-Berndt 2005).

**14.**   This detail is interesting since tripartite systems in other languages of the world (certain Aboriginal Australian languages for instance; Austin 1981) mark A and O overtly, while S receives no additional morphology; systems of the Australian type can be described as the confluence of an ergative pattern (which explicitly marks the A function) and an accusative one (with overt marking of O). In contrast, the Panoan system can be viewed as essentially tripartite since it cannot be explained through the combination of other more basic patterns.

serving as pivot can be linked with the A of a matrix clause. It can be argued that a completely ergative-absolutive pivot would not allow this.

At first sight, the presence of an ergative syntactic pivot in a language whose syntax is otherwise organized in a nominative-accusative fashion may seem surprising. However, there are other languages that have been described as making use of an absolutive pivot in internally-headed relatives only: Tibetan, Belhare (a.k.a. Belhariya), and Korean (Van Valin and LaPolla 1997: 304 and references therein). Similarly to SK, these languages have at their disposal alternative externally-headed relative constructions which are not subject to the same restrictions and allow relativization on the A argument.

Unlike some of its sister languages SK has not developed argument marking in the verb, which is a preferred locus for the emergence of accusative alignment (Dixon 1994: 95). Nevertheless, SK exhibits various other types of non-ergative alignments which are summarized in Table 2.

These include accusative case-marking on emphatic pronouns (with a marked nominative), accusative distribution of emphatic pronouns and of the verbal plural *-kan*, neutral case-marking in the dedicated progressive construction, a very idiosyncratic A/O/$S_a$ vs. $S_o$ pattern in the occurence of doubled pronouns, and overall tripartite configuration of PA markers (whereby both A and S receive overt marking).

**Table 2.**  Alignment Types in Shipibo-Konibo

| Syntactic level | Ergative | Accusative | Tripartite | Neutral | A/O/$S_a$ vs. $S_o$ |
|---|---|---|---|---|---|
| INTRACLAUSAL | – Case-marking on nouns and pronouns.<br>– Case-marking on doubled pronouns. | – Case-marking on emphatic pronouns.<br>– Distribution of emphatic pronouns.<br>– Distribution of plural verbal suffix *-kan*. | – Participant Agreement | – Case-marking in dedicated progressive clauses. | – Distribution of doubled pronouns |
| INTERCLAUSAL | – Internally-headed relative clauses. | – Coordination and complementation.<br>– Subject category in switch-reference system. | – Participant Agreement | | |

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# How ergative is Cavineña?*

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## 1. Introduction

This paper is an investigation of morphological and syntactic ergativity in Cavineña, a language from the Tacanan family that is spoken by about 1200 people in the Amazonian rainforest of northern Bolivia.

Amazonian languages are renowned for their intricate morphological split ergative systems (Dixon 1994:xv), where the ergative properties manifested by the coding system in some (syntactic, semantic or pragmatic) contexts give way to a different pattern (nominative/accusative or other) in other contexts. All four of the splits identified by Dixon are found in the region. Splits conditioned by the nature of the arguments are found in the Panoan languages Waripapano and Yaminawa (Peru; Valenzuela 2000) and Chácobo (Bolivia, in areas directly neighboring Cavineña; Valenzuela Ms.). Splits conditioned by TAM specifications are also present in several Panoan languages: Amahuaca (Southern Peru and Brazil; Sparing-Chávez

1998), Chácobo (Bolivia; Prost 1962, Loos 1978:137-8, Valenzuela Ms.), and Marubo (Brazil; Costa 2002). Splits conditioned by the nature of the verb, also referred to as active/stative splits or intransitive splits, are reported in many Arawak languages, including Baure and Mojeño, both spoken in Bolivia close to Cavineña (Aikhenvald 1999, Danielsen 2007; 2008, Rose forthcoming). Splits conditioned by the subordinate clause / main clause distinction are attested in the carib family (Gildea 1998), in the Tupí-Guaraní family (Dixon 1994:107) and in Shokleng (Jê, Brazil; Urban 1985). In addition, a pragmatically-conditioned split is attested in Amahuaca (the Panoan language mentioned earlier), with ergative case-marking conditioned by word order (Sparing-Chávez 1998:445-446, Valenzuela 2003:919-920).

Some Amazonian languages are also reported to display syntactic ergativity. Shipibo-Konibo (Panoan, northeastern Peru; Valenzuela 2003:483) has an S/O pivot in internally headed relative clauses. In Katukina (Katukina family, Brazil; Queixalós this volume), an S/O pivot is manifested by relativization constructions, as well as in various intra-clausal syntactic operations, including ellipsis, focalization and questions. Trumai (isolate, Brazil; Guirardello 1999, this volume) manifests an ergative alignment in relativization, reflexivization, causativization, and raising in complement clauses. It is noteworthy that an S/O pivot in relativization is common to all three.

Cavineña, like most languages of the Tacanan family,[1] has a case-marking system which operates on an ergative/absolutive basis:[2] a transitive subject NP receives a case marker (enclitic =ra) while an intransitive subject NP and a transitive object NP are left unmarked.[3,4]

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1. The Tacanan family comprises 5 languages: Araona, Cavineña, Ese Ejja, Reyesano and Tacana. A socio-linguistic presentation of Cavineña and a comprehensive grammatical description can be found in Guillaume (2008).

2. A notable exception within the Tacanan family is Reyesano, in which none of the core NPs receive any case marking (see Guillaume 2009).

3. Cavineña vowel phonemes are *i, e* (with allophones [e] and [ɛ] in free variation), *a* and *u* (written *u*; with allophones [ʊ] and [o] in free variation). Cavineña consonant phonemes are *p, b, t, d, c* (alveo-palatal voiceless stop; written *ty*), *ɟ* (alveo-palatal voiced stop; written *dy*), *k, kw, ts* (alveolar affricate), *tɕ* (alveo-palatal affricate; written *ch*), *s, ɕ* (alveo-palatal fricative; written *sh*), *h* (written *j*), *ɺ* (alveolar lateral flap; written *r*), *λ* (alveo-palatal liquid; written *ry*), *m, n, ɲ* (written *ny*), *w* (with allophones [w] before *a* and [ß] before *i* and *e*) and *j* (written *y*). Syllable structure is (C)V. Cavineña has a non-contrastive pitch accent system whose role is the delimitation of the phonological word as a prosodic domain (see illustration in §2.2). Some words borrowed from Spanish have not integrated into the Cavineña phonological system at all and are pronounced just as in Spanish. In this study, they are written according to their Spanish orthography (eg., *hermano* 'brother', *pista* 'airstrip', *camión* 'truck', etc.) See Guillaume (2008:Chapter 2) for a full account of Cavineña phonology.

4. Abbreviations used in this paper are: A, transitive subject; ABIL, abilitative; ABS, absolutive; ADVERS, adversative; AFFTN, affection; ASF, adjective suffix; ASSOC, associative; CONDIT, conditional, CONTR, contrastive; COUNT.EVID, contrary to evidence; DAT, dative; DIM, diminutive;

(1)  a.  Transitive clause

        **Iba=ra**$_A$   =**tu**$_O$ *iye-chine*    **takure**$_O$.

        jaguar=ERG =3SG kill-REC.PAST  chicken.ABS

        'The jaguar killed the chicken.' (elicited)

    b.  Intransitive clause

        [*Tu-ke*   *tupuju*] =**tu**$_S$ **iba**$_S$     *tsajaja-chine.*

        3SG-FM behind =3SG jaguar.ABS run-REC.PAST

        'The jaguar ran behind him (i.e., the jaguar chased him).' (Camp &
        Liccardi 1972:33)

In addition to its case-marking system, Cavineña has a cross-referencing system, realized by bound (enclitic) pronouns in second position in the clause, as with =*tu* '3SG' in (1a) and (1b).[5] These bound pronouns mark the person, number and grammatical function of some participants. In (1a), it is the O that is cross-referenced; in (1b), it is the S, thus showing the ergative pattern again.

    My goal will be to investigate whether Cavineña could display any of the "morphological" coding alternations typically found in languages geographically or genetically close to it. It is also to search for syntactic ergativity, by looking at co-reference restrictions between a main clause and a number of dependent clause types. The paper is organized as follows. In §2, I discuss the mechanisms for coding grammatical functions in Cavineña: the system of case markers on NPs/independent pronouns and the system of bound pronoun clitics in second position in main clauses. I also discuss a morpho-phonological rule of deletion that affects the form of the bound pronouns in a way that blurs the ergative/absolutive pattern and gives the (mistaken) impression that Cavineña displays split ergativity. Section 3 is dedicated to an investigation of syntactic pivots and the search for syntactic ergativity in Cavineña. In doing so, I look

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DL/dl, dual; DS, different subject; EMPH, emphatic; ERG, ergative; FILL, filler; FM, formative; FOC, focus; FRUST, frustrative; GEN, genitive; HORT, hortative; IMP, imperative; IMPFV, imperfective; INCR, incrementative; INT, interrogative; LIG, ligature; LOC, locative; MOT, motion; NEG, negative; NPF, noun prefix; O, transitive object; PASS, passive; PERF, perfect; PERL, perlative; PERM, permanently; PL/pl, plural; POT, potential; PROX, proximal; PURP.GNL, general purpose; PURP.MOT, purpose of motion; QUEST, question; REC.PAST, recent past; REITR, reiterative; REM.PAST, remote.past; REP, reportative; RES, resultative; RESTR, restrictive; S, intransitive subject; SG/sg, singular; SIMIL; similarity; SS, same subject; STRG.EMPH, strong emphasis; SUB, subordinate clause; TEMP, temporarily; UNCERT, uncertainty; =, clitic boundary, or co-referential.

**5.**    Cavineña has two types of enclitics: clause level enclitics, which occur in second position in a clause, and phrase level enclitics, which attach to the last word of a phrase, as with =*ra* 'ERG' in (1a). Both types of enclitics are written with a preceding equal sign '='. In order to distinguish them, second position enclitics are written separated from their host by a space while phrase level enclitics are written immediately attached to their host (although prosodically, both types of enclitics are identically attached to their host).

at co-reference constraints that apply to a number of clause combination structures and I show that these don't work ergatively. Rather, co-reference either operate according to an S/A pivot or is not sensitive to the grammatical function of the arguments.

## 2.   Cavineña morphological ergativity

In Cavineña, the coding of grammatical functions is realized by two mechanisms: (1) a system of case markers on NPs or independent pronouns (§2.1), and/or (2) a system of bound pronominal clitics in second position in the clause (§2.2).

Within most main clause types, the two systems operate simultaneously. Within dependent clauses and certain types of main clauses (namely "imperative" types), only the first system (case markers on NPs or independent pronouns) is available.

These systems are the only mechanisms for coding grammatical functions in this language; there are no pronominal affixes in the verb/predicate and constituent order is free.

### 2.1   NPs and independent pronouns

NPs and independent pronouns are mutually exclusive when referring to the same argument in the same clause. They both code grammatical functions according to an ergative pattern by way of case markers, which are enclitics to the last phonological word (in the case of NPs) or suffixes (in the case of independent pronouns), as illustrated in (1); recall that NPs in A function (transitive subject) take the marker =*ra* 'ERG', whereas NPs in S function (intransitive subject) and in O function (transitive object) are unmarked for case.

NPs can occur anywhere in the clause, so constituent order does not play any role in the coding of grammatical functions, as shown by (1a) (repeated) and (1a'):

| (1) | a. | *Iba=ra* | =*tu* | *iye-chine* | *takure.* | AVO |
|-----|-----|----------|-------|-------------|-----------|-----|
|     | a.' | *Takure* | =*tu* | *iye-chine* | *iba=ra.* | OVA |
|     |     | *Iba=ra* | =*tu* | *takure* | *iye-chine.* | AOV |
|     |     | *takure* | =*tu* | *iba=ra* | *iye-chine.* | OAV |
|     |     | *Iye-chine* | =*tu* | *iba=ra* | *takure.* | VAO |
|     |     | *Iye-chine* | =*tu* | *takure* | *iba=ra.* | VOA |

'The jaguar killed the chicken.' (elicited)

Instead of being realized by NPs, the arguments can be expressed by independent pronouns. There is an absolutive set, used to encode S or O arguments, and an ergative set, used to encode A arguments. The two sets are given in Table 1.

**Table 1.** Cavineña independent pronouns

| Absolutive | | | Ergative | | |
|---|---|---|---|---|---|
| *i-ke* | *yatse* | *ekwana* | *e-ra* | *yatse-ra* | *ekwana-ra* |
| 1SG-FM | 1DL | 1PL | 1SG-ERG | 1DL-ERG | 1PL-ERG |
| *mi-ke* | *metse* | *mikwana* | *mi-ra* | *metse-ra* | *mikwana-ra* |
| 2SG-FM | 2DL | 2PL | 2SG-ERG | 2DL-ERG | 2PL-ERG |
| *tu-ke* | *tatse* | *tuna* | *tu-ra* | *tatse-ra* | *tuna-ra* |
| 3SG-FM | 3DL | 3PL | 3SG-ERG | 3DL-ERG | 3PL-ERG |
| *riya-ke* | *retse* | *rena* | *riya-ra* | *retse-ra* | *rena-ra* |
| 3PROX.SG-FM | 3PROX.DL | 3PROX.PL | 3PROX.SG-ERG | 3PROX.DL-ERG | 3PROX.PL-ERG |

Looking at the non-singular forms of the sets, we can see that the ergative pronouns correspond to the absolutive pronouns plus the suffix *-ra*. In the singular forms, however, *-ra* replaces a suffix *-ke*. In the 1st person singular, the root is *i* in the absolutive and *e* in the ergative. The suffix *-ke* could be analyzed as an absolutive case marker. I have preferred to analyze it as a formative for the reason that it is not found in the non-singular forms.

As an illustration of the use of the independent pronouns, consider (2) below, where we can see that the 2nd person plural is expressed by an ergative form when it is in A function, as in (2a), whereas it is expressed by an absolutive form when it is in S function, as in (2b), or in O function, as in (2c).

(2)   a.  ***Mikwana-ra***<sub>A</sub> *=tu*<sub>O</sub> *adeba-ya=dya*   [*ai   ejiru=ke*]<sub>O</sub>.
        2PL-ERG      =3SG know-IMPFV=FOC  INT palm.leaf.vein=LIG
        'You (pl) know what *ejiru* (palm leaf vein) is (so I won't explain it to you).'[6]

     b.  *Are    chamakama **mikwana**<sub>S</sub> ju-eti-ya?*
        QUEST finally     2PL        be-COME-IMPFV
        'So you (pl) finally arrived?'

     c.  ***Mikwana**=piisi*<sub>O</sub> *e-ra*<sub>A</sub>    *iwa-ya*.
        2PL=JUST         1SG-ERG wait.for-IMPFV
        'I will wait only for you (pl).' (Camp & Liccardi 1989: 90)

Independent pronouns, like NPs, do not undergo any strict ordering restrictions; they typically come first in main clauses, as in (2a,c), which correlates with the fact that they are essentially used for contrast, but this is not a requirement. At any rate, their position in a clause gives no indication of their grammatical function.

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**6.**   When no indication of the source of an example is provided, the example comes from my own textual/conversational corpus.

## 2.2   Bound pronouns

The second system for the coding of grammatical functions involves bound pronouns. Bound pronouns can co-occur with NPs/independent pronouns, but are not obligatory. In this respect, Cavineña represents an intermediary situation between a language where bound pronouns are obligatory (agreement) and a language where they are in complementary distribution with NPs/independent pronouns (but see §2.3 for some restrictions applying to the coding of the A function).

Cavineña bound pronouns have basically the same forms as independent pronouns but different prosodic and morpho-syntactic properties. Because the distinction between independent and bound pronouns was not made in earlier work on Cavineña (cf. Camp & Liccardi 1978, 1983, 1989 and Camp 1985) and because the system of bound pronouns is fairly complex, it will be necessary to describe it in some detail here.[7]

Unlike what is most typically found cross-linguistically, Cavineña bound pronouns are not part of the verb/predicate but clitics in second position in the clause, a position which they share with other morphemes coding notions of evidentiality, epistemic modality, discourse status, speaker attitude, etc. As clitics, they are unaccented elements which attach prosodically to the last phonological word of the first immediate constituent of a main clause (NP, PP, verb/predicate, subordinate clause, etc.).

Cavineña has a non-contrastive pitch accent system whose role is the delimitation of the phonological word as a prosodic domain. It is realised as follows: (1) the first syllable of a phonological word receives a high pitch, (2) the last two syllables receive a mid pitch (only the last syllable if it is a two syllable word), and (3) the high pitch of the first syllable extends rightwards to any syllable(s) preceding the last two syllables. (A low pitch is used on the last syllable(s) of an utterence.) The application of the pitch accent contour to phonologically independent words given in citation form is illustrated in (3), and to phonologically independent words uttered within a phrase in (4) (high pitch is marked by an acute accent, mid pitch is unmarked).

(3)  a.  *béta*
         'two'
     b.  *mátuja*
         'caiman sp.'
     c.  *jútákiju*
         'therefore'

---

7.   The present analysis summarizes the findings presented first in Guillaume (2004:593-611, 2006, 2008:574-592).

(4) *pére émake*
    raft under
    'under the raft'

Independent pronouns are assigned the pitch accent contour exactly like any other phonologically independent words, as with *yatse* '1DL' in (5). On the other hand, when it comes to bound pronouns, the pitch accent contour does not apply to them individually but always incorporated to a host which is normally the last phonological word of the first syntactic constituent of the main clause,[8] as with =*yatse* '1DL' in the same example.

(5) [*Jádya jú-átsú*]=**yatse**    **yátse**    *y-áwá=eke*       *kwá-chine.*
    thus    be-ss=1DL       1DL       NPF-ground=PERL    go-REC.PAST
    After doing so we (dl) went by land.'

In their full form, the segmental make-up of bound pronouns is identical to that of the independent pronouns, with one exception: the 3rd person proximal singular absolutive bound pronoun is =*ri-ke* while its independent counterpart is *riya-ke*. The paradigm of Cavineña bound pronouns is given in the following table.

**Table 2.**  Cavineña bound pronouns

| Absolutive | | | |
|---|---|---|---|
| | =*i-ke* ~ =Ø | =*yatse* | =*ekwana* |
| | =1SG-FM | =1DL | =1PL |
| | =*mi(-ke)* | =*metse* | =*mikwana* |
| | =2SG(-FM) | =2DL | =2PL |
| | =*tu(-ke)* | =*tatse* | =*tuna* |
| | =3SG(-FM) | =3DL | =3PL |
| | =*ri(-ke)* | =*retse* | =*rena* |
| | =3PROX.SG(-FM) | =3PROX.DL | =3PROX.PL |
| **Ergative** | =*e-ra* ~ =Ø | =*yatse(-ra)* | =*ekwana(-ra)* |
| | =1SG-ERG | =1DL(-ERG) | =1PL(-ERG) |
| | =*mi(-ra)* | =*metse(-ra)* | =*mikwana(-ra)* |
| | =2SG(-ERG) | =2DL(-ERG) | =2PL(-ERG) |
| | =*tu(-ra)* | =*tatse(-ra)* | =*tuna(-ra)* |
| | =3SG(-ERG) | =3DL(-ERG) | =3PL(-ERG) |
| | =*riya(-ra)* | =*retse(-ra)* | =*rena(-ra)* |
| | =3PROX.SG(-ERG) | =3PROX.DL(-ERG) | =3PROX.PL(-ERG) |

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**8.**   Sometimes sequences of clitics (whether pronominal or not) can form independent phonological words by themselves in Cavineña (cf. Guillaume 2008:59). While more investigation is still necessary, it remains true that bound pronouns never form independent phonological words individually but always need a host, and as such, the prosodic argument made here to distinguish them from independent pronouns remains valid.

The form of a number of bound pronouns can be altered under the effect of a morpho-phonological rule. This rule is notably responsible for the deletion of the ergative suffix -*ra* 'ERG' and the formative suffix -*ke* 'FM' in some contexts (see further below) — this is indicated by parentheses in the table. In (1a,b) and (2a) above, for example, the application of this rule explains why we have 3rd person singular absolutive bound pronouns showing up as =*tu* and not as =*tu-ke*.

The coding of grammatical functions by second position clitic pronouns follows the same ergative pattern that characterizes NPs and independent pronouns (although some complications arise because of the morpho-phonological rule of suffix deletion): a bound pronoun that expresses an argument in A function has an ergative form, as in (6a), while it has an absolutive form when it refers to an argument in S or O function, as in (6b) and (6c), respectively.

(6)  a.  *Eju     =mikwana-ra*$_A$ =*yatse*$_O$ *emajaka*$_O$ *tya-ya?*
         where =2PL-ERG        =1DL     space      give-IMPFV
         '(When we arrived in their village, we asked them,) "Where are you (pl) going to give us (dl) a place (to sleep)?"'

    b.  *Irisha=ju     =mikwana*$_S$ *je-ya.*
        church=LOC =2PL           come-IMPFV
        '(Tomorrow we will have a service, so) you (pl) will come to the church.'

    c.  *Jadya=tibu=dya     =mikwana*$_O$ *ba-na-wa.*
        thus=REASON=FOC =2PL           see-COME-PERF
        'This is why I have come to see you (pl).'

Bound pronouns cluster in second position according to strict ordering rules. First, if there are other second position clitics (coding evidentiality, epistemic modality, etc.), bound pronouns must occur last in the chain, as illustrated in (7):

(7)  a.  *Enapa-wa     =taa     =tuna-ra*$_A$ =*i-ke*$_O$.
         cry.for-PERF =EMPH =3PL-ERG   =1SG-FM
         'They (my dogs) cried for me!'

    b.  *Pureama=dya =shana =yatse*$_S$ *ju-ya.*
        happy=FOC     =PITY   =1DL      be-IMPFV
        'We (dl) were very happy, poor us.'

    c.  *Karu-jeri-kware          =pa =tu-ra*$_A$.
        bite-ALMOST-REM.PAST =REP =3SG-ERG
        'They say that it (the viper) nearly bit him.'

Second, when more than one bound pronoun occurs in second position, their respective order is again controlled by strict ordering rules which involve a 1st>2nd>3rd person hierarchy (the symbol '>' means 'higher than'), as follows: the lower on the

hierarchy, the earlier in the sequence, regardless of function. This is exemplified by the pair of sentences below, where the 2nd person singular consistently precedes the 1st person plural, whether it is the A, as in (8a), or the O, as in (8b).

(8)  a.  *E-tya-u=ama*      *=**mi-ra**$_A$   *=**ekwana**$_O$?*
        POT-give-POT=NEG =2SG-ERG =1PL
        'Couldn't you (sg) give one (radio transmitter) to us (pl)?'

    b.  *Jejee. Adeba-ya=dya*    *=**mi-ke**$_O$   *=**ekwana-ra**$_A$*.
        yes  know-IMPFV=FOC =2SG-FM =1PL-ERG
        'Yes, we (pl) know you (sg).'

(See also the order *=mikwana-ra =yatse* '=2PL-ERG =1DL' in (6a) and *=tuna-ra =i-ke* '=3PL-ERG =1SG-FM' in (7a).)

   Bound pronouns, unlike independent pronouns, do not fill NP slots, a claim that is supported by the fact that they can co-occur with (in other words cross-reference/agree with) a noun/NP or even an independent pronoun coding the same argument in the same clause, as shown in (9a), with an A bound pronoun co-occurring with an A NP,[9] and (9b), with an O bound pronoun co-occurring with an O independent pronoun.[10]

(9)  a.  *Jadya* *=**tu-ra**$_A$*   *=Ø$_O$*  *a-kware*    ***bari=ra**$_A$*.
        thus  =3SG-ERG =1SG do-REM.PAST giant.anteater=ERG
        'This is what the giant anteater did to me (he poked me with its trunk).'

    b.  *Aama.* ***Tu-ke**$_O$* *=**tu-ke**$_O$*  *=Ø$_A$*  *a-kware=ama,*   *hermano.*
        no    3SG-FM =3SG-FM =1SG do-REM.PAST=NEG brother
        'No. That (straw hats), I didn't make, brother.'

Bound pronouns, unlike independent pronouns (or NPs), are restricted to main clauses — they are not used in subordinate clauses — and they are further excluded from imperative or hortative mood.

   In the general literature on ergativity and South American languages, Cavineña has been repeatedly cited as displaying a complex and exotic split-ergative system (see for example Derbyshire 1987: 319-320, Payne 1990: 4, Campbell 1997: 349, Dixon 1994:106–7, Aikhenvald & Dixon 1999:366–67, and Adelaar with Muysken 2004:421–22). This idea came from an analysis by Camp (1985) based on her observation of examples in which the pronouns coding the A argument are left unmarked for case (i.e., they do not show up with their otherwise

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**9.**   As we will see, the co-occurrence between an A NP/independent pronoun and an A bound pronoun is subject to some restrictions (§2.3).

**10.**   Note that the first person bound pronoun in A function in (9a) and O function in (9b) is realized as =Ø under the application of the deletion rule.

expected suffix *-ra*). However, as argued in detail in Guillaume (2006), the phenomenon at play in such examples is morpho-phonological rather than morpho-syntactic and, as a result, is not a manifestation of split ergativity (or any other type of split for that matter). Essentially, the suffix of the final (or the sole) clitic in the second-position cluster is regularly deleted whenever the sentence contains a following word. As a consequence, not just the ergative suffix *-ra*, but also the formative suffix *-ke* of absolutive clitics disappears, leaving person-markers whose form does not distinguish between ergative and absolutive, as can be seen in (10a,b,c).

(10) a. *Mutiru*$_O$ *=mi*$_A$ *a-kware=ama,*    *hermano?*
      hat      =2SG  do-REM.PAST=NEG brother
      'Didn't you (sg) make (straw) hats, brother?'

   b. *Eju*     *=mi*$_S$ *kwa-ya?*
      where  =2SG go-IMPFV
      'Where are you (sg) going?'

   c. *Are*     *=mi*$_O$ *bakwa=ra*$_A$ *a-wa=ama?*
      QUEST =2SG viper=ERG  do-PERF=NEG
      'Isn't that a viper that bit (lit. did) you (sg)?'

First person singular bound pronouns, both ergative and absolutive, are fully deleted, as in (11a,b).

(11) a. *Ebipukaka=tsewe =tu-ke*$_O$ *=Ø*$_A$ *iye-kware.*
      fist=ASSOC         =3SG-FM =1SG kill-REM.PAST
      'I killed it (the monkey) with my fist.'

   b. *Ji-da=dya*     *=tuna-ra*$_A$ *=Ø*$_O$ *ba-tsa-kware.*
      good-ASF=FOC =3PL-ERG =1SG see-COME-REM.PAST
      'They received me (lit. saw me as I came) very well.'

Note that in these examples, the final suffix on the preceding clitic is protected from deletion, which would otherwise be expected if it were truly final in the clitic cluster.

On the surface, bound pronouns coding A can therefore be alternatively formally identical to or formally distinct from bound pronouns coding S or O, depending on whether the deletion applies or not. These alternating patterns were noted in previous studies on the Cavineña pronominal system by Camp (1985) and Camp & Liccardi (1978, 1983, 1989), especially that suffix deletion was sensitive to the person hierarchy — as explained above, the hierarchy conditions clitic ordering, which then conditions suffix deletion. Within the typological literature available at the time (notably Dixon 1972; 1979, Silverstein 1976, and Comrie 1978), Camp (1985) analyzed the Cavineña pronominal system therefore as a split

ergative system conditioned by a multiplicity of factors, such as the difference between main and subordinate clause, the mood/polarity of the clause, the constituent order, the person hierarchy, etc. But once we recognize the existence of a category of bound pronouns distinct from the category of independent pronouns, we can see that the alternations are only found with bound pronouns, and that they are the result of a morpho-phonological rule of deletion, rather than the result of the morpho-syntactic organization of the coding of the arguments.[11]

**2.3**    Restrictions on the co-occurrence of NPs/independent
pronouns and bound pronouns

It was seen that NPs/independent pronouns can co-occur with (second position) bound pronouns. However, there is a co-occurrence restriction that applies to the coding of the A argument, but not to the coding of the S or O arguments: the A enclitic cannot co-occur with a preverbal A NP, as in (12); it occurs only when there is no overt A NP in the clause, as in (13a), or when the A NP follows the verb, as in (13b).

(12)  ***E-ra***<sub>A</sub>    =*tu*<sub>O</sub>    *[e-kwe*    *tata-chi]*<sub>O</sub>    *adeba-ya=ama.*
1SG-ERG  =3SG   1SG-GEN    father-AFFTN    know-IMPFV=NEG
'I do not know my father.'

(13)  a.   *Ebipukaka=tsewe =tu-ke*<sub>O</sub>    *=Ø*<sub>A</sub>  *iye-kware.*
fist=ASSOC        =3SG-FM    =1SG  kill-REM.PAST
'I killed it (the monkey) with my fist.'

   b.   *Tudya =tu-ke*<sub>O</sub>  *=Ø*<sub>A</sub>  *[tu-ja*    *tapa]*<sub>O</sub> *pakasha-kware*  ***e-ra***<sub>A</sub>.
then   =3SG-FM =1SG  3SG-GEN  lid     open-REM.PAST 1SG-ERG
'I opened its (bottle) lid.' (Tavo Mayo 1977:18)

Note that in (12), if the A argument had been realized by a bound pronoun (which would be =Ø in this case), the -*ke* formative of the 3rd person singular bound pronoun should not have been deleted. And in (13a) and (13b), even though the A bound pronouns are realized as zeros, their "underlying" presence is made clear by the fact that the -*ke* formative of the 3rd person singular bound pronouns is not deleted.

In combinations involving only 3rd person participants, if there is a postverbal overt A NP or independent pronoun, or if there is no overt A NP, the 3rd person bound pronoun, if present, can only refer to the A. Thus, only one participant can be realized by a bound pronoun (i.e., either the A or the O but never both at the same time). If both 3rd person arguments are singular, there is no way of saying which, of the A or the O, is marked by the bound pronoun (as in (1a) and (1a') for

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11.   The reader interested in a fuller treatment of this issue can find it in Guillaume (2006).

example). But if one of them is singular and the other plural, the form of the bound pronoun, which marks number, makes it clear that the bound pronoun refers to the A, as exemplified in (14).

(14)  a.  *Jadya =pa =**tuna**<sub>A</sub> a-wa  [tu-ja   ata=kwana=ra]<sub>A</sub>.*
          thus  =REP =3PL  do-PERF 3SG-GEN relative=PL=ERG
          'His relatives had told him so.'

      b.  *Amena tupari*<sub>O</sub>  *=**tuna**<sub>A</sub> iji-ya.*
          BM   corn.beer =3PL   drink-IMPFV
          'They would drink corn beer.'

If the A is realized by a preverbal NP or independent pronoun, then the bound pronoun, if present, can only refer to the O:

(15)  ***Tu-ra**=dya*<sub>A</sub>  *=**tuna**<sub>O</sub> kweja-diru-kware epu=ju=kwana=ke*<sub>O</sub>.
      3SG-ERG=FOC =3PL   tell-GO-REM.PAST village=LOC=PL=LIG
      'He told the ones from the village.'

These restrictions do not apply to the coding of the S and O arguments, which can be represented by a bound pronoun even if a co-occurring S or O NP is placed preverbally, as in (16a), with a preverbal S NP, and (16b), with a preverbal S independent pronoun.

(16)  a.  ***Trosadora=kamadya**<sub>S</sub> =**tu**<sub>S</sub> ani-kware.*
          saw=ONLY         =3SG sit-REM.PAST
          '(At that time) there were only handsaws.'

      b.  ***Mi-ke**<sub>S</sub>  *=**mi**<sub>S</sub> kwa-wa=ama escuela=ju.*
          2SG-FM =2SG go-PERF=NEG school=LOC
          '"You didn't go to school?" the priest asked me.'  (Tavo Mayo 1977:39)

For examples of O bound pronouns co-occurring with O NPs/independent pronouns occurring preverbally, see (9b), (12) and (13b).

    In a few examples, the constraint that a preverbal A NP cannot co-occur with an A bound pronoun is apparently relaxed. In all these examples, however, it turns out that we have a headless A NP. In (17), for example the A NP *chacha=kwana=ra* can only be interpreted as 'the ones who were still alive' in that *chacha* is an adjective and adjectives cannot be the head of an NP in Cavineña (Guillaume 2008:357).

(17)  *[Jadya tirya-ta-wa=ju]*     *=**tuna**<sub>A</sub> **chacha=kwana=ra**<sub>A</sub>*
      thus  finish-PASS-PERF=DS =3PL   alive=PL=ERG
      *inimetupu-kware: "Peyakeja   ne-diru-ra!"*
      think-REM.PAST   other.side  HORT.PL-go-HORT.PL

'After they (the group of Cavineños) had been killed (lit. finished), the ones who were still alive started to think: "let's go to some other place!"'

Two additional examples of this phenomenon are provided below:

(18)  a.  [***Ikwene kwa-ya=ra***]$_A$  *=tu-ke*$_O$  *=Ø*$_A$  *dati*$_O$
           first     go-IMPFV=ERG  =3SG-FM  =1SG  tortoise
           *dadi-nati-kware.*
           find-GO-REM.PAST
           'As I was going first (lit. I, who was going first), I found a tortoise.'

      b.  ***Dutya=ra***$_A$  *=tu-ke*$_O$  *=ekwana*$_A$  *adeba-ya*
           all=ERG      =3SG-FM  =1PL       know-IMPFV
           [*aja*              *ari-da=ke*]$_O$.
           capuchin.monkey  big-ASF=LIG
           'We all know (what) capuchin monkeys (are).'

Although more work is needed on this phenomenon and its motivations, the pattern of co-occurrence between full NPs (with a head)/independent pronouns and bound pronouns is another instance in the Cavineña system of coding grammatical functions that manifests an ergative/absolutive pattern. This leads us to conclude that unlike what frequently appears to happen in morphologically ergative languages of South West Amazonia, Cavineña does not display any split in its system of coding grammatical functions.

## 2.4    Conclusions

Cavineña does not display any split ergativity in its morphological (coding) level of organization: the A argument is consistently treated differently from the S and the O, these last two grammatical functions being treated identically.

In the remainder of this paper I will investigate whether the consistent ergative pattern instantiated by the coding features might be extended to higher and more abstract levels of organization of its grammar (i.e., the domain of behavior-and-control properties), in other words, whether there could any S/O pivot in this language.

## 3    Searching for syntactic ergativity in Cavineña

In this section, I look in detail at certain complex sentences in Cavineña which have specific co-reference restrictions. I first provide a brief introduction to the morphosyntax of dependent clauses in Cavineña (§3.1), then discuss two types of temporal

adverbial clauses: non-finite temporal same subject clause marked by *-(a)tsu* 'SS' (§3.2) and finite temporal different subject clause marked by *=ju* 'DS' (§3.3).

### 3.1    Dependent clauses in Cavineña: An introduction

Formally speaking, Cavineña has two categories of dependent clauses: (1) non-finite dependent clauses, whose verb is marked by a dependency marker attaching to a non-finite verb and (2) finite dependent clauses, whose verb is marked by a dependency marker attaching to a finite verb. The full list of Cavineña dependent clauses is given in Table 3.

Verbs heading main clauses must be inflected with affixes that belong to a single paradigm coding notions of Tense-Aspect-Modality (imperfective, perfect, remote past, remote future and potential) or commands (imperative, hortative and jussive).

Verbs heading dependent clauses must either take or not take these affixes, depending on the type of clause, as follows:

1    — Verbs heading non-finite dependent clauses cannot take any inflectional affixes. This is illustrated with a general purpose clause in (19). As we can see, the dependency clitic marker *=ishu* attaches to a verb stem that does not carry any inflectional affix .

(19)    [*E-kwe    mama-chi*]$_S$    *=bakwe deka=bucha mere ju-kware*
         1SG-GEN mother-AFFTN =CONTR man=SIMLR work be-REM.PAST
         [*ekwana*$_O$ *jutu=**ishu***].
         1PL         dress=PURP.GNL
         'My mother worked like a man so that she could dress us.'

**Table 3.**  Types of dependent clauses in Cavineña[12]

| non-finite | | finite | |
|---|---|---|---|
| **main function** | **marker** | **main function** | **marker** |
| temporal sequence | *-(a)tsu* | temporal settings | *=ju* |
| purpose of motion | *=ra* | reason | *=tibu* |
| general purpose | *=ishu* | similarity | *=bucha* |
| cause | *=ra* | conditional | *=ke juatsu* |
| immediate anteriority | *=wie* | 'thanks to' | *=ademe* |
| | | consessive | *majaka/=amabucha* |
| | | relativization | *=ke* |

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**12.**   Note that Cavineña does not have complement subordinate clauses nor coordinate clauses.

2   — Verbs heading finite dependent clauses must take inflectional affixes. This
is illustrated with a reason clause in (20). As we can see, the dependency clitic
marker =*tibu* 'REASON' attaches to a verb that carries an inflectional suffix
(coding remote past):

(20)   [*Tu-ra=kamadya*$_A$ *ijeti*$_O$ *jipe-kware=**tibu***]                =pa  =tu$_S$
       3SG-ERG=ONLY  sun  approach-REM.PAST=REASON =REP =3SG
       *pude-da.*
       red-ASF
       'They say that, because he (the sun bird) was the only one who approached
       the sun, he is red.'

The verb of a dependent clause, whether non-finite or finite, must come last in the
clause; overtly expressed arguments are free to occur in any order before the verb.

   Dependent clauses do not have second position clitics, neither those that code
evidentiality, epistemic modality, etc. nor bound pronouns.

   The coding of core arguments within dependent clauses follows, like in main
clauses, an ergative pattern. With all types of dependent clauses but one (general
purpose clause), we find the exact same case-marking system: ergative case mark-
er =*ra* on A NPs (or suffix -*ra* on independent pronouns) and absence of case
marking on S and O NPs; see ergative A NP in (21a), ergative A independent pro-
noun in (20), absolutive S NP in (21b), absolutive S independent pronoun in (21c),
absolutive O NP in (20), and absolutive O independent pronoun in (19).

(21)  a.  [*Dii=ra*$_A$        *karu-ya=**ju***]     =Ø$_S$  *pudena-ya.*
          Mosquito=ERG  bite-IMPFV=DS  =1SG  become.red-IMPFV
          'When a mosquito bites me, I become red.'

      b.  [*Camion*$_S$ *nubi=**ishu***]       =*tuna-ja*  =*tu*$_O$  *e-diji*$_O$
          truck    enter=PURP.GNL  =3PL-DAT  =3SG  NPF-path
          *bajeje-ti-chine.*
          prepare-GO-REC.PAST
          'They went there to arrange the path so that the trucks can enter.'

      c.  *Jadya* =*pa*  [*tata-chi=ja*       *inime*]$_S$  *ju-chine*
          thus   =REP  father-AFFTN=GEN  thought  be-REC.PAST
          [*i-ke*$_S$   *aputa-chine=**ke***            ***juatsu***].
          1SG-FM  disappear-REC.PAST=CONDIT  CONDIT
          'This is what your father would have thought (lit. thus would your
          father's thought be) if I had died.' (Liccardi 1983:43)

General purpose clauses have a distinct, although still ergative, case-marking system, with the A receiving genitive marking, as in (22); the S and the O remain unmarked, as in (21b) and (19), respectively.

(22)  *Tuekedya =tu*<sub>A</sub> *be-nuka-kware*          *jae*<sub>O</sub> *amena*
      then    =3SG bring-REITR-REM.PAST fish  BM
      [*yatse-ja*<sub>A</sub>  *ara=**ishu***].
      1DL-GEN    eat=PURP.GNL
       '(The Pacahuara woman first gave us five fish to take away.) Then, she
       brought more fish, (this time) for us (dl) to eat there.'

Dependent clauses (whether non-finite or finite) can either have or not have co-reference restrictions vis-à-vis their matrix clause. Let us first briefly discuss those types of dependent clauses that do not have co-reference restrictions, such as the general purpose clause and the reason clause illustrated in (19) and (20). These types of clauses very often (although not necessarily) share a core argument with the matrix clause. However, there are no restrictions as to which function this shared core argument has to fulfil within either the dependent or the matrix clause. In both (19) and (20), for example, the A of the dependent clauses is co-referential with the S of the matrix clause. But the A of the dependent clause can just as well be co-referent with the O of the matrix clause, as in (23a), or the A, as in (23b) (Although not illustrated here, this holds true with the S and the O of such dependent clauses as well.)

(23)  a.  Dependent A = matrix O
          [*E-ra*<sub>A</sub>    *butseeju  salon*<sub>O</sub> *ina-ya=**tibu***]        =*tu-ra*<sub>A</sub>   =Ø<sub>O</sub>
           1SG-ERG first.time rifle    grab-IMPFV=REASON =3SG-ERG =1SG
          *ejene-kware=ama.*
           believe-REM.PAST=NEG
          'Because it was the first time I was using (lit. grabbing) a rifle, she (my sister-in-law) did not believe me (when I told her that I had killed a deer).'

      b.  Dependent A = matrix A
          *Aama.* [*Mi-ra=dya*<sub>A</sub>   *iye-wa=**tibu***]    *duju-kwe*!
          no      2SG-ERG=FOC kill-PERF=REASON take-IMP.SG
          'No. Since you killed it (the caiman), you take it'

It is also possible for the dependent clause and the matrix clause to share no core argument at all, as in (21b,c).

It is worth having at look a relative clauses, since Cavineña is typologically (and possibly genetically) related to Shipibo-Konibo, a language that has an S/O pivot in internally-headed relative clauses (Valenzuela, this volume). Cavineña

does have both internally- and externally-headed relative clauses (Guillaume 2008:Chapter 20). Externally-headed relative clauses do not have constraints on the role of the relativized NP (within the relative clause). Notably, the relativized NP can be in A function (although this is not as frequent as relativization on S or O NPs), as shown in (24) (the relativized NP is in bold face):

(24)  *Tume =tukwe      ani-kware*
      then   =COUNT.EVID sit-REM.PAST
      [***bina*** [*i-ke*$_O$    *susu-ti-ya=ke*]]$_S$.
      bat    1SG-FM suck-GO-IMPFV=LIG
      'There was a (vampire) bat that was going to suck me (during my sleep).'

In all the available examples of internally-headed relative clauses, it is an S or an O NP that is relativized and never an A NP, as shown in (25) below. Unfortunately, I have not had the chance to verify with native speakers whether this is a constraint in Cavineña or if it is just the fact that internally-headed relative clauses with an A NP relativized have not occurred in the data. More work is needed on that topic.

(25)  a.  [*Ai   bakani*] *=tu*$_S$ [*iyaja=kwita **makina**$_S$ ani-ya=ke*]$_S$.
          INT name     =3SG  now=RESTR machine sit-IMPFV=LIG
          'What is the name of the machine (used to cut wood) that exists (lit. sits) nowadays?'

     b.  [*Metse-ra*$_A$ ***encomienda**=piji*$_O$ *kwadisha-chine=ke*]$_O$
         2DL-ERG package=DIM       send-REC.PAST=LIG
         *=ri-ke*$_O$       *=Ø*$_A$ *ina-tsa-chine.*
         =3PROX.SG-FM =1SG grab-COME-REC.PAST
         'I received the little package that you (dl) sent me.'
                                              (Camp & Liccardi 1989:61)

In conclusion, we can say that the preceding types of dependent clauses (with the possible exception of internally-headed relative clauses) do not display any particular alignment patterns between the S, the A and the O as far as co-reference constraints are concerned. Therefore, these clauses neither display an ergative/absolutive pattern, nor a nominative/accusative pattern, but rather a neutral pattern.

I will now turn to more interesting types of dependent clauses (for the purpose of the topic of this paper), namely those clauses which do hold co-reference constraints.

Two types of constraints are found within these structures:

1.  — the dependent clause must share one argument with the matrix clause and this shared argument must be the subject (either the S or the A) within both clauses. This type will be referred to as "same subject" clauses;

2.  — the dependent clause can share an argument with the matrix clause but this shared argument cannot be simultaneously the subject (whether the S or the A) within both clauses. This type will be referred to as "different subject" clauses.

Cavineña has various types of "same subject" dependent clauses, all non-finite. Here I will only discuss one: the temporal dependent clause whose verb is marked by the suffix -(*a*)*tsu* (§3.2). Cavineña has only one type of "different subject" dependent clause, which also holds temporal relations vis-à-vis the matrix clause, and whose verb is marked by the clitic =*ju* (§3.3).

### 3.2  Non-finite temporal same subject clause

The first type of dependent clause that we will be looking at has its verb marked by the suffix -(*a*)*tsu* and is mainly used either to code sequences of events or to modify the matrix clause. This type of clause is by far the most frequently used type of dependent clause (including non-finite and finite adverbial clauses) in Cavineña discourse.[13]

Similary to the general purpose clause that was illustrated above, the marker -(*a*)*tsu* attaches directly to a verb stem that is stripped of any of its inflectional morphology. The short form -*tsu* is used with polysyllabic verbal stems (e.g., *nawi-tsu* 'drink-SS', *isara-tsu* 'greet-SS') while the long form -*atsu* is used with monosyllabic stems (e.g., *je-atsu* 'come-SS', *ba-atsu* 'see-SS').

Dependent clauses marked by -(*a*)*tsu* have strict co-reference contraints vis-à-vis their matrix clause: their subject (either S or A) is obligatorily co-referential with the subject (either S or A) of the matrix clause. All combinations of subject co-reference are attested:

(26)  a.  Dependent S = matrix S
    *Tudya* =*tatse*$_S$ *amena* [*kwaba*=*ju*  *ani-bute*-**tsu**]    *tsura-kware*.
    then   =3DL  BM      canoe=LOC sit-GO.DOWN-SS go.up-REM.PAST
    'Then, having sat down in their canoe, they (dl) went up(river).'

  b.  Dependent A = matrix A
    *Tudya* =*tu-ke*$_O$  =$\emptyset_A$ *imeta*-**tsu**  *mare-kware*.
    then   =3SG-FM =1SG point.at-ss shoot-REM.PAST
    'Then, having pointed (my rifle) at it (the peccary), I shot it.'

  c.  Dependent S = matrix A
    [*Babi*=*ra*        *kwa*-**atsu**] =*tu-ja*    =*tu*$_O$ *tsuru-kware*
    hunt=PURP.MOT go-ss     =3SG-DAT =3SG meet-REM.PAST

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**13.**  In an illustrative text provided in Guillaume (2008: 773-798), for example, dependent clauses marked by -(*a*)*tsu* are found in 17 % of the sentences (26 occurrences out of 153 sentences).

    [*peadya matuja*]_O.
    one    caiman
    'Going hunting, he met a caiman.'

d.  Dependent A = matrix S
    *Baji-da=jipenee*    =Ø_S *ju-kware*    [*tu-ke*_O *peta-**tsu***].
    scared-ASF=ALMOST =1SG be-REM.PAST  3SG-FM look.at-SS
    'I was a bit scared, looking at it (the deer).'

One corollary to the same-subject co-reference requirement is that the subject of a clause marked by -(*a*)*tsu* is always omitted. On the other hand, any other participants (core or oblique) and clausal constituents, can be expressed and if so, they receive the same marking as if they were in a main clause — see the locative postpositional phrase in (26a), a purpose of motion non-finite dependent clause in (26c), and an independent pronoun in O function in (26d).

Returning to the topic of this paper, we can conclude that the co-reference contraints that characterize the arguments of dependent clauses marked by -(*a*)*tsu* treat the S and the A similarly and the O differently. Both the S and the A are obligatorily co-referential with one argument of the main clause, namely its subject, and both the S and the A must be omitted from the dependent clause. The O of the dependent clause, on the other hand, does not have co-reference restrictions and can either be present, as in (26d), or omitted, as in (26b). In other words, the co-reference constraints of dependent clauses marked by -(*a*)*tsu* operate on a nominative/accusative basis, in contrast to the ergative/absolutive pattern that applies to the morphological coding of the arguments of the same clause.

## 3.3    Finite temporal different subject clause

The second type of dependent clause that we will be looking at has its verb marked by the clitic =*ju*. Its main function is to code temporal settings for its matrix clause predicate. Similary to dependent clauses marked by -(*a*)*tsu*, finite temporal different subject clauses are extremely frequent in natural discourse.

Being of the finite type, the verb of a clause marked by =*ju* must bear inflectional affixes. Specifically, this type of clause usually uses the aspectual inflectional markers -*ya* 'IMPFV' and -*wa* 'PERF' to code a simultaneous vs. sequential contrast between the temporal clause event and the matrix clause event; the imperfective suffix -*ya* 'IMPFV' codes simultaneity, as in (27a), while the perfect suffix -*wa* 'PERF' codes sequence, as in (27b).

(27)   a.   *Jipetana-ya=**ju**      =tu*$_A$ *isara-nuka-kware.*
           get.close-IMPFV=DS =3SG greet-REITR-REM.PAST
           'As he (the caiman) was getting closer (to the fox), he (the fox) talked
           to (lit. greeted) him (the caiman) again.'

   b.   [*Tu-ra*$_A$   *mare-wa=**ju**]    =tu*$_S$ *pakaka-wa.*
           3SG-ERG shoot-PERF=DS =3SG fall-PERF
           'He (Lucio) shot it (the porcupine) and it (the porcupine) fell down.'

Dependent clauses marked by *=ju* also have strict co-reference contraints vis-à-vis
their matrix clause, as follows: the referent of the dependent clause subject (wheth-
er in S or A function) cannot be co-referential with the subject (whether in S or A
function) of the matrix clause. In (27a), for example, the only possible reading is
that the entity that 'gets closer to the fox' (i.e., the S of the dependent clause) is dif-
ferent from the entity that 'greets the caiman' (i.e., the A of the matrix clause).
Similarly, in (27b), the only possible reading is that the entity that 'shoots the
porcupine' (i.e., the A of the dependent clause) is different from the entity that
'falls down' (i.e., the S of the matrix clause).[14]

      The reader might have noted that in both (27a) and (27b), the S of a clause is
co-referential with the O of the other clause, and the co-referent argument is omit-
ted from the dependent clause. One might therefore wonder whether the depend-
ent clause that we are discussing does not have a constraint on co-reference be-
tween its S or its O vis-à-vis the O or the S of the matrix clause, i.e., an S/O pivot.
However, this possibility must be discarded on the basis that dependent clauses
marked by *=ju* can share their O with the A of the matrix clause, and their A with
the O of the matrix clause, two situations illustrated in (28):

   (28)   Dependent A = matrix O and dependent O = matrix A
          *Nereda =tu-ra*$_A$     *=Ø*$_O$  *a-kware*
          scold   =3SG-ERG =1SG do-REM.PAST
          [*e-ra*$_A$    *jadya kwatsabi    a-wa=**ju**].
          1SG-ERG thus   tell.story.to do-PERF=DS
          'She (my aunty) scolded me when I told her so (that my children almost
          drowned in the river).'

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14.   Note that the pair made by dependent clauses marked by -(*a*)*tsu* and dependent clauses
marked by *=ju* is functionally very close to a switch-reference system (as per Haiman and Munro
1983). Formally, however, these are clearly distinct clause types, in which case the term switch-
reference system is perhaps better avoided here. In other words, Cavineña does not have a single
clause type that would manifest both same subject and different subject. Rather, what we have
are different co-reference constraints associated with different clause types.

Finally, there are examples where the two clauses do not share any core argument, as in (29) below, which proves that there is no S/O pivot between dependent clauses marked by =*ju* and their matrix clause.

(29)   No shared co-argument between dependent and matrix clause

    a.   [*Salon*$_S$ *pututa-ya=ama=**ju***]     =*tu*$_S$  *kwa-nuka-wa*
          rifle    explode-IMPFV=NEG=DS =3SG go-REITR-PERF
          [*peya  e-tare=ju*].
          other  NPF-house=LOC
          'As his rifle didn't want to work (lit. explode), he went to another house (to ask for another rifle).'

    b.   [*Peya*$_S$ *kisarati-ya=**ju***]  =*tu-ja*     =*tu*$_O$ *tikwa-nuka-ya*.
          other talk-IMPFV=DS =3SG-DAT =3SG switch.off-REITR-IMPFV
          'When the other (the non-Cavineña speaker) talks, he (the linguist) turns it off (his tape-recorder)!'

The conclusion that we can draw is that the S and the A are treated alike in the co-reference constraint that holds between dependent clauses marked by =*ju* and their matrix clause. Although the basis of the S/A grouping instantiated by dependent clauses marked by =*ju* is not entirely of the same nature as that manifested in dependent clauses marked by -(*a*)*tsu*,[15] this grouping still reveals a form of sensitivity of the language for a nominative/accusative patterning at the syntactic level.

## 3.4.   Conclusions

Cavineña behavior-and-control properties displayed by the combination of a main clause and any of the two types of dependent clauses discussed here suggests an orientation of the language towards a nominative/accusative syntactic grouping of arguments, rather than an ergative/absolutive one.

## 4.   Conclusions

In this paper, I have intended to answer the following two questions: (1) how rigid is the ergative patterning within the coding system of Cavineña? and (2) how far does ergativity percolate within Cavineña grammar? These questions are of particular interest for languages spoken in the Amazon basin, an area where ergativity is very widespread.

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**15.**   In the first case, the basis of the S/A grouping is obligatory co-referentiality, while in the second it is obligatory non-co-referentiality.

The first task was to look at the Cavineña coding system carefully, in particular the working of bound pronouns which display a number of peculiar alternations. As we saw, these alternations result from the application of a rule of suffix deletion which is conditioned by morpho-phonological factors (rather than morpho-syntactic). As such, I concluded that the alternations do not affect the pronoun alignment patterns and, contrary to previous analyses (cf. Camp 1985), were not a case of split ergativity.

The second task was to search for syntactic ergativity. In doing so, I investigated in detail two types of dependent clauses with co-reference constraints vis-à-vis their matrix clauses. It was shown that, in these two constructions, co-reference constraints within these structures operate on a nominative/accusative basis, in contrast to the ergative/absolutive coding of their core arguments.

In the present stage of our knowledge of Cavineña, it would be premature to state with certainty that this language does not manifest any pattern of syntactic ergativity — as we saw, co-reference constraints in relativization could perhaps manifest an S/O pivot. This remark probably holds true for many (morphologically) ergative languages of the Amazon. Firstly, these languages are still, for the most part, under studied. Secondly, the study of these languages is often limited to the analysis of their overt coding features, and rarely to their more abstract/covert behavior-and-control properties.[16] It is very likely that our understanding of ergativity in Amazonia might evolve substantially as more in-depth studies of invidual languages become available.

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16.   This remark probably applies to the study of many languages in the world (see Dixon 1994:179).

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# The ergativity effect in Kuikuro (Southern Carib, Brazil)

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This article first gives a typological and morphosyntactic profile of Kuikuro, a southern Cariban language. Kuikuro has ergative nominal case marking and alingnments, as well as nearly identical nominal and verbal inflection. The second part focuses on the absolutive and ergative Cases, the former attributed to internal arguments (S and O) and the latter to the external argument (A). The postposition *heke* may mark either a syntactic adjunct (Perspective) to intransitive verbs or the external (ergative) argument of transitive or transitivized verbs; we present a (semantic) hypothesis on the relation between these distinct syntactic units. We conclude that in Kuikuro, all intransitive verbs behave as inaccusatives. We find evidence that confirms the emergence of a dominant morphosyntactic ergative through reanalysis of nominalization structures. In the last part, we propose to conjoin two hypotheses, theoretically distinct but empirically convergent. The first one is that offered by Alexiadou (2001) in the frame of the generative formal theory: the state of affairs in ergative languages is similar to the case patterns in nominalizations. The second one is that of Gildea (1998): inside the Cariban family, languages with ergative morphosyntax (Full Set II) are innovative, etymologically relatable to nominalizing and adverbializing morphology of Proto-Cariban.

## Introduction

From the very first glance, we can see that Kuikuro is a dependent-marking 'ergative' language. It is the most explicit example of what Gildea (1998) calls a Full Set II system within the Cariban language family: it has absolutive pronominal prefixes, post-verbal ergative pronouns on the way to becoming enclitics, overt case marking of A(gent) nominals, ergatively oriented word order, and (plural) number agreement with the absolutive (O,S) argument. We know that there are only two Cariban languages with this profile: the one I call the 'Upper-Xingu Carib language', of which Kuikuro is a variant and located at the southern edge of the wide

geographic distribution of Cariban languages in non-Andean South America, and Macuxi, in northern Amazonia. In other Cariban languages we find varied, but more constrained, manifestations of the ergative pattern.

Before attempting to formulate any diachronic hypotheses related to the advent or the antiquity of Cariban ergativity, I believe that detailed examinations of the synchronic facts of the 'fully ergative' languages are called for. My objective, then, in the first part of this chapter is to offer a description of the basic morphological, syntactic, and semantic facts of Kuikuro. I thus establish the main features of Kuikuro 'ergativity' and the problems associated which it; these are taken up in the second part of the chapter, where the reader will find an attempt at an explanation. My theoretical framework is generative; I have always been interested in understanding the specifics of languages, in other words, I seek to explore linguistic diversity as set against the background of possibilities and restrictions configured by a strong theory of Universal Grammar. If I have not yet managed to formulate a definitively satisfying explanation of why Kuikuro is as it is, I have, at the very least, identified the path that needs to be followed beyond the initial boundaries of a classic typological profile.

Ergative languages from the four corners of the earth have challenged researchers from diverse theoretical orientations and, particularly in the case of generative researchers, have stimulated innovative proposals resulting in revisions of Case Theory, the nature of the features of functional categories, the nature of the (mental) lexicon, and of the very architecture of syntactic representation. Much of the discussion has been concentrated on the reformulation of a central functional category, 'little *v*', as well as on the distinction between structural Case and lexical or inherent Case and their definitions within the framework of Distributed Morphology, a new conceptualization of the interaction between syntax and morphology. The clear parallelism or coincidence between nominal and verbal constructions ends up being a crucial question that must be addressed in order to understand Kuikuro ergativity. I have thus attempted to reconcile the synchronic value of the diachronic hypotheses presented by Gildea (1998), a functional linguist, with the proposals of a generative linguist, Alexiadou (2001), whose publication has the meaningful subtitle 'Nominalization and ergativity'. It is my hope that the Kuikuro facts will contribute to the continued growth and substantiation of the 'ergative' debate.

## 1.    Kuikuro as an ergative language: An overview of its morphology and syntax

The Kuikuro – who call themselves **Lahatuá otomo**, "masters (people) of Lahatuá" or, in the expression most commonly used today, **Ipatse otomo**, "masters (people) of Ipatse"- live in three villages near the banks of the Culuene River, in the northern

part of the state of Mato Grosso (Brazil), and their population numbers around 600. More than 50 Kuikuro live in the Yawalapiti village, together with speakers of Arawak and Tupi languages. The Kuikuro are one of the four local Cariban language groups, whose traditional territory is the eastern region of the drainage basin through which flow the headwaters of the Xingu River, a southern tributary of the Amazon River. From the ecological, political, and cultural point of view, the Upper Xingu region is a single unit, in which different ethnic groups form an intertribal and multilingual society which has constituted itself historically over the last three centuries, however preserving features of its Arawak origins. In the Upper Xingu, linguistic differences, including dialectal distinctions, are one of the most important badges of socio-political identity among the local groups. Thus, the contrastive set of the local Cariban groups (Kuikuro, Nahukwá, Kalapalo, Matipú) is based on different prosodic structures which modulate, so to speak, a single grammar, more than on morphological and lexical particularities. All the data presented in this article comes from Kuikuro.[1]

From the point of view of genetic classification, the Carib language of the Upper Xingu constitutes one of two southern branches, an island, which in terms of its syntactic and phonological structures is distinct from the other branch, formed by the Bakairi, to the southeast, and by the Ikpeng/Arara, to the north (Meira & Franchetto, 2005). Above all, like the other Upper Xingu Carib variant, Kuikuro is dominantly and widely 'ergative,' at least when one first looks for surface evidence of typological alignments: in the morphology of nominal case, in the neutral pragmatic order of constituents, and in the expression of person markers.

## 1.1  Morphology

A single set of prefixed person markers occurs with nouns, verbs, and postpositions, and it is clearly derived from the free pronoun forms.

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**1.**   Research on Kuikuro began in 1977, and has resulted in two doctoral theses, a master's thesis, and a number of published and unpublished articles (see bibliographic references). From 2001 to 2006, extensive Kuikuro linguistic and cultural documentation was carried out through a project financed by the DOBES Program, with the support of Volkswagen Stiftung and the Max Planck Institute for Psycholinguistics. See www.mpi.nl/dobes in order to access the corpus of the DOBES Kuikuro Project, with, among other things, 200 sessions (recordings of speech events of all the discourse genres) with their metadata and annotation. The data presented in this chapter come mainly from the mentioned corpus.

Pronominal prefixes:[2]

1.          *u-*
2.          *e- (o-, a-)*
3.          *i-*
            (*is-, iɲ-,* Ø with lengthening of the vowel of the second syllable of the root)
12(INCL)   *ku- (kuk-)*
13(EXCL)   *ti- (tis-)*

Reflexive/anaphoric is codified in nouns and verbs by the prefix *tü- (tu-, t-).*

Any noun, verb, or postposition that is the head of a phrase has a single (direct, internal) argument, whose saturation is unavoidable, and with whom it constitutes a single phonological unit. We observe, first of all, that for nouns, the argument is that of 'possessor' or, to generalize, that to which the noun is dependent or related. For verbs, this argument is an unmarked absolutive (S/O) that, when pronominal, is a prefixed form occurring in first position of the 'verbal' word. Nonetheless, from the very beginning, the similarity between nominal and verbal inflections strikes any good observer (see 1.2.1):

(1)   *u-kuluta-gü*
      1-flute-REL
      'my flute'

(2)   *u-gepo-nga*
      1-near-ALL
      'to (direction) near me'

(3)   *u-ünkgü-tagü*
      1-sleep-CONT
      'I am sleeping'

(4)   *u-ahetinhomba-tagü i-heke*
      1-help-CONT          3-ERG
      'he is helping me'

Full nominal and pronominal arguments occur in complementary distribution, having no explicit verbal agreement related to the feature of 'person'.

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**2.**    The following conventions of orthographic transcription are used in this article and by the Upper-Xingu Carib groups in their own writing: ɨ → ü; j→ j; uvular flap → g; ŋ → ng; ɲ → nh; ⁿg → nkg. On the uvular tap, an unexpected sound, see Meira & Franchetto 2005 (for a comparative approach within the Cariban family), and, especially, the careful phonetic study done by Didier Demolin, Bruna Franchetto & Carlos Fausto, in the article 'Uvular flap in Kuikuro', to be published in *Phonetica (International Journal of Phonetic Science)*. The authors propose a new symbol for this sound to be added in the current IPA Chart.

Sentences such as those in (3) and (4) show why Kuikuro could be called 'an ergative language': S or O occupies the single slot reserved for the argument of the verb; a marked A in fact occurs in the argument position of a postposition, *heke*, to which we will return in 2.2:

A(gent) pronominal forms:

1.  *u-heke*          12  *kupehe*
2.  *e-heke*          13  *tiheke*
3.  *i-heke*

For the second and third person forms of a plural A, we need only add the suffix *-ni*:[3]
2pl *e-heke-ni*        3pl *i-heke-ni*

As stated in earlier works (Franchetto, 2006), the work of segmenting Kuikuro words, picked out of sentences and utterances, is an almost endless and fascinating operation, much like performing fine surgery on conceptual bodies. The more we cut, once the minor, supposedly lexical elements have been recognized, the more the supposedly categorical nature of the remaining elements escapes our current understanding and familiar frames of categorization. Viewed another way, categorization, beginning with the classification of lexical items or roots, becomes more and more complex at each successive morphological level, with surprisingly few restrictions on sub-categorization. Kuikuro is a highly agglutinating language and, as with all the other languages of the Cariban family, shows a surprising richness of what has been called 'derivational morphology' (Derbyshire, 1999) as well as of 'inflectional morphology.'

Following the proposals of Distributed Morphology (Halle & Marantz, 1993, 1994; Harley & Noyer, 1998, 1999; Arad, 1999), we consider that 'verbs' and 'nouns' result from the syntactic construction of sentences/utterances through processes of verbalization and nominalization realized by functional morphemes, explicit or not (phonologically spelled-out or not), that are associated to roots, in syntax. The hypothesis is that the lexicon is constituted of a-categorical roots, 'naked' roots carrying phonological, morphological, and semantic features. So, when we speak of 'nouns' and 'verbs,' we actually refer to the products of morphological processes inside the syntax, that is, categories are determined at the syntactic level (Franchetto, 2006; Franchetto & Santos, 2003; Santos, 2002).

Kuikuro inflectional morphology is organized into five classes which permeate a good deal of Kuikuro morphology and which were analyzed in Franchetto (2005), Santos (2002, 2005, 2007), Franchetto & Santos (2003). Such classes

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**3.**   Only postpositions can receive the suffix *-ni*, indicating the pluralization of the argument. Thus, we have *e-inha-ni* (2-BEN-PL), 'for you(pl)'; *e-gepo-ni* (2-near-PL), 'near you(pl)'; and finally *e-heke-ni* (2-ERG-PL), 'by/from you(pl)'.

condition the allomorphy of verbal aspects (Continuative, Punctual, Perfective) and of the Participle (the well known construction *t-V-se* of the Cariban languages). Note the role of these classes in the 'disambiguation' of homophonous roots:

(5)  a.  *ahu-nügü*        *t-ahu-ti*                        (Class II)
         close-PNCT       3AN-close-PTP
         '(he/she) close/ed'  'having closed / being closed'

     b.  *ahu-lü*          *t-ahú*                          (Class III)
         pound-PNCT       3AN-poundPTP
         '(he/she) pound/ed'  'having pounded / being pounded'

     c.  *ahu-jü*          *t-ahu-si*                       (Class IV)
         swell-PNCT       3AN-swell-PTP
         '(he/she) swell/ed'  'having swollen / being swollen'

Morphological classes also determine the forms of nominal 'possessive' suffixes, which we call 'relational' suffixes (REL), as we see in the following set of 'disambiguated' homophonous roots:

(6)  a.  *u-hi-gü*
         1-grand.son-REL
         'my grandson'

     b.  *u-hi-tsü*
         1-wife-REL
         'my wife

     c.  *u-hi-sü*
         1-younger.brother-REL
         'my younger brother'

The same logic of morphological classes determines the allomorphy of a good number of the nominalizing suffixes:

(7)  *agi-toho* (Class III)       *ahehi-tsoho* (Class IV)       *api-goho* (Class V)
     throw-INSTNR                 write-INSTNR                  beait-INSTNR
     'made for throwing'          'made for writing'            'made for beating'

The Kuikuro language has no auxiliaries. The verbal word structure, built from roots to which bound morphemes are added, is shown by the following schema:

**Abs/Pers(-DTR)-Root(-VBLZ)(-Tr)-Mood-Asp(-Number)(-FUT)**

As we saw earlier, absolutive (S and O) person markers are obligatory when there are no full nominal absolutive arguments, and they occur at the beginning of the verbal word as the leftmost prefixes; moods and aspects are suffixes.

Derivational suffixes are verbalizers and nominalizers. Explicit intransitive and transitive verbalizers are added to nouns:[4]

(8)  a.  *i-hain-ti-tagü*      *leha*
         3-old-VBLZ-CONT  CMPL
         'he is getting old'

    b.  *u-hi-gü*          *heke u-hain-ki-jü*
         1-grandson-REL  ERG  1-old-VBLZ-PNCT
         'my grandson made me old'

Explicit nominalizers are added to intransitive and transitive verbs:

(9)  *hain-ti-ne*          *> haindene  haindene  leha  uge-i*
      old-VBLZ-GNMLZ                  old        CMPL  1D-COP
                                                        'I am already old'

(10)  *u-muku-gu iga-toho*        *u-heke Salu*
       1-son-REL give.name-INSTR  1-ERG  Salu
       'Salu is how I call my son'

Valency changes are encoded by prefixes (detransitivizers and the Object Marker or de-ergativizer *ng-*) and suffixes (transitivizers or causatives); they occur immediately before or after the verbal root:

(11)  *ekise at-ahukuguN-te-lü*
       he   DTR-pan-VBLZ(TR)-PNCT
       'he made/gave a pan for/to himself'

(12)  *u-ng-aküngi-pügü*          *leha ige-i*      *hüge-i*
       1-OM-choose.among.many-PERF CMPL DPROX-COP arrow-COP
       'this is the weapon I've chosen'

The 'number' suffix *-ko* pluralizes animate nouns and absolutive pronominal arguments; it can be followed only by the Future *-ingo* and by the Copula *-i* (Franchetto *et alii*, 2007):

(13)  *hagu-te*    *ege-i*        *is-ünkgü-lü-ko  nhatüi*
       igarapé-LOC DDIST-COP  3-sleep-PNCT-PL  five
       'they slept five nights at the igarapé'

(14)  *ekise heke kuk-ane-te-lü-ko*
       3D   ERG  12-chief-VBLZ-PNCT-PL
       'it is that one who is the chief of all of us' (lit.: he provides all of us with a chief)

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4.   For a detailed analysis of verb formation processes, see Santos 2002, Franchetto & Santos 2003, Franchetto 2006.

(15)  *anet-āo-ko*
      chiefs-COLL-PL
      'the groups of chiefs'

With a small set of transitive verbs,[5] in the absence of a full O noun, we find a generic and anaphoric object prefix (*t(ü)-*, OBJ), which should not be confused with the Object marker (*ng-*, OM) in de-ergativized constructions. The complex sentence in (16), from a traditional narrative, is an example of parallelism characteristic of the narrative verbal art. In the first sentence, the prefix *t-* is the obligatory filler of the O or internal argument slot for the verb *uhu-*, 'to know', announcing the full O (*tuelü*, an event argument) explicit in the second juxtaposed clause:

(16)  ***t**-uhu-tagü-ha*      *ege-i*
      OBJ-know-CONT-AF DDIST-COP
      *tue-lü*        *uhu-tagü*    *egei*      *i-heke*
      OBJ.kill-PNCT know-CONT DDIST-COP 3-ERG
      '(He) knew it, he knew they were going to kill him (that he would be killed / knew of his own death)'

## 1.2   Syntax

Kuikuro is a head final and dependent marking language. The general basic structure of the Kuikuro sentence can be represented by the following formula:

**(Yheke) (Z) [XV] (Z) (Yheke)**

[XV] represents the syntactic unit, usually called SV, where the essential relation between a head and its argument – intransitive S(ubject) or O(bject), in typological terms - is established, with their basic order and strict adjacency. No other element can come between them. This relation is just one specific example of the unity of any head (V, N, Pp) and its argument, which results in a single 'body', a phonological unit with a single accentual and intonational profile that modifies the accentual structures of words in isolation: we perceive peak intensity on the final syllable of the argument and highest pitch on the first syllable of the head.[6]

The postpositional phrase *Yheke* codifies the external argument (A) occurring after the [XV] nucleus, when pronominal, and in its pragmatically neutral position

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**5.**   This small set includes the following verbs: *hü* 'bathe O', *enge* 'eat animal food', *eku* 'eat vegetal food', *ki* 'take out/away', *uhu* 'know', *uhumi* 'send'. This prefix is recognizable in already lexicalized forms, like *tue-* 'shoot, kill' (cf. *-he* 'break, destroy'), *tüi* 'put' (cf. *üi* 'make, transform'), *tuN* 'give' (cf. *nguN* 'give' as full and light verb).

**6.**   Sensitivity to the phonological interpretation of a basic syntactic relation could be considered a type of 'incorporation' of the Theme.

when full nominal. If full nominal A maintains phonological independence, indicated by a small pause separating it from the predicate [XV] and by falling intonation on the final syllable of the unit [XV], pronominal A tends to cliticize to the right of the inflected verb, when nothing intervenes[7]. Full nominal *Yheke* can occur in the first position of the sentence, the place reserved for focused or topicalized constituents.

Avoidance of a heavy argument commonly results in the repetition of A as an afterthought,[8] whose function corresponds to that of a restrictive relative clause:

(Ahanta2, 410–11)

(17)  "*Ahãta inde*"       *ingajomo heke ingi-nga-lü*
        Ahãta DDIST.LOC 3sisters   ERG 3look-HAB-PNCT
        '"There's Ahãta" her sisters continued to look at him'

       *kuigi    kasi-nügü-ko hoko-ngo   heke-ha*
       manioc work-PNCT-PL about-NMLZ ERG-AF
       'the ones who were busy working the manioc'

The same strategy can be used to dismember heavy objects; in (23), *aganingo* occupies the argument position of the verb, while *ukuge* occurs as an adjunct in sentence-final position:

(18)  *a-gani-ngo ingi-lü-ha     ege-i        u-heke ukuge*
        2-like-NMLZ see-PNCT-AF DDIST-COP 1-ERG   person
        'I saw someone who looked like you, a person'

With a participial form of a transitive verb, the S/O appear with their usual accentual pattern intact, and, far from their canonical pre-verbal position, they behave like adjuncts. The argument position of the verb is occupied by the prefix *tü-/t-*, an anaphoric generic object form. As for its meaning, the 'participle' indicates a temporal antecedent and completive aspect, a temporal or logical dependent of a preceding utterance, whether this be an earlier moment in a succession of events or a question:

(19)  *t-etsuhe-ti         leha u-engü-pe       u-tahaku-gu-pe*
        3AN-DTRbreak-PTP CMPL 1-possession-ex 1-bow-REL-ex
        'it broke, that which was mine, that which was my bow'

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**7.**    In Macuxi (Pemón), the full ergative northern Cariban language, the marked A is definitely cliticized, even suffixed, to the end of the verbal word (Abbott, 1991).

**8.**    Derbyshire (1985) gives a careful description of afterthought, which he considers to be a type of right dislocation movement in Hixkaryana, a northern Cariban language whose ergativity is restricted to dependent nominalizations.

(20)  *embuta  leha  t-ili-si      u-heke*
      medicine CMPL 3AN-drink-PTP 1-ERG
      'I've already drunk the medicine'

In any other context, the absence of the Object in its canonical position immediately preceding the verb determines the de-ergativization of the construction (see Example 12).

Z is a crucial element of the sentence that frequently occurs between [XV] and *Yheke*. Pronominal A, the 'assertive' clitic *ha*, and Z tend to bind together into a single word in rapid speech, as we see in the examples from 21 to 26. Z is rare in elicited data, but it occurs often in constructions uttered in natural and spontaneous speech contexts. Z consists of a deictic of proximity or distance (from the point of view of the subject of the speech act) plus the copular suffix *-i*; it could be accompanied by particles with epistemic and aspectual values. This deictic-copula complex seems to occur at the border of the left edge of the sentence, the result being a kind of cleft sentence.[9] Below we see some examples showing the possibilities for the order of the verb and its internal and external arguments in the sentence in relation to the position of the Z element:

|  | [X(intransitive S, full nominal)V] | Z | | Adjunct (Circumstantial) |
|---|---|---|---|---|
| (21) | *ailene* | *enhümingohegei* | | *etete* |
| | *aile-ne* | *e-nhümingo-ha* | *ege-i* | *ete-te* |
| | feast-GNMLZ | come-FUT-AF | DDIST | village-LOC |
| | 'there's going to be a festival in the village' | | | |

|  | Adjunct | Z | | [X(full nominal S) | V] |
|---|---|---|---|---|---|
| (22) | *konigehegei* | | *tsuei* | *kongoho* | *ngingi-lü* |
| | *konige-ha* | *ege-i* | *tsuei* | *kongoho* | *ngingi-lü* |
| | yesterday-AF | DDIST-COP | much | rain | fall-PNCT |
| | 'it rained a lot yesterday' | | | | |

|  | [X(pronominal S)V] | Z | Adjunct |
|---|---|---|---|
| (23) | *uenhümingohegei* | | *etete* |
| | *u-e-nhümingo-ha* | *ege-i* | *ete-te* |
| | 1-come-FUT-AF | DDIST-COP | village-LOC |
| | 'I will be back in the village' | | |

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9.   The active presence of the CP, or complementizer tier, must be noticed; it includes, at least, topic, focus, illocutionary force and to it, in the majority of utterances, one of the constituents is moved (Rizzi, 1997).

       [X (O)        V] Z Y(pronominal)heke
(24) *küngamuke hogijüheguheke,*                           *kapohongoha ekugu*
     *küngamuke hogi-jü-ha*      *ege-i*      *u-heke kapoho-ngo-ha ekugu*
     child        find-PNCT-AF   DDIST-COP 1-ERG tall-NMLZ-AF really
     'he found a child, a very tall one'

       [X(O)          V] Z                  Y(full nominal)heke
(25) *toto ehugu      kuhenügühegei*        *hite heke*
     *toto ehu-gu     kuhe-nügü-ha*   *ege-i hite heke*
     man canoe-REL break-PNCT-AF DDIST wind ERG
     'the wind broke the man's canoe'

       Y(full nominal)heke Z       [X(O) V]       Adjunct
(26) *hüati     hekehegei*         *toto hekutelü   isügünu hata*
     *hüati     heke-ha ege-i*     *toto hekute-lü   is-ügünu hata*
     shaman ERG-AF DDIST-COP man cure-PNCT 3-sick      TEMP
     'the shaman cured the man when he (who) was sick'

The deictic-copula complex is a particularly interesting fact of the Kuikuro lan-
guage. The deictics – *ige*, for 'proximity to the speaker', *ege*, for 'distance from the
speaker' – have, by themselves, tense and epistemic meanings, so they can charac-
terize also the finiteness of the whole sentence. The fact that the deictic-copula
complex is very common in real utterances suggests that it encodes the illocution-
ary force necessary to realize the predication *hic et nunc*, a kind of 'predicative
anchor' or the substantiation of an existential predication together with a referen-
tial act.[10] Without it, the predication is merely virtual and stays as a simple rela-
tion. The Z complex is then a diagnosis at the same time of the nature of Kuikuro
as a topic/focus prominent type of language and of the weakness and non-finite-
ness of the verbal inflection. Some more words are needed on the parallelism be-
tween verbal and nominal constructions.

### 1.2.1  *Nominal and verbal inflection: A tenuous border*
Earlier, I stated that the [XV] unit should be taken as a specific case of the means
by which Kuikuro codes the general relation between any head and its argument.
The near indistinguishability between verbal and nominal inflection and the struc-
tural parallelism between nominal and verbal phrases are clearly evident if we con-
sider the aspects of what we can call the Declarative (or Descriptive) Mood. It is
extremely difficult to argue convincingly for a difference between Punctual Aspect

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**10.** Kuikuro people call these elements *tisakisü enkgutoho*, "made to carry our words to the port
(to the place of rest, where a trip comes to the end)"; they also say that a sentence without these
elements is like a dead body, a skeleton without flesh and blood.

(PNCT) and the Relational suffix (REL). Moreover, Punctual means the absence of a temporal extension, an event viewed as a closed instance, an event-entity:

(27)   *u-ügü-lü*
       1-hook-REL
       'my hook'

(28)   *u-te-lü*
       1-go-PNCT
       'I go/went'

(29)   *u-api-lü      i-heke*
       1-beat-PNCT 3-ERG
       'he beats me'

As for the Continuative Aspect, a difference exists but is minimal: *-tagü* can be segmented into *-ta-*, the only form to carry a fixed meaning of absolute temporal flux, the idea of a process, and *-gü*, the same suffixal form occurring in 'possessed or dependent' nominals:

(30)   a.   *u-te-ta-gü*
            1-go-CONT-REL
            'I am/was going'

       b.   *u-kanga-gü*
            1-fish-REL
            'my fish'

*-gü*, furthermore, is present with other aspectual suffixes (*pü-gü* 'Perfective', *nü-gü* '(class II) Punctual', among others) and closes the verbal word if there are no 'number' agreement suffixes, no copula or negation.

Tense is much more expressed outside the [XV] by adverbs, adverbial clauses, evidentials, or deictics, and by their interaction with aspects. On the other hand, the only grammatical form with Tense meaning, the Future suffix, occurs with both nouns and verbs:

(31)   a.   *u-te-lü-ingo*
            1-go-PNCT-FUT
            'I will go'

       b.   *u-kanga-gü-ingo*
            1-fish-REL-FUT
            'my future fish'

   c.  *u-angu-ingo*
       1-dance-FUT
       'I will dance'

   d.  *u-nho-ingo*
       1-husband-FUT
       'my future husband'

[XV] with Punctual Aspect on V can itself be a sentential argument: A, as in (32), or O, as in (33) and (34):

External Argument (A):

(32)  *[e-i-nhügü   heke] u-kotu-hüngü-i    u-üi-lü*
      2-be-PNCT ERG   1-angry-NEG-COP 1-make-PNCT
      *o-kotu   heke leha   konige*
      2-angry ERG  CMPL yesterday
      'your being made me sad (not angry), your being angry yesterday'

Internal Argument (O):

(33)  *kuge heke  [ete    imoki-lü]     ingu-gi-ta(gü)*
      people ERG village change-PNCT eye-VBLZ-CONT
      'people are deciding to move to other villages'

(34)  *u-tsaku-lü-pe  ike-tühügü leha  u-heke*
      1-run-PNCT-ex cut-PERF   CMPL 1-ERG
      'I stopped (definitely) running (lit. I cut my former (punctual) running)'

To summarize the characteristics of verbal inflection and of the relation between the verb and the absolutive argument we find that: verbal inflection is minimally distinguishable from the morphology that expresses a general dependent relationship between the head nominal and its argument; rigid order and phonological 'incorporation' characterize the relation between the verbal head and its internal argument (S or O), this also being an instance of the more general relation between any head and its argument. Everything indicates that: (i) a 'merger' of the verb and its internal argument is necessary for the assignment of absolutive structural case, closing the primary phase of syntactic construction; (ii) any operation affecting the internal argument produces morphology indicating a change of argument relations; (iii) verbal inflection does not define the form of the verb as finite and the facts that existential or referential predicational act and temporal references are realized outside the unit argument(absolutive)-verb could be considered as evidence of the non-finiteness of the verb form.

We return now to the other protagonist of Kuikuro 'ergativity,' that being the ergative argument itself, which is, if I may be forgiven a metaphor, a kind of invited guest who observes the building blocks of sentential structures from a distance.

## 2.   Kuikuro as an ergative language: Perspective and ergative (case)

In Kuikuro, a phrase whose head is the post-position *heke* appears to function as an adjunct in VP or as the external argument (subject) of a transitive verb. In this latter function, it is a kind of 'outsider' in the Cariban family, being that in the other Cariban languages, independent of the nature of their 'ergativity,' this role is played by dative or locative forms. *Heke*, however, is cognate to genetically related forms. The proto-form would be *\*pôkô*, 'about' (Meira & Franchetto 2005). The nominalized form *hokongo*, having the meaning of 'that which surrounds one, that one is concerned/occupied with', is analyzable as *heke-ngo*, with the nominalizing suffix *-ngo*, productive with post-positions, numerals and adverbs, and which can be the trigger of regressive vowel harmony:[11]

(35)  *tü$_i$-ng-iki-nhu-tuN*          *hoko-ngo-ha      ekise$_i$-i*
      3AN-OM-flatbread-NMLZ-VBLZ.PNCT about-NMLZ-AF 3D-COP
      'she's busy making flatbread (lit. she is the one occupied with making her own flatbread)'

(36)  *i-hoko-ngo-ko    ta-tagü    u-heke*
      3-about-NMLZ-PL hear-CONT 1-ERG
      'I hear bad things about them'

(37)  *u-inguN-ki-nguN      hoko-ngo*
      1-eye-INST-VBLZ.PNCT about-NMLZ
      'my project (lit. that surrounding my thoughts)'

(38)  *u-inhatü-gü hoko-ngo*
      1-hand-REL about-NMLZ
      'ring (lit. that which surrounds my hand/finger'

We will consider the many faces of a phrase headed by *heke*, beginning with those which do not seem clearly related to the meaning and function of *heke* as a marker of the 'ergative' argument. We will follow a path leading to a better understanding

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11.   The transitive verb *hokoN-ti-*, 'be concerned about' is also derived from *hokongo*:

   *itão    heke tu-muku-gu  naka-nguN-hogu hokoN-ti-tagü*
   woman ERG 3AN-son-REL bathe-VBLZ-PL    about-VBLZ-CONT
   'the woman is worried about the many trips her son makes back and forth to the lake to bathe'

of its semantics and syntax. I will attribute the gloss PRSP (perspective) to *heke* when it is not the head of a DP with 'Agent' role (external argument), reserving the gloss ERG for this latter function. From now, I will call the former '*hekeP*' and the latter '*Yheke*'.

## 2.1   *hekeP* as perspective

I begin with the meaning of *heke* as the distance between two points in space, one of which being the perspective from which the distance is conceived:

(39)   *ete     ihaki postu heke*
     village far    Post  PRSP
     'the village is far from the Post'

We encounter *heke* in a construction which can be translated into a restrictive relative clause that specifies or determines, for example, the subject of a non-verbal predicate. We interpret it as an expression that gives the perspective a quantifying function, selecting an identified subset from within a larger set:

(40)   *kagaiha ese-i     [kuk-itsake-tagü-ko heke]*
     White    that-COP 12-cut-CONT-PL    PRSP
     'that was the White, that who was beating all of us'

(41)   *kotsi-ngo     alehüle ekise-i*
     strong-NMLZ ADV    that-COP
     *[t-ihi-nga-lü           heke i-hus-ata-ni]*
     3AN-escape-HAB-PNCT PRSP 3-between.legs-inside-PL
     'but that was the strong one, that who was always escaping from between their legs (the soldiers' legs)'

We look for the meaning of *hekeP* in contexts where it is not the external argument of a transitive verb, using the notion of perspective, which delimits, identifies, and defines members of a set. Other examples follow. (42) is from a text which narrates the transformation of women into Hyper-Women, who, in the end, bury their own village in the bowels of the earth, where no man may walk; there, their supreme leader declares that they can finally eat those things which are prohibited them in 'real' life. Observe that the transitive verb *enge*, 'eat (meat)', appears in a de-ergativized construction, where the A(gent) is in Absolutive Case:

(42)   *ku-ng-enge-lü-ko-i        ngene heke-ha ijali heke-tsü-ha asā   heke*
     12-OM-eat-PNCT-PL-COP animal PRSP-AF tapir PRSP-EV-AF deer PRSP
     'that's what we all eat: animals, tapirs, deer'

Additionally, in a excerpt from a story about the life of a singer, we go from the generic term for annatto (*ingo*) to the specification of a type of annatto (*ondo, umüngi otohongo*):

(Fem_eginhoto1, 300–303)

(43)    *ande-ha e-ingo     nügü     i-heke*
          here-AF  2-urucum sayPNCT 3-ERG
          ' "here it is your annatto" he said to her'

          *ondo      heke-ha*
          urucum    PRSP-AF
          '(it was) about *ondo* (feminine annatto)'

          *umüngi  heke-ha otohongo-i*
          urucum   PRSP-AF other-COP
          '(it was) about the other kind of *umüngi* (red annatto)'

Another instance of what I call 'quantifying perspective' is the *hekeP* associated to an intransitive verb. In (44a) the verb *a-* (approximately translated as 'be') is intransitive; the phrase *heke* qualifies or determines the condition of 'being,' and an idea of focused and intentional movement is attached to the perspective:

(44)    *[tü~i~-ngisāo         ingi-lü    heke] Ø~i~a-nügü*
          3AN-grandparents see-PNCT PRSP 3stay-PNCT
          'he went to see his own grandparents (lit. he stayed concerning with the seeing of his own grand-parents / from the perspective of the seeing of his own grand-parents)'

In 45 it is the 'being' that is defined by the action of 'writing':

(45)    *ege    tuākuna    wāke u-i-tsagü [t-ahehi-jü        heke]*
          DDIST rainy.season PAST 1-be-CONT [DTR-write-PNCT PRSP]
          'last year I was occupied with/about writing'

In the example below, 'searching for his own father' is the specification of 'failing' (*epinkgi-*, a detransitivized verb):

(46)    *e~i~pinkgi-tagü-ha ege-i        [t~i~-uüN    uhi-jü    heke]*
          3fail-CONT-AF    DDIST-COP 3AN-father search-PNCT PRSP
          'he was failing at searching for his own father'

Finally, *heke* as 'perspective' marks the addressee of the intransitive 'say' verb *ki*:

(47) *Agijakumā ki-lü     t-umu-gu     heke-ha  Kamatahigagi heke-ha*
    A.        say-PNCT 3AN-son-REL PRSP-AF K.             PRSP-AF
    'Agijakumā said to her son, to Kamatahigagi'

Broadening the field of the 'perspectivist' meaning of *heke*, we find it in constructions which question the argument of an intransitive or detransitivized verb, exemplified in 48c and 49b, respectively; the argument of *heke* is the verb inflected with Punctual aspect and with the anaphoric *t(ü)-* as filler of its argumental position. The meaning is that of an act or event about to happen, with clear connotation of the intentional involvement of the subject. 48a, 48b and 49a exemplify the corresponding interrogative constructions characterized by the non-agentive nominalization (PNR)[12] and by slight different meanings depending from the presence of Continuous aspect (48b) or Future tense (49a):

(48) a. *tü    t-atsaku-nhü-i*
       WH  3AN-run(PTP)-PNR-COP
       'who runs/ran (who is/was the runner)?'

    b. *tü    t-atsaku-ga-tinhü-i*
       WH  3AN-run-CONT-PNR-COP
       'who's/was running?'

    c. *tü-ma   t-atsaku-lü     heke*
       WH-DUB 3AN-run-PNCT  PRSP
       'who is going to/wants to run?'

(49) a. *tü-ma    t-at-agi-nhü-ingo-i*
       WH-DUB 3AN-DTR-throw(PTP)-PNR-FUT-COP
       'who will shoot (an arrow)?'

    b. *tü-ma    t-at-agi-lü              heke*
       WH-DUB 3AN-DTR-throw-PNCT PRSP
       'who's going to/wants to shoot (an arrow)?'

We cannot explain yet the fact that it is possible to have a *heke* construction with a derived transitive verb (51b), along with the verb agentive nominalization (ANR, 51a), but that it is impossible to have it when the A of a non-derived

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12.   The non-agentive nominalization is construed adding the non-agentive nominalizer (PNR) *-nhü* (or its allomorph *-tinhü*, conditioned by the contiguity of the Continuative *-ga-*) to the participial form of the verb, whose structure is *t-V-ti* (*t-* being the generic anaphoric filler of the argument position, and *-ti* being one of the participial phonological exponents, conditioned by the morphological inflectional classes, Santos 2007). *t-V-ti-nhü* is the Kuikuro reflex of the proto-Cariban nominalized participle *\*t-V-se-mï* reconstructed by Gildea (1998, Ch. 8).

**Table 1.** *hekeP* as perspective adjunct

| General meaning/function | Contexts/constructions |
|---|---|
| identifying/quantifying perspective | spatial relation (measure of distance to a point from the perspective of a source point) type of modifying restrictive clause on VP with intransitive verbs questioned S with intransitive and derived transitive verbs |

transitive verb is questioned (50c). In this case we find only the agentive nomi-nalization (ANR, 50a) or a plain ergative sentence (50b):

(50) a. *tü-ma    wāke e-ipo-ni-i*
WH-DUB past  2-pierce-ANR-COP
'who was your piercer?'

b. *tü   heke e-ipo-lü       wāke*
WH ERG  2-pierce-PNCT past
'who pierced you?'

c. *\*tü-ma    wāke e-ipo-lü       heke*
WH-DUB past   2-pierce-PNCT PRSP
'who was going to peirce you?'

(51) a. *tü-ma    inh-angu-ne-ta-tinhi-i      wāke*
WH-DUB 3-dance-TR-CONT-ANR-COP past
'who was making her dance?'

b. *tü-ma    inh-angu-ne-tagü heke wāke*
WH-DUB 3-dance-TR-CONT PRSP past
'who was going to make her dance?'

We interpret the use of the *heke* phrase in the type of interrogative exemplified above based on observations of: (i) the well known relation between interrogatives and focus; (ii) the relation between interrogatives, focus, and quantification; (iii) the quantifying function of *heke*, by way of the sense of perspective (to which a meaning of 'immediate future' would be associated) and of determination.

Table 1 summarizes the occurences and meaning of *hekeP* as an adjunct to VP and distinct from *Yheke*, the external argument of a transitive verb.

### 2.2    *Yheke* as an external cause

In the preceding section I presented the phrase *hekeP* headed by the postposition *heke* as a non-argument and I labeled it, when in this role, by means of the gloss PRSP (perspective). We now come to the phrase headed by the postposition *heke*

as the syntactic construction coding the external argument of a transitive verb, the *Yheke* in the formula representing the structure of the Kuikuro sentence seen at the beginning of the Section 1.2. Let us call it the External Cause or Source of the event/action described by the [XV] sentential nuclear block, the verb and its argument in structural (absolutive) case, the item affected (Patient or Experiencer). ERG(ative), then, glosses the External Cause/Source:

(52) kuge-*hüngü-ki*    *akatsige e-itahoki-tagü*    **kuk-ingajomo heke**
     person-NEG-INST really    2-challenge-CONT 12-sisters    ERG
     'it is with a non-human being that our sisters are provoking/challenging you'

We are facing then the following fact: *hekeP* and *Yheke* codify two distinct syntactic objects, an adjunct and an external argument. Constructions with control over reflexives give more evidence of these two syntactic roles. (53b) shows *Yheke* (*tolonkgugu itsu(N) heke*) as an external sentential or event-type argument (cause/source) of the transitive verb *imbaki-* ('wake'), with *itsu(N)* as the form of the verb with Punctual aspect in Inflectional Class I:

(53) a.  *tolonkgugu itsuN-tagü*
         little.bird    noise-CONT
         'the bird(s) is/are singing'

    b.  *tolo  itsu(N)  heke ege-i        u-imbaki-lü*
        bird noise    ERG  DDIST-COP 1-wake-PNCT
        'the song of the birds woke me'

In (53c), the verb *etine* is intransitive and *hekeP* contains the reflexive *t-* controlled by the subject *tolonkgugu*, showing that it is a VP adjunct and not an external argument:

(53) c.  *tolongkugu$_i$ etine-nügü-ha  ege-i        t$_i$-itsu(N)  heke*
         little.bird    begin-PNCT-AF DDIST-COP 3AN-noise PRSP
         'the bird began to sing' (lit. 'its singing')

In (53d), the adjunct *hekeP* appears in CP position as the result of a movement operation to the left edge of the utterance, a phenomenon previously described and exemplified and which Derbyshire (1985: 74) defines as 'fronting for emphasis' for Hixkaryâna:

(53) d.  *t$_i$-itsu(N) heke-ha ege-i tolongkugu$_i$ etine-nügü*

Finally, (53e) is evidence of the agrammaticality of *hekeP* as an external argument with an intransitive verb:

(53) e. *\*tolongkugu etine-nügü-ha ege-i itsu(N) heke*
little.bird begin-PNCT-AF DDIST-COP noise ERG
'the bird began to sing'

The next three examples confirm that the phrase headed by *heke* with a transitive verb (the root *oni* plus the transitive verbalizer *-ki-*) can only be interpreted as an external argument (54a) and, as such, cannot be controlled by the internal argument of the verb (54b):

(54) a. *u$_i$-hisuü-gü oni-ki-jü-ha ege-i*
1-brother-REL dream-VBLZ(TR)-PNCT-AF DDIST-COP
*i$_i$-hi-tsü heke*
3-wife-REL ERG
'my brother dreamed about his (own) wife'

   b. *\*u$_i$-hisuü-gü oni-ki-jü-ha ege-i*
1-brother-REL dream-VBLZ(TR)-PNCT-AF DDIST-COP
*tü$_i$-hi-tsü heke*
3AN-wife-REL ERG
(my brother dreamed about his (own) wife)

In (54c) we see the root *oni* ('dream') plus the intransitive verbalizer *-tuN-* and an adjunct regularly controlled by the argument of the verb containing the reflexive prefix (*tü-*):

(54) c. *u-hisuü-gü$_i$ oni-tunN-ta ege-i tü$_i$-ajo ake*
1-brother-REL dream-VBLZ-CONT DDIST-COP 3AN-lover COM
*/is$_j$-ajo ake*
/3-lover COM
'my brother was dreaming about his own lover/somebody else's lover'

The distinguishing feature of the occurrences of *hekeP* and *Yheke*, in the examples above, is their position in a syntactic configuration. Nevertheless the semantics of 'perspective' unites them: having scope over a set of beings or events - 'the birds begin to X,' 'my brother dreams X' – *hekeP* as well as *Yheke* define and determine an individual within the set, in other words, an X variable.

A few of the semantic and syntactic characteristics of the nature of *Yheke* as an external argument derive from all that has been said up to this point.

## 2.3    Causative constructions

The notion External Cause was associated with the external argument *Yheke*. How are causative constructions expressed in Kuikuro?

An intransitive verb can always be transitivized by means of morphology which signals causation. In (55b), the root *ünkgü* ('sleep') is immediately suffixed by an allomorph of the transitivizing suffix (or causative) *-ne*; in (56b), the suffix *-ki* has the same function and is exclusively selected by verbs of mental states (Santos 2002, Franchetto & Santos 2003):

(55)  a.  *itão      muku-gu ünkgü-tagü*
          woman son-REL   sleep-CONT
          'the woman's son is sleeping'

      b.  *itão      heke t-umuku-gu  ünkgü-**nge**-tagü*
          woman ERG 3AN-son-REL sleep-TR-CONT
          'the woman is putting her son to sleep'

(56)  a.  *u-inguN-ki-nguN-tagü*
          1-eye-INST-VBLZ-CONT
          'I'm thinking'

      b.  *u-inguN-ki-ngu-**ki**-jü        a-akinha-gü heke*
          1-eye-INST-VBLZ-TR-PNCT  2-story-REL   ERG
          'your story made me think'

It is always possible, however, to express a causative meaning by means of an analytic construction:

(57)  *tiha      heke u-igehungu tuN-nügü*
      copaiba ERG 1-breath    give-PNCT
      'the copaiba resin made me breathe (lit. gave my breathing)'

On the other hand, it is impossible to add causativizing morphology to transitive verbs, adding another external argument to their argument template:

(58)  a.  *inte amo-tagü            u-heke*
          vine pound.timbó-CONT 1-ERG
          "I'm pounding timbó vine"

      b.  *\*apa     heke inte  u-amo-ne-nügü*
           father ERG vine 1-pound.timbó-TR-PNCT
           (my father made me pound timbó vine)

The only alternative in these cases is to employ analytic constructions, with subordination, utilizing verbs with inherent causative semantics, such as *inhakongoN-* 'order/command':

(58)  c.  *apa    heke  u-inhakongo-nügü inte    amo-tomi        u-heke*
          father ERG  1-command-PNCT  timbó beat.timbó-PURP 1-ERG
          'my father ordered me to pound timbó vine'

The examples below show two possible options: transitivization by verbal morphology and use of an analytic construction with the verb *üi* ('make immaterially'):

(59)  a.  *t-ügüN-i-nhü        heke  u-kotu-hüngü-ki-jü*
          3AN-sick-PTP-PNR  ERG  1-angry-NEG-TR-PNCT
          'the sick person made me sad (not angry)'

      b.  *kotu-hüngü-i      u-üi-lü        t-ügüN-i-nhü        heke*
          angry-NEG-COP  1-make-PNCT  3AN-sick-PTP-PNR  ERG
          "the sick person made me feel sad"

## 2.4    *Yheke* is not agent

The notion of 'external cause' does not contain, in Kuikuro, any trace of what we would call animacy or volition, meaning that it has little to do with our concept of 'Agent.' *Heke*, understood to be the point of origin of a perspective on an event that affects a Patient/Experiencer, must be interpreted as an essential 'cause,' as the following examples show:[13]

(60)  *tunga heke leha  ate-lü-ko        leha*
      water ERG  CMPL surround-PNCT-PL CMPL
      'the water surrounded them'

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13.    An exercise in cultural relativization is in order, with cognitive implications and cultural motivations, of notions such as 'agentivity,' 'volition,' etc. Entities which we define as 'things,' inert elements, can, in certain specific contexts, be conceived as having their own agentive nature. This does not appear to me to be the semantic case with 'External Cause' (ERG), in Kuikuro. There is no manifestation of a hierarchy of animacy that would define certain entities as more agent-like than others, as happens, for instance, in Navajo (Witherspoon, 1977). This claim contrasts with the analysis of the ergativity of the other dialectical variant of the upper Xingu Carib language, Kalapalo, made by Basso (1985). Traces of 'animacy' and 'human-ness' are active, in Kuikuro, in another domain, that of the determiners/quantifiers we gloss as 'plural,' 'collective' and 'group', formal features of 'number' agreement, referring to a 'person/ non-person' contrast, which is also culturally defined.

(61)  *tagi    heke u-e-tagü*
      hunger ᴇʀɢ  1-kill-ᴄᴏɴᴛ
      'I'm hungry/starving (lit. hunger is killing me)'

(62)  *tehu   heke u-e-pügü*
      stone ᴇʀɢ  1-hurt-ᴘᴇʀꜰ
      'a stone hurt me'

Furthermore, as we see in (54), the dreamer is the experiencer of the 'dream' event provoked by the dreamee.

Summarizing this brief analysis of *Yheke*, we saw that as external argument, pure cause/source of a transitive event/action, it is distinguishable from the homoforms related to a distinct syntactic object, the adjunct *hekeP*. Neverthless, the semantics of an identifying/quantifying operator seems to underlie both phrases headed by *heke*.

## 2.5    Syntactic ergativity?

In Kuikuro, there is no manifestation of pivot[14] that directs syntactic operations of coordination and subordination, nor of the anti-passive itself. Let us examine the facts.

Ambiguity is the rule in clauses coordinated by a single coordinating-type 'conjunction' (*lepene*, 'afterward/then'), and is resolved, when necessary, by the repetition of the coordinated construction as an afterthought, the material in parentheses in the sentence below:

(63)  *ngikogo ingi-lü    Tabata heke lepene ihi-lü          leha*
      Indian   see-ᴘɴᴄᴛ Tabata ᴇʀɢ  then   3escape-ᴘɴᴄᴛ ᴄᴍᴘʟ
      *(Tabata/ngikogo ihilü)*
       T. / Indian      escape-ᴘɴᴄᴛ
      'Tabata_i saw the Indian_j and he_{i/j} escaped (Tabata/Indian escaped)'

In control structures, an ergative alignment characterizes the occurrence of PRO in the subordinate clause. Due to the requirement for saturation of the verb's direct argument and for the attribution of structural (absolutive) Case, S/O can never be elided, while this is the rule for the co-referent A in the subordinate clause,

---

**14.** The already classic notions of pivot and of syntactically ergative languages, in contrast to languages that are only morphologically ergative, are credited to Dixon (e.g., Dixon 1994) and his analysis of Australian Aboriginal languages.

confirming its nature as external Cause/Source. The sentences below contain a subordinate (adverbial) clause:

(64) a. *[kanga  enge-lü-inha PRO$_i$]  u$_i$-te-tai*
      fish    eat-PNCT-DAT        1-go-INTC
      'I'm going to eat fish'

   b. *[u$_i$-ünkgü-lü-inha]  u$_i$-te-tai*
      1-sleep-PNCT-DAT  1-go-INTC
      'I'm going to sleep'

(65b) is another example in which there is deletion of A of the verb in the adverbial clause when it is co-referential with the S argument of the main clause; while in (66a), the occurrence of *iheke* in the subordinate clause indicates disjoint reference for the same arguments:

(65) a. *kahoko$_j$ inata-gü ipiki-lü    Ahinhuka$_i$ heke*
      toucan   nose-REL pull-PNCT Ahinhuka ERG
      *[is$_i$-itaN-ki-lü-hinhe      i$_j$-heke]*
      3-wife-VBLZ-NEG.PURP 3-ERG
      'Ahinhuká pulled Toucan's beak so that he (Toucan) wouldn't steal his (Ahinhuká's) wife'

   b. *kahoko$_j$ inatagü ipikilü Ahinhuka$_i$ heke [is$_j$-itankgilühinhe PRO$_i$]*
      'Ahinhuká pulled Toucan's beak in order not to steal his (Toucan's) wife'

Cleft (focus) constructions, as well as relative clauses and interrogatives, are nominalizations, a widely attested fact of other languages of the Cariban family[15] as well as many other Amerindian languages. In this domain, Kuikuro shows a nominative alignment (A/S) on one hand and a tripartite one on the other hand:

Focused S:

(66) a. *u-ingãtzu-ha ekise-i    t-iniluN-ta-tinhü-i*
      1-sister-AF    3D-COP 3AN-cry-CONT-PTP.PNR-COP
      'it was my sister who was crying'

---

**15.** (66a-c, 67) show the pan-Cariban strategies for creating participant nominalizations, all reconstructed in Gildea 1998, chapters 7–8:

|  | Proto-Cariban | > | Kuikuro |  |
|---|---|---|---|---|
| S/O = | *\*t-V-se-mï* 'one who verbs (intr)/is verbed (tr)' | > | *t-V-i/si/ti/´-nhü* | (66a, 67) |
| A = | *\*[O V-ne]* 'one who verbs (tr)' | > | [O V-*ni*]-*mbüngü* | (66b) |
| O = | *\*[A n-V-Nmlz]* 'one who is verbed/verbee' | > | [A *ng*-V-Aspect] | (66c) |

Focused A:

(66)   b.   *u-ingātzu-ha ekise-i    hikutaha enge-ni-mbüngü*
            1-sister-AF    3D-COP turtle    eat-AGNR-SUBS
            'it was my sister who ate the turtle'

Focused O:

(66)   c.   *hikutaha~i~-ha ege-i     u-ingātzu ng~i~-enge-tagü*
            turtle-AF      DDIST-COP 1-sister   OM-eat-CONT
            'it was a turtle that my sister was eating'

On the one hand, we have nominalizations for syntactic operations that act on the argument of an intransitive verb (*-(ti)nhü* in (66a)) and on the A of a transitive verb (*-ni* in (66b)), but we are dealing with distinct nominalizations that are 'sensitive' to configurationally distinct syntactic relations. If we compare (66a) and (67) below, we see that the verbs are marked by the same non-agentive nominalizer (PNR, *-tinhü* and *-nhü* respectively, depending on the morphological class), which indicates that the argument of the intransitive verb and the internal argument of a transitive verb belong to the same syntactic 'type':

(67)   *t-ili-si-nhü*
       3AN-drink-PTP-PNR
       'drunk /drinkable (also, the prototypical drink made with manioc and water)'

On the other hand, the 'focalization' (or relativization) of O in (66c) results in a construction of a clearly different nature. The subordinate transitive verb has lost its absolutive argument and, following Marantz (1984), I would say that the prefix *ng-* (OM), co-indexed to the argument of the main verb, occupies the internal argument slot and receives the Theme Theta role, but is incapable of receiving (Absolutive) structural case, which is then attributed to the 'promoted' A. I continue to call such constructions de-ergativized (Franchetto, 1990), in the sense that the verb appears only superficially to be intransitive.

De-ergativization characterizes also other Object focus-type constructions associated with strong illocutionary force, like questions, commands and exhortations (Franchetto, 2002: 29–32):

(68)   a.   *tü   e-ng-enge-tagü-i*
            WH 2-OM-eat-CONT-COP
            'what are you eating?'

       b.   *(kanga) e-ng-enge-ke-ha   (kanga)*
            (fish)    2-OM-eat-IMP-AF (fish)
            'eat it (this fish)!'

  c. *(kuigiku)*   *ku-ng-ili-tsüngi-ha*   *(kuigiku)*
    (manioc.porridge) 12-om-drink-HORTPL-AF (manioc.porridge)
    'go, all of us, drink it (manioc porridge)!'

For those attuned to superficial alignments, the de-ergative appears to be a birth-place of nominativity, equating S and A.

 What appears in Kuikuro to be something akin to an anti-passive of the Australian type is nothing more than a construction which results from the de-transitivization of the verb and, consequently, the demotion of O to an optional oblique with a generic or indefinite reading:[16]

(69) a. *pape ahehi-tsagü u-heke*
    paper write-CONT 1-ERG
    'I'm writing the letter'

  b. *u-t-ahehi-tsagü* *(pape-ki)*
    1-DTR-write-CONT (paper-INST)
    'I'm writing (a letter)'

The detransitivizing prefix *t-* receives the agent theta-role, while the Theme theta-role and the Absolutive case are assigned to the internal argument. Detransitiviza-tion is, in fact, an instance of valency-changing processes, which are extremely productive in Kuikuro and are vehicles of the diffuse set of contrasts between tran-sitivity and intransitivity, or, if you will, between causation and anti-causation or even between Internal Cause (S) and External Cause (A) (Franchetto, 2003), as shown by the sentences in (70):

(70) a. *sitaji-te leha u-ipaN-tagü*
    town-LOC CMPL 1-be.getting.used-CONT
    'I'm getting used to the city'

  b. *aileha keünti heke u-ipa-**ne**-tühügü*
    CMPL cold  ERG 1-be.getting.used-TR-PERF
    'the cold is making/getting me used (to it)'

  c. *u-g-ipaN-ne-tagü-ha*    *ige-i*   *e-itaginhu-ko-ki*
    1-DTR-be.getting.used-TR-CONT-AF DPROX-COP 2-speech-PL-INST
    'I'm learning (with) your speech'

---

**16.** Meira (2000) shows a similar phenomenon, which he calls the antipassive reading of the de-transitivizer, but he finds only about two or three examples in the Cariban languages examined.

Let me summarize, at this point, the crucial facts of Kuikuro ergativity, illustrated in the basic structure of the sentence repeated below:

**(Y heke) (Z) [XV] (Z) (Y heke)**

i.    the existence of a nucleus describing an event in which a verb and its Theme argument – actor or experiencer in the case of intransitive verbs and affected for transitive verbs – combine into one phonological unit, forming an impermeable block (VP); the Theme argument can be viewed as the internal argument and, as such, in itself satisfies the 'verb's' need for thematic saturation; as shown by the coincidence between S and O nominalizations, any 'intransitive' verb can be considered unaccusative.

ii.   the instigating apparent non-finiteness of the inflected verb, given its near-nominal inflection and lack of temporal features, which lead to the appearance of elements labeled in the formula as Z (deictic plus copula). These are positioned on the internal margin of the left periphery of the sentence, the C(omplementizer)P layer (expanded CP, Rizzi 1997) which codes topicality, focus and illocutionary force.

iii.  the unique tie between the 'verb' and its Absolutive argument, the coincidence between (eventive) nominals and verbal constructions, where the internal arguments S and O are treated, independently from their thematic role, as 'possessors', and the nature of the external argument. The existence of a higher functional category in IP (RelP or AgrP), seemed to me a convincing proposal for the isomorphism, formal and phonological, between nominals (genitive), eventive nominals and verbal constructions (Maia *et alii* 1998 and 1999):

(71)  a.   *[itão      inhatü-gü]*
           woman  hand-REL
           'the/a woman's hand'

      b.   *[itão      tehesuN-ta-gü]*
           woman  travel-CONT-REL
           'the/a woman is traveling / the being traveling of the woman'

      c.   *[itão      ingi-nügü] kagaiha heke*
           woman  bring-PNCT  White   ERG
           'the White brought the/a woman/the bringing of the woman caused by the White'

iv.   the autonomy and exteriority of the ergative argument – the A of the transitive verb that is coded in a postpositional phrase (*Yheke*) – as evidenced by cases

of movement to the CP that leave *Yheke* in situ, an instance of the strategy in which heavy constituents are avoided:

(72)  *[kanga enge-lü-ti]*<sub>i</sub> *[-ha   [ege-i]]*<sub>CP</sub>   *[u-i-tsagü]*<sub>vP</sub> *[t*<sub>i</sub> *u-muku-gu heke]*
fish   eat-PNCT-DES-AF   DDIST-COP   1-be-CONT   1-son-REL   ERG
'I want my son to eat fish.'

Based on the semantics of *heke*, I have proposed a continuum of its different contexts of occurrence and an extension of a highly specific notion of 'perspective', from the field of spatial relations to the quantification or individuation and actualization of a potential member within a set, and finally, to the external Cause of a 'transitive' verb. The notion of 'perspective' is then associated to the interpretation of the Ergative as External Cause. In previous articles (Franchetto & Santos 2003, Franchetto 2006) External Cause and Internal Cause were treated as synonymous of external and internal argument, respectively, considering the expression of causativity in Kuikuro and recalling the continuous and exhaustive interplay between transitivity and intransitivity in which speakers, above all those who are most eloquent, exploit, complement and contrast two means of 'seeing' the same event in a parallelistic relation. Here we see just one example of this cognitive 'art of seeing' in two contiguous lines of a mythical narrative called by the Kuikuro *otohongo* (the other same or synonym) one of the other (Franchetto, 2003):

(73)  *lepe  epitsi-ta-ko*                       *leha*
then   3DTR.peel.out.manioc-CONT-PL   CMPL
'then they were peeling out manioc roots'

*kuigi   ihitsi-ta*              *leha   i-heke-ni*
manioc   peel.out.manioc-CONT   CMPL   3-ERG-PL
'they were peeling out the manioc roots'

v.   As for the question 'Is Kuikuro only morphologically ergative or is it also syntactically ergative?', the answer is: (i) it is not syntactically ergative or the question of syntactic ergativity appears, for this language, not to make sense, and (ii) morphological ergativity in terms of nominal case marking should be understood to be a morphological phenomenon that interfaces with phonological and semantic interpretation. What kind of ergative language is this? And what does it mean to speak of an 'ergativity effect'?

I will try to see the Kuikuro facts from the perspective of the recent generative literature.

## 3.  Looking for an understanding behind the ergative screen

Ergative languages from the four corners of the earth challenge linguists from all theoretical persuasions. In the generative field there are already various hypotheses and proposals, fueled by data from newly-described languages and an interminable yet stimulating discussion. Ergative languages, for example, have been largely responsible for a deep revision of Case Theory (Legate 2004, Harley 1995b, Nevins & Pranav, 2006): ergative case is compatible with non-finite I(inflection) and it could be disassociated from the Extended Projection Principle that is the impulse for the movement of the highest argument to a grammatical subject position.

Even though most of the new hypotheses shed light on the facts of the Kuikuro language, helping to solve parts of its puzzle, we remain at some distance from a full understanding of its 'ergative grammar'. We still lack an explanation for the crucial Kuikuro phenomena, that is, the striking parallelism between nominal and verbal constructions, and correlated facts.

### 3.1  Some steps forward: Nominalizations and ergativity

One more large step is possible if we try to conjugate two hypotheses, theoretically distinct but empirically convergent. The first one is that offered by Alexiadou (2001): the state of affairs in ergative languages is similar to the case patterns in nominalizations. The second one is that of Gildea (1998): inside the Cariban family, languages with ergative morphosyntax (Full Set II) are innovative, etymologically relatable to nominalizing and adverbializing morphology of the languages with nominative morphosyntax (Set I), representative of the reconstructible oldest system (Proto-Cariban) (Meira, 2006).

Inspired by data coming from many languages, some of which are Native American, Alexiadou says that the question is "how to reconcile the well known Case and Agreement patterns of ergative languages with a constrained theory of Universal Grammar" (Alexiadou, 2001: 169). I add that what is needed is the identification of the functional categories active in the language under study. Syntax creates the words and syntactic categories (N, V) are morphological categories created by the syntax and post-syntactically realized. The categorial status of lexical projections is determined by functional projections (Marantz 1997) and the presence or absence of certain functional heads (T, D, Aspect, *v*) with their feature specifications play a central role in defining a syntactic domain for phonological and semantic interpretation.

The first intuition is an old one in the literature: ergative constructions are actually passive constructions. Alexiadou, however, concentrates on a specific view of the syntax of ergative languages, namely one that offers a natural way of

capturing the analogy between ergative languages and nominalized clauses in nominative-accusative languages, as exemplified with the well known constructions below:

(74)   the destruction of the city
       the city's destruction
       the destruction of the city by the enemies

Following the same path pointed out by authors like Harley (1995b), Legate (2004 and Nevins & Pranav (2006), Alexiadou's proposal is that (i) ergative case is not a structural case, but rather a lexical or adpositional case, much like the prepositional phrase introducing agents within nominalizations, and (ii) ergative languages, like process nominals, have deficient $v$.[17]

Alexiadou reinterprets the proposal made by Nash (1995, 1996) that ergative languages differ from accusative languages in that the former lack $v$P, which is the structural position assumed in Chomsky (1995) to host the transitive subject. According to this proposal, in ergative languages, agents are not thematically projected as specifiers of a 'light $v$', but they can be represented in the structure as adjuncts. Then, ergative and accusative languages do not share the same D-structure, a statement made also by Marantz (1984). But, if for Marantz the difference is motivated by the projection of the object, for Nash the difference is that in accusative languages the subject is projected external to the VP, as the specifier of a functional projection that selects VP, while in ergative languages, the subject is projected VP-internally, as the highest adjunct of the lexical VP projection. Alexiadou associates certain nominalizations and ergative patterns as reflections of the same structure: an unaccusative structure where a single theme argument appears as

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**17.**   Marvin (2002: 26–27) presents clearly the 'little $v$' hypothesis: "The so called verbal functional head little-v is the most complex category-forming head. The original insight is first found in Marantz (1984) and Kratzer (1993) and it was about the semantics of 'agentivity' and the external arguments. Looking at the asymmetry of direct object and external argument, Marantz's (1984) conclusion was that external arguments, unlike direct objects, are not true arguments of the verb, but rather arguments of the predicate VP. A direct object combines with the verb by direct composition, while an external argument combines with the verb only with the assistance of a licensing head, the semantics of which allows an external DP to combine as an argument of the VP. The external argument introducing head was usually given as the 'light verb' $v$, while Kratzer (1993) named it Voice". From Chomsky (1995) to Embick (2000a and 2000b), the properties of the functional head $v$ have been subsequently redefined and new properties proposed: $v$ contains features relating to eventivity and stativity (Harley, 1995a; Embick, 1997) and it is a morphosyntactic verbalizer of category-free roots. Following Kratzer (1993), Pylkkänen (2002) divides the little-$v$ between two heads: $v$ is associated to eventive semantics and defines the category of the root (Marantz 1997), but it does not introduce external arguments, which are introduced by a separate functional head, Voice.

sister of the lexical root, and an adjunct type of phrase that introduces the Agent. Nominalization and ergative clauses contain the partial tree (A) representing mono-valent constructions, i.e. constructions that lack agents (Alexiadou, 2001: 172):

(A)

```
           Asp′
          /    \
       Asp°     vP
               /  \
              v    LP
                  /  \
                 L   Theme
```
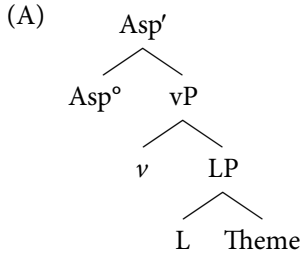
(A) may be embedded under D, giving rise to a nominal structure or under T giving rise to an unaccusative/passive/ergative structure. When Agents are included in these constructions, it appear as a PP in LP (Lexical Projection).

Looking to genitive Case in process nominals, Alexiadou argues that it is not a lexical Case but is structural, like nominative or absolutive. In generative literature, the central role played by the theory of Abstract Case and of the Extended Projection Principle is being reviewed and Case realization is seen as part of the syntactic configuration of the sentence as a whole; morphological case is dissociated from a specific structural position and it is not linked to a specific head in the functional domain. Adopting the Mechanical Case Parameter proposed by Harley (1995a, 1995b), in Kuikuro there is only one case feature checked structurally, the Absolutive (mandatory case) and only the theme argument, sister of the root, must check structural case. This is the same configuration proposed by Alexiadou for process nominals, where the only structural case is genitive.

## 3.2   Nominalizations and ergativity: The Kuikuro way

However, if the traditional view is maintained, which functional projection would be related to the Absolutive case in Kuikuro? What is the nature of what I called the external argument *Yheke*?

I begin by looking at the Absolutive. Following Alexiadou, the functional layers contain *v*, AspP in (A) could be potentially dominated by a higher functional projection below D or T: NumberP or AgrP. There are two options: (i) genitive/absolutive Case is related to Aspect or (ii) genitive/absolutive Case is related to Number/Agreement, or Possessor Phrase. In Kuikuro, the head of this functional category is phonologically realized as /-gü/ (with its allomorphs) and was labeled as REL(ator) or REL(ational) Phrase. At this point, Alexiadou outlines the intuition of Rouveret (1994) about the association between T(ense)P and

D(eterminer) P, on one side, and between Asp(ect)P and NumberP, on the other side. The first two relate to properties of reference; Asp(ect)P and NumberP relate to properties of delimitation. Number is present in all nominal clauses, but it only bears Case (genitive) features when the structure contains a genitive complement. Tense is present in all propositions, but bears Case features only in finite sentences. I remember in this respect a former hypothesis that the 'nominal' nature of Kuikuro sentence is (also) associated to a 'defective' or 'inert' T in overt syntax (Maia et alii, 1998, 1999). It is not incidental that this characteristic is present in a bare noun language, in other words, a language that lacks D(eterminers). It is also not incidental that, in Kuikuro, Aspect and not Tense is carried by verbal inflection and that Number is the unique manifestation of Agreement. Then, it is possible to suggest that in Kuikuro Number/Agr bears genitive/absolutive case features.

The observation that Case patterns found in (event) nominalizations mimic those found in ergative languages goes even further. Discussing nominalizations across languages, Alexiadou points out that agents within such constructions are expressed either by a prepositional phrase within LP or as possessors in Spec,DP as in:

(75)   a.   The destruction of the city by John
       b.   John's destruction of the city

Nash (1995) argued that Agents in ergative languages are similar to PP Agents within nominals of the type in (75.a). According to Mahajan (1997), ergative Agents are much like possessors, as in Inuit, where transitive sentences are very similar to (75.b). It is true that transitive sentences in certain ergative languages patterns like transitive nominalizations. In fact, this proposal relates to Allen's (1964) view of the emergence of transitive constructions through the possessive structure. According to Allen, possessors or possessive case are generally used to express the subject of a transitive sentence, as in the Eskimo case (see also Johns 1992).

The possible configurations that have been argued in the literature are then as following:
–   Possessor Predicate Theme.
–   Predicate Theme PP.

Kuikuro shows the second possibility: Theme Predicate PP

In a footnote (15), Alexiadou states that these proposals are in agreement with certain views on the evolutionary development of transitive structures (Horrocks 1998 is author of a recent overview). At an early stage, which is preserved in nominalizations in nominative-accusative languages, languages lack the formal expression of an external argument, in other words, they lack the functional projection $v$P, which introduces the external argument and is responsible for the assignment of accusative case. The single argument of intransitives and the one (theme)

argument of transitives are represented as the internal argument of the verb. The remaining arguments (if any) are represented as optional adjuncts marked semantically for function, e.g. dative for location/experience, 'genitive' for source/agent, among other possibilities. However, the data presented in Sections 2.1 and 2.2 show that *v* is already active in Kuikuro, projecting an external argument as abstract Cause/Source, with the semantic flavour of the *hekeP*, the non-argument I called 'perspective'.

It is quite convincing, then, that the structure of the Kuikuro basic sentence is only reminiscent to that of process nominalizations and that its representation would be as in (B):

(B)

```
            T
          /   \
        T°    RelP (NumberP/Agr)
              /    \
          RelP°    AspP
                    |
                   Asp′
                   /   \
                 Asp°   vP
                       /   \
                     PP     vP′
          (cause/source, Erg) / \
                             v   LP
                                /   \
                              L′    PP (Perspective)
                             /  \
                           L°    Comp
                          √root  (Theme, Abs)
```
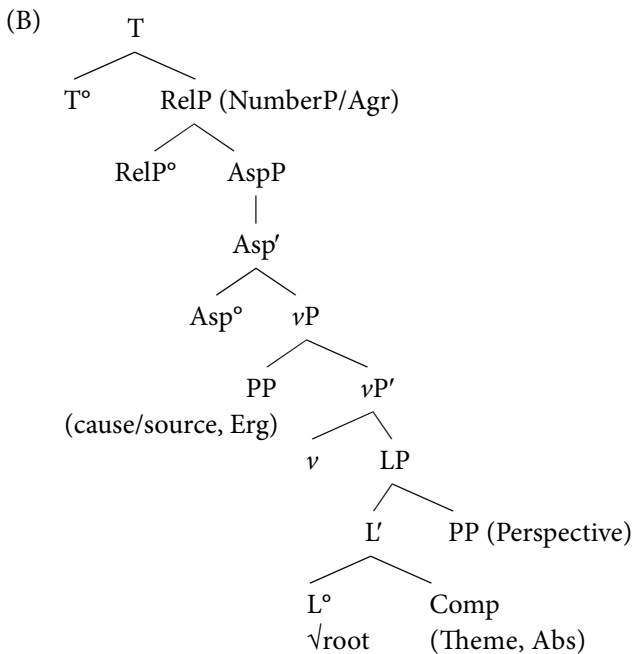
The structure in (B) is partially that of an event nominal: a lexical root together with an internal Theme is dominated by AspP, responsible for the aspectual properties, and by Number/Agr; *v*P accounts for the eventive reading and it is of the type that already licenses an external argument. If EPP is maintained, the ergative argument checks the EPP feature of T, the highest functional projection, in 'covert' syntax.

The hypothesis advanced by Gildea on the diachronic emergence of the Cariban full ergative system from a reanalysis of nominalizations in Cariban nominative-accusative languages can then be nicely associated to the formal account of the syntax of (some) ergative languages proposed by Alexiadou. Kuikuro data, nevertheless, show that this linguistic history has already reached a turning point

with the emergence of the functional category *vP* responsible for *Yheke* as a true external argument.

## Some final remarks

In the preceding section, one of the two similarities between nominalization and the pattern of ergativity examined by Alexiadou (2001) inspired my interpretation of the ergativity effect in Kuikuro syntax. Beyond Case, the other similarity is perfect (tense) formation, whose possible sources are related to the patterns of nominalization. Limits of space and time force me to leave this other topic, seen from a Kuikuro perspective, for a future essay.

We saw that some researchers argued for the emergence of transitive constructions through the possessive structure, looking in particular to Eskimo languages. It is quite convincing that the structure of the Kuikuro basic sentence is reminiscent of that of (process) nominalizations. This is a confirmation of Gildea's basic insight resulting from an exaustive comparative work inside and through the branches of the Cariban family, and underlying his evolutionary explanation: the diachronic emergence of the Cariban full ergative system from a reanalysis of nominalizations in Cariban nominative-accusative languages.

> …ergative languages are always innovative, and so in most cases the split is between innovative clause types that present one of the three (Cariban) ergative patterns, and conservative clauses types that maintain non-ergative patterns. In two cases, that of Kuikuro and Makushi, the innovative ergative patterns have become the dominant pattern and (nearly) all traces of the conservative non-ergative clause type have been lost. However, these languages still present split ergativity in that they each also present a new non-ergative clause type, for Makushi the progressive and for Kuikuro the de-ergative in interactive modes (Gildea, 2002: 1, cf. also the discussion in Gildea 1998, Ch 11).

Gildea's proposal is exciting, but more synchronic and comparative research, together with a healthy theoretical dialogue, is needed before engaging in any serious historical debate.

Cariban languages are still a cradle for many future studies and proposals on ergativity. If we took as starting point the words of Bittner and Hale (1996): "the examination of any arbitrary collection of ergative languages reveals rather quickly that they do not belong to an homogeneous class", then we shall enter a new, good trail towards the discovery of similarities and diversity.

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## Interlinear glosses

| | | | |
|---|---|---|---|
| 1. | first person | DPROX | deictic-proximity (to the speaker) |
| 12. | first person dual inclusive | DES | desiderative |
| 13. | first person plural exclusive | DIM | diminutive |
| 2. | second person | DTR | detransitivizer |
| 3. | third person | ENF | emphatic |
| 3AN | third person anaphoric | ERG | ergative |
| 3D | third person deictic | EX | nominal suffix with past meaning, detached from* (-pe) |
| AF | affirmative or constative | | |
| ALL | allative (-na) (movimento para) | | |
| BEN | benefactive | FUT | future |
| CMPL | completive (aspect) (leha) | GNMLZ | generic nominalizer |
| CONT | continuous (aspect) | HAB | habitual |
| COP | copula | INTL | intentional (mood) |
| DAT | dative | INST | instrumental |
| DDIST | deictic-distance (from the speaker) | INSTNR | instrument nominalizer |
| | | LOC | locative |
| | | NEG | negation |

| | | | |
|---|---|---|---|
| NMLZ | nominalizer | PURP | purpose |
| OM | object marker (in de-ergativized constructions) | REL | relator ("possession" suffixes) |
| | | SUBS | substantivizer |
| PERF | perfective | TEMP | temporal marker/posposition (for temporal subordination) |
| PL | plural | | |
| PNCT | punctual (aspect) | TR | transitivizer |
| PRSP | perspective | VBLZ | verbalizer |
| PTP | participle | WH | question particle |

# Nominative-absolutive

## Counter-universal split ergativity in Jê and Cariban

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Nominative-absolutive alignment is a form of split-ergativity in two ways. The first split is internal to the clause type, which presents both nominative and absolutive morphological patterns with no corresponding accusative or ergative patterns: most present no nominal case-marking (although in two of the languages described here, free pronouns can be used only for nominative arguments); where there is auxiliary agreement, it is always with the nominative; absolutive pronominal enclitics mark the main verb. The label nominative-absolutive follows from the absence of a distinct marked accusative or ergative pattern. The second split is based on tense-aspect-mood-polarity, in which the nominative-absolutive clauses code future, imperfective, irrealis, and negative. These patterns are both counter to the expected universal patterns identified in the typological literature: no other cases have been identified in which case-marking is nominative while verbal cross-referencing is absolutive, and the universally expected semantic values of the ergative clause type are, respectively, past, perfective, realis and positive. We conclude by asking if the number of counter-examples to putative universals of split ergativity should lead us to question the validity of the definition for the typological category "ergative construction".

## 1.  Introduction: Split ergativity and the nominative-absolutive[1]

Alignment typology is the study of how languages code the basic clause-level se-
mantic information of who did what to whom. The kinds of properties that

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languages generally use to distinguish this information are: (nominal) case-marking, (verbal) person-marking, and order of core argument constituents vis-à-vis the verb. For determining syntactic arguments of the verb, additional elements are commonly added to this list, including constituency of core arguments *vis-à-vis* the verb, coreference with reflexive morphology, coreference restrictions between core arguments of one clause and core arguments of another (either conjoined or subordinated to the first), and analogical (also called derivational) relationships between clause types (e.g. active versus passive, or main versus relative clauses). After defining these grammatical properties for the single argument (S) of an intransitive clause and the two arguments (A and P) of a transitive clause, we can then seek out the ways in which the properties of S **align** with those of either A or P.[2] The *nominative-accusative* (sometimes called just *accusative*) type describes the situation where S and A pattern together (the nominative) in opposition to the P alone (the accusative). In contrast, the *ergative-absolutive* (sometimes called just *ergative*) type describes the situation where S and P pattern together (the absolutive) in opposition to the A alone (the ergative). When all three are treated distinctly, the resulting lack of alignment is called *tripartite*.[3] There are a number of languages in which one (or more) of the core arguments for a subset of verbs do not present consistent grammatical patterns; in particular, a subset of A or P might be marked differently from the normal patterns (e.g., dative-subject or locative-object), a pattern recently labeled *noncanonical marking* (Aikhenvald, Dixon, and

**2.** We use Dryer's (2007) terms, S, A, and P, as convenient label for exposition of patterns that link the single argument of an intransitive clause (S) with one of the two arguments of a transitive clause, either the most agent-like (A) or patient-like (P). Because many languages group experiencers with agents and stimuli with patients, Dryer stipulates that experiencers are A and stimuli P. We claim no independent theoretical significance for these labels; we use them merely for expository convenience.

**3.** Some descriptions have used the term *ergative* whenever the A takes a unique case-marker, regardless of alignment between P and S, and similarly, the term *accusative* has sometimes been used to label a unique marker on P, regardless of alignment between S and A. We do not address this use of those terms.

Onishi 2001). In a more widely-discussed situation, a subset of S might be marked like A and another subset like P, a situation labeled variously *Active-Stative, Active-Inactive, Agent-Patient, Split S*, or *split intransitive*. These types are almost universally recognized in typological surveys and textbooks, e.g. Dixon (1979, 1994); Comrie (1989); Payne (1997); Givón (2001); Croft (2003); Creissels (2006); Dryer (2007); Bickel (in press), etc.

Each of these labels characterizes a pattern that can be observed and described in any given construction in any given language. There is a second use of these terms that is a bit more theoretical, which is the use of each to characterize an entire construction; current practice is to label a construction *ergative* when it contains any ergative or absolutive pattern, regardless of whether it might also contain other patterns. A typologically common example would be a construction in which the case-marking pattern is ergative-absolutive, whereas the verbal cross-referencing pattern is nominative-accusative. In this case, the existence of ergative case-marking determines that we must consider this an *ergative construction*, despite the parallel existence of accusative verbal cross-referencing. We consider this use to be more theoretical because it *a priori* privileges an ergative pattern over all others, rather than, for example, choosing that feature which most saliently characterizes the entire construction (a determination which would, itself, require an explicit theory of how to determine "most salient"). We return to this point in our conclusion.

In the body of this paper, we present examples of main clause constructions in five languages that contain both nominative and absolutive patterns. The absolutive pattern in all five languages is seen in the morphological form of verbal cross-referencing prefixes; the existence of this pattern means we must categorize these constructions as *ergative clauses*. The nominative pattern varies: in the Jê languages, it is marked via word order and case forms of pronouns, whereas in the Cariban languages it is marked via word order and auxiliary cross-referencing. Consider Examples (1–2): in both (a) clauses, S occurs as a free pronoun (clause initial in Canela, clause-final in Panare) and in Panare S controls auxiliary agreement; in both clauses, S is also indexed on the verb as a person-marking prefix. In both (b) clauses, A occurs as a free pronoun in the same clause location and case-form as the S pronoun, and in Panare, A controls auxiliary agreement; in both clauses, P is indexed on the verb as a person-marking prefix. Both the nominative and absolutive patterns are self-evident.

(1)   Canela nominative-absolutive                           (Castro-Alves 2004)[4]

        S   TAM S-V         AUX

a.   *wa ha   i-wrɨk      narɛ*

     1   IRR  1-descend.NF  NEG

     'I will not descend'

        A   TAM P-V        AUX

b.   *wa ha   iʔ-pɨr     na*

     1   IRR  3-grab.NF  NEG

     'I will not grab it (e.g., the knife).'

(2)   Panare nominative-absolutive                           (Mattéi-Muller 1994)[5]

         S-V            S.AUX       S

a.   *yutësejpa*     (*këj*)      *kën*

     y-u-të-sejpa      këj        kën

     3-$s_A$-go-FUTURE  3.ANIM.COP  3.ANIM.DIST

     's/he will go.'

         P-V            A.AUX       A

b.   *yamasejpa*     (*këj*)      *kën*

     y-ama-sejpa       këj        kën

     3-throw.away-FUTURE  3.ANIM.COP  3.ANIM.DIST

     's/he will throw away it/him/her.'

Every language contains multiple constructions and in some cases different constructions present different combinations of alignment patterns — in these cases we can speak of *split alignments*, such as split ergativity.[6] Ergative splits are usually categorized into the subtypes of person-based (also called NP-based, hierarchical, etc.), tense-aspect-based, and main/subordinate. All three of these splits are relevant in the data to be presented in this paper. Beginning with the simplest split, in all of the languages in question (nominalized) subordinate clauses present a straightforward ergative-absolutive split, with the S/P argument possessing the nominalized/nonfinite verb and the A argument occurring in a postpositional agent phrase.

    Moving to a more complicated split, in all of the languages in question there are multiple main clause tense-aspect-mood-based splits as well. One subset of clauses presents a split intransitive/hierarchical alignment, another subset presents

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**4.**   Orthographic symbols for Canela, as for the other Jê languages cited in this paper, take their IPA values.

**5.**   Orthographic symbols in Panare follow their IPA values with the following exceptions: *ë* [ə], *j* [h], *y* [j], *ch* [tʃ], *'* [ʔ], and vowel length indicated by doubling the vowel rather than a colon diacritic.

**6.**   Note again the implicit theoretical claim: it is the *ergativity* that is split, rather than the *accusativity* or other alignment.

regular ergative-absolutive alignment, and a third subset presents the nominative-absolutive pattern that is the focus of this paper. For the purposes of this paper, we will focus on expositing the semantic range of nominative-absolutive clauses, and comparing that to the semantic range of the other clause types. The universal expectation for such splits is that ergative clauses will be conditioned by past tense, perfective aspect, realis mood and positive polarity. As we will see, the nominative-absolutive clause type is almost systematically conditioned by the opposed values: future, imperfective, irrealis, and negative polarity. We will offer our own interpretation of this fact in Section 4.

The person-based split is relevant for only one of the languages in our sample, Suyá (Jê). In such splits, case-marking will be determined by location of participants on a universal hierarchy, in which {1, 2} > 3PRONOUN > 3PROPER NAME > 3HUMAN > 3ANIMATE > 3INANIMATE.[7] The universal expectation for such a split is that the nominative case will outrank the ergative case on this hierarchy. However, the Suyá future and negative clauses present a split between ergative-absolutive and nominative-absolutive, in which the A pronoun receives the ergative case-marker when it is pronominal, but appears in the nominative when it is a full NP. Thus, the ergative case appears on the more highly-ranked participants and it is the lower ranked participants that appear in the nominative.

The remainder of this paper is organized as follows: Section 2 presents these patterns in more detail for Cariban languages and Section 3 for Jê languages. Second 4 sumarizes the typological patterns in more detail and discusses the implications of these data for our understanding of "the ergative type".

## 2.   Nominative-absolutive in Cariban languages

The Cariban language family is spoken in northern South America, primarily north of the Amazon in Brazil, Venezuela, and the three Guianas, with outliers spoken in Colombia and south of the Amazon in Brazil. There are some 25 extant languages, with several reference grammars and a handful of dictionaries and text collections. Internal classifications of the family published before 2000 are demonstrably wrong above the level of group (2–5 languages, very closely related); recent classifications remain appropriately tentative, although all agree in placing the two languages dealt with here, Panare and Katxuyana, in distinct groups that probably do not adjoin until the level of

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7.   Dixon (1994.85) argues that in the universal hierarchy, 1 > 2. While this is perhaps more frequent, it is not difficult to find examples of 2 > 1 (e.g., Algonquian) and of 1 = 2 (e.g., Cariban), so we have chosen to represent the first and second person pronouns as forming an unordered set at the top of the hierarchy.

Proto-Cariban (cf. Gildea (2004) on the inclusion of Panare in the Venezuelan Branch and Meira, Gildea and Hoff (to appear) on the phonological distinctiveness of the Parukotoan Group, which contains katxuyana). Gildea (1998) provides a comparison and reconstruction of main clause grammar that gives an account for main clause patterns found in most Cariban languages, including those discussed in this section. The pattern we label here as nominative-absolutive was identified in Panare as the Partial Set II verbal system (Gildea 1998.21) and reconstructed to its sources (Chapter 10). Another example of this type in Katxuyana was identified as an idiosyncratic reflex of the Progressive Verbal System (Gildea 1998.213–26). For both languages, this section will provide more descriptive detail and offer some analytical improvements on the claims in Gildea (1998), for Panare in 2.1, for Katxuyana in 2.2.

### 2.1   The nominative absolutive clause type in Panare

The grammar of main clauses in Panare has been partially sketched out in a number of publications (Gildea 1989, 1992, 1993a-b, 1998; Mattéi-Muller 1974, 1994, to appear; D. Payne 1993, 1994; T. Payne 1990, 1991, 1995) and two unpublished grammar manuscripts (Payne, Payne and Gildea 1992, Payne and Payne 1999). The analysis we present here follows Gildea's (1998) position, that main clause alignment patterns in Panare distinguish seven different clause types;[8] even though each of the seven shares one or more alignment patterns (e.g., case-marking, verb agrement, constituent order, auxiliary agreement) with one or more other clause types, for each, the conjunction of alignment patterns is unique.

In the nominative-absolutive pattern, the nominative and absolutive are distinguished as follows: the unmarked S/A (pro)noun (when one occurs explicitly) must follow the predicate (rigid postverbal subject, cf. Gildea 1993b), with nominative agreement in the auxiliary (when one occurs), using one of the forms seen in Table 1. In contrast, the absolutive is indexed via either the verbal prefixes in the first three rows of Table 2, or else by the absolutive NP immediately preceding the verb (forming a tight VP with an [SV]/[PV], or [absolutive V], structure). This NP/prefix alternation is more general in the language: whenever an NP is the dependent of an immediately following verb, noun or postposition, the personal prefix disappears, to be replaced by a relational prefix *y-* on a vowel-initial head, as indicated in the bottom row of Table 2.[9] Thus, every S argument is double-indexed, once aligning with A, once with P.

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**8.**   An additional clause type that Gildea (1998) did not consider is the imperative, with a sub-type for vetative (negative imperative), so the total number should be eight.

**9.**   This prefix was reconstructed first in Gildea (1998.85ff, 113ff), where it was called a 'Relator', and then more carefully in Meira, Gildea & Hoff (in press), where it is called a "Relational prefix."

**Table 1.** Nominative auxiliary agreement in Panare

| | Nonverbal copula | | Past Copula/ Auxiliary | Copula | |
|---|---|---|---|---|---|
| | Proximal | Distal | | Set I | Set II |
| 1 | Ø | nëj | w-aj | w-echi- | Ø-w-echi- |
| 2 | Ø | nëj | m-aj | m-echi- | a-w-echij- |
| 3Anim | këj | nëj | m-aj | n-echi- | y-w-echi- |
| 3Inan | mën | mën | m-aj | n-echi- | y-w-echi- |

**Table 2.** Absolutive prefixes in Panare

| | ___C | ___V |
|---|---|---|
| 1 | Ø- | y- |
| 2 | a- | ay- |
| 3 | yɨ-/i-/yin- | y-/ty- |
| NP | [NP Ø-V] $_{VP}$ | [NP y-V] $_{VP}$ |

Gildea (1998.29) identifies five inflections as conditioning this alignment pattern: *-n/-ñe/-në* 'Nonspecific Aspect', *-séjpa* 'Future', *-jtépe* 'Desiderative', *-poi* 'Abilitative', and *-'ka* 'Negative'. On closer inspection, we find that this claim is false for the Abilitative and the Negative, which do not show the necessary preverbal position/ verb agreement for S.[10] As such, the nominative-absolutive pattern is valid for only the remaining three inflections: Future, Desiderative, and Nonspecific aspect. We now illustrate the nominative-absolutive pattern for each of these inflections.

The future clauses in (3a-b) show absolutive prefixes, *y-* '3S' in (3a), and *y-* '3P' in (3b); an unmarked S/A pronoun occurs postverbally in both, with the expected third person auxiliary in (3a) and the expected absence of an auxiliary for the first person proximal A in (3b).

|  |  | S-V | S.AUX | S |
|---|---|---|---|---|
| (3) | a. | *yuri'chejpa* | *kë'* | *kamënton* |
|  |  | y-w-arikɨ-sejpa | kë' | kamënton |
|  |  | 3-S$_{A}$-end-FUT | 3.COP | they |

'they (= their family line) will be finished.'                 (MM 1994.21)

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10.   S and A still combine in the nominative pattern, but the absence of S in the absolutive pattern isolates P into an accusative pattern; as such, the abilitative and the negative should be categorized with the progressive (called 'Imperfective' in Payne and Payne's work, 'Gerundio' in Mattéi-Muller's), which Gildea (1998.29) mistakenly claims to be unique in conditioning nominative-accusative alignment in Panare.

            P-V       A

  b.  *yamasejpa*   *yu*

      y-ama-sejpa  yu

      3-throw-FUT  1SG

      'I will throw it.'                                      (MM 1994.xxxii)

The desiderative is described in Payne and Payne (1999.123ff) as *-jtépe, -jtepa,* and *-jtéka*, indicating, respectively, "roughly 'immediate' vs. 'delayed'" and negative. While they recognize that the basic form of the desiderative must be *-jté* alone, Payne and Payne encountered no examples of a form *-jté* without one of the three suffixes (nor does one occur in Gildea's field notes). Mattéi-Muller (1994) shows multiple examples of the desiderative, always in the form *-jtë*, and some of her examples do present *-jtë* without a following suffix, giving four different attested forms of the desiderative. This behavior (combination with a selection of additional suffixes) is unique to the Desiderative among the inflections, which in other cases must be the last bound morpheme on the verb. Mattéi-Muller's (to appear) analysis of the epistemic value of *-pe* versus *-pa* in a range of constructions provides a consistent analysis of their values when they co-occur with the desiderative: *-pe* suggests a more immediate or temporary desire, whereas *-pa* indicates a more general or durative desire. The distinction indicated by the suffix *-htë* 'Desiderative' alone is unclear.

    All four morphological forms of the desiderative show identical morphosyntax.[11] The desiderative clauses in (4–5) all show absolutive verbal cross-referencing: intransitive *Ø-* '1S', *y-* '3S' and *-në* '1+2S' (4a-d) and transitive *a-* '2P', *y-* '3P', and *an-* '3NegP' (5a-d). The only free nominal P is in (5b), where it occurs sentence-finally, agreeing with the prefix on the verb.[12] In contrast, the nominative pronoun occurs immediately after the predicate; the 1Sg pronoun *yu* is affricativized (5d), an effect that only occurs when it is the A/S and the predicate ends with the glottal fricative *j* (Mattéi-Muller 1981). Finally, when an auxiliary occurs, it must agree with A/S, and its absence is often conditioned by first or second person A/S (cf. Table 1, 4a-d, 5a-b).

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**11.**  The sole exception is that the form of the 3P prefix in the negative, like in all negative clauses, is *an-* '3P'.

**12.**  cf. Gildea (1993b), D. Payne (1994) for extensive illustration and discussion of the importance of this object property.

(4)   Desiderative Intransitive

     s-v      s-aux

a. *wɨtëjtëpa*     *waasɨn*
 Ø-w-të-jtë-pa    w-aj-sɨn
 1S-s$_A$-go-DESID-DUR 1S-AUX.PAST-REL
 'I wanted to go.'        (MM 1994.76)

      s-v    s.aux  s

b. *yutëjtë*   *këj* *kën* *karaka* *pana*
 y-w-të-jtë   këj kën karaka pana
 3S-S$_A$-go-DESID 3.COP 3.ANIM Caracas to
 'He wants to go to Caracas.'    (MM 1994.101)

     s-v      s-aux

c. *yotakájtéka*     *maj*
 yɨ-w-taka-jté-ka    m-aj
 3S-S$_A$-come.out-DESID-NEG 2/3-AUX.PAST
 'It didn't want to come out' (a nail stuck in a board) (PP 1999.124)

     s-v-s      s-aux     s

d. *wɨtënëjtépi*    *maj*   *(yuto)*
 Ø-w-të-në-jté-pi   m-aj   yuto
 1S-S$_A$-go-1+2S-DESID-TEMP 2/3-AUX.PAST 1+2
 'We (dual inclusive) wanted to go'  (PP 1999.114)

(5)   Desiderative Transitive

     p-v     a.aux  a

a. *atyajtépe*    *këj* *kën*
 a-tya-jté-pe    këj kën
 2P-hear-DESID-TEMP 3.COP 3.ANIM
 'He wants to hear you (right now)'  (PP 1999.123)

      p-v     a-aux    a  p

b. *yinkëjtépe*   *wa*   *chu po*
 y-inkë-jté-pe   w-aj   yu Ø-po
 3P-put.on-DESID-TEMP 1-AUX.PAST 1SG 1-clothes
 'I wanted to put on my clothes.'  (PP 1999.124)

      p-v     a

c. *yamajtë*    *yu*
 y-ama-jtë    yu
 3P-throw-DESID 1SG
 'I want to throw it'     (MM 1994.xxxii)

|  | P-V |  | A |
| --- | --- | --- | --- |
| d. | *anamajtë'ka* |  | *yu* |
|  | an-ama-jtë-'ka |  | yu |
|  | 3P.NEG-throw-DESID-NEG |  | 1SG |
|  | 'I do not want to throw it' |  | (MM 1994.xxxii)[13] |

The Nonspecific aspect also presents a reasonably complex series of allomorphs, this time conditioned by transitivity of the verb and conflation with the 1+2 person-marking suffix: *-n* 'Nonspec.Intransitive', *-ñe* 'Nonspec.Transitive', and *-në* 'Nonspec.Intransitive.1+2S'. Considering first the intransitive examples, the expected absolutive prefix is seen in (6a), the fusion of the aspect suffix with the 1+2S suffix is seen in (6b), and the absence of a prefix in the presence of a preverbal S nominal is seen in (6c); only (6a) shows an auxiliary, which agrees with S.

(6)    Nonspecific Aspect intransitive S$_A$ paradigm          (MM 1994.xxxiii)

|  | S-V |  | S.AUX | S |
| --- | --- | --- | --- | --- |
| a. | *yutën* |  | *këj* | *kën* |
|  | y-w-të-n |  | këj | kën |
|  | 3S-S$_A$-go-NONSPEC.I |  | 3.COP | 3.ANIM |
|  | 'he is going' |  |  |  |

|  | S-V-S |  | S |
| --- | --- | --- | --- |
| b. | *witënë* |  | *yutakon* |
|  | Ø-w-të-në |  | yutakon |
|  | 1S-S$_A$-go-NONSPEC.1+2S |  | 1+2PL |
|  | 'We are going' |  | (M 1994.145) |

|  | [S | V] |  |
| --- | --- | --- | --- |
| c. | *tuwënko* | *wichin* | *ñaj* |
|  | tuwën-ko | w-echi-n | ñaj |
|  | nothing-NZR | s$_A$-be-NONSPEC.I | there |
|  | 'Nothing happens there' |  | (PP 1999.63) |

Considering now the transitive examples, the PV verb phrase is seen in (7a), with the expected relational prefix on the vowel-initial verb; the absolutive prefix occurs in the absence of the preverbal NP (7b). In both, A is indexed in the auxiliary, which it follows immediately.

---

**13.**   The prefix *an-* '3P.Neg' is exactly like the other P prefixes in alternating with a preverbal P NP, but is it uniquely found with transitive verbs in the negative; Payne and Payne (1999.128) suggest that it is a combination of their *n-* 'Antipassive' plus the neutral prefix *a-* that occurs with formally intransitive verbs.  While we do not agree with their analysis of *n-* as antipassive nor of this prefix as indicating an unspecified object, we do point out that under their analysis, (21d) is formally an intransitive clause.

(7)  Nonspecific Aspect transitive

|  | [ P | V ] | | A.AUX | A |
|---|---|---|---|---|---|
| a. | *osowantënë* | *yaarɨkañe* | | *këj* | *i'yan* |
| | as-awantë-në | y-aarɨka-ñe | | këj | piyan |
| | DETR-make.ill-INF | RP-remove-NONSPEC.T | | 3.COP | shaman |

'The shaman cures the sick' (lit. 'removes the illness')     (M 1994.2)

|  | P-V | | A.AUX | A |
|---|---|---|---|---|
| b. | *ayamañe* | | *këj* | *kën* |
| | ay-ama-ñe | | këj | kën |
| | 2P-knock.down-NONSPEC.T | | 3.COP | 3.ANIM |

's/he knocks you down.'                                  (PP 1999.65)

At this point, the existence of both morphological patterns is clear, as is the distinction between them, however, the different syntactic status of each pattern merits a bit more discussion. First, the cross-referencing of S/A on the auxiliary looks like a common agreement pattern, in which the person-marking is obligatory (if Aux occurs), and although the S/A free (pro)noun generally occurs explicitly following Aux, it is not obligatory (cf. 3b, 5c-d, 6b). In contrast, the cross-referencing of S/P on the verb is halfway between bound pronominal clitic and agreement prefix (cf. Gildea 1998.34): its behavior is that of a pronominal clitic in that it cannot co-occur with an immediately preceding S/P free (pro)noun—with a preceding free NP, instead of person cross-referencing, the Relational Prefix *y-* occurs on vowel-initial verbs (7a), and the S/P NP form a tight syntactic constituent with V, the VP. On the other hand, its behavior is that of standard agreement prefixes in all other circumstances, being obligatory when an S/P free (pro)noun does not occur (cf. 4a and 4c for S; 3b, 5a, 5c-d and 7b for P) or when the S/P free (pro)noun occurs after the VP (cf. 3a, 4b, and 6a-b for S; 5b for P; many examples of both are given in Payne 1994). We note that examples of preverbal full NP S arguments are quite rare, and although preverbal full NP O arguments are somewhat less rare, these too are in a substantial minority (cf. Payne 1993). As such, in terms of discourse frequency, absolutive person cross-referencing forms are extremely common.

To summarize, in Panare these three inflections condition an argument structure in which verbal cross-referencing is absolutive, but canonical word order and auxiliary agreement is nominative. The inflections show some phonological variation and suppletion, and in two cases the personal prefixes distinguish P from S (the 1+2S suffix and the 3P.Neg prefix), but the overall pattern is quite robust.

## 2.2   The grammar of nominative-absolutive in Katxuyana

Very little grammatical information on the Katxuyana language has ever been published: only an MA thesis on phonology and nominal morphology (Wallace 1980) and small illustrative examples in Gildea's (1997, 1998) comparative work. However, as part of a comparative and descriptive project, from 1994–97 Gildea worked with Katxuyana speakers,[14] conducting extensive comparative elicitation of wordlists and paradigms, recording narrative text and conversations, and transcribing, translating and analyzing some texts (with the help of targeted elicitation). More recently, Sérgio Meira has been working on a project to record, transcribe, translate and analyze Katxuyana traditional narrative. The data in this paper draw on Meira's Toolbox databases of both text and elicited data, which combine both Gildea and Meira's field notes.

Much of the grammar of main clauses in Katxuyana is like that of closely related Parukotoan Group languages Hixkaryana (Derbyshire 1985) and Waiwai (Hawkins 1998), in which a wide range of inflections condition the Set I inverse/hierarchical alignment. In addition, Kaxtuyana presents an ergative alignment with one distant past inflection (almost certainly calqued from the cognate Tiriyó construction, cf. Gildea 1997), and the nominative-absolutive alignment conditioned by a single imperfective inflection, reconstructed in Gildea (1998.213–6).

Like the Panare Nonspecific Aspect, the Katxuyana imperfective presents suppletive alternants for intransitive and transitive verbs: -r*ɨ* 'Imperfective.Intransitive' and -*rhoko/-:roko/-rko* 'Imperfective.Transitive'. One speaker who was experimenting with the new orthography decided to make a word list, selecting this inflection for citation forms of verbs:[15] *ikwomotɨrɨ* 'boiling', *enahiiroko* 'swallowing', *imitxirɨ* 'drowning', *ɨnkɨrɨ* 'sleeping', *tumaroko* 'felling', etc. In elicitation, it received present progressive, habitual or future translations. In texts, it is used for both present and past progressive, as well as for a generalized present or narrative past; for example, it is the inflection used to carry the narrative forward when telling the *Frog Story*.

In the imperfective, the nominative and the absolutive are distinguished morphologically, with the nominative appearing as a free pronoun and the absolutive as a bound prefix, both laid out in Table 3. In addition to the free pronoun, nominative is cross-referenced in the only two examples in the corpus where the imperfective takes an auxiliary. Syntactically, only P (but not S) can occur inside the VP, in alternation with the absolutive prefix, and the nominative controls coreference with the third person reflexive prefix *t*- '3R'.

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**14.**   For a total of 4 weeks with visitors to the city of Belém, Pará, and for 8–9 weeks on site in Missão Tiriós.

**15.**   Katxuyana orthographic symbols follow IPA values except for *y* [j], *x* [ʃ] and the indication of vowel length via doubling the vowel rather than a colon.

**Table 3.**  Nominative Pronouns and Absolutive prefixes in Katxuyana

|        | Nominative Pronouns | | Absolutive prefixes | |
|--------|---------------------|-----------|---------|---------|
|        | **Singular**        | **Collective** | **___C** | **___V** |
| 1      | *owɨ*               | *amna*     | Ø-      | *y-*    |
| 2      | *omoro*             | *omyarɨ*   | *o-, a-* | *o-, a-* |
| 3      | *noro*              | *namoryamɨ* | *i-*   | Ø-[a]   |
| 1Incl  | *kumoro*            | *kɨmyarɨ*  | *ku-*   | *k-*    |

[a.] (fronts stem initial *o > e*)

In most of our Katxuyana examples, there is no explicit A or S, but just the absolutive prefix on the verb, as illustrated in (8–9).[16] As for nominative auxiliary agreement, in the leave-taking formula in (9a) the auxiliary is in the imperative inflection, and therefore restricted to 2S, which is reflected also in the prefix on the imperfective verb; in (9b), the distant past auxiliary inflects for the third person A, as opposed to the third person P, which is marked on the verb.

(8)  a.  *o-w-ohɨ-rɨ*
         2s-s$_A$-come-IMPERF.I
         'you come, are coming'

     b.  *y-oure-:roko*
         1P-bark.at-IMPERF.T
         'It is barking (at) me'

(9)  a.
         | S-V | ADV   S-AUX |
         |-----|-------------|
         | *"owohɨrkum* | *tahaye etxko,"*   *kamotɨ* |

         *o-wɨ-ohɨ-rɨ-kumu*   tahaye etxi-ko   ka-mo-tɨ
         2s-S$_A$-come-IMPRF.I-COL always COP-IMPER say-DIST.PAST-EVID.HSY
         ' "Be always coming," he said.' (lit. 'Ø$_i$ be always your$_i$ coming')

     b.
         | P-V | A-AUX |
         |-----|-------|
         | *onooroko* | *ahkɨmɨ* |

         Ø-ono-:roko   Ø-ah-kɨmɨ
         3P-eat.meat-IMPRF.T   3A-COP-DISTANT.PAST
         'He was eating it (meat food).'

---

16.  The S$_A$ verb class marker in (8a) and (9a) is introduced in Gildea (1998.89, 126).  Meira (2000) provides an extensive discussion of split intransitivity across the Cariban family, showing that it does not correlate with any particular semantic distinctions, but appears to be an inherited morphological anomaly primarily associated with an etymological reflexive *cum* middle voice morpheme.

In future research, we would like to explore the two text examples in (9a-b), in particular the distant past auxiliary, to see what limitations this construction imposes on forms of the auxiliary that occur with the imperfective.[17]

Third person presents idiosyncracies relative to the other persons, in both S and P; in both cases, the idiosyncracies distinguish S from P, creating a category of accusative. In transitive verbs, the 3P prefix is normally as shown in Table 3, *i-/Ø-* '3'. But in addition, there is a small category of transitive verbs that, in the imperative and in certain nominalizations, take an idiosyncratic prefix *t-* '3P'. These same verbs also take *t-* '3P' in the imperfective (10a-b; palatalized to *tx-* preceding /i, e/, as in 10b). One of our rare examples with an explicit (unmarked) A is also seen in 10b.

(10)  a.  *tu-wo-:roko*
          3P-shoot-IMPERF.T
          'he is shooting it'

    b.  *tx-ene-rhoko*     *owɨ*
          3P-see-IMPERF.T  1SG
          'I am watching it/keeping watch (over it)'

The verb phrase in the Katxuyana imperfective differs from the VP in the Panare nominative-absolutive clause types: the PV verb phrase is clearly attested, but the SV verb phrase seen in Panare is not attested. The main evidence for the PV verb phrase is the replacement of the P prefix by a preverbal P NP (11a-b), with the expected relational prefix *y-* occurring between the P NP and a vowel-initial verb (11b).

               [ P       V ]
(11)  a.  *wewe  moska-rhoko*
          tree   cause.fall-IMPERF.T
          '(he) is felling the tree'

               [ P       V ]          A
    b.  *okomo  y-ohoro-:roko*     *tutu*
          wasp   RP-find-IMPERF.T  3.Col
          'They are finding wasps'

---

**17.**    The two examples in (9) both came from the same mythological text. Gildea discovered this construction relatively late in his final field work period, and so did not investigate the properties of auxiliaries. Interestingly, scattered attempts to elicit imperfective verbs with present tense and medial past tense auxiliaries were all rejected by speakers. It is a task for future research to determine whether the copular auxiliary in this construction may be inflected with any other tenses and aspects beyond the two found in the text. For an example of inflectional restrictions on copular auxiliaries in a neighboring Cariban language, consider that the distant past inflection in Tiriyó restricts auxiliaries to the present tense (Meira 1995, cited in Gildea 1998.229).

In the intransitive, there is a division between S$_A$ and S$_P$ verbs, expressed in nominalizations and the imperfective in the form of a *w-* 'S$_A$' prefix (8a, 14a-b). Unlike in other Cariban languages, this prefix does not occur with the third person form in Katxuyana, either in nominalizations or in the imperfective; instead, the third person prefix occurs directly on the root, as either *i-* on consonant-initial roots (12a)[18] or as Ø- on vowel-initial roots (12b).

(12) a. *i-yohɨ-rɨ*
    3-come-IMPERF.I
    's/he/it comes, is coming'

   b. *Ø-ekaknɨmɨ-rɨ*
    3-run-IMPERF.I
    's/he/it is running'

Unlike Panare, in Katxuyana, the S does not enter into an [SV] verb phrase. This is clear because of examples where an explicit S pronoun precedes the imperfective verb, but the third person form of the verb continues to appear: compare 13a-b, where the third person prefix *i-* occurs regardless of order of S.

        s        s-V
(13) a. *noro*    *i-nkɨ-rɨ*
    3.ANIM  3-sleep-IMPERF.I
    'He is sleeping'

         s-v          s
   b. *i-nkɨ-rɨ*       *noro*
    3-sleep-IMPERF.I  3.ANIM
    'He is sleeping'

The examples in (14a-c) show this point in a more complicated (but more compelling) manner. First, we point out that nominalized and imperfective S$_A$ verbs take the class marker *w-* 'Sa' with all persons of S except 3S; when a nominalization is preceded by its S NP, there is no personal prefixation, and so the nominalized verb begins with the *w-* prefix (14a). The presence of *w-* in 'I'm falling' (14b) shows that *emoska* 'fall' is an S$_A$ verb, and the absence of the *w-* in (15c), where the S NP clearly precedes the imperfective verb, demonstrates that the imperfective verb comports itself differently from nominalizations, continuing to inflect for third person Ø- and not forming a constituent with the preceding S. These examples

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**18.** Instead of the expected *ohɨ*, the root for 'come' has an idiosyncratic allomorph for third person, *yohɨ*. Initial /y/ is not completely unexpected here, as cognate forms in a some other Cariban languages present idiosyncracies in the first syllable of 'come', including Akawaio *yebɨ*, which begins with /y/ in all conjugations.

force us to the conclusion that the preceding S and its V do not form a VP constituent like the parallel forms in Panare.

[ S          V<sub>NZ</sub> ]

(14)   a.   iweyun    w-ehito-tɨ'wo
            summer    s$_A$-begin-NZN.AFTER
            'after summer begins'                    (lit. 'After summer's beginning')

       s-V

       b.   Ø-w-emoska-rɨ
            1-S$_A$-fall-IMPERF.I
            'I am falling'

       S          s-V

       c.   noro    Ø-emoska-rɨ
            3ANIM   3-fall-IMPERF.I
            'that one is falling'

To sum up the morphological alignment patterns in the Katxuyana imperfective construction, S/A agreement on the auxiliary is just like that in Panare in that it is obligatory (although only when an auxiliary occurs, which is quite rare compared to Panare). Verbal cross-referencing prefixes distinguish a morphological absolutive category (with a bit of variation in the form of the third person P prefix) and the verb forms a constituent with a preverbal P NP, thereby distinguishing a syntactic category of accusative. Although the absolutive prefixes are paradigmatically unified (i.e., they are the same morphological forms), they present distinct syntactic behavior: the P prefix behaves like a pronominal clitic, in complementary distribution with a P free (pro)noun immediately preceding the verb (cf. 11a-b), whereas the S prefix is like a standard agreement morpheme, obligatory regardless of occurrence or linear order of the S NP.

This concludes our exposition of nominative-absolutive clauses in the Cariban language family; in the next section, we turn to the more varied examples found in the Jê language family.

## 3.   Nominative-absolutive in Jê languages

The Jê family is composed of 9 languages (many with multiple named dialects in the literature), and is spoken entirely in Brazil (Rodrigues 1999). The Northern Jê languages are **Apinajé**, **Timbira** (Canela Apãniekrá, Canela Ramkokamekrá, Krahô, Parkatejê, Pykobjê, Krẽjê, Krinkatí), Mẽbengokré or Kayapó (Gorotíre, Kararaô, Kokraimoro, Kubenkrankegn, Menkrangnoti, Mentuktíre, Xikrín), **Panará**, and **Suyá** (Suyá, Tapayúna); the two Central Jê languages are **Xavante** and **Xerente**;

and the Southern Jê languages are **Kaingáng** (Kaingáng do Paraná, Kaingáng Central, Kaingáng do Sudoeste, Kaingáng do Sudeste) and **Xokléng**. In this paper, we will present examples from three Northern Jê languages: Canela Apãniekrá (Timbira; Castro Alves 2004, in press),[19] Apinajé (Oliveira 2003, 2005), and Suyá (Santos 1997, 1999).[20] Of the primary descriptive materials for these languages, only Castro-Alves (2004) identifies the nominative-absolutive as a distinct alignment type; as such, our task in this section is not merely to re-present previous descriptive work, but to also identify the category for the first time in two of these languages and to pose questions for future descriptive research.[21]

The typological profile of the Northern Jê languages is relatively isolating, with a small number of person prefixes and a few derivational suffixes. The verb presents two forms, the shorter one generally the nucleus of finite clauses, the longer one generally appearing in nonfinite contexts, except in certain innovative tense-aspect-mood distinctions. The derivational relationship between the shorter FINITE and the longer NONFINITE form is unclear,[22] but for the purposes of this paper, the important fact is that the two forms can always be distinguished by their phonological form and syntactic distribution; we give no indication when a verb appears in its FINITE form, whereas we mark the gloss of the NONFINITE verb forms with the initials 'NF'. Tense-aspect-mood distinctions are expressed by means of free

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**19.**   The Timbira people consider their linguistic self-identification to be the most important symbol of their collective identity as Timbira (Castro-Alves 2004). Even so, since all the data for this paper come from a single dialect, Canela Apãniekrá, for the rest of the paper we avoid the collective term, Timbira, in favor of the individual term, Canela. The reader should keep in mind that other Timbira dialects may present important differences to the patterns described here.

**20.**   Of course, other linguists have presented data from these languages as well, including these book-length treatments: on Apinajé by Callow (1962); on Timbira, the Parkatejê dialect by Araújo (1977, 1989) and Ferreira (2003/2005) and the Canela Ramkokamekrá and Krahô dialects by Popjes and Popjes (1986); on Suyá by Guedes (1993). None of these treatments was exhaustive, and in particular none either identified or gave data from the nominative-absolutive clause types. As such, we limit our exposition to data presented in the most recent Ph.D theses, which do present clauses utilizing the nominative-absolutive pattern.

**21.**   One priority is the further investigation of dialects of Kayapó, which is most closely related to the three languages considered here; in both a review of the literature and in personal communication with Reis-Silva and Salanova, it seems quite likely that Kayapó, too, presents one or more nominative-absolutive clause types.

**22.**   Intuitively, the longer nonfinite form should be derived by adding a morpheme to the shorter, seemingly "more basic" finite form, however, the lexically conditioned phonological variation in the "added morpheme" is so great that a better analysis appears to be deriving the short form from the long form by subtracting segments (cf. Castro Alves 2004.64; Ribeiro 2004.4). This analysis is parallel to the famous Maori case (Hale (1973), in which the idiosyncratic consonants found in longer forms of verbs are taken to be part of the underlying form of the root, elided in the short forms and seen on the surface in the long form.

morphemes that occur in one of three positions, sentence initially, second position, and sentence-finally.

In all three languages, the finite verb form heads clauses with a split intransitive alignment, in a range of tenses, aspects and moods. The nonfinite verb form heads main clauses with ergative-absolutive alignment in all three languages, but with a limited distribution, conditioned by different (and etymologically unrelated) tense-aspect distinctions in each language. The nonfinite verb form also heads main clauses with the nominative-absolutive alignment, which is found in the imperfective/continuative and the negative in all three languages, in the future in Suyá, and in a range of other aspects and modalities in Canela. The constructions to be presented in this section share many cognates, as well as isomorphic nominative and absolutive patterns; while there is a chance that some of these constructions represent shared innovation, we believe (cf. Gildea and Castro-Alves 2009) that most represent parallel innovations departing from shared source constructions.

### 3.1   Nominative-absolutive in Canela

We begin with Canela, where the nominative-absolutive alignment is one of three: the others are split-intransitive and ergative-absolutive. The grammar of the other two systems, and the distribution of all three in main clauses, is described in Castro-Alves (2004, in press). The nominative-absolutive alignment is conditioned by a series of clause-final auxiliaries, both inflecting and non-inflecting, that immediately follow the main verb, which is in its nonfinite form (we discuss the forms and the meanings of the auxiliaries in more detail below). The absolutive is expressed via verbal prefixation, using the same set of personal prefixes that mark the possessor of inalienable nouns and the objects of postpositions. The nominative is expressed by an obligatory free pronoun (or noun) occurring sentence-initially (or immediately following an initial tense-aspect-mood marker). The forms for each are given in Table 4.

**Table 4.**  Nominative pronouns and Absolutive prefixes in Canela

|       | Nom pronouns | Abs prefixes |
|-------|--------------|--------------|
| 1sg   | *wa*         | *i-*         |
| 1incl | *ku*         | *pa-*        |
| 2sg   | *ka*         | *a-*         |
| 3sg   | *ke / Ø*     | *i(ʔ)- / h-* |

In addition to these morphological alignment properties and the fixed order of the nominative (pro)noun, additional nominative (subject) properties include control of coreference with subjects of subordinate and coordinate clauses (Castro-Alves in press). One additional syntactic fact distinguishes P from both S and A: ability to occur as a free noun inside the VP, in which case the verb bears no person-marking prefix, but instead a relational prefix,[23] indicating that the preceding NP is syntactically dependent on the following head (16e). The following examples illustrate all of these properties with a selection of the auxiliaries, intransitive clauses in (15a-e), transitive clauses in (16a-e).

(15)  a.  
    S          S-V      AUX  
    *ke ha   mɛ̃   h-õt      krirɛne*  
    1   IRR  PL   3-sleep.NF  be.little  
    'They will sleep little'                             (CA 2004.106)

    b.  
           S         S-V     AUX  
    *(iʔ-ŋkrɛr=kate)  iʔ-ŋkrɛr   mpɛj*  
    3-sing.NF=NMZ  3-sing.NF  be.good  
    '(the singer) sings well'

    c.  
        S          S-V     AUX  
    *kahãj   apu   h-ɜʔkukʰrɛ̃n  j-ɜʔtɔ*  
    woman  PRG  3-run.NF     ITERATIVE  
    'the woman runs / is running many times'

    d.  
          S         S-V    [ AUX ]  
    *(aʔkʰrɜt=pɜr)    iʔ-ŋkrɜ   tɔ   mõ*  
    cashew=seedling  3-dry.NF  SUB  go  
    '(the cashew seedling) is drying (out)'

    e.  
       S     S-V        AUX  
    *wa ha   i-wrɨk      narɛ*  
    1   IRR  1-descend.NF  NEG  
    'I will not descend'

(16)  a.  
    A   P-V     [   AUX   ]  
    *pe  ka iʔ-tɔn   kʰãm  tɔ   tɛ̃*  
    PD  2  3-make.NF  LOC  SUB  go  
    'You started to do it'

---

23.  The relational prefix in the Jê family is different in form, but identical in morphosyntactic distribution, to the Cariban relational prefix described above. For an accessible, recent, and more extended discussion of relational prefixes in a Jê language, cf. Oliveira's (2003) exposition of the phenomenon in Apinajé; for a comparative survey of relational prefixes in Macro-Jê, Tupían and Cariban, cf. Rodrigues (1996).

       A     P-V    AUX

b.  *(rɔp) iʔ-kʰrẽn  par*

    dog   3-eat.NF  COMPLETIVE

    '(the dog) will eat it all (the rice that has fallen on the floor)'

       A              P-V      [    AUX    ]

c.  *paʔ-prõ  apu  h-əmĩr      tɔ  iʔ-kʰrã kura*

    1incl-wife  PRG  3-smoke.NF  SUB  3-head  kill

    'Our wives are finishing smoking it (meat from game animals)'

                                            (C.Ramokokamekrá)

       A     P-V    AUX

d.  *wa ha  iᶻ-pɨr     na*

    1   IRR  3-grab.NF  NEG

    'I will not grab it'

       A     [ P    V ]    Aux

e.  *wa ha  wakʰə pɨr     na*

    1   IRR  knife  grab.NF  NEG

    'I will not grab the knife'

Based on the alternation between P prefix and P free noun seen in (16d-e), one can readily separate the morphologically identical absolutive prefixes into distinct morphosyntactic categories: the S prefix looks like obligatory agreement, because it must occur no matter what, whereas the P prefix patterns syntactically more like a pronoun, because it cannot co-occur with a free NP P. For the purposes of our description, we identify an absolutive pattern in the morphological forms, whereas the syntactic constituency indicates an accusative pattern (the S or A NP external to the VP, the P internal to the VP). This is the same syntactic distinction seen earlier in Katxuyana, and it is attested in all three of the northern Jê languages considered here.

    We return now to the question of which (and how many) auxiliaries condition the nominative absolutive alignment in Canela. Castro-Alves (2004.105) identifies negation and four predicate modifying elements, the "evaluative modes": 'be little', 'be much', 'be good' and 'be bad'. These all share with negation a tense-based split in alignment, such that in the past tense, A takes an ergative case-marker, whereas in the irrealis or nonpast, A is expressed via an unmarked noun or a nominative pronoun (for more details, cf. Castro-Alves in press). Subsequent research has turned up many more candidates to be auxiliaries that condition a consistent nominative-absolutive alignment, in which the A will never be marked as ergative regardless of temporal deixis. These, along with the evaluative modes and negative polarity, are listed in Table 5.

**Table 5.** Aspects and modes expressed via auxiliaries in Canela

| Modality | Imperfective Aspect | Perfective Aspect |
|---|---|---|
| Deontic/Epistemic | Iterative | Completive |
| *tɔ haʔ-kʰrɛ* 'try' | *(tɔ=h-~j-) ʒʔtɔ* '(do)=many times' | *tɔ iʔ-krā kura* 'kill its head with' |
| *tɔ iʔ-prăm* 'intend' | | *par* 'completely' |
| *tɐj* 'should, need' | | |
| *ke...tɐj* 'be able to' | | |
| Evaluative modes | Progressive | Terminative |
| *mpɛj* 'be.good' | *tɔ=mɔ̃* 'do=go' | *(tɔ=h-~j-) ipej* 'finish' |
| *kʰɛat* 'be.bad' | *tɔ=tɛ̃* 'do=go' | *(tɔ=h-~j-) amrɔ* 'finish' |
| *tɔʔhi* 'be.a.lot' | *tɔ=tʃʒ* 'do=get.up' | *(tɔ=h-~j-) iku* 'stop' |
| *ŋkri=rɛ* 'be.a.little' | | |
| **Polarity** | Continuative | |
| *na(=rɛ)* 'Negative' | *tɔ=hĩr* 'do=sit' | |
| | *apu* 'be on foot' | |

Several of these forms are illustrated in Examples 15–16, but full illustration of all forms is beyond the scope of this paper. For now, we limit ourselves to four observations. First, many of these forms begin with the proclitic *tɔ*, which could have its source in any of three synchronically independent morphemes: *tɔ*= 'Causative' (CA 2004.73ff), *tɔ* 'Instrumental postposition' (CA 2004.86), or *tɔ* 'do' (cf. Oliveira's 2005 analysis of parallel constructions in Apinajé, discussed below). This proclitic is optional with the iterative and terminative aspects, but obligatory with the progressive and continuative aspects. Second, a number of these forms may turn out to be better analyzed synchronically as transitive complement-taking verbs, with the nonfinite verb being the nucleus of a complement clause P of the main verb. Obvious candidates for this status would be such traditional complement-taking verbs as 'try', 'intend', 'finish', and 'stop'; the forms with *tɔ* might also be analyzable as causativized, and hence as complement-taking verbs. The syntactic status of these verbs is currently under investigation. Third, although the syntactic status of several of these auxiliaries requires further research, it is already clear that not all of these aspectual semantic values can readily be derived from the concrete lexical values, especially in the case of the completive (< 'kill its head with V-ing'), the ingressive (< 'CAUS(?)=go to V-ing'), and the progressives (< 'do=go [V-ing]'; 'do=get.up [V-ing]'). Finally, there is clear grammatical evidence for reanalysis in the case of the negative and the evaluative modes: they participate in a tense-based split, such that when each occurs with a past tense reading, the A is marked with the ergative suffix. This morphological behavior is restricted to main clauses (for more detail, cf. Gildea and Castro Alves 2009).

As should be clear from the preceding, this is an area of ongoing investigation in the grammar of Canela. We anticipate that future research will expand our understanding of the distinction between auxiliaries versus complement-taking verbs, but we see no likelihood that future analyses will question the existence of at least two categories of auxiliaries that condition nominative-absolutive alignment: the negative and evaluative modes, which condition ergative-absolutive in past tenses and nominative-absolutive in nonpast tenses, and the semantically underivable completive, ingressive, and progressive aspectual auxiliaries. We turn now to attestations of nominative-absolutive alignment in the other two Jê languages, both of which involve progressive and/or continuative and negation.

### 3.2    Nominative-absolutive in Apinajé

The grammar of Apinajé has been described in a recent Ph.D thesis by Oliveira (2005), in which we found the examples given here. The apparent cases of nominative-absolutive are the negative and two types of progressive/continuative clauses. In both, the nominative is morphologically marked in the form of the free pronoun argument (Oliveria 2005.159), which contrasts with the morphological form of the absolutive prefix (Oliveria 2005.180), both given in Table 6.

In the negative, the main verb appears in its nonfinite form, followed by the negative auxiliary *ket=nẽ* 'Neg'. The S occurs first as a nominative pronoun at the start of the sentence and again as the absolutive personal prefix on the verb (17a); in the transitive Examples (17b-d), A is expressed via the nominative pronoun and P by either the absolutive prefix (17b-c) or a P NP internal to the verb phrase (17d). Oliveira (2005.251) states explicitly that "the ergative [case-]marker does not ever occur in the negation of transitive predicates."

|  |  | S | S | s-v | [ AUX ] |
|---|---|---|---|---|---|
| (17) | a. | *pa* | *kɔt* | *paj* | *ic-pikudɔ* | *ket=nẽ* |
|  |  | 1 | IRLS | 1.IRLS | 1-disappear.NF | NEG |

'I won't get lost'                                          (Oliveira 2005.251)

**Table 6.** Nominative pronouns and Absolutive prefixes in Apinajé

|  |  | Nom | | Abs |
|---|---|---|---|---|
|  |  | **Realis** | **Irrealis** | **Non-Finite** |
| 1. | \<incl\> | *pa* | *paj* | *i(C)-* |
| 2 |  | *ka* | *kaj* | *a-* |
| 3 |  | *əm / Ø* | *ja* | *Ø-* |

```
              A          P-V        [ AUX ]
    b.   kɔt  paj   a-prɛ      ket=nẽ
         IRLS 1.IRLS 2-tie.up.NF NEG
         'I won't tie you up.'                        (Oliveira 2005.405)

                 A        P-V      [ AUX ]
    c.   na   kɔtmə̃ ic-pĩr    ket=nẽ
         RLS they    1-kill.NF NEG
         'They haven't killed me yet'                 (Oliveira 2005.403)

             A  [[       P      ]    V ]   [ AUX ]
    d.   na  pa  i-ɲ-õ     pipɔ  kukẽɲ   ket=nẽ
         RLS 1   1-RP-GEN stool break.NF NEG
         'I didn't break my stool'                    (Oliveira 2005.395)
```

The other domain in which Apinajé presents both nominative and absolutive mor-
phological patterns is in an innovative progressive aspect, and perhaps also in an
innovative continuative aspect. Oliveira (2005.293) introduces the relevant con-
structions as follows:

> Constructions involving the combination of movement or position verbs with the
> morpheme ɔ are widely employed for the expression of aspectual nuances. Among
> these, the progressive and the continuative are the most common. In construc-
> tions of this type, the ɔ V sequence follows the lexical verb of the clause, which
> appears in its nonfinite form.

The movement verb that anchors the progressive aspect is mõ 'go', and the posture
verb that anchors the continuative is ɲĩ 'sit'.[24] We present Examples (18–19) with
Oliveira's glosses (a serial verb analysis—more on this momentarily), but the argu-
ment structure above the examples assumes reanalysis to a monoclausal structure
with an auxiliary. In (18a), the S occurs both as the initial nominative pronoun and
as the bound prefix on the verb; in (18b), the S pronoun is elided and Oliveira does
not indicate an S prefix, which, on this consonant-initial root, should be the
Ø- allomorph of third person. In (19) the A occurs as the initial nominative pro-
noun and the P as a NP internal to the VP (parallel to 17d above).

```
              S            S-V      [ AUX ]
(18) a.  na  pa  ra   ic-tɨk     ɔ   mõ
         RLS 1   ASP 1-die.NF do  go
         'I'm dying'                                  (Oliveira 2005.293)
```

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24.  Although in the dictionary appendix to Oliveira (2005), the entry for krĩ 'sit' also presents
a possible case of reanalysis as a habitual, serving as the main verb for a clause that translates as
'That one always argues with others' (p. 394).

          S-V         [ AUX ]

b.  *na  ra  Ø-kʌ*      *ɔ  mõ*

    RLS  ASP  3-mature.NF  do  go

    'It's getting ripe already.'                 (Oliveira 2005.294)

        A         [[     P     ]  V  ]<sub>VP</sub> [ AUX ]

(19)  *na  pa  kɔt=mə̃  i-ɲ-õ     pĩ    katprɛ  ɔ  ɲɨ̃*

    RLS  1  still/yet  1-RP-GEN  wood  fasten.NF  do  sit

    'I'm still fastening my wood'              (Oliveira 2005.294)

Oliveira (2005.295–6) considers two alternative analyses for this construction, both in which the motion verb and posture verb are the main verbs and the nonfinite verbs head nominalized subordinate clauses internal to the matrix clause. By one analysis, the ɔ morpheme is taken to be the instrumental postposition, yielding literal translations such as 'I'm going [with my dying]', 'It's going [with its getting ripe]', and 'I'm sitting [with the fastening of my wood]'. By Oliveira's preferred analysis, ɔ is the transitive verb 'do',[25] which on the one hand takes the nonfinite clause as its complement and on the other forms a serial verb construction with the following motion/posture verb. This would yield literal translations something like 'I'm going doing my dying', 'It's going doing its ripening', and 'I'm sitting doing the fastening of my wood'.

    While either of these analyses would give a good etymological account of the morphological and syntactic structure of these clauses, neither gives semantic values that can be easily reconciled with the modern meaning of the clauses. As Oliveira points out, the semantic value of the movement verb is not literal, and the constructions involving position verbs "focus more on the activity being performed" — one interesting question that should be asked in future research is whether the concrete positional semantics are still necessary, i.e., whether the speaker in (19) must actually be seated in order for the sentence to be felicitous. Oliveira opts for the transitive verb analysis in part because "it is typologically common for serial verb constructions to encode aspectual meanings such as the ones encoded here." (p. 296). However, Oliveira also points out one unresolved issue for both analyses: "One morphological detail to keep in mind is the absence of a relational prefix in ɔ, which has analytical consequences for both hypotheses proposed, since both verb and postposition take the relational prefixes in Apinajé" (p. 296).

    From these same facts, we derive a third possible analysis, namely that the formerly complex construction has been reanalyzed as a single main clause with an aspectual auxiliary. This third analysis has two factors in its favor (the first of

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**25.**  cf. Oliveira (1998) for a unified reconstruction of both the instrumental postposition and the causative morpheme in Apinajé to this verb.

which is also found in the parallel constructions in Canela and Suyá). First, it would resolve the need for *ad hoc* stipulations about the semantic extension of the movement and positional verbs uniquely in this environment. Consistent, unidirectional meaning change in a specified construction (and the absence of such meaning change outside of the construction) is *prima facie* evidence that the construction is now more than the sum of its parts, i.e., it has been reanalyzed by speakers. Second, the absence of a relational prefix on ɔ may be difficult to reconcile with either subordination analysis, but if the synchronic grammar is no longer that of a nonfinite subordinate clause dependent on another verb, then the loss of the relational prefix might actually be taken as a morphological argument for reanalysis, something that distinguishes the reanalyzed clause from a true subordinate clause.[26] In conclusion, we suggest that (certainly) the movement progressive and (perhaps) the positional continuative have undergone reanalysis to a monoclausal construction, which, along with the negative, presents the nominative-absolutive alignment in Apinajé.

## 3.4    Nominative-absolutive in Suyá

Main clauses in Suyá are described in Santos (1997) as a mix in which the finite verb forms head clauses with the split intransitive alignment in constrast to a series of ergative constructions. However, a closer examination of the clauses labeled "ergative" by Santos reveals two sub-populations, one of which is consistently ergative-absolutive, and the other of which is actually nominative-absolutive. Santos (1999) revisits his "ergative" clauses to explore what syntactic status to assign to the nonfinite verb forms that appear to head these clauses, particularly in relationship to the following auxiliaries, in particular the dative postposition *mã* (used to mark future) and the negative *kere*. Our discussion of Suyá begins with a discussion of the nominative and absolutive patterns in the Suyá nominative-absolutive clause type, passes to an exploration of constructions involving position verbs, and then passes to the truly remarkable split alignment seen in the Suyá negative and future clauses.

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**26.**   A caveat is in order here: Oliveira (2005) also offers several examples of overt NP objects of ɔ 'Instrumental', where ɔ does not take the relational prefix, e.g., (80–81) on p. 144. If the relational prefix is not a predictable synchronic property of the instrumental postposition, then its absence in (18–19) above would not constitute an argument for reanalysis if the source were to be the instrumental postposition rather than the verb 'do'. Also, given the consistent form *tɔ* and *rɔ* that we see in other northern Jê languages, it is possible that the initial segment of Apinajé *(t)ɔ* does not represent a relational prefix, but rather a stem-initial consonant in the process of being lost.

**Table 7.** Nominative pronouns and absolutive prefixes in Suyá

|  | Nom | | | Abs | |
|---|---|---|---|---|---|
|  | **Singular** | **Paucal** | **Plural** | **Singular** | **Plural** |
| 1 | *wa* | *way* | *aypa* | *i-* | *adʒi-* |
| 2 | *ka* | *kay* | *ayka* | *a-* | *aya-* |
| 1+2 | *ku* | *kupa, wa* | | *kwa-* | *wa-* |
| 3 | *Ø* | *ay, ayta* | | *Ø* | *Ø* |

As in the other northern Jê languages, the nominative pronoun occurs early in the clause, whereas the absolutive prefix is bound to the verb (cf. the forms in Table 7). As seen in the other languages, although morphologically identical, the P and S prefixes differ in syntactic status, with the P prefix a pronominal clitic in alternation with a free NP internal to the VP, and the S prefix an obligatory agreement marker.

In Suyá, the progressive and continuative aspects are expressed by *ɲɨ̃* 'be.sitting' and *ta* 'be.standing', in combination with the morpheme *tɔ ~ rɔ* 'do'.[27] In (23–24) we see the familiar nominative pronoun (23a-b, 24a) or noun (24b) preceding the VP and the absolutive expressed as either a verbal prefix (23a, 24a) or a VP-internal NP (23b, 24b).[28]

<blockquote>

        S     S-V   [AUX ]

(23)  a.  *hɛ̃n wa i-mbərə rɔ ɲɨ̃*
          ASP  1   1-cry.NF  do  be.sitting
          'I am crying'                           (S 1997.87)

          TOP     A [P    V ]  [ AUX ]

  b.  *pa-n wa tɛp kuru rɔ ɲɨ*
          1-TOP  1   fish  eat.NF  do  be.sitting
          'I am eating the fish'                 (S 1999.512)[29]

</blockquote>

---

**27.** Santos (1997.87) uses the criterion of phonological identity to decide that this must be the postposition *rɔ* 'Instrumental'. He does not give any evidence that he encountered a transitive verb *rɔ* 'do' that also shares this phonologically identity. As pointed out by Brian Joseph, it is not difficult to encounter homophones that come from distinct sources, nor is it difficult to encounter a single source form that diverges into multiple distinct words, so this criterion is not useful for our purposes. Since cognate forms (and cognate constructions) are found in the other northern Jê languages, we will assume (in the absence of evidence to the contrary) that the same serial verb analysis is at least potentially available for Suyá.

**28.** We presume that the absolutive could also be expressed as an absolutive prefix, but there are no such examples in Santos (1997).

**29.** The final verb *ɲɨ* 'be sitting' in (23b) is as given in the original source. Given that the form *ɲɨ̃* is given throughout Santos 1997 (cf. 23a) and is also the expected cognate form (cf. the

         S      s-v                  [AUX ]
(24)  a.  *hɛ̃n wa ad ʒi-ŋɛɛre     rɔ   ta*
         ASP  1    1PL-dance.NF do  be.standing
         'We are dancing'                              (S 1997.85)

         A          [ P    v ]         [ AUX ]
     b.  *kaomi  ra  aŋgro  pīrī     mã  tɔ   ta*
         Kaomi SM  pig     kill.NF ?   do  be.standing
         'Kaomi is killing the pig'                    (S 1999.514)[30]

In addition to the postural verbs, a movement verb, *tɛ̃* 'go'is also attested as the auxiliary for a nominative-absolutive construction, but interestingly, the expected *rɔ* 'do' only joins *tɛ̃* when the main verb is transitive (25b).

             S       s-v   AUX
(25)  a.  hɛ̃n wa adʒi-ɲĩrɨ  tɛ̃
          ASP 1    1PL-sit.NF go
          'We are sitting'                             (S 1997.88)

             A       [ P    V ]  [ AUX ]
     b.  *mbɨt  ra  hwĩ  ŋgrɔ     rɔ   tɛ̃*
         sun    SM  tree dry.NF  do  go
         'The sun is drying the tree'                  (S 1997.88)

A third type of probable nominative-absolutive aspectual construction in Suyá is the completive aspect, expressed by putting the auxiliary *hwa* 'Completive' at the end of the sentence, after the nonfinite form of the verb. Unfortunately, Santos (1997) only gives transitive examples, so we cannot confirm that intransitive examples will form a nominative-absolutive pattern parallel to the completive in Canela (the auxiliaries do not appear to be cognate). Consider Example (26) a promissory note for future investigation:

             A       [ P         V ]  AUX
(26)  *hɛ̃n wa arə   i-t-ʌ        hwen hwa*
          ASP 1    PAST 1-RP-thing do.NF COMPLETIVE
          'I already finished doing my work.'          (S 1997.91)

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cognate in example 19 from Apinajé), we are confident that the form given in this example should also be *ɲĩ*.

**30.** We maintain Santos' gloss 'SM' (Subject Marker) on the particle *ra*, but we do not consider it further, as its full distribution has not yet been thoroughly described. On the one hand, it appears to occur only following nominal A and S arguments, but on the other, there are multiple A and S arguments in Santos (1997) that do not present *ra*, and its similarity to the demonstrative pronoun *ta* in other northern Jê languages suggests a possible analysis as a definite marker.

Stepping away now from the aspectual auxiliaries, Suyá presents another two clause types, the negative and the future, which are more thoroughly described, share the same main clause argument structure, and are at first glance reminiscent of the Canela nominative-absolutive clauses. In (27–28), the familiar nominative-absolutive structure is apparent in each clause type.

|  |  | s | s-v | aux |
|---|---|---|---|---|
| (27) | a. | *mɛndije ra Ø-ŋgɛre* | | *kere* |
|  |  | women sm 3-dance.nf neg | | |
|  |  | 'the women didn't dance' | | (S 1999) |

|  |  | A | [ P | V ] | aux |
|---|---|---|---|---|---|
| | b. | *rɔtʃi* | *ra mītʃi* | *pīrī* | *kere* |
|  |  | anaconda sm caiman kill.nf neg | | | |
|  |  | 'The anaconda did not kill the Caiman' | | | (S 1997.165) |

|  |  | S | s | s-v | aux |
|---|---|---|---|---|---|
| (28) | a. | *pa-n* | *wa* | *i-tɛ̃m* | *mã* |
|  |  | 1-top 1   1-go.nf fut | | | |
|  |  | 'I will go' | | | (S 1997.80) |

|  |  | A | [P | V ] | aux |
|---|---|---|---|---|---|
| | b. | *ludu ra tɛp kuru* | | | *mã* |
|  |  | Ludo sm fish eat.nf fut | | | |
|  |  | 'Ludo will eat fish' | | | (S 1999) |

However, when considering these constructions more closely, we discover that the transitive clauses with a pronominal A do not follow the expected nominative pattern, but instead take an ergative pronoun, thus creating an ergative-absolutive pattern: "The pronouns of SIII [ergative pronouns] are used, basically, to encode the subject of transitive verbs in constructions with the FA [nonfinite verb form]" (Santos 1997.56).[31] This pattern holds for the negative examples in (29a-c) and for the future examples in (30a-c).

|  |  | A-erg | [   p | v   ] | aux |
|---|---|---|---|---|---|
| (29) | a. | *i-rɛ* | *hwĩŋgrɔ* | *j-antoro* | *kere* |
|  |  | 1-erg firewood rp-hang.nf neg | | | |
|  |  | 'I didn't hang the firewood. | | | (S 1997.56) |

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**31.** Os pronomes da SIII são usados, basicamente, para codificar o sujeito de verbos transitivos em construção com a FA.

       A-ERG    P-V     AUX

b.  *ko-rɛ*  *i-kaken*    *kere*

    3-ERG  1-scratch.NF NEG

    'He didn't scratch me'                (S 1997.132)

       A-ERG    P-V     AUX

c.  *ka-rɛ*  *i-kaken*    *kere*

    2-ERG  1-scratch.NF NEG

    'You didn't scratch me'         (S 1997.161, 162)

       A-ERG [ P    V ]   AUX

(30)  a.  *i-rɛ*   *hwĩsɨ* *ren*    *mã*

       1-ERG fruit  pick.NF FUT

       'I will pick fruit'                (S 1997.56)

       A-ERG     P-V     AUX

b.  *kwa-ɛ*  *Ø-pɨrɨ*   *mã*

    1+2-ERG 3-grab.NF FUT

    'We are going to grab (it).'         (S 1997.149)

          A A-ERG    P-V   AUX

c.  *wətə-n*  *ka* *ka-ɛ*   *Ø-kuru* *mã*

    INT-TOP  2  2-ERG  3-eat.NF FUT

    'What are you going to eat?'

These examples are selected from a total (in Santos 1997) of 8 negative, 3 future, and 1 negative future clauses with a personal pronoun A. Assuming that these examples provide an accurate sample of the pattern,[32] they provide the evidence from which Santos makes the claim (p. 168) that this pattern constitutes a clear exception to the typological generalization made in Dixon (1994.84), that "If pronouns and nouns have different systems of case inflection, then the pronoun system will be accusative, and the noun system ergative, and never the other way around."

    For now, we turn to the quite different discussion in Santos (1999), echoed and reinforced in Ribeiro (2004). In this discussion, Santos and Ribeiro suggest that since the nonfinite verb forms are clearly nouns in some environments where they occur, therefore they must be analyzed as nouns in every environment where they occur. Under this analysis, what we have been calling auxiliaries would remain grammatically with their etymological values (as, presumably, a negative existential verb *kere* and the postposition *mã* 'Dative'); as such, there is no interesting main clause ergative-absolutive or nominative-absolutive pattern to consider, but

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32.  As noted by an anonymous reviewer, these numbers tell us nothing about the frequency of the pattern in the language. We include them only to provide as complete a representation as possible of the data available to us.

only the commonplace (at least in this region of South America) absolute possession of a nonfinite verb, sometimes with an oblique agent-phrase. The arguments for this position follow from the commitment to the search for generalizations, which is then manifested in the desire to reduce the range of grammar presented in a language to as few categories and constructions as possible.

We are uncomfortable with this conservative analysis for two reasons. First, it gives no account for the semantic anomalies associated with the synchronic analyses: the meanings of future, progressive and continuative are not consistently drawn from, respectively, the postposition *mã* 'Dative' and the verbs *tẽ* 'go' and *ɲɨ* 'be.sitting'. It is the case that small metaphorical extensions of the concrete meanings of such words can evoke these more abstract meanings on occasion, and indeed it is this possibility that allows them to be reanalyzed, to become conventionalized as more abstract grammatical morphemes in so many languages. But such reanalyses always come in the context of specific constructions, and in those specific constructions, the older concrete meaning is generally no longer available (e.g., the impossibility of reconciling the semantics of 'go' with the main verb 'sitting' in 25a). This is a clear example of directional semantic change, which cannot be casually lumped together with the sort of random semantic variation potentially found with any lexical item. Further, it is in precisely these semantically changed constructions where other idiosyncratic changes take place, such as idiosyncratic phonological reduction (e.g. perhaps loss of the initial segment *r* in ɔ 'do') or idiosyncratic grammatical change (e.g., loss of ɔ 'do' altogether in intransitive progressives with *tẽ* 'go').

Second, anomalies in the case-marking pattern provide critical evidence that, in particular, the negative and future have been reanalyzed into new main clauses: unlike their source (nonfinite clauses), A NPs do not receive the ergative (27–28 above); even more unlike their source, some agentive S pronouns can also receive the ergative marking (31a-b). In addition, there is one example in Santos (1997) that appears to demonstrate that not even all A pronouns are obliged to receive the ergative marker (32).

|  |  | S | S | S-ERG |  |  |  | S-V | AUX |  |
|--|--|---|---|-------|--|--|--|-----|-----|--|
| (31) | a. | *pa-n* | *wa* | *i-rɛ* | *akatʃi* | *ɲɨ* | *ŋgo* | *kot* | *i-tẽm* | *mã* |
|  |  | 1-TOP | 1 | 1-ERG | tomorrow | LOC | river | LOC | 1SG-go | FUT |

'Tomorrow I will go fishing.'                                                   (S 1997.57)

|  |  | S-ERG |  |  | S-V | AUX |
|--|--|-------|--|--|-----|-----|
|  | b. | *i-rɛ* | *hwĩsosok* | *mã* | *i-tẽm* | *mã* |
|  |  | 1SG-ERG | school | DAT | 1SG-go.NF | FUT |

'I am going to the school.'                                                    (S 1997.57)

| A | P-V | AUX |
|---|---|---|

(32)  *hɛ̃n wa Ø-mbaj  kere*

ASP 1  3-lose.NF NEG

'I didn't lose it'

Crucially, the locus of this case-marking variation is not nonfinite clauses in general, but only the putative nonfinite clauses in the future and the negative constructions. It is therefore clear that these two constructions are now something more than the sum of their etymological parts—we conclude that they are a new type of main clause construction. This concludes our exposition of the nominative-absolutive alignments in Suyá, and with it, the entire descriptive portion of the paper. We turn now to a synthesis of the patterns seen in these five languages, and to a discussion of their typological significance.

## 4.   Discussion

At this point, we have shown that a nominative-absolutive construction is attested in at least five languages from two distinct families, separated by thousands of kilometers and many other languages.[33] With this empirical basis, we can now consider the relevance of these data for typological studies. We begin with a summary of the ways in which the nominative-absolutive construction participates in counter-universal splits (§4.1). We conclude with a brief exploration of whether the nominative-absolutive should belong in the same category as canonical ergativity (§4.2).

### 4.1   Nominative-absolutive and counter-universal splits

We begin by returning to our definition of the ergative type: any construction that contains any ergative or absolutive morphological or syntactic pattern. By this criterion, it is clear that absolutive cross-referencing morphology alone is sufficient to qualify the nominative-absolutive constructions as ergative. The next step is to enumerate the problems that this creates for putative typological universals, like those listed in Dixon (1994). These data present three types of counter-universal

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**33.**  We note that two long-range comparative proposals link the Cariban and Jê language families, Rodrigues' (1985, 1996) Tupí-Carib-Jê (TuKaJê) and Greenberg's (1987) Ge-Pano-Carib. Neither hypothesis is uncontroversial, but even if true, the time depth of the nominative-absolutive pattern described in this paper is quite shallow, and so the possibility of very distant genetic relationship is not relevant for our discussion.

splits: the NP-based split, the 'bound' versus 'free' subtype of the NP-based split, and the tense/aspect/mood split. We treat each in turn.

As already pointed out by Santos (1997), and just illustrated in §3.3, negative and future clauses in Suyá present an NP-based split that is precisely the opposite of Dixon's universal: pronouns and nouns have different systems of case-inflection, but the pronouns are ergative and the nouns unmarked (nominative). The only case-marker affected is the ergative, such that the clause shows consistent morphological ergativity with a pronominal A, but the nominative-absolutive with a full NP A; person of P is not relevant.

Regarding the 'bound' versus 'free' split, Dixon makes the following claim:

> Cross-referencing systems are thus basically pronominal (with the affixes having developed from free-form pronouns, in some earlier stage of the language). We would expect them to be on a nominative-accusative pattern, since this characterises pronouns at the extreme left of the hierarchy... What we can predict is that, if there is a 'split' of this kind, then bound prefixes will be accusative and case-marking on free forms will be ergative. This is exactly what is found.   (Dixon 1994.95)

In our data from both families, bound cross-referencing forms are clearly absolutive; there is neither ergative, nominative nor accusative cross-referencing. This typologically surprising pattern is actually quite widespread in the Amazon, where it is found in nominalizations in the Cariban, Jê, and Tupían families, as well as in some linguistic isolates (cf. the chapter on Trumai in this volume). The argument for nominative case-marking is not comparably robust because for full NPs, neither A, S nor P nouns are case-marked in any of the five nominative-absolutive systems described here. However, pronominal forms are distinct in all three Jê languages and in Katxuyana: the free pronoun in the nominative-absolutive clause can only be nominative, whereas a pronominal reference to P can only be via the bound pronominal prefix. This is a fairly limited pattern to qualify as an example of "accusative case-marking". The question of case-marking categories is potentially of special interest because in two cases, Canela and Suyá, there is a case-marking split without a corresponding split in cross-referencing (which remains consistently absolutive). In Canela, past-tense negation and evaluative modes require the ergative case-marker on all A, both nominal and pronominal, forming a consistent ergative-absolutive alignment; nonpast negation and evaluation modes do not allow the ergative case-marker on any A, whether nominal or pronominal. In Suyá, as just mentioned, the pronouns are marked for ergative, the nouns unmarked. In both splits the ergative A is clearly marked, but in the half of the split where A is unmarked, it is not obvious how tightly it aligns with S in opposition to O. That is, an ergative case-marking pattern is lost, but without necessarily thereby creating an accusative case-marking pattern. The nominative half of the label

**Table 8.** Tense-aspect-mood distinctions that condition nominative-absolute

|  | Canela | Apinajé | Suyá | Panare | Katxuyana |
|---|---|---|---|---|---|
| **Tense** |  |  | Future[34] | Future |  |
| **Mood** | Evaluative |  |  | Desiderative |  |
| **Polarity** | Negative[35] | Negative | Negative[34] |  |  |
| **Aspect** | Progressive | Progressive | Progressive | Nonspecific | Imperfective |
|  | Continuous | Continuous | Continuous |  |  |
|  | Completive | ? | Completive |  |  |

nominative-absolute relies largely on nominative-accusative word order and constituency facts.

Regarding the tense/aspect/mood split, our data present some robust correlations between tense/aspect/mood and alignment, as summarized in Table 8.

Compare the list in Table 8 with this statement from Dixon (1994.101), summarizing where to expect **non-ergative** grammar: "An ergative system is less likely to be employed when the clause refers to something that has not yet happened (in future tense), or is not complete (imperfective aspect) or did not happen (negative polarity),[36] or where the emphasis is on the agent's role (imperative or hortative moods)." Certainly desiderative mood is readily added to the list that puts emphasis on the agent's role. It is remarkable that the nominative-absolute construction is on the wrong side of every single one of the semantic values expected to condition non-ergative alignment. The sole saving grace is that, at least for Canela, the full ergative-absolute clause type is in the past tense, so that the unexpected nonpast and imperfective go with the relatively less ergative clause type, the nominative-absolute.

In terms of typological correlations, then, the nominative-absolute is odd, and it better matches the predicted distribution of a non-ergative alignment type. This leads us to consider the question of whether we should question our criteria for identifying ergative clause types, and to further consider the importance of the other clause types in opposition with the nominative absolute clauses.

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**34.** Remember the additional split in the Suyá Future and Negative, where nominative-absolute is found only with NP A arguments, whereas ergative-absolute occurs with pronominal A arguments.

**35.** Remember the additional split in the Negative and the Evaluative modes in Canela, where ergative-absolute is found in the past tense and nominative-absolute elsewhere.

**36.** Dixon (personal communication) indicates that the one case of a polarity-based split-ergative has been disconfirmed in subsequent research, and as such, he would no longer include negative polarity in this passage.

## 4.2   Nominative-absolutive as less or non-ergative

In contrast to Dixon's consistent application of his definition, other linguists have been reluctant to include nominative-absolutive constructions in the ergative category. Payne and Payne (1999.56) label this clause type in Panare as an "absolutive system", which they suggest (note 9) is "neither prototypically ergative or prototypically non-ergative". Similarly, Urban (1985.186), discussing an example from the Kraho dialect of Timbira, states: "Such a pattern is indicative of neither ergativity or accusativity, since S is treated similarly to both A and P".[37] While Gildea (1998.247) combines the Panare nominative-absolutive with the more prototypical ergative-absolutive alignments in his discussion of exceptional correlations with tense-aspect, in titles to portions of the book that focus on this clause type (pp. 21, 183), with no real discussion, he qualifies the term "Ergative" by adding the term "Nominative". This reluctance (Dixon's work aside) to actually apply the standard definition seems to reflect a strong intuition, one that is not acknowledged in the definition: ergative case-marking is somehow more central to the definition of ergativity than absolutive cross-referencing.

Consider the difference between the purpose of (and richness of detail necessary in) describing categories in individual languages versus the purpose of (and necessary abstraction, or focus on a subset of details in) formulating categories for the purposes of typological classifications. To describe patterns in a language, it is crucial to provide both richness of detail for given constructions, and a sense of how each construction fits into the overall grammatical ecology of the language being described. In this context, the notion "ergative" is a descriptive tool that characterizes distributional patterns of individual morphemes in individual constructions. A successful description of a language or a construction must lay out all the patterns that occur alongside the ergative pattern, and in practice, labeling a construction "ergative" because it contains an ergative case-marker (alongside, e.g., nominative agreement) or because it contains absolutive cross-referencing (alongside, e.g., nominative pronouns) really adds nothing to the description.

In contrast, typological categories are not descriptive, but rather they represent an attempt to group together distinct language-specific patterns into more abstract unified categories on the basis of perceived similarity between the patterns, a similarity that is only apparent when the typologist reduces the rich detail of descriptions to some more abstract common denominator. The ontological criteria that are relevant to a given category are selected by individual typologists in accordance with their views about "what matters", a notion that is irreducibly

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37.   As mentioned in Section 1, note the absence of similar concerns with double-coding of S in the common circumstance, where S shares absolutive case-marking with P plus nominative verbal cross-referencing with A.

theoretical (whether the theory is explicit or implicit). In the typology of ergativity, the key criterion has been identification in a construction of any pattern that distinguishes between A on the one hand and P and S on the other. Based on this clear criterion, Dixon (1994) treats his one example of the nominative-absolutive pattern as one more instantiation of the ergative category.

What, then, is the implicit theoretical concern that has independently led other linguists to qualify the absolutive cross-referencing in the nominative-absolutive pattern as somehow marginal to ("non-prototypical") or just outside of ("neither accusative nor ergative") the ergative type? Put more generally, how do we explain the apparent tension between the broadly accepted definition of the ergative type, which would treat ergative case-marking and absolutive cross-referencing patterns equally for the purposes of inclusion in the ergative type, and some unstated definition that distinguishes between the ergative case-marking pattern and the absolutive cross-referencing pattern, with the former providing a clear criterion for placing a construction into the ergative type, but with the latter having an uncertain status? We believe it might reflect the statistical frequency with which the competing patterns occur, where the asymmetry is so great that it has been formulated as a typological universal:

> "Both case-marking and cross referencing affixes can be accusative, or both can be ergative; but if there is a split, then bound forms will be accusative and free forms ergative (as in Murinypata) — never the other way around."      (Dixon 1994.95)

Seen as a statistical question, special treatment of A is crucial to the ergative construction type: cross-linguistically, the most common examplars of ergative alignment show the ergative-absolutive pattern only in the unique case-marking given to the A. Ergative-absolutive verb agreement and ergative-absolutive constituent order are much less frequent, and either co-occur with ergative case-marking or else uniquely distinguish the A with its own agreement forms (cf. Mayan languages). Ergative control and behavior patterns (syntactic, or "deep" ergativity) are limited to a handful of languages, all of which also positively mark the A morphologically. The overwhelmingly more frequent pattern has become the implicit norm, so that people expect to see the ergative primarily as case-marking on the A, and only secondarily elsewhere in the grammar. So although the formal definition of the ergative-absolutive type includes any pattern that creates an explicit distinction between A on the one hand and S/P on the other, in practice, the definition of the ergative type is about marked treatment of the A. The nominative-absolutive is then not a good representative of the ergative type because it represents a counter-example to this tendency, in that A shares its case-marking and/or auxiliary agreement patterns with S, and is uniquely distinguished from S only by not participating in S/P verbal cross-referencing.

The theoretical significance of the ergative case-marking (as opposed to absolutive cross-referencing) is further highlighted empirically by the place of the nominative-absolutive clauses in the grammars of the languages seen in this paper: in all five, clauses that present nominative-absolutive alignment co-exist in the grammar with clauses that present a more consistent ergative-absolutive alignment, that is, clauses in which an ergative case-marker co-occurs with the absolutive cross-referencing and nominative auxiliary agreement is not found. For example, Canela presents the past tense negative/evaluative modes with absolutive cross-referencing **and** ergative case-marking, which is distinct from the nonpast negative/evaluative modes, which present **only** absolutive cross-referencing.[38] Similarly, in Panare (and in all the languages presented here, except Canela) subordinate clauses present both absolutive cross-referencing **and** ergative case-marking, again, distinct from main clause constructions with **only** absolutive cross-referencing. The ergative-absolutive versus nominative-absolutive contrast is similarly relevant in historical terms: since ergative case-marking is usually the only ergative pattern in a construction, in most languages, its loss will shift the entire construction out of the ergative category; however, when absolutive cross-referencing co-exists with the ergative case-marking, the loss of ergative case-marking leaves the nominative-absolutive, which is still defined as ergative.

As typologists, we inherit the bias of the western philosophical tradition for discrete, criterial categories that are not internally graded—if a construction presents the necessary criterion for inclusion, it is in, along with all others that present the criterion. As such, the nominative-absolutive clause type is as good an example of the ergative type as any other that meets the criteria. However, as is made clear in the preceding paragraph, the nominative-absolutive clause type is formally less ergative than other clause types in these languages, and further, it correlates functionally with the sorts of semantic distinctions expected of non-ergative clause types. Ontologically, we are left with three options:

i.   Remove nominative-absolutive from the ergative type and place it in the nominative type (based on its case-marking and syntactic patterns) or a new, unique type (based on the absence of either a clear ergative or a clear accusative

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**38.**  As pointed out by an anonymous reviewer, some would consider the third Jê clause type, the etymologically prior—and most heterogeneous in terms of tense-aspect-mood—split-intransitive clause, to be another manifestation of ergativity. Similarly, we note that the Cariban hierarchical alignment clause type has been considered a subtype of ergative by some (cf. Gildea in press for examples). One might then claim that all clause types in all five languages are just variations of ergativity, and that directionality of splits is therefore not typologically relevant. We believe that such a position would merely evade responsibility for understanding the patterns in our data; ultimately, satisfying explanations will come from acknowledging the differences in these types and seeking out the variations in their correlations (cf. the discussion below).

pattern). As a non-ergative clause type, the correlation with nonpast, imperfective, etc. would be unremarkable.

ii.   Divide the category of Ergative type into two subcategories, one defined by unique grammatical treatment of A (ergative case-marking or unique A cross-referencing), the other by unique grammatical treatment of S/P (and thus of A only by exclusion). All three of the universals that are violated by the nominative-absolutive clause type would remain true of the first subcategory of ergativity, but not of the second.

iii.  Shift our conception of the ergative type from a classical category to a graded category, in which the prototype ergative pattern is case-marking, with other patterns (e.g. absolutive cross-referencing) secondary. As only a secondary pattern allows the nominative-absolutive to be included in the category, it would be *less ergative* than the prototype examplars. Any universal that would hold true of the prototype ergative clause might be violated by a less ergative clause, such as the nominative-absolutive, which violates three.

All three of these solutions create the contrast between ergative-absolutive and nominative-absolutive that our data seem to require. On formal grounds, the second or third solutions would be preferable, as the absolutive cross-referencing would remain a sufficient criterion for admission into the category of ergativity, but at the cost of watering down our universal claims to hold only regarding subsets of a larger, more heterogeneous ergative category.

On both historical and functional grounds, we prefer the first solution. In further work (Gildea and Castro Alves 2009), we are exploring the origins and evolutionary pathways of the nominative-absolutive clauses in Cariban and Jê. Our preliminary conclusion is that the nominative pattern that co-occurs with the absolutive cross-referencing is not incidental, but is rather a central component of this different type—an S/A pivot in source constructions creates the nominative word order and case-marking patterns, plus auxiliary agreement. To the extent that selection of an S/A pivot in source constructions correlates also with agent-oriented tense-aspect-mood semantics, the nominative pattern(s) in the nominative-absolutive construction and the nonergative typological correlations are arguably the outcome of a semantically motivated process. In contrast, at least in the five languages surveyed here, the absolutive pattern is not created in main clauses as a part of a semantically driven diachronic process — it is merely the default pattern inherited from subordinate clauses (cf. Gildea 1998, chapters 6, 10 for Cariban, Castro-Alves in press for Northern Jê). Our preliminary conclusion is thus that, while it does merit mention due to its typological rareness, the absolutive verbal cross-referencing pattern in these clauses is not so central as to merit the status of a stand-alone criterion for their inclusion in the ergative type. We also see reason

to believe that the nominative pattern is not merely incidental, and hence unimportant to the categorization of this type; rather, it is of central relevance in the evolution of the construction, a centrality that we recognize in the composite category label nominative-absolutive.

In future research, there is also an undeniable need to better describe and analyze the properties of various alignment types in both Cariban and Jê languages; it will be particularly interesting to see accounts of the use of these grammatical devices in naturally-occurring discourse. As Urban (1985.187) observed: "Central Brazil promises to supply a kind of laboratory for studying the phenomenon of split ergativity itself." This paper is one of what we hope will be many more steps towards embracing that laboratory.

But beyond the two language families treated here, are there likely to be many other nominative-absolutive systems hiding in the grammars of the world? Two candidates for further investigation are Gavião (Mondé, Tupían), and Marwari (Rajasthani, Indo-Aryan; cf. Magier 1983). Another is the French *passé composé* (cf. DeLancey 1981). On the one hand, this is probably a statistically minor pattern, or it would have received more attention before now. On the other hand, the construction type may not have been easily identified in language data before now because until now, it has not been recognized and defined in typology. Descriptive work on the languages in this paper is illustrative: despite years of work on both families (including work by some pretty experienced and accomplished field linguists and typologists), the distinctiveness of these constructions was not recognized until quite recently. When Castro-Alves (2004) pointed out the distinctiveness of the nominative-absolutive clause type in Canela Apãniekrá, and in particular when she recognized the need to distinguish it synchronically from the clause type with an ergative case-marker, it suddenly became easier to see the same pattern at work in the Cariban family, first in the "Partial Set II" clause type in Panare, and later in the previously anomalous Katxuyana imperfective. Subsequent comparative research showed a similar pattern hiding in descriptions of other Jê languages, also not previously identified as distinctive. Now that this paper both names and defines this new alignment type, we would hope that others might discover some variation of it lying unrecognized in data books and grammars from elsewhere in the world, so that we might begin to build a more diverse and representative typology of nominative-absolutive.

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# Recent diachronic innovations

Syntactic ergativity

# Ergativity in Trumai

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The goal of this paper is to explore ergativity in Trumai, a genetically isolated indigenous language of Brazil. The initial sections describe and analyze the alignment patterns observed in morphology and syntax, including a detailed investigation of verbal classes. Morphologically, case is ergative-absolutive, but syntactically the situation is more complex: word order and several syntactic constructions (including raising, relative and reflexive clauses) present ergative-absolutive patterns, but there are also two much less salient nominative-accusative patterns (effects in argument suppression, use of posture auxiliaries). No particular alignment is observed in other domains traditionally used to identify grammatical relations (e.g., anaphoric control of coreference). After examining arguments for O/S or A/S as subject, we reach the conclusion that Trumai lacks evidence for traditional grammatical relations. The paper concludes with a discussion of the historical sources of the patterns found in basic main clauses.

## 1. Introduction

The purpose of this article is to provide an overall view of the phenomenon of ergativity as found in Trumai. As we will see, the language presents ergative patterns in both morphology and syntax, which means that it exhibits deep ergativity. However, the scenario in the syntax is a little more complicated, since nominative-accusative features can also be observed. This poses a question with regard to the Subject in this language.

Section 2 presents the alignments found in morphology and syntax, as well as a description of the verbal classes. Section 3 addresses the issue of grammatical relations, discussing the question: what is the category of Subject in Trumai? Section 4 presents a conclusion, summarizing the main points of this article.

Trumai is spoken in the central region of Brazil, in a reserve named Xingu. Its genetic affiliations are still unknown. In terms of morphology, it is basically an

isolating language: there are few nominal or verbal inflectional morphemes, and words usually consist of a single morpheme. Verbs do not receive tense or aspect markers — tense is expressed by adverbs or particles at the clause level (when a clause does not have these elements, the time of the event is determined by the overall context), while aspect is conveyed by auxiliaries. Only the 3rd person is marked on the verb; other persons are expressed through the use of independent pronouns.

Some of the information presented in this article was treated in more detail in previous works (cf. Guirardello 1999 and Guirardello-Damian 2002a-b, 2003, 2004). Here I bring all the information together, highlighting the main issues and re-discussing them. For the description of the case system, I employ the set of labels proposed by Comrie (1989: 111): S, A, and P. I also add one more, R (for the obligatory recipient-like argument of prototypical ditransitive clauses), which is relevant for describing the Trumai system.[1]

The data in this article is represented using the official orthography of the language. The majority of the letters correspond to the I.P.A. symbols, with the exception of these cases: **t** (*IPA*: t̪); **ṭ** (*IPA*: t); **'** (*IPA*: ʔ); **ch** (*IPA*: ʃ); **tl** (*IPA*: ɬ); **r** (*IPA*: ɾ); **y** (*IPA*: j); **ɨ** (*IPA*: ɨ).

## 2.   The case system and the ergative alignments found in the language

### 2.1   Case system

The case system shows an Ergative-Absolutive pattern: the S and P argument receive the same treatment, while the A argument is treated in a different way. This pattern is manifested through case-marking, verb-marking, and word order.

The Absolutive (S and P) is marked by <u>-Ø</u>. When it is not lexically present in the clause because of discourse continuity, the last element of the VP, which usually is the verb, receives the 3rd person enclitic <u>-n/-e</u>. The Absolutive occurs inside the VP, right before the verb. If it is not in its typical position (for example, because it is in focus), extra morphology appears after the verb: the morpheme <u>ke</u>. This morpheme occurs whenever the Absolutive NP is not in its normal position. In the data presented in this article, I gloss this morpheme as KE.[2]

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**1.**   I use S, A and P in the sense proposed by Comrie – i.e., as <u>useful tools</u> for describing the case system. I am not employing them in the sense proposed by Dixon – i.e., as "universal syntactic-semantic primitives", with all the implications this may have (cf. DeLancey 2004).

**2.**   It should be pointed out that the language has another morpheme <u>ke</u>, which is a relativizer (this morpheme is glossed here as: Rlzr). The relativizer and the morpheme KE are historically related (Guirardello 1999, Chapter 5) but nowadays they have different roles.

Table 1. Patterns in morphology and syntax

| Clause Type | Case Marking on Arguments | Person Mark on Verb | Basic Word Order | Changes in Order (when an argument is in focus) |
|---|---|---|---|---|
| INTR | S-Ø V | [ ] V-n/e | [S V] | S Foc/Tens V ke |
| TRANS | A-k P-Ø V | A [ ] V-n/e | A [P V] | A Foc/Tens P V |
| | | | | P Foc/Tens A V ke |
| DITRANS | A-k P-Ø V R-tl / -*ki* / -s | A [ ] V-n/e R | A [P V] R | A Foc/Tens P V R |
| | | | | P Foc/Tens A V ke R |
| | | | | R Foc/Tens A P V |

The Ergative (A argument) is marked by *-k*; an epenthetic vowel appears if the word ends in a consonant. For the 1st person singular, the marker is rather *-ts*. When the Ergative is lexically absent because of discourse continuity, the verb does not bear any person mark. The Ergative usually precedes the VP, coming right before it, but when it changes position, no extra morphology appears after the verb.

The Dative (R argument) is marked by *-tl*, *-ki*, or *-s*, depending on certain characteristics of the head of the NP (cf. Guirardello 1999, Chapter 7). For the markers *-tl* and *-s*, an epenthetic vowel appears if the word ends in consonant. When the Dative is not present due to discourse continuity, there are no additional morphemes on the verb. R comes after the VP and can change position without extra morphology after the verb.

These patterns can be summarized in Table 1.

To illustrate these points, we have examples with the intransitive verb *achïkida* 'jump', the transitive verbs *mapa* 'break and *hotaka* 'deceive', and the ditransitive verb *kïṭï* 'give'.

*Intransitive*

As we can see in Examples (1, 2a-b), the Absolutive is marked by -Ø. Example (2c) shows that if the Absolutive is not lexically present, the 3rd enclitic *-n/-e* is employed. In Example (3), we can see that when the Absolutive is not in its typical position (right before the verb), extra morphology appears after the verb.

        S      V

(1)  *pet'ew-Ø achïkida.*
     frog-Abs jump
     'The frog jumps.'

          S     V

(2)  a.  *ha-Ø  achïkida.*
        1-Abs jump
        'I jump.'

          S     V

    b.  *ine-Ø  achïkida.*
        3-Abs jump
        'He jumps.'

             V-*s*

    c.  *achïkida -n.*
        jump-3Abs
        'He jumps.'

```
        S                   Particle   V     Extra Morphology
```
(3)  *dinoxo      yi-Ø    ka_in    achïkida ke.*
     young.lady YI-Abs Foc/Tens jump     KE
     'The young lady jumped.'[3]

*Transitive*
Example (4a) shows that the Absolutive is marked by Ø, while the Ergative is marked by *-k*. Again, when the Absolutive is not lexically present, the 3rd enclitic *-n/-e* is employed (4b). In contrast, when the Ergative is lexically absent, there are no special marks on the verb (5b). Changes of position of the Absolutive trigger the presence of extra morphology (6b), but the same does not occur with the Ergative (6a).

```
          A       P       V
```
(4)  a.  *ine-k  atlat-Ø   mapa.*
         3-Erg  pan-Abs  break
         'He broke the pan.'

```
          A       V-p
```
     b.  *ine-k  mapa-n.*
         3-Erg  break-3Abs
         'He broke it.'

```
          A       P       V
```
(5)  a.  *ine-k  hi-Ø   hotaka.*
         3-Erg  2-Abs deceive
         'He deceived you.'

```
          A       P              V
```
     b.      *tsi-tle-Ø           hotaka  de.*
             3Poss-mother-Abs  deceive already
             '(He) already deceived his mother.'

---

**3.**    A comment about the morpheme (I)YI, which appears in this example. This morpheme has a peculiar behavior. Syntactically, it always occurs as the rightmost element of a 3rd person NP. When there is a lexical item, pronoun or pluralizer in the NP, we have the reduced form *yi* (as a kind of modifier). When there is no lexical item, pronoun, or pluralizer in the NP, we always have the full form *iyi*, which occurs by itself in the NP. This behavior could lead us to think that *iyi* is a pronoun. However, *iyi* cannot be classified in this way, given that it does not exhibit certain properties observed with the pronouns of the language. Thus, it seems to be a morpheme with unique behavior, in some ways similar to the Pluralizers (cf. Guirardello-Damian 2005 for more detail). In terms of function, *(i)yi* seems to be a pragmatic marker, indicating that the referent is treated with less importance or respect.

| A | Particle | P | V |
|---|---|---|---|

(6)  a.  *ine-k  ka_in  [atlat  mapa ].*
 3-Erg  Foc/Tens  pan  break
 'He (focus) broke the pan.'

| P | Particle | A | V | Extra Morphology |
|---|---|---|---|---|

  b.  *atlat-Ø  ka_in  ine-k  [ mapa ke].*
 pan-Abs  Foc/Tens  3-Erg  break  KE
 'He broke the pan (focus).'

*Ditransitive*
Example (7a-c) shows that there are three possible markers for the Dative. Differently from the Absolutive, when the Dative is not lexically present, there is no special mark on the verb (8b). Example (9a) presents the basic word order, while (9b-d) exhibits variations in it. Extra morphology appears when the Absolutive is not in its typical position (9c), but this does not occur with the Ergative (9b) or Dative (9d).

| A | P | V | R |
|---|---|---|---|

(7)  a.  *ine-k  atlat-Ø  kïṭï  hai-tl.*
 3-Erg  pan-Abs  give  1-Dat
 'He gave the pan to me.'

| A | P | V | R |
|---|---|---|---|

  b.  *ine-k  atlat-Ø  kïṭï  ha wan-ki.*
 3-Erg  pan-Abs  give  1 Pl-Dat
 'He gave the pan to us.'

| A | P | V | R |
|---|---|---|---|

  c.  *ine-k  aros-Ø  kïṭï  kasoro-s.*
 3-Erg  rice-Abs  give  dog-Dat
 'He gave rice to the dogs (generic dogs).'

| A | V-p | R |
|---|---|---|

(8)  a.  *ine-k  kïṭï-n  ha wan-ki.*
 3-Erg  give-3Abs  1 Pl-Dat
 'He gave it to us.'

| A | P | V | R |
|---|---|---|---|

  b.  *hai-ts  chï_in  oke  yi-Ø  kïṭï.*
 1-Erg  Foc/Tens  medicine  YI-Abs  give
 'I gave medicine (to her).'

```
            A       P              V      R
(9)  a.  hai-ts [ oke      yi-Ø    kiṭi] atsiwe-tl.
         1-Erg   medicine  YI-Abs  give  mommy-Dat
         'I gave medicine to mommy.'

            A    Particle     P                V      R
     b.  hai-ts chï_in     [ oke       yi-Ø    kiṭi ] atsiwe-tl.
         1-Erg  Foc/Tens     medicine  YI-Abs  give   mommy-Dat
         'I (focus) gave medicine to mommy.'

            P               Particle     A     V  Extra Morphology  R
     c.  oke       yi-Ø    chï_in     hai-ts [kiṭi ke]              atsiwe-tl.
         medicine  YI-Abs  Foc/Tens   1-Erg  give                  mommy-Dat
         'I gave medicine (focus) to mommy.'

            R          Particle      A        P              V
     d.  atsiwe-tl    chï_in     hai-ts [oke       yi-Ø    kiṭi ].
         mommy-Dat Foc/Tens  1-Erg   medicine  YI-Abs  give
         'I gave medicine to mommy (focus).'
```

## 2.2   Verbs

### 2.2.1.  *Verb classes*

Taking in consideration the patterns observed in the case system, Trumai verbs can be subdivided into five types:[4]

– Class 1 – Intransitives:

These verbs have one argument only, marked by -Ø (Absolutive). In the imperative construction, they require the particle *wana*. As instances of such verbs, we have: *fakdits* 'die', *fal* 'defecate', *suta* 'urinate', *waṭkan* 'cry', etc.

```
(10)  a.  axos  yi-Ø    suta.
          child YI-Abs  urinate
          'The child urinated.'

      b.  wana  suta.
          Imp   urinate
          'Urinate!'
```

– Class 2 – Transitives:

These verbs have two arguments: one marked by *-k* (Ergative), the other by -Ø (Absolutive). As already mentioned, the typical order of the second argument

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4.    In Guirardello (1999: 100), Trumai was presented as having four verb classes. However, new data has revealed a fifth class.

(the Absolutive) is to be adjacent to the verb, preceding it. In the imperative, verbs of this class require the particle *waki* (if the Absolutive is inanimate) or *wa* (if animate). Examples of transitive verbs are: *mapa* 'break', *daka* 'push', *tsima* 'bury', *kuhmu* 'throw', *husa* 'tie', *tako* 'bite', etc.

(11)  a.  *kiki-k     Mayahiri-Ø    daka.*
          man-Erg  Mayahiri-Abs  push
          'The man pushed Mayahiri.'

      b.  *waki  daka.*
          Imp   push
          'Push (it)!' (e.g., a canoe)

      c.  *wa    daka.*
          Imp  push
          'Push (him)!' (e.g., a boy)

–   Class 3 – Ditransitives:

The verbs of this class have three arguments: one marked by *-k* (Ergative), another by *-Ø* (Absolutive), the third one marked by *-tl*, *-ki* or *-s* (Dative). In the imperative, these verbs employ the particles *waki* or *wa*. As examples, we have: *kiṭï* 'give', *pap* 'pay', *hupeka* 'show', etc.

(12)  a.  *Kumaru-k    ťak-Ø                 kiṭï hai-tl.*
          Kumaru-Erg manioc.bread-Abs give 1-Dat
          'Kumaru gave manioc bread to me.'

      b.  *hai-tl  waki  kiṭï.*
          1-Dat Imp   give
          'Give (it) to me.' (an object)

      c.  *hai-tl  wa    kiṭï.*
          1-Dat Imp  give
          'Give (it) to me.' (a child)

–   Class 4 – Intransitives with two positions:

In terms of argument structure, these verbs have two positions (i.e., two arguments). In terms of transitivity, they are distinct from the verbs of class 2 – there are differences with regard to the case-marking of the arguments, the word order

in relation to the verb, and the particle used in the imperative construction. The verbs of this class actually align with the intransitive verbs.[5]

One argument is marked by -Ø (Absolutive), the other one by *-tl*, *-ki* or *-s* (Dative). This is the only possible marking for the arguments of these verbs (there are no other possibilities). The typical order of the second argument (the Dative) is to occur after the verb. In the imperative, these verbs require the use of the particle *wana*. Some examples are:

– verbs of **perception**: *hu'tsa* 'see', *fa'tsa* 'listen', *laxod* 'feel smell', etc.
– verbs of **mental activity**: *faxla* 'think', *falkamu* 'believe', *pudits'* 'like', *falpuchu* 'forget', *falamata* 'remember', etc.
– verbs of **contact**: *uyar* 'lean against', *api* 'grab', *pi'ta* 'step on', etc.
– verbs that express **habitual events** with conventionalized patients: *ma* 'eat', *sone* 'drink', *olem* 'cook', *otle* 'bake', *dakchï* 'make bread', *(a)lax* 'hunt', *ala* 'fish', etc.

(13)  a.  *ha-Ø  hu'tsa  de      kasoro-tl.*
          1-Abs  see      already  dog-Dat
          'I have already seen the dog.'

      b.  *wana  hu'tsa.*
          Imp    see
          'See (it)!'

(14)  a.  *ha  ma-tke  k'ate-s.*
          1    eat-Des  fish-Dat
          'I want to eat fish.'

      b.  *wana  ma.*
          Imp    eat
          'Eat!'

Looking at examples such as the ones above, one may think that they are instances of antipassive constructions, given that in many languages of the world, when the event involves an action that is habitual (such as eat or drink), an antipassive may be used. However, the examples presented above are not antipassives. They are the normal and only way of expressing such events in Trumai. In other words: verbs such as 'eat', 'drink', 'see', 'hear', etc, always present an Absolutive-Dative marking

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5.    The fact that a verb has two arguments (valence) does not mean that it is necessarily transitive. As Hopper & Thompson (1980: 251) point out, transitivity involves a series of factors related to the effectiveness of the event described by the verb. Among these factors, we have the volitionality of the agent and the degree of affectedness of the second participant. The morphosyntactic codification of the arguments is also a relevant issue in this discussion. For a more careful description of the verbs of class 4, cf. Guirardello (1999), Section 7.1.3.

(never an Ergative-Absolutive one). This is the only possible way of codifying the arguments of these verbs.

When analyzed more carefully, class 4 is not so different from what is observed in other languages. In the case of verbs of **perception**, it is not surprising that the second argument is marked in the same way as the recipient argument of Ditransitive verbs. The basic idea here is that the eyesight / hearing is oriented towards a particular target (which would be the "recipient" of the attention directed to it). We observe this same principle in other languages, such as English and Portuguese:

English:      Give the book <u>to me</u>.
              Listen <u>to me</u>.

Portuguese:   Dá o livro <u>para mim</u>.              'Give the book to me.'
              Olha <u>para mim</u> e diz que me ama.   'Look at me and say that you
                                                       love me' (lit: Look to me)

In the case of verbs of **contact,** the second participant is not exactly a patient being affected by the action, but rather a kind of location or target where the action is performed or the contact with the agent is created (cf. Fillmore 1970, DeLancey 1992). The same could be said of the second participant of verbs of **mental activity** - it is the "target" of the mental activity. Notice that in other languages, the second argument of verbs of mental activity or contact is also treated differently from the complements of transitive verbs. For example, in English and Portuguese, it can be marked in the same way as locatives:

English:      She is <u>in the park</u>.
              Why do we believe <u>in God</u>?
              The book is <u>on the table</u>.
              I stepped <u>on the dog's tail</u>.

Portuguese:   Estou <u>em São Paulo</u>.          'I am in São Paulo.'
              Eu pensei <u>em você</u>.           'I thought of you' (lit: thought in you)
              Eu não acredito <u>em bruxas</u>.   'I do not believe in witches.'
              Eu encostei <u>na parede</u>.       'I leaned against the wall' (lit: in/on)

In the case of Trumai, the second argument of verbs of contact or mental activity is marked as Dative because of the internal characteristics of the language: for static locatives (i.e., to be in a place), a particular marker is used (<u>-*n*</u>); when the location is not static, but rather the goal of a motion (i.e., to go to a place), the location is marked in the same way as Datives. Therefore, what happens with verbs of contact is congruent with the system of the language (I stepped on the dog's tail = the dog's tail is the target of my act of stepping).

Thus, it is not very remarkable that in Trumai verbs of perception, mental activity, and contact present Absolutive-Dative marking. What is peculiar is the case of **habitual events**. As said before, in some languages, for routine activities such as eat or drink, when the second participant is predictable or has reduced topicality, an antipassive construction is used, codifying the second participant as Dative or Oblique and marking the verb as intransitive. We have something similar in Trumai, but with one difference: here, verbs such as 'eat', 'drink', 'cook', 'hunt', etc, are <u>always</u> codified as intransitive with a Dative complement.[6] It seems that in this language, routine activities in general employ this kind of marking (the same principle is observed with the verbs of class 5; see below).

A final note: in previous works of mine (e.g., Guirardello 1999), the verbs of class 4 were called "extended intransitive" – a term proposed by Dixon (1994). However, nowadays I prefer not to employ this term. When I am contacted by researchers who have read my previous works and want to know more about the Trumai "extended intransitive" verbs, they are often under the impression that the second participant is merely an addition to the verb, a simple extension. But this is not the case: the participant is a nuclear argument, required by the verb. There are differences between this type of argument and optional elements, such as the Comitative. For example, a nuclear Dative argument can be omitted due to discourse continuity, but it is recoverable by context. The Comitative, on the other hand, is not recoverable, because it is not predicted in the argument structure of the verb. See the contrast between Examples (15) and (16): when Example (15) is presented to a Trumai consultant, s/he interprets that the Dative is recoverable: 'The man arrived, I saw **the man**.' The same does not happen in (16a): the interpretation is simply 'I danced'. In order to have the interpretation 'I danced **with the man**', the Comitative needs to be explicitly added to the clause (16b).

(15)  *kiki  yi  wa-pata-s,       ha hu' tsa* [ ].
      man  YI  MV-arrive-Temp 1   see
      'When the man arrived, I saw him.'

(16)  a.  *kiki  yi  wa-pata-s,       ha sa.*
          man  YI  MV-arrive-Temp 1   dance
          'When the man arrived, I danced.'

      b.  *kiki  yi  wa-pata-s,       ha sa    ine tam.*
          man  YI  MV-arrive-Temp 1   dance 3   Com
          'When the man arrived, I danced with him.'

---

**6.**  The expression of the antipassive voice occurs with the total omission of the Dative argument from the clause. When the second participant is not important at all, it is suppressed and is not recoverable by context. See Section 2.3.6 on this issue.

Thus, in order to provide a clear description of the Trumai system, I prefer to use the term "intransitive with two positions" when referring to the verbs of class 4 (although, in practical terms, it is the same as the "extended intransitive" proposed by Dixon).

– Class 5 – Verbs with varied transitivity:

A verb of this class has two arguments, whose case-marking may vary. Usually, the arguments are codified as *-k* (Ergative) and *-Ø* (Absolutive). However, if the second participant is inanimate and predictable because the action is very habitual, the case-marking changes to Absolutive-Dative. An example of this is the verb 'rub', which presents the Ergative-Absolutive pattern when the second participant is animate (e.g., a child) or a particular object (e.g. a table), but which has a Absolutive-Dative marking when the event is related to the act of rubbing and grating manioc (a very habitual task for Trumai women; when they say they will spend the day rubbing and grating, it is already implied that they will grate manioc, since this is what they grate routinely).

(17)   a.   *hai-ts ka_in        axos  hud-Ø      kïtïw.*
              1-Erg  Foc/Tense  child  thigh-Abs  rub
              'I rubbed the child's thigh.'

       b.   *ole-s            ha  wan  kïtïw.*
              manioc-Dat  1    PL    rub/grate
              'We rubbed and grated manioc.'

In the imperative, the verbs of class 5 employ the particles *wa* and *waki* when the second argument is not predictable, and *wana* when it is inanimate and predictable.

(18)   a.   *waki  kïtïw*
              Imp   rub
              'Rub (something)!'

       b.   *wa    kïtïw*
              Imp  rub
              'Rub (somebody)!'

       c.   *wana  kïtïw*
              Imp    rub
              'Rub/grate manioc!'

Other examples of verbs that belong to this class are: *naha* 'cut' or 'break branches (of manioc)'; *tïami* 'squeeze' or 'squeeze paste (of manioc)'; *wen* 'pull off' or 'pull off feathers (of a bird, when cooking)'.[7]

### 2.2.2 Alternation Between Verbs

Some semantic events can be expressed in Trumai by two possible verbs. One belongs to class 2 (transitive: Erg Abs V), the other one to class 4 (intransitive with two positions: Abs V Dat). For example, *tako* 'bite (class2)' and *make* 'bite (class 4)':

(19)  a.  *kasoro-k   ha-Ø   tako.*
          dog-Erg    1-Abs  bite
          'The dog bit me.'

      b.  *kasoro-Ø   make   hai-tl.*
          dog-Abs    bite    1-Dat
          'The dog bit me.'

It could be that in earlier phases of the language, the verbs meant slightly different things, but nowadays they seem to have the same meaning (or at least a meaning that is nearly equivalent). Thus, in principle, the speakers can choose either one or the other to express the event in question. Below, we have other pairs of verbs that can refer to the same event:

| Type 2 (Erg-Abs) | Type 4 (Abs-Dat) | |
|---|---|---|
| *disi* | *fa* | 'beat or kill'[8] |
| *tuxa'tsi* | *dama* | 'pull' |
| *kapan* | *chuda* | 'make (an object)' |
| *padi* | *fatlod* | 'wait' |
| *ṭï* | *detne* | 'distribute' |

---

7.  The verbs of class 5 are not exactly labile verbs, such as the ones found in Daghestanian languages. Labile verbs can be used intransitively (for situations with one participant – e.g., the flowers grew) , as well as transitively (for situations with two participants – e.g., we grew flowers). The Trumai verbs of class 5 exhibit varied transitivity, but the situation always involves two participants. What changes here is not the number of arguments, but rather how they are codified (in a sense, it is similar to voice manipulation , but it occurs only with this particular class, which is small in comparison to the other verb classes).

8.  Two notes on this pair: (i) *Fa* and *disi* can be translated as both 'beat' or 'kill'. When the speakers want to make it clear that it is 'beat' that they mean (instead of 'kill'), they tend to reduplicate the verb: *fa fa* (or: *disi disi*). However, this is just a tendency, not a rule. (ii) It is possible that originally the intransitive verb *fa* meant only 'beat', and the transitive verb *disi* meant only 'kill', and the morphosyntax of each verb would match its semantic content. Later the other meanings were developed – beating too much may cause one to kill (*fa*); one can kill through the act of beating (*disi*). Thus, *fa* also developed the meaning 'kill' and *disi* the meaning 'beat', but the morphosyntax of each verb remained the same.

**Table 2.**  Verb Alternation

| Agent | Patient | Verb Selection | | |
|-------|---------|--------|------|------|
| 3 | 1 | type 2 | (3→Erg | 1→Abs) |
| 1 | 3 | type 4 | (1→Abs | 3→Dat) |

One interesting fact about these verbs is that even though the speaker can choose either member of the pair, the tendency is to choose the verb of type 2 (transitive) when the event has a 3rd person agent performing an action on a 1st person patient, and to choose the verb of type 4 (intransitive with two positions) when the agent is a 1st person acting upon a 3rd person (cf. table 2). For instance, *disi* and *fa*, both meaning 'kill':

(20)  a.  
        Pat                      Ag  
    *ha-Ø* **disi**-*tke ka_in*    *inak wan-e-k.*  
    1-Abs kill-Des Foc/Tense 3    Pl-ev-Erg  
    'They want to kill me.'

    b.  
          Ag                      Pat  
    *ha-Ø* **fa**-*tke ka_in*    *ine-tl.*  
    1-Abs kill-Des Foc/Tense 3-Dat  
    'I want to kill him.'

This tendency was first described by Monod-Becquelin (1976), who analysed a text about the murder of a Trumai man by Indians from another tribe. In the text, when the narrator talks about the action of the other tribe ('they') on his relatives ('we'), the transitive verb *disi* is often employed. When he talks about the revenge of his relatives ('we') against the other tribe ('they'), the use of the intransitive verb *fa* is more frequent.

    Such selection is interesting because it resembles the use of antipassive constructions: when the second participant is high in importance (1st person pronoun), the transitive verb is selected, marking it as Absolutive; when the second participant is lower in importance (3rd person pronoun), the intransitive verb is employed, marking it as Dative.[9] This is basically the same principle observed in languages that have antipassive constructions (i.e., if the patient or second participant is not important, it is demoted to a peripheral position, such as Instrumental or Dative; cf. Givón 1994), but in the case of Trumai, the process is not

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**9.**   A first person pronoun is higher in importance than a third person pronoun, given that it refers to the speaker, whereas the third person pronoun refers to another entity (a non speech-act participant).

morphosyntactic, but rather a matter of <u>lexical choice</u>. It is also just a tendency, not a strict rule, and it is restricted to the pairs available in the language.

According to Monod-Becquelin (personal communication), these pairs were more numerous in the past – in the data collected by her in the 1960's, many pairs were attested. Nowadays there are only a few, given that several verbs of class 2 stopped being used over time, and only their equivalents of class 4 remained – in other words, the system favoured the construction that puts the second participant in a Non-Absolutive position. This suggests that the language may be evolving towards a less ergative, more accusative direction (i.e., second participant being treated differently from the S argument of simple intransitive verbs). This is a point to be further explored in future studies.

### 2.3    Further alignments in syntax

Syntactic processes show an Ergative-Absolutive alignment, which means that the language exhibits deep ergativity. However, the scenario is somewhat complex, because even though there are several Ergative-Absolutive alignments in syntax, there is also a Nominative-Accusative configuration in some syntactic patterns. This makes it problematic to depict the syntax of Trumai in terms of the traditional grammatical relations of 'Subject', 'Object' and 'Indirect Object'. In the next sections, we have a description of the alignments found in syntax. In Section 3, we have a more detailed analysis and discussion on grammatical relations.

#### 2.3.1   *Posture auxiliaries*
A series of auxiliaries can be used to modify a verb in order to indicate the posture of an entity performing an event.[10] The auxiliary always refers to the posture of the S or A argument:

      **S**   V   Aux
(21)  *ha waṭkan tsula.*
     1   cry   be.lying
     'I cried, while lying.'

      **A**    P   V   Aux
(22)  *hai-ts Tata midoxos tsula.*
     1-Erg Tata call    be.lying
     'I am calling, while lying, Tata.'

---

10.   For more information on these auxiliaries, cf. Guirardello 2001.

```
        S   V   Aux        R
(23)  ha hu'tsa tsula    Amati-tl.
      1  see   be.lying Amati-Dat
      'I am seeing, while lying, Amati.'
```

These auxiliaries are not used to refer to the posture of the P or R arguments. For that, another construction is employed that places the posture verb in a temporal adverbial clause.

```
        A     P     V      Temp
(24)  hai-ts Tata midoxos, tsula-n-es.
      1-Erg Tata call      be.lying-3Abs-Temp
      'I am calling Tata, who is lying.' (lit: I am calling Tata when/while she is lying.)
```

```
        S    V    R         Temp
(25)  ha hu'tsa Amati-tl,  tsula-n-es.
      1  see    Amati-Dat be.lying-3Abs-Temp
      'I am seeing Amati, who is lying.' (lit: I am seeing Amati when/while he is
      lying.)
```

Therefore, the use of posture auxiliaries exhibits a Nominative-Accusative alignment, treating S and A in the same way, while P and R receive another treatment.

### 2.3.2 *Word order*

As seen in Section 2.1, word order presents an Ergative-Absolutive alignment: S and P occur inside the verb phrase, coming right before the verb. If they are not in their typical position, extra morphology is required (the morpheme *ke*). A and R occur outside the verb phrase, A preceding it and R following. If A or R are not in their typical positions, no extra morphology is required.

### 2.3.3 *Relativization*

A relative clause modifies an NP (the *head*). Inside the relative clause, the NP that is relativized (NP$_{REL}$) is codified as Ø and the verb is modified by a special morpheme. When NP$_{REL}$ is S or P, the verb is modified by the relavitizer *ke* (Examples 26–27). When NP$_{REL}$ is A or R, the verbs is modified by <u>*chïk*</u> (Examples 28–29). Therefore, the relative construction exhibits an alignment between S and P.

```
                              head        S   V
(26)  ha    hu'tsa chï_in   [axos]ᵢ-a-tl  [ Øᵢ esa-t'        ke ].
      1     see    Foc/Tense child-ᴇᴠ-Dat     dance-nzr.past
      'I saw the boy [who danced].'
```

(27)  ha   hu'tsa chï_in    [axos]ᵢ-a-tl  [hai-ts Øᵢ midoxos-t'a <u>ke</u> ].

 head          A  **P**     V

(27)  ha   hu'tsa chï_in    [axos]ᵢ-a-tl  [hai-ts Øᵢ midoxos-t'a <u>ke</u> ].
1    see   Foc/Temp child-EV-Dat 1-Erg   call-nzr.past
'I saw the boy [whom I called].'

 head          **A**  P      V

(28)  ha   hu'tsa ka_in    [axos]ᵢ-a-tl  [ Øᵢ ha aton mud husa-t'   <u>chï-k</u> ].
1    see   Foc/Tense child-EV-Dat   1 pet  neck tie-nzr.past
'I saw the boy [who tied my pet].'

 head          S  V         **R**

(29)  ha   hu'tsa ka_in    [axos]ᵢ-a-tl  [ha fa  fa-t'      <u>chï-k</u> Øᵢ ].
1    see   Foc/Tense child-EV-Dat 1 beat beat-nzr.past
'I saw the boy [whom I beat].'

### 2.3.4 Control of anaphoric morphemes

This type of control does not show an S-P or S-A alignment. Actually, the control of anaphoric morphemes in Trumai is not syntactic, but rather pragmatic: the antecedent of an anaphoric element is not obligatorily the A or P argument of the previous clause; it is the NP that for logical or other pragmatic reasons is the best candidate.

This can be seen in the control of the anaphoric possessive morpheme *tsi-* and the 3rd person enclitic *-n/-e*. In Example (30), 'her mother' can be interpreted in different ways, depending on which participant is the main topic of the conversation: if it is Yakairu, then listeners understand that the mother is Yakairu's. If the conversation is about Atawaka, they understand that it is Atawaka's mother:

   A          P    V

(30)  *Yakairu-k  Atawaka etsi  **tsi** -tle-tl.*
Yakairu-Erg Atawaka carry 3Poss-mother-Dat
'Yakairu took Atawaka to her mother.'

In Example (31), the person who leaves may be the man or the woman (listeners vary in their interpretation). In (32), the person who cries is Raquel, for logical reasons (she has motivation). In (33), the person who leaves is Kumaru, again for logical reasons (Raquel cannot leave, since she is tied up):

   A    P     V          V-enclitic

(31)  *kiki-k    di    tïchï -kma-s,   pita-**n**.*
man-Erg woman scarify-Perf-Temp go.out-3Abs
'When the man finished scarifying the woman, ___ left.'[11]

---

11.  The verb *tïchï* means 'scarify' in the sense of ritual scarification.

|  | A | P | V |  | V-enclitic |
|--|---|---|---|--|-----------|
| (32) | *Kumaru-k* | *Hakew* | *husa* | *husa-s* | *ora-**n.*** |
|  | Kumaru-Erg | Raquel | tie | tie-Temp | cry-3Abs |

'When Kumaru tied Raquel, ___ cried.'

|  | A | P | V |  | V-enclitic |
|--|---|---|---|--|-----------|
| (33) | *Kumaru-k* | *Hakew* | *husa* | *husa-s* | *pita-**n.*** |
|  | Kumaru-Erg | Raquel | tie | tie-Temp | go.out-3Abs |

'When Kumaru tied Raquel, ___ left.'

If the control of coreference were syntactic, these oscillations of interpretation would not happen: if the A argument were the syntactic controller, the antecedent of an anaphoric element would always be A, or if P were the controller, the antecedent would necessarily be P. However, this is not the case, as we can see in the examples above. Given that coreference in Trumai is not syntactic, but rather pragmatic, tests of control of anaphoric morphemes are not helpful in clarifying the issue of alignments found in the syntax of the language.

### 2.3.5  *Raising in complement subordinate clauses*

As already mentioned in Section 2.1, when an Absolutive argument is not lexically present, the last element of the VP (usually the verb) receives the 3rd person enclitic *-n/-e*. This is what we observe in simple clauses.

One might expect a parallel behavior in complement subordinate clauses, as they seem to be morphologically similar to main clauses. Interestingly, what we observe is that when the Absolutive argument of the subordinate clause is lexically absent, the 3rd person enclitic is employed indeed, but it does not occur at the end of the subordinate VP, as we would imagine. Instead, it is marked after the main VP (34b, 35b) - in other words, the argument is raised to the main clause.

|  |  |  |  | S | V |
|--|--|--|--|---|---|
| (34) | a. | *hai-ts* | [ | [*Sula* | *huma*] | *padi*]. |
|  |  | 1-Erg |  | Sula | take.bath | wait |

'I waited for Sula to take a bath.'

|  |  |  |  | V | V-s |
|--|--|--|--|---|-----|
|  | b. | *hai-ts* | [ [ | *huma*] | *padi*]-**n**. |
|  |  | 1-Erg |  | take.bath | wait-3Abs |

'I waited for her to take a bath.'

$$\qquad\qquad\qquad\qquad\quad\text{A}\qquad\qquad\text{P}\quad\text{V}$$

(35)  a.  *hai-ts chï _in*     [  [*Kumaru-k     Sula tïchï*]  *padi*].
           1-Erg Foc/Tens         Kumaru-Erg Sula scarify wait
           'I waited for Kumaru to scarify Sula.'

$$\qquad\qquad\qquad\qquad\qquad\text{A}\qquad\quad\text{V}\qquad\text{V-p}$$

    b.  *hai-ts chï_in*     [    [*Kumaru-k    tïchï*]  *padi*]-***n***.
           1-Erg  Foc/Tens         Kumaru-Erg scarify wait-3Abs
           'I waited for Kumaru$_i$ to scarify her$_j$.'

Looking at the examples above, we can see that the raising process exhibits an alignment between S and P. Therefore, it points towards deep ergativity. However, it should be mentioned that example (35b) was obtained in elicitation, but it has never been attested in texts or conversations. In natural speech, speakers seem to prefer to use coordination or a temporal subordinate clause instead: 'Kumaru was scarifying her and I waited'; 'While Kumaru was scarifying her, I waited'. Thus, it is not clear if examples such as (35b) are effectively used by the speakers; although data from elicitation shows an S-P alignment, this same alignment has not been confirmed by data from natural speech.

### 2.3.6  *Argument supression*

In this language, the decrease in the valence of a verb is made via argument suppression, that is, the argument is omitted and is not recoverable by context. There are no special marks in the verb (such as an intransitivizer), just the absence of the argument. Argument suppression can produce several semantic effects, depending on the type of argument. Table 3 presents an overall picture of these effects.

    Analyzing the table, we can observe some facts:

–  There is a semantic symmetry in the suppression of the S and A arguments: their suppression can indicate that an event is happening but its agent is unknown or is omitted for some reason. For example, in (36c) the S argument is suppressed (it is not present, either lexically or as an enclitic), and the listener cannot identify who exactly is performing the action. In (37b), the A argument is suppressed, and again we have the same effect.

$$\qquad\qquad\quad\text{S}$$

(36)  a.  *Atawaka yi pumaṭ  lako-ktsi.*
           Atawaka ʏɪ scream Dir-Dir
           'Atawaka came screaming.'

**Table 3.** Argument suppression and its effects

| | | Semantic effect produced |
|---|---|---|
| **Absolutive**[12] | S (verbs of class1 and 4) | The clause has a generic sense (an event is happening, but we do not know who is performing it) |
| | P (verbs of class 2, 3, 5)[13] | The suppression produces the effect of an antipassive: the patient is unknown or not relevant enough to be mentioned (the patient is not so important; more relevant is the event itself) |
| **Ergative** | A (verbs of class 2, 3, 5) | Three possible semantic interpretations:<br>– effect of a passive (we do not know who is performing the event or the agent is not so relevant)<br>– spontaneous event, e.g., the door closes by itself (middle voice)<br>– reflexive action or activities linked to body grooming (middle voice) |
| **Dative** | R (verbs of class 3) | It does not matter who the recipient is |
| | R, second participant (verbs of class 4) | Two possible semantic interpretations:<br>– effect of antipassive (the patient or "recipient" of the action is unknown or irrelevant)<br>– reflexive action |

                                  v-s

    b.  *iyi pumaṭ lako-ktsi-n.*
        IYI scream Dir-Dir-3Abs
        'She came screaming.'

    c.  *iyi pumaṭ lako-ktsi le      de.*
        IYI scream Dir-Dir  hearsay already
        'Something came screaming, people say.'

           A

(37)  a.  *Kumaru-k    ha hotaka.*
        Kumaru-Erg 1   deceive
        'Kumaru deceived me.'

---

**12.** The Absolutive is suppressed when it is not present at all in the clause, neither lexically nor in the form of the enclitic *-n/-e*.

**13.** For the verbal class 5, I consider the Ergative-Absolutive marking as the basis for the comparison, given that this is the usual marking of these verbs ( the Absolutive-Dative marking is restricted to events where P is inanimate and predictable).

b. *ha hotaka de.*
   1    deceive already
   'I was deceived.' (by somebody, not mentioned)

– There is also a semantic symmetry in the suppression of P and the second argument of verbs of class 4: in both cases, the suppression can lead to an antipassive interpretation. For example, in (38c) the P argument is suppressed (it is not present neither lexically nor as an enclitic), and the patient is considered irrelevant. A similar effect is observed in (39b), in which the Dative argument is suppressed.

<div align="center">P</div>

(38) a. *axos-a-k      ka_in      karakarako husa husa.*
     child-EV-Erg Foc/Tens chicken      tie    tie
     'The boy is tying the chicken.'

<div align="center">V-p</div>

b. *axos-a-k      ka_in      husa husa-n.*
   child-EV-Erg Foc/Tens tie    tie-3Abs
   'The boy is tying it.'

c. *axos-a-k      ka_in      husa husa.*
   child-EV-Erg Foc/Tens tie    tie-3Abs
   'The boy is tying (something; it does not matter what. He is just playing).'

<div align="center">R-second participant</div>

(39) a. *a      ma lako-ktsi-n      k'ate-s.*
     Dual eat  Dir-Dir-3Abs fish-Dat
     'They two went downriver eating fish.'

b. *a      ma lako-ktsi-n.*
   Dual eat  Dir-Dir-3Abs
   'They two went downriver eating (something; it does not matter what exactly).'

Thus, with regard to the suppression of arguments, S and A exhibit affinity, while P "aligns" with the second argument of verbs of class 4. One could argue that the effects produced by argument suppression in Trumai have more to do with semantic issues in general (e.g., the fact that S and A have a tendency to be "actors") than with the structure of the language. However, the symmetries observed in the suppression are relevant: first, because it is not obvious that P and the Dative argument of verbs of class 4 should necessarily align (in principle, the Dative argument could be treated as an element of a different kind, since it is not exactly a patient being affected by the action, as pointed out in Section 2.2.1. If it somehow aligns

with P, this is noteworthy). Second, because there are certain facts about the A argument in Trumai that do not automatically apply to other languages. For instance, there are restrictions with regard to which kind of participant may occupy the A role: while in English or Portuguese it is possible to have a participant that is semantically an instrument (e.g, The <u>pickaxe</u> broke the ice; example from Saeed (2003: 154)), in Trumai this is not allowed. In order to express something equivalent, it is necessary to employ a sentence in which the instrumental participant is marked as such and the A argument is supressed (40b).

(40)   a.    A          P
           *axos yi-k    talel yi mahan.*
           child yi-Erg door yi close
           'The boy closed the door.'

       b.        INSTR      P
           *chavi letsi   talel  yi mahan.*
           key    Instr  door  yi close
           'The key closed the door (lit: The door was closed with the key).'

Another peculiar fact about the A argument in Trumai is that its suppression can produce not only a passive interpretation, but also a reflexive reading. This leads us to the next issue: the expression of reflexive events.

### 2.3.7  *Suppression and reflexive events*
Trumai does not have a reflexive construction in which there is a special morpheme (such as 'self' of English) controlled by the Subject of the clause. Instead, other strategies are employed. As we can see in Table 3, the suppression of A can generate various semantic effects, among them the sense of reflexivization. When the speaker wants to express solely the reflexive interpretation, s/he uses the word *falapetsi* 'do by oneself' in conjunction with the argument suppression (41c).

(41)   a.        A
           *Kumaru-k    ha tïchï.*
           Kumaru-Erg 1    scarify
           'Kumaru scarified me.'

       b.   [ ] *ha  tïchï.*
               1    scarify
           'I scarified myself.' or 'I was scarified (by somebody).'

       c.   *ha  falapetsi letsi  ka_in*     [ ] *ha  tïchï.*
           1    do.alone  Instr Foc/Tens      1    scarify
           'I scarified myself.' (lit: I did (it) alone, I scarified (myself).)'

The same happens with the suppression of the Dative argument of verbs of class 4, which can also produce a reflexive reading:

                    R-second participant
(42)  a.  *ha  hu'tsa  hi  atle-tl.*
          1    see     2   mother-Dat
          'I saw your mother.'

     b.  *ha  hu'tsa* [ ].
          1    see
          'I saw myself.' or 'I saw (something, not defined here).'

     c.  *ha  falapetsi  letsi  ka_in      ha  hu'tsa* [ ].
          1    do.alone  Instr  Foc/Temp  1    see
          'I saw myself.' (lit: I did (it) alone, I saw (myself).)'

What is interesting about the reflexive construction is that the Absolutive is always the argument preserved in the clause, while the non-Absolutive argument (Ergative or Dative) is omitted. In other words, unlike the other cases of argument suppression, the reflexive construction exhibits an S-P alignment.

## 3.   Ergativity and grammatical relations

Now that we have observed the facts found in morphology and syntax, let us address the issue of grammatical relations - more specifically, the category of Subject (but also keeping in mind the category of Object). What is presented here is not a definitive treatment of the issue, but rather an analysis of the problem from various angles in order to understand what is happening in the system of this language.

     As we can see from the data presented in the previous sections, the state of affairs found in Trumai is not very transparent: although various Ergative-Absolutive alignments are attested, the syntax also shows some Nominative-Accusative patterns. This poses a problem with regard to grammatical relations: what is the category of Subject in this language? Is it the grouping {S, P} or {S, A}? In a transitive clause, which argument is the Subject: A or P?

     Three possible analyses could be proposed:
a.   The grouping {S, P} is the Subject of the language
b.   The grouping {S, A}, although weak, is the Subject
c.   The category of Subject is simply irrelevant for Trumai

Let us examine each of these possibilities, evaluating their strength or adequacy.

### 3.1   Subject as the grouping {S, P}

According to the linguistic literature (Keenan (1976), Comrie (1989), Li (1976), Dixon (1994), Givón (1984, 1997), among others), the codification of Subject is implemented through several devices, such as case morphology, verb agreement, word order, syntactic processes (relativization, reflexivization), etc. By examining these coding devices, one could identify the category of Subject of a particular language.

Studies on languages that present Ergative-Absolutive patterns both in morphology and syntax have proposed that {S, P} would constitute the category of Subject; this is, for example, what Keenan (1976) says with regard to Dyirbal. In the case of Trumai, one could suggest the same since {S, P} is the strong alignment found in its system. In other words, in a transitive clause the Absolutive would be the Subject, not the Ergative.

However, this analysis is problematic for a number of reasons. If {S, P} is indeed the Subject, why does it fail to manifest itself in contexts where we would expect to observe its presence? For instance, one device that is often used by linguists to identify the Subject of a language is control of coreference (anaphoric morphemes are usually controlled by the Subject of the sentence). But as we have seen in Section 2.3.4, P is not necessarily the syntactic controller of anaphoric morphemes in Trumai; the A argument can also fulfill this task. Another coding device employed for the identification of Subject is indispensability (a Subject is necessarily present in a clause; i.e, all clauses have a Subject). In Trumai, a transitive clause can occur without the A argument (Example (37b) above), but it can also occur without P (Example (38c)). If the Absolutive is the Subject of a transitive clause, how can it be absent?

There are also pragmatic factors to be considered. As Dixon (1994: 124–125) points out, S and A are "the NPs which refer to functions that can be the initiating/controlling agents". An agent is a very salient participant of the event, therefore a strong candidate to be the primary topic of a transitive clause, being codified as the Subject. Of course, the agent may not always be topical, and this is why in many languages there are passive constructions, in which the agent is demoted to a peripheral position, such as Oblique. However, the passive voice is cross-linguistically restricted in discourse (Givón 1994). The default voice is the active one, in which the agent is codified as the Subject and the patient as the Object. The tendency is to treat the agent as the primary topic, given its natural salience.

In the case of Trumai, if we say that the P argument is the Subject of a clause (because of the alignments observed in the language), what would A be? One possibility

would be to treat it as an Oblique, as if the clause had a passive voice configuration (this sort of analysis has been proposed for ergative languages in past times):

| **Agent** | **Patient** | | | **Agent** | **Patient** | |
|---|---|---|---|---|---|---|
| Ergative (A) | Absolutive (P) | V | → | Oblique | Subject | V |

If we say this, it means that the agent is being codified as less topical than the patient. We would then expect to have a counterpart in which the agent is codified as the primary topic, while the patient is codified as the secondary one. That is, if the clause [Erg Abs V] is passive, we would expect to have an active counterpart. However, such a counterpart does not exist in the language:

– verbs of class 2 (transitive) allow one coding only: Erg Abs V. There are no other alternatives.
– verbs of class 3 (ditransitives) also present one coding only: Erg Abs V Dat. No alternatives are possible.
– verbs of class 5 (verbs with varied transitivity) present two types of coding. The main one is Erg Abs V. The alternative coding, Abs V Dat, is limited in its use (it only occurs with certain types of inanimate patients) and its configuration does not resemble an active voice, but rather an antipassive one (second participant codified as Dative).

Thus, if we adopt this analysis, Trumai would then be a language in which the patient is always codified as being more topical than the agent in transitive clauses. This is counter-intuitive, for the reasons exposed above. It is also odd that a language would present "passive" clauses without having active ones, taking in consideration the limited scope of passive constructions.

Another problem is that, if we say that the Ergative is a mere Oblique, it means that it has little discursive importance. However, there are data that suggest the opposite: as we have seen previously in Examples (31–33), when two clauses are linked and the first one is transitive (e.g. the man called the woman and Ø left), both the Ergative and the Absolutive arguments of the first clause may be the possible antecedent of an anaphoric morpheme found in the second clause. In some examples, when the speaker wants to make clear that the antecedent is the Absolutive and not the Ergative, s/he tends to suppress the Ergative:

| | **Erg** | Abs | V | | V-**enclitic** |
|---|---|---|---|---|---|
| (43) | *di-k* | *dinoxo* | *tete-kma-s* | | *pita-**n***. |
| | woman-Erg | girl | body.paint-Perf-Temp | | go.out-3Abs |

'When the woman finished painting the girl, ___ left.'

According to a consultant, in (43) it was the woman who left. When asked about the possibility of the girl being the one who left, the consultant says that this

interpretation would also be acceptable, but in order to make things more clear, one should say Example (44), in which it is transparent that it was the girl who left.

|  | **Abs** | V | V-**enclitic** |
|--|---------|---|----------------|
| (44) | *dinoxo* | *tete-kma-s* | *pita-**n**.* |
|  | girl | body.paint-Perf-Temp | go.out-3Abs |

'When the girl finished being painted, ___ left.'

We have to ask ourselves: why does the speaker suppress the Ergative in Example (44)? Probably because it is a good candidate to be the antecedent of the enclitic found in the second clause. Thus, in order to avoid misinterpretation, the Ergative is taken out of the scene, leaving only the Absolutive in the clause. Now, as the consultant says, it is transparent that the Absolutive is the antecedent. But if the Ergative is a good candidate, it means that it does have discursive importance. If the Ergative were unimportant, it would not be necessary to suppress it, since it would not represent any "risk" to the Absolutive. Examples such as (43–44) indicate that the Ergative is discursively relevant, and therefore it cannot be a mere Oblique.

In sum, the grouping {S, P} has strong presence in the syntax of Trumai, but to consider it as the Subject of the language does not help us to understand it well. On the contrary, it characterizes it in a odd way, leaving out other factors that are also significant.

## 3.2   Subject as the grouping {S, A}

If {S, P} is not the Subject, the other alternative would be to consider {S, A}. In principle, there are good motivations for this grouping because, as Dixon points out, both can be initiating or controlling agents – in other words, they share a common role (the P argument, in contrast, is prototypically a patient, not an agent). Therefore, there is a strong semantic reason to bring them together, resulting in a coherent notion of Subject. And there are pragmatic-discursive reasons as well, as explained in the previous section (i.e., the fact that A, being agentive, has natural salience and a tendency to be topical. If it is high in topicality, it is expected to be codified as the Subject of a clause).

If we begin from this point of view, the semantic and pragmatic factors associated with {S, A} could lead us to consider this combination to be the Subject of Trumai. However, this analysis is also not viable, due to the following flaws.

First, while there are semantic similarities between S and A, there are some between S and P as well, as discussed in the linguistic literature. Dixon (1979, 1994) explores the possible semantic and discursive factors for the existence of ergative-absolutive patterns. DuBois (1987) also investigates the discourse basis of ergativity (in Sacapultec, a Mayan language, Ergative-Absolutive patterns are

linked to focus structures: arguments consisting of new information would prefer- ably occur in the S or P roles, but not in the A role). Thus, cross-linguistically some factors linking S and P are attested, although they are not as pervasive as the ones linking S and A.

Second, the alignments found in Trumai are too weak to claim that the group- ing {S, A} is the Subject of the language. It barely shows its presence in the syntax. One could propose that this occurs because Trumai has a weakly grammaticalized Subject. According to Givón (1997: 29), languages can exhibit different degrees of grammaticalization. When the Subject is very grammaticalized, the category man- ifests itself at all levels: case marking, word order, syntactic behavior. If it is weakly grammaticalized, it does not exhibit many properties. A language with few prop- erties would have a less prototypical Subject.

Thus, one could propose that {S, A} is the Subject of Trumai (because of the semantic and pragmatic-discursive motivations), but an almost ungrammatical- ized one, with an exceptionally small presence in the syntax. The problem with this proposal is that the Subject category is characterized in such a way that it would inevitably be considered the {S, A} grouping in any language. In other words, we would be identifying {S, A} as the Subject of Trumai not because of what the lan- guage shows, but because we assume that this is the natural alignment that human languages should favor and exhibit (in larger or smaller amounts).[14] This approach is obviously not satisfactory. The category in Trumai should be identified based on the evidence from its grammatical system — and so far, there are not enough facts to support the {S, A} analysis.

## 3.3    No grammatical relations

Given that the scenario in the syntax of Trumai is not transparent, and that it is not possible to claim without any doubt that either {S, P} or {S, A} is its Subject, we reach the conclusion that this language simply does not have a Subject, i.e, the category does not play a role in its system. Trumai would lack grammatical rela- tions, similar to what Van Valin (1993) proposes for Acehnese. And in fact, one does not need to evoke the traditional relationships of 'Subject', 'Object', and 'Indirect Object' to describe the grammar of Trumai. By using the argument types (Ergative, Absolutive, Dative), we are able to depict the system of the language.

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**14.**  This is the same sort of criticism made by Dryer (1997: 132–135), who argues against the notion of prototype for Subject. According to him, such notion would assume that the cognitive representation of Subject is stored in the head of any speaker, despite their language – in other words, it might suggest that the category of Subject is innate.

The only thing that could speak against this analysis is the fact that the language is showing signs of moving towards a more Nominative-Accusative direction. This is apparent in the gradual lexical substitution discussed in Section 2.2.2, in which verbs of Class 2 (transitive verbs presenting an Ergative-Absolutive pattern) first alternate with, then fall out of use in favor of, verbs from Class 4 (intransitive verbs presenting the Absolutive-Dative pattern, which aligns with the intransitive Absolutive to produce a morphological pattern that could be called Nominative(Absolutive)-Accusative(Dative)). The existence of class 5 (verbs with varied transitivity) could also be another signal of a move towards accusativity: it might be that these verbs originally belonged to class 2, presenting only the Ergative-Absolutive marking, but later developed the other pattern (Absolutive-Dative) as a kind of antipassive, allowing the possibility of placing the second participant into a non-Absolutive role. Finally, the alignment observed between P and the Dative argument of verbs of class 4 in argument suppression (described in Section 2.3.6) suggests an accusative pattern as well.

If this is really happening (evolution towards nominative-accusative), there must be a driving force behind the change, i.e., it might be the case that {S, A} is already becoming central to the system of the language.[15] However, given its very weak presence in the syntax, it is more adequate to say that at the present stage, there is no clear category of Subject in Trumai.

One question remains: if the grouping {S, P} is not the Subject, how could we account for its strong presence in the language? My hypothesis is that Trumai underwent historical developments that led to the emergence of S-P patterns in morphology and syntax.[16] S and P were originally the same type of element: the NP-possessor of a nominalization in cleft constructions. A and the second argument of verbs of class 4 were Obliques. The cleft constructions started replacing ordinary main clauses, which eventually disappeared, and the clefts were reanalyzed as unmarked main clauses.[17] The nominalization was reanalyzed as a main verb and the NPs that accompanied it were reinterpreted as its arguments. The

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**15.**   One could wonder whether this change is due to internal forces of the language or because of language contact. For some generations, speakers of Trumai were also bilingual in Kamayura, a Xinguan language whose system is active-stative (Seki 1990). More recently, they are bilingual in Portuguese, whose system is nominative-accusative.

**16.**   The study of such historical developments will not be presented in detail here, because it involves an internal reconstruction that is complex and too lengthy to be described in the present article. For a comprehensive view of these developments, cf. Guirardello 1999, Section 5.1.3.

**17.**   The replacement of main clauses by clefts is attested in other languages of the world: in some African languages (Heine and Reh 1984) and in the Cariban family (Gildea 1998, ch. 11).

NP-possessor was reinterpreted as Absolutive, and the Obliques as Ergative and Dative. The developments would be something like this:

| Original Construction (Cleft) | | Reanalized Construction as Main Clause | |
|---|---|---|---|
| **Possessor** | | **Absolutive** | |
| (It is) <u>the monkey's</u> scream. | | <u>The monkey</u> screams. | |
| **Possessor** | **Oblique** | **Ergative** | **Absolutive** |
| (It is) <u>the boy's</u> murder | by the man. | The man murders | <u>the boy</u>. |
| **Possessor** | **Oblique** | **Absolutive** | **Dative** |
| (It is) <u>Karu's</u> eyesight | on / towards the monkey. | <u>Karu</u> sees | the monkey. |

These historic changes must have been relatively recent, and this is why the S-P alignment is still strong in the syntax. However, it is clear that the Absolutive does not represent a unified functional category, whether semantic (split between agent and patient) or in terms of topicality (where S-A is demonstrably the primary topic). The alignment S-P is rather manifesting information about a previous stage of the language, which has undergone a process of reanalysis. Some of the old "facts" remain coded in the formal patterns, but this does not mean that functionally speaking things are the same as before. If we say that the grouping {S, P} is the Subject of Trumai, we would have to say that A is still an Oblique, which is not the case, as argued in Section 3.1.

## 4.   Conclusion

Trumai is a language with an interesting scenario. Both the morphology and syntax present strong Ergative-Absolutive patterns, indicating deep ergativity. Although several morphological and syntactic processes show an S-P alignment (word order, relativization, raising in subordinate clauses, reflexive constructions), there are at least two S-A patterns as well (use of posture auxiliaries and the reading of indefiniteness produced by argument suppression), while in some contexts (control of anaphoric morphemes, indispensability) we do not observe any clear alignment. This leads us to a question: what is happening in the syntax of this language?

According to Estival & Myhill (1988), and Givón (1994, 1997), a recent rise of main clause ergativity is behind cases of syntactic ergativity; then nominative syntactic patterns come in over time to develop the classic patterns of "surface ergativity". This could be the case for Trumai. The hypothesis is that the language has undergone some historical developments that gave rise to the S-P patterns now found in the language. These historic developments were relatively recent, and for

this reason the S-P alignment is still well-represented. However, the system of the language seems to be re-arranging. Besides some signals of a move towards accusativity (in the verb classes, as explained in Section 3.3), an S-A alignment has started to manifest itself, but it is still quite weak. The two alignments actually co-exist in the syntax of the language, competing with each other.

In the current scenario, it is not clear that the language presents the category of Subject or any of the other grammatical relations. Such relations do not seem to be significant or play a central role in Trumai. It might be that this is happening because the system is in transition, changing from one type of syntax (ergative) to another type (accusative) – i.e., while the change is still taking its course, grammatical relations would be "suspended" until the system becomes better defined. In any case, the use of traditional labels such as 'Subject' or 'Object' is not essential for describing the grammar of this language. Much more useful are the three kinds of obligatory arguments (Ergative, Absolutive, Dative) and the interplay among them in codifying the participants of an event.

As a final note, it should be mentioned that I have conducted a study using Givon's methodology of text counts (Guirardello-Damian 2004). The count showed that in clauses with transitive verbs, the topical participant tends to be codified as Ergative.[18] However, it is too early to draw any conclusion about that, given that this study was conducted on a single text and it is very preliminary. To have a more definitive picture, it will be necessary a deeper investigation, analyzing a greater number of texts.

## Abbreviations used in glosses

| | | | |
|---|---|---|---|
| Abs | absolutive | Imp | imperative |
| Dat | dative | Loc | locative |
| Des | desiderative | Nzr | nominalizer |
| Dir | directional | Pl | plural |
| Dual | dual | Poss | possessive |
| Erg | ergative | Rlzr | relativizer |
| EV | ephentetic vowel | Temp | temporal subordinate clause marker |
| Foc/Tens | particle of focus + tense | | |

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**18.**  Givón (1983, 1994) proposes a methodology for doing counts that would allow us to measure the accessibility and topicality of the participants that appear in a text (thus, identifying which argument is the primary topic in discourse). I conducted a text count of a Trumai myth, following Givon's methodology. It was possible to observe that in clauses with transitive verbs, the topical participant was consistently codified as Ergative.

## Acknowledgments

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# Grammatical relations in Katukina-Kanamari

Francesc Queixalós*

Katukina-Kanamari, possibly the only extant language of the Katukina family, features ergative alignment both in morphology and syntax. The paper is devoted to the description of the various domains of grammar where ergativity is present, as well as of a functionally conditioned accusative pattern. The main aim is to show, on the basis of empirical data, that on the formal side a syntactically ergative language can be quite isomorphic with an accusative language, the main differences being the always present split of transitivity in ergative languages and the interface between semantics and morphosyntax: the mapping of semantic roles onto grammatical relations is inverted between ergative and accusative systems, not only in the structure of the basic clause but also in valence changing processes.

## Introduction

Katukina-Kanamari, or, more briefly, Katukina, belongs to the Katukina family of languages spoken in the state of Amazonas, Brazil, by approximately 2000 people between the rivers Purus and Javari. It comprises two dialects, Katukina, present on the river Bia, a tributary of the Jutai, which is itself a southern tributary of the middle Amazon or Solimões, and Kanamari, present in the rest of the area mentioned. It is a comparatively isolating language, head final, with sparse flexional morphology basically located in phrase heads, and strong constituency properties. Its predominant alignment type is ergative, at the morphological and, for the most part, at the syntactic level.

Finite clauses include verb predicates, saturated for their valence, and a variety of possible — not necessarily present — aspect-modality particles.[1] There are

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1. These are much less frequent in actual discourse in the Bia dialect, compared with the Kanamari dialect.

no more than two core arguments in verbal clauses. Aside from the verb for 'say', trivalent verbs do not seem to exist, since no clear formal device distinguishes what would be a third core argument — semantically recipient — from adjuncts. The subclass of divalent verbs requires two arguments; for strictly heuristic purposes, on an intuitive, prototype-semantics basis, I call these *agent* and *patient*. The subclass of monovalent verbs only combines with one argument, which I call S.[2] Divalent verbs appear in two clause types, an ergative with its patient aligned with S, and an accusative with its agent aligned with S.

The article is organized in the following manner. I first present the basic properties of arguments, highlighting the differential treatments morphosyntax imposes on two-place verb arguments, which show a clear hierarchy between them. After having drawn preliminary conclusions about what this hierarchy means for grammatical relations, I proceed to observe several other phenomena that seem to weaken these conclusions. The last part of the paper is devoted to an attempt to account for the divergent patterns by including diachronic considerations in the overall picture.

## 1.   Coding

In a divalent clause, the agent, obligatorily in pre-verbal position, is case marked, the patient being unmarked and typically post-verbal (1). In a monovalent clause, S is typically post-verbal and unmarked (2), aligning with the **paiko** argument of (1).

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**2.**   There is, in my view, something misleading in the use of pairs of symbols like *A/O*, *A/P*, and *x/y*, which are somewhat semantically based, somewhat formally based. In practice they are pervasively biased by surreptitious shifts between meaning and form. This forces the reader's mind into a routinized mechanism which consists of automatically translating, say A/O, to agent/patient or, worse, to subject/object, a bias that only manages to obscure the issues at stake. As for S, the label has a strictly *prima facie* observational base: the unique argument of a monovalent verb. For discussion on this issue and connected topics, see particularly Foley & Van Valin (1977), Comrie (1981), Rosen (1984), Du Bois (1987), Dixon (1994), Lazard (1997), Van Valin & LaPolla (1997), Mithun & Chafe (1999), Creissels (2008), Queixalós (2007), Queixalós & Gildea (this volume). One more terminological proviso: in my usage, *adjunct* is a syntactic notion, a phrase not in a core argument position; *oblique* is a coding notion, a phrase, be it syntactically core or adjunct, marked in a way similar to that of adjuncts.

(1)<sup>ITQ</sup> **pi:da  na=ti       paiko**
      jaguar MKCASE=kill grandfather
      'The jaguar killed grandfather'[3]

(2)<sup>ITQ</sup> **tyuku wa:pa**
      die    dog
      'The dog died'

A nominal clause has a noun phrase as its predicate, and an absolutive phrase as its argument.

(3)<sup>ITQ</sup> **piya adu**
      man 1SINGULAR
      'I am a man'

There are two other noun phrases marked by **na**: the genitive in a noun phrase where the head is a divalent ("inalienable") noun (see 6.3) and the object of a postposition:

(4)<sup>ITQ</sup> **daan    ityaro  na=tyo**
      go.away woman MKCASE=daughter
      'Woman's daughter went away'

---

**3.** A few remarks on examples. 1. I rarely give more than one single example in order to illustrate a particular construction, considering it as representative of equivalent instances contained in my field material; redundant examples would perhaps make the offered data appear more reliable, but would also inflate beyond measure the article. 2. <sup>ITQ</sup> and <sup>BIA</sup> stand for rivers Itaquai and Bia respectively, but are intended to make explicit the dialectal origins of the data, the Itaquai being the place where most of Kanamari data were collected. 3. MkCase means 'marked case'. Phonetically, this example sounds like [**pi:da nati paiko**] but its gramatical structure is {**pi:da-na ti paiko**}, with the case marker bound to its noun phrase grammatical host. Similarly, the noun phrase containing a genitive in (4), and the postpositional phrase in (5), sound, respectively, like [**ityaro natyo**] and [**Yowai nakatu**], but pattern gramatically {**ityaro-na tyo**} and {**Yowai-na katu**} respectively. The mismatch between grammatical and phonological structures here is assumed to be the result of a diachronic process by which the case marker procliticizes to the phrase head. There are other examples of the same phonological shift in the language, particularly in auxiliarization (see Section 3). A quite close parallel of such a head attraction process can be seen in Movima — Bolivia, isolate —, where, within the verb phrase, the prenominal article cliticises to the left-adjacent verbal head (Haude 2006). I further assume that case marker **na** is diachronically linked to the allative suffix (**hak-na**, 'to the house', phonetically [**hakna**]), the only adjunct function not marked by a postposition. 4. Symbols: **i** [**i ~ e**], **o** [**u ~ o**], **u** [ɯ]; **ty, dy, ny** are the palatal phonemic counterparts of **t, d, n** respectively; **v:** stands for long vowel; in the Bia dialect, there is free phonetic alternation between long vowels and diphthongs in spite of the existence, in both dialects, of phonemic diphthongs (dos Anjos 2005).

(5)[ITQ]  **ho:ki-nin      Makoana Yowai na=katu**
talk-DURATIVE Makoana Yowai MKCASE=SOCIATIVE.INSTRUMENTAL[4]
**bo**
EXCLAMATIVE
'Makoana is talking to Yowai!'

Both phrases can be predicates, each with its external argument and its internal, case marked, argument, respectively:

(6)[ITQ]  **Nodia na=obatyawa Owi**
Nodia MKCASE=wife Owi
'Owi is Nodia's wife'

(7)[BIA]  **Yako na=katu                    Dyoraidi**
Yako MKCASE=SOCIATIVE.INSTRUMENTAL Dyoraidi
'Dyoraidi is with Yako'

The absolutive is coded pronominally in the same way as free stressed forms:

(8)  ITQ singular plural
   1  **adu      adik**
   2  **idi:k    idi:ki**
   3  **anyan**[5]  **anyan hinuk**

(9)[ITQ]  **pi:da   na=duni      idi:k**
jaguar MKCASE=catch 2SINGULAR
'The jaguar caught you'

(10)[ITQ]  **ki:tan idi:k**
sleep  2SINGULAR
'You slept'

---

4.  Lack of case marker within a postpositional phrase is common with non human noun phrases. See Examples (54) and (55). Salience hierarchies other than humanhood are plausibly involved here — maybe definiteness or individuation —, but more data are needed.

5.  The third person has probably as its origin a deictic element of the demonstrative type (cf. Section 2.7), and has a different phonological form in the Bia dialect. It seems to behave as a noun. As for the plural form, a tentative account could be that **nuk** is a generic noun 'group' (see Example 119). It can head a phrase with a lexical nominal modifier at its left, umarked for case but followed by a collective suffix -**hi** which, as is common in this language, procliticizes to the head **nuk**, for instance in [**opatyin hi=nuk**], 'gang of children'.

The other argument of a divalent clause, as well as the genitive of a divalent noun and the object of a postposition, must be coded as a prefix of the head element if not realised as a lexical phrase in its internal position:

(11)  BIA singular plural

| | singular | plural |
|---|---|---|
| 1 | **yo-**[6] | **tyo-** |
| 2 | **no-** | **na-** |
| 3 | **a-** | **ma-** |

(12)[ITQ]  **no-ti            paiko**
2SINGULAR-kill grandfather
'You killed grandfather'

(13)[ITQ]  **daan        no-tyo**
go.away  2SINGULAR-daughter
'Your daughter went away'

(14)[ITQ]  **ho:ki-nin        Makoana no-katu**
talk-DURATIVE Makoana 2SINGULAR-SOCIATIVE.INSTRUMENTAL
**bo**
EXCLAMATIVE
'Makoana is talking to you!'

As can be inferred from the preceeding remarks, the terms "internal"and "external" for arguments are used in their literal sense, which directly derives from constituent structure.[7] In my usage, they do not bear the semantic role connotation with which they have subsequently been associated (e.g. Grimshaw 1990: 33–43).[8]

## 2.   Behaviour

Constituency determines a certain number of the ways in which noun phrases occur in the clause, so I will say a word about it first. In verbal clauses, the absolutive is external to the verb phrase. The other argument of divalent clauses, as well as the

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**6.**   The first person singular has different allomorphy in the Itaquai dialect. Person categories are identical in both the Bia and Itaquai dialects: three persons, two numbers. I present the tables based on the simplest version in terms of allomorphic variations.

**7.**   E.g. 'external': the argument *realised* outside the maximal projection of the predicate (Williams 1981).

**8.**   I am indebted to Katharina Haude (p.c.) for having drawn my attention to this potential source of metalinguistic ambiguity (as well as for having supplied several bibliographic references which helped much in contextualizing the issues addressed in this paper within current typological discussions).

genitive of a divalent noun head, and the object of postposition, are internal to phrases headed by verb, noun and postposition respectively, as summarised in the examples:

(15)<sup>ITQ</sup> [**pi:da   na=ti**]      **paiko**
 jaguar MKCASE=kill grandfather
'The jaguar killed grandfather'

(16)<sup>ITQ</sup> **daan**   [**ityaro   na=tyo**]
go.away   woman MKCASE=daughter
'Woman's daughter went away'

(17)<sup>ITQ</sup> **ho:ki-nin**      **Makoana** [**Yowai na=katu**]
talk-DURATIVE Makoana   Yowai MKCASE=SOCIATIVE.INSTRUMENTAL
**bo**
EXCLAMATIVE
'Makoana is talking to Yowai!'

A head and its case-marked dependent are strictly adjacent. Aspectual, modal, and discourse particles occur quite freely in the clause, but not between a head and its dependent.

(18)<sup>ITQ</sup> **niama** [**pi:da   na=ti**]      **paiko**
then     jaguar MKCASE=kill grandfather
'Then the jaguar killed grandfather'

(19)<sup>ITQ</sup> [**pi:da   na=ti**]      **niama paiko**
 jaguar MKCASE=kill then    grandfather
*idem*

(20)<sup>ITQ</sup> [**pi:da   na=ti**]      **paiko**       **niama**
 jaguar MKCASE=kill grandfather then
*idem*

(21)<sup>ITQ</sup> *[**pi:da   niama na=ti**]      **paiko**
 jaguar then    MKCASE=kill grandfather[9]

Other clues to the external / internal status of arguments are: pronominalization (unbound pronoun for external, personal prefix for internal argument, see above, Section 1), movement (other things kept equal, possible for external, impossible for internal argument, see below 2.1), elision (other things kept equal, possible for external, impossible for internal argument, see below 2.2).

---

9.   Nor is it possible to insert the particle following the case mark: ***pi:dana niama ti paiko**

Taking (15) as an example, the constituency of the basic active divalent verbal clause is as follows:

(22)
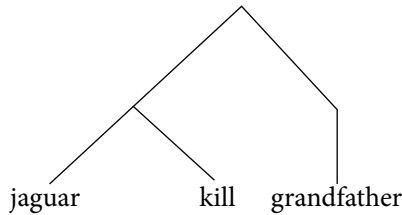


I now turn to a closer examination of the asymetries between arguments which, beyond consituency or as a result of it, reveal a clear ergative alignment in syntax.

## 2.1 Order and Movement

Constituency explains the rigid preverbal position of the agent — or internal — noun phrase in divalent clauses, as well as the possibility of movement for the absolutive — or external — noun phrase of both divalent and monovalent clauses.[10]

(23)[ITQ]  **paiko        pi:da  na=ti**
          grandfather jaguar MKCASE=kill
          'The jaguar killed grandfather'

(24)[ITQ]  **wa:pa  tyuku**
          dog    die
          'The dog died'

A different result is achieved when the agent noun phrase occurs outside the verb phrase. The noun, deprived of its case marker, no longer bears any grammatical relation to the verb. Its referent is represented inside the verb phrase by the personal prefix. Pragmatic effects are clear (25). In such a non-syntactic position, a third person agent can be pronominalized with the free forms of (8), but its referent remains represented inside the verb phrase by the personal prefix (26).

(25)[ITQ]  **pi:da  [a-ti]          paiko**
          jaguar  3SINGULAR-kill grandfather
          'As for the jaguar, he killed grandfather'

(26)[ITQ]  **anyan     hinuk**[11]**[ma-toman]     wiri**
          3SINGULAR group    3PLURAL-shoot peccary
          'These people, they shot a peccary'

---

10.  With, I presume, little but not null pragmatic effect.

11.  See Footnote 5.

## 2.2    Elision

The external noun phrase can be elided, given appropriate pragmatic conditions for the recoverability of its referent (27–28), whereas elision of the internal argument leads to prefix pronominalization (29).

(27)<sup>ITQ</sup>  **pi:da   na=ti**
jaguar  MKCASE=kill
'The jaguar killed him/her/it'

(28)<sup>ITQ</sup>  **tyuku**
die
'He/she/it died'

(29)<sup>ITQ</sup>  **a-ti          paiko**
3SINGULAR-kill grandfather
'He/she/it killed grandfather'

This is plausibly the closest functional equivalent to the passive of syntactically accusative languages, given an indefinite reading of the third person prefix (see Section 8 *in fine*). Otherwise, no special construction is at hand for unspecification of the agent. Since spontaneous data did not offer neat enough instances of the indefinite reading for the prefix, I once took advantage of an incident that occurred in real life to run a semi-spontaneous elicitation session, inducing speakers to utter something meaning that an unknown agent had taken away the glass beads. Besides the pragmatically inocuous (30), I got (31), almost identical to (29).[12]

(30)<sup>BIA</sup>  **baran    tu          diwakon**
be.visible NEGATION glass.beads
'The glass beads are not visible'

(31)<sup>BIA</sup>  **ma-dahu          diwakon**
3PLURAL-take.away glass.beads
'They took away the glass beads'

---

**12.**    And quite parallel formally to "non promotional" passives in other languages (e.g. Bantu, Hagège 1978: 19; Givón 1981: 182), including several Spanish and Portuguese dialects of Latin America.

In the remainder of Section 2 we will see a number of other properties that obtain for the external argument, be it a patient or S, which the internal argument only accesses through voice mechanisms, as will be seen in 4.2.[13]

### 2.3 Ostension

Demonstratives combine with external arguments, but not with internal arguments.

> (32)[BIA]  **yo-hoki        ityian oman**
>        1SINGULAR-put this    log
>        'I put this log'

> (33)[ITQ]  **ki:tan itiyan**[14] **wa:pa**
>        sleep   this      dog
>        'This dog slept'

> (34)[ITQ]  ***itiyan pi:da   na=ti        paiko**
>         this   jaguar MKCASE=kill grandfather
>        'This jaguar killed grandfather'

The external argument is always accessible to pronominalization through the free forms of (8), as we have seen above. As for the internal argument, only the third person pronoun is possible, and this is treated like any noun phrase (35). A demonstrative pronoun may serve as the external argument, but not as the internal argument (36–38).

> (35)[ITQ]  **anyan        hinuk**[15] **na=toman        wiri**
>        3SINGULAR group     MKCASE=shoot peccary
>        'They shot a peccary'

> (36)[ITQ]  **Nodia na=bobo        itiyan**
>        Nodia MKCASE=beat this.one
>        'Nodia beat this one'

> (37)[ITQ]  **ki:tan itiyan**
>        sleep   this.one
>        'This one slept'

---

13.  An inquiry which has to be left for future research is to see whether some of the facts to be adduced below, in favor of an ergative alignment, single out a category *absolutive* by giving it exclusive access to certain syntactic processes, or negatively single out a category *ergative* by proscribing its access to these same mechanisms (for a general discussion on this issue, see the Introduction to the volume; for an instance of it, see below Section 2.5).

14.  Note the slightly different pronunciation of the demonstrative between both dialects.

15.  See Footnote 5.

(38)<sup>ITQ</sup>  \***itiyan**  **na=bobo**       **Nodia**
       this.one  MKCASE=beat  Nodia
       'This one beat Nodia'

For ostension on the agent expression in this clause type, see Section 4.2 on antipassive.

## 2.4    Coordination

Noun phrases in paratactic sequence are interpreted as coordinated, with no device other than intonation marking the relationship. Among arguments, only external ones can be coordinated.

(39)<sup>ITQ</sup>  **Nodia na=hoho-nin**          **Owi Hanani**
       Nodia MKCASE=call-DURATIVE Owi Hanani
       'Nodia is calling Owi and Hanani'

(40)<sup>ITQ</sup>  **tyuku Nodia Owi**
       die    Nodia Owi
       'Nodia and Owi died'

For coordination of the agent expression in this clause type, see Section 4.2 on antipassive.[16]

## 2.5    Focalization

Contrastive focus is achieved by postposing the particle **kana**[17] to the focused constituent. It can have as its scope the verbal constituent,[18] as in

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**16.**  In recent fieldwork what seems to be a coordination of internal arguments *in situ* was collected through elicitation:

       **Oki Dapoma hinuk na=ohoho    Owi**
       Oki Dapoma  group  MKCASE=call Owi
       'Oki and Dapoma called Owi '

This pattern is not yet well understood. Recall the interpretation of **hinuk**, proposed in footnote 5, as a noun **nuk**, 'group', preceded by a noun modifier together with its collective morpheme **hi** procliticized to the head. The predicate phrase here would thus look like [[**Oki Dapoma hinuk**] **na=ohoho**], with a double modifier within a single agent, internal, and case marked phrase.

**17.**  A form **na** seems to be a variant, but sometimes it seems to present a rather mirative function. The variant is the only one found in the Bia dialect for focus.

**18.**  This is the announced (Note 13) instance of a restriction on accessibility which doesn't properly circumscribe an *absolute* category, not even an external core argument noun phrase, since it is compatible with the predicate phrase and, I suspect at this stage of inquiry, with adjuncts. It just singles out, negatively, a dependent noun phrase within a verb phrase, that is, an *ergative* category.

(41) <sup>ITQ</sup> **waro  na=boni      kana  wa:pa**
parrot MKCASE=peck FOCUS dog
'The parrot *pecked* the dog'

(42) <sup>ITQ</sup> **waro  ki:tan-nin       kana**
parrot sleep-DURATIVE FOCUS
'The parrot just keeps *sleeping*'

or an argument. In this case the noun phrase is also moved to initial position. External arguments are straightforwardly accessible to focalization, but not internal ones.

(43)<sup>ITQ</sup> **Maranmaran na=tyo          kana tona    tyo**
Maranmaran MKCASE=daughter FOCUS go.away EXCLAMATIVE
'It's Maranmaran's daughter that went away!'

(44)<sup>ITQ</sup> **a-obatyawa      kana  Aro na=nuhuk kariwa**
3SINGULAR-wife FOCUS Aro give       white.man
**na=ton**
MKCASE=LOCATIVE
' It's his own wife that Aro gave to the white man '

For focalization of the agent expression in this clause type, see Section 4.2 on antipassive.

## 2.6    Interrogation

In questions that bear on a nominal constituent we observe the same asymmetry seen in the preceding sections: external arguments, but not internal arguments, are accessible to the mechanism considered.[19] An interrogative pronoun appears in clause-initial position.

(45)<sup>ITQ</sup> **hanian  tu            Nodia na=hoho-nin?**
who(m) INTERROGATION Nodia MKCASE=call-DURATIVE
'Whom is Nodia calling?'

(46)<sup>ITQ</sup> **hanian  tu            waokdyi-nin?**
who(m) INTERROGATION arrive.here-DURATIVE
'Who is arriving here?'

For interrogation on the agent referent in this clause type, see Section 4.2 on antipassive.

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**19.** In the Bia dialect, a clause final particle **yu** serves as an interrogative marker; in the Itaquai dialect, this function is accomplished by a particle **tu** postposed to the questioned element, homophonous with, and perhaps diachronically linked to, negation.

### 2.7    Relativization

This is one additional mechanism which reflects the same asymmetry between external and internal arguments. Only an external argument — S or patient — can be relativized. Although the available data are yet too scarce to constitute clear-cut evidence of the issue at stake, I provide here a fragment of these data as an initial step toward future inquiries. In the Itaquai dialect, a relative clause is introduced by a deictic element **nyan** (reminiscent of the form of the third person pronoun **anyan**). A dependent clause follows, containing the relativized noun phrase in initial position or *in situ*. Dependency is marked by the verbal ending -**nin**, which has the double function of marking either the durative aspect of an independent verb, as in examples (45–46 and, outside the interrogative context, 87 below), or verb dependence. I assume that clauses subordinated by this morpheme are non-finite, since no TAM particles seem to occur *within* them.

(47)[ITQ]   **yo[20]-hik          nyan    Nodia na=dahudyi-nin**
1SINGULAR-know DEICTIC Nodia MKCASE=bring-DEPENDENCE
**tukuna**
Indian
'I know the Indian that Nodia brought'

(48)[ITQ]   **yo-hik          nyan    waokdyi-nin      anyan piya**
1SINGULAR-know DEICTIC arrive-DEPENDENCE this    man
'I know the man who arrived'

For relativization on the agent expression in this clause type, see Section 4.2 on antipassive.

### 3.    Coreference

It seems that the ergative clause just described adopts no clear-cut reference pivot.[21] Nonetheless, there is some evidence that coreference is ergatively biased, as we will see. Lack of pivot is clear at the intraclausal level between core arguments. For example the possessive can have either argument as its antecedent: in (49) the patient **Mayon**, which does not precede the anaphoric expression but which does, in generative parlance, c-command it, and in (50) the agent **Dawi**, which does precede the anaphoric expression but does not c-command it. It seems that there is no alternative condition on possesive reference control (i.e. "antecedent

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20.   This is the Itaquai allomorph in this phonological environment.

21.   This section is a synthesis of Queixalós (2004), but enriched with more recent data.

precedes *or* c-commands anaphoric expression"), since in (44), renumbered here as (51), the agent fulfills neither.

(49)[ITQ]  [a$_1$-obatyawa     na=todiuk]  Mayon$_1$
       3SINGULAR-wife MKCASE=hate Mayon
       'Mayon$_1$'s wife hates him$_1$ (lit.: His$_1$ wife hates Mayon$_1$')

(50)[ITQ]  [Dawi$_1$ na=bobo]    a$_1$-obatyawa
       Dawi MKCASE=beat 3SINGULAR-wife
       'Dawi$_1$ beat his$_1$ wife'

(51)   a$_1$-obatyawa     kana Aro$_1$ na=nuhuk    kariwa
       3SINGULAR-wife FOCUS Aro   MKCASE=give white.man
       na=ton
       MKCASE=LOCATIVE
       ' It's his$_1$ own wife that Aro$_1$ gave to the white man'

Disjunct reference is also allowed, irrespective of c-command and linear order:

(52)[ITQ]  a$_2$-obatyawa     na=ohoho   Nodia$_1$
       3SINGULAR-wife MKCASE=call Nodia
       'His$_2$ wife called Nodia$_1$'

(53)[BIA]  pi:da$_1$ na=buro:    a$_2$-mimi
       jaguar MKCASE=leap 3SINGULAR-blood
       'Jaguar$_1$ leaped his$_2$ blood'

Still, at the intraclausal level, the possessive on adjuncts shows a preference for ergatively oriented pivots, as in examples (54–55), where the antecedent is a patient and S respectively.[22] Although sometimes found, an agent antecedent is less natural.[23]

(54)[ITQ]  Dawi$_1$ na=bobo    ityaro$_2$ a$_2$-wa        hak   naki
       Dawi MKCASE=beat woman 3SINGULAR-RGN house LOCATIVE
       'Dawi beat the woman$_1$ in her$_1$ house'

(55)[ITQ]  horon    Dawi na=obatyawa$_1$ a$_1$-wa        panira
       get.burnt Dawi MKCASE=wife 3SINGULAR-RGN pot
       katu
       SOCIATIVE.INSTRUMENTAL
       'Dawi's wife$_1$ got burnt with her$_1$ own pot'

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**22.** The gloss 'RGN' stands for Relational Generic Noun, described in Section 6.3.

**23.** Example (54) could read, in appropriate extralinguistic circumstances, 'Dawi$_1$ beat the woman in his$_1$ house'. But when this reading was proposed in elicitation, several speakers tried to rephrase it as '[...] her house'.

With adverbs reporting a manner or location ascribed to a participant, provided that all semantic conditions are kept equal, pivots are clearly ergative (56–57). When pressed to link the adverb to the agent, the speaker resorted to a two clause utterance (58).

(56)[BIA]   **Kontan na=hi:k      pida$_1$ kododi$_1$**
Kontan MKCASE=see jaguar up.there
'Kontan saw the jaguar up there'

(57)[BIA]   **no:do:     Kontan kododi**
be.sitting Kontan  up.there
'Kontan was sitting up there'

(58)[BIA]   **kododi$_1$ Kontan$_1$ no:do:  a-hi:k       pida$_2$**
up.there Kontan   be.sitting 3SINGULAR-see jaguar
'Kontan was sitting up there. He saw the jaguar'

At the interclausal level also, patient/S pivots are preferred, but not required. As with noun phrases, no coordination marker is used. What we have are paratactic sequences where the discourse connecting particle **niama** makes two sentences more tightly linked to each other than the lack of the particle (contrast 59–61 with 58). The patient/S pivot is illustrated in (59–60), and the agent/S pivot in (62).[24] Note that both (60) and (61) are extracted from the same episode of a single text.

(59)[ITQ]   **waokdyi Nodia$_1$, Yowai$_2$ na=toman      niama Ø$_1$**
arrive    Nodia   Yowai   MKCASE=shoot  then
'Nodia$_1$ arrived, and then Yowai shot him$_1$'

(60)[ITQ]   **[...] dyo:ri$_1$ na=man      wa      hinuk$_2$, dadohan niama Ø$_2$**
termite MKCASE=do woman group   climb.up then
'[...] the termite told the women, then (the latter) climbed up [a tree]'

(61)[ITQ]   **[...] wa$_1$     na=daman                dyo:ri$_2$, daan niama Ø$_1$**
woman MKCASE=say.while.leaving termite go   then
'[...] the women said to the termite, then they went away'

Subordinating devices include (i) the use of the durative verbal ending to mark dependence, as we have observed above; (ii) several postpositions; and (iii) the discourse connector 'then' or clause coordinator, **niama**, also introducing purpose clauses. A reference pivot between matrix clause patient and dependent clause

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**24.** Ø is noted for expository purposes. Its relative linear position is only indicative. See also the apparent unique/agent pivot in (58), which differs because the agent, as an internal argument, cannot be elided.

S appears in (62–63), and currently available data offers no clear accusatively-oriented alternative to this kind of pivot.

(62)$^{\text{BIA}}$  **a$_1$-makaudyaran**     **Ø$_2$ [dyahian-nin        ama  Ø$_2$]**
3SINGULAR-stride.over     stand.up-DEPENDENCE GOAL
'He strode over her to have her stand up'[25]

(63)$^{\text{ITQ}}$  **koramanan na=tohi:k      nuk$_1$...**
snake     MKCASE=look.at  group
'The snake looked at them...

...**[pok-nin          bapo-nin        Ø$_1$ kotyia**
have.sex-DEPENDENCE finish-DEPENDENCE     otter
**na=katu]**
MKCASE=SOCIATIVE.INSTRUMENTAL
...as they finished having sex with the otter'

Even though coreference patterns are far from clearly and homogenously built on an ergative basis, two facts seem to show that the background of this complex and often fuzzy domain of grammar is, in Katukina, ergatively coloured. As we will see in Section 4.2, in order to give the agent full access to referent pivothood, speakers tend to shift to a derived clause structure typically found in ergative systems (i.e., the antipassive, cf. 4.2). As we will see now, auxiliary constructions offer yet another ergative pattern.

Two lexical verbs are apt to perform such grammatical functions as auxiliarization. **Wu** 'to want', is a divalent verb in its full lexical occurrences:

(64)$^{\text{ITQ}}$  **pida   na=wu      tu      niama tyohi**
jaguar MKCASE=want NEGATION then    palm.sp.pap
'Then jaguar did not want the palm sp. pap'

**Wu** also works as a desiderative auxiliary,[26] in which function it heads an accusative independent clause. This accusative pattern is presented in Section 4.1 below. I anticipate here, for the sake of clarity, the basic properties of the canonical accusative clause, an almost perfect mirror image of the ergative clause: (1) the patient is obligatorily in pre-verbal position, unmarked for case, and internal to the verb phrase, and (2) the agent is post-verbal, unmarked for case, external to the verb phrase, and supplied with all the formal properties attached to the external

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**25.**  As a side effect of extension of the head procliticization of **nin** (cf. footnote 28 below), the sequence **nin ama** could stand at the diachronic origin of the connector **niama**. Synchronically, however, **niama** appears in many contexts from which **nin** would be proscribed.

**26.**  With sub-meanings such as imminent and counterfactual.

argument phrase; see (82) below for a monoclausal instance of the accusative pattern. In the auxiliary construction, the internal argument is a subordinate clause in complement function; within the subordinate clause, the external argument has no overt realisation, but is obligatorily coreferential with the external argument of the matrix clause. Thus, in (65), the external argument of **wu** 'want' is understood as being referentially identical to the missing external argument of **waikpa** 'sing'.

(65)[ITQ]   **waikpa nin=wu**[27]        **adu**
            sing    DEPENDENCE=want  1SINGULAR
            'I want to sing'

When the subordinate and matrix external arguments are not coreferential (i.e., where the 'wanter' and the external argument of the desired event are not the same participant), the structure seen in (65) is not allowed. Instead, the full 'want' verb is used in an ergative sentence: the internal argument is the 'wanter' and the external argument is the subordinate clause expressing the desired event.

(66)[ITQ]   **yo-wu**              **Nodia donman-nin**      **tyo**
            1SINGULAR-want  Nodia fish-DEPENDENCE  EXCLAMATIVE
            **bo**
            EXCLAMATIVE
            'I want Nodia to go fishing!'

Let us now look at auxiliary constructions containing divalent subordinate clauses, such as (67–70). What was said above about coreference for the monovalent subordinate clause of example (65) holds for divalent subordinate clauses: the complement clause's external argument (patient) lacks phonological realisation, having its antecedent in the external argument of the matrix clause (67–69). In addition, the external argument of **wu** 'want' no longer presents the 'wanter' meaning, since it is coreferential with the (patient) external argument of the subordinate clause.

(67)[ITQ]   **ma-hakhak**[28]     **nin=wu**
            3PLURAL-spear    DEPENDENCE=want
            'They intended to spear them'

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27.   We observe, in auxiliarisation, the same head attraction process seen above, whereby a dependence marker, here the subordinator **nin**, {**waikpa-nin wu adu**}, attaches phonologically to the immediatly right-adjacent syntactic head of its grammatical host, generating [**waikpa ninwu adu**].

28.   **Hak** is a somewhat polysemic verb, whose basic meaning is something like 'perforate with an instrument'. I translate it according to the context. This reduplicated instance is perhaps indicative of iterative aspect/plurality of the patient.

(68)[ITQ]   **Nodia na=ti        nin=wu          adu**
           Nodia MKCASE=kill DEPENDENCE=want 1SINGULAR
           'Nodia wants to kill me'

(69)[ITQ]   **no-pu         nin=wu          tu      barahai    dawa**
           2SINGULAR-eat DEPENDENCE=want NEGATION game.meat again
           'You don't intend to eat game meat again'

And, also parallel to what was seen for intransitive subordinate clauses, disjunct reference between both external arguments blocks the appearance of the auxiliary structure, in favour of a full 'want' ergative pattern identical to (66), where the internal argument of **wu** 'want' is the first person 'wanter', and the external argument is the subordinate clause expressing the 'wanted' event (actually, 'not wanted' in 70).

(70)[ITQ]   **yo-wu          tu       opatyin na=bi:wik-nin**
           1SINGULAR-want NEGATION child    MKCASE=eat-DEPENDENCE
           **kapayo tyo          bo**
           papaya EXCLAMATIVE EXCLAMATIVE
           'I don't want the child to eat[29] the papaya!'

It is worth noting that, as in (66), all participants in the subordinate clause of (70) are expressed through full noun phrases *in situ* (the case marked internal agent 'child', and the post-verbal external patient 'papaya').

Examples (68–69) present clear evidence that, in more explicit terms, the constituency and coreference structure of (67) must look like:

(71)[ITQ]   [[[**ma$_1$-hakhak**]   **nin=**]**wu**]              Ø$_2$
           3PLURAL-spear DEPENDENCE=want
           'They$_1$ intended to spear them$_2$'

In (71), the zero is the null realisation of the external argument of the finite verb **wu**, a *pro* — which we know the language allows — obligatorily the patient of the wanted event, the 'spearee'. In contrast, the unrealised external argument of the complement clause, the same 'spearee', is a null pronoun argument in the non-finite complement clause of a control verb. This is the canonical definition of the so-called *PRO*, hallmark of subjecthood in generative grammar. In Katukina, it must refer to a *patient* in (67)–(69) and to S in (65).[30]

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29.   Literally 'suck'.

30.   While additional data might perhaps lead us to a slightly different analysis, I must emphasize that it will not impinge on what we are primarily interested in here, the strong ergative orientation of syntactic alignments in Katukina.

The other auxiliary construction observed to date involves the monovalent verb **bak**, 'to be good', which we see as a full lexical verb in (72) and as an intensive auxiliary in (73–74).

(72)[ITQ]  **bak**      **oba**
be.good  tobacco
'Tobacco is good'

(73)[BIA]  **dyo:    nin=bak           podak**
be.full  DEPENDENCE=be.good canoe
'The canoe is pretty full'

(74)[BIA]  **nayo,    ikao  nin=bak**
mother  cry    DEPENDENCE=be.good
'Mother, I'm crying a lot!'[31]

Auxiliaries **wu**, *purposive*, and **bak**, *intensive*, behave identically. The external argument of the subordinate clause cannot be expressed *in situ*, but can only be understood as coreferential with the external argument of the matrix clause. This identity is confirmed by the **bak** auxiliary construction with a divalent subordinate clause, in which, again, the subordinate external argument does not appear overtly, but is understood to be coreferential with the external argument of the matrix clause.

(75)[ITQ]  **a-tikok      nin=bak           kana tukuna       tyo**
3SINGULAR DEPENDENCE=be.good  FOCUS human.being EXCLAMATIVE
'He does know the guy well!'

(76)[ITQ]  **ma-ti        nin=bak           tiyan**
3PLURAL-kill DEPENDENCE=be.good those
'They killed those, all of them'

Putting things in terms of constituency and coreference, I summarise below the single structure underlying auxiliarisations with **bak** (examples (73) and (76), hereafter (77) and (78) respectively), and with **wu** (examples (65) and (68) ), hereafter (79) and (80) respectively.

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31. This example is courtesy of Zoraide dos Anjos, in personal communication. The first person external argument is frequently omitted. A constructed example without this elipsis would be

[BIA]  **ki:tan nin=bak            adu**
sleep  DEPENDENCE=be.good 1SINGULAR
'I slept a lot'

Note the (obligatorily) covert argument of the complement verb.

(77)[BIA]  [$_a$ [$_b$ **dyo:  nin=**]$_b$ **bak**]$_a$        **podak**
        be.full DEPENDENCE=be.good canoe
        'The canoe is pretty full'

(78)[ITQ]  [$_a$ [$_b$ **ma$_2$-ti      nin=**]$_b$ **bak**]$_a$        **tiyan$_1$**
        3PLURAL-kill DEPENDENCE=be.good those
        'They$_2$ killed those$_1$, all of them'

(79)[ITQ]  [$_a$ [$_b$ **waikpa nin=**]$_b$ **wu**]$_a$        **adu**
        sing    DEPENDENCE=want 1SINGULAR
        'I want to sing'

(80)[ITQ]  [$_a$ [$_b$ **Nodia$_2$ na=ti      nin=**]$_b$ **wu**]$_a$        **adu$_1$**
        Nodia  MKCASE=kill DEPENDENCE=want 1SINGULAR
        'Nodia$_2$ wants to kill me$_1$'

In all four examples, [$_a$ matrix predicate phrase]$_a$ is headed by **bak/wu**, and [$_b$ subordinate predicate phrase]$_b$ is its internal argument. Despite the differences in the original, lexical, valence of verb roots — **wu** is divalent, **bak** is monovalent — they pattern identically.

Now, if we are to give a unitary account of both auxiliarisations, **wu** cannot be seen as a control construction. In fact, other than **wu** with a monovalent complement (cf. (65) with a 'singer$_1$' and a 'wanter$_1$', which could be seen as a side-effect of having a single participant throughout the whole event), in no auxiliary construction could the matrix external argument be said to refer to any semantic participant of the matrix verb. Even though 'want' and 'be good' have not been traditionally held as typical raising verbs, I would propose that raising provides a reasonable and unified analysis for all four constructions in (77–80). The subordinate external argument is raised to the matrix external argument position. Putting aside any on-going discussion[32] about the homogeneity / heterogeneity of control and raising structures, which is beyond the scope of this paper, the point to be made is that one single answer should impose itself to the double question "Who is raised to where?" *A patient / S external argument of the complement clause is raised to the external argument position of the main clause.*

Both interpretations, control and raising, give the same result — prominence of the patient — regarding our central issue: syntactic alignment and argument hierarchy in divalent clauses pattern ergatively.

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**32.**  Launched by Hornstein (1999).

## 4.   Other ergative-oriented phenomena

We will see here two alternative options to the basic active divalent clause, both typical of ergative systems: an alignment split (Section 4.1) and an antipassive (Section 4.2).

### 4.1   Split transitivity

Compare what I have been calling the basic active divalent clause, seen again in (81), with the construction in (82).

(81)^ITQ  **pi:da   na=ti         paiko**
          jaguar  MKCASE=kill  grandfather
          'The jaguar killed grandfather'

(82)^ITQ  **koya o      adu**
          pap   drink  1SINGULAR
          'I drink pap'

In (82), the postverbal term is the most agent-like, and it is the external, nominative noun phrase (compare Example (2)), whereas the preverbal term is a patient, internal, and also unmarked noun phrase. The constituent structure of this construction is given in (83).

(83)
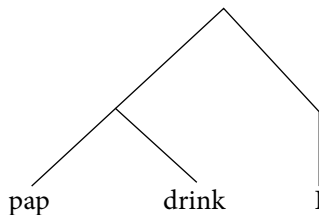


While a few tests have yet to be carried out, the nominative here seems to capture the set of syntactic properties attached to the absolutive of the basic active divalent clause and of the monovalent clause. For example elision, (85), movement, (86), and focus (87).

(84)^ITQ  **tukuna          makoniok Tamakori**
          human.being  advise     Tamakori
          'Tamakori gave advice to humans'

(85)^ITQ  **tukuna          makoniok**
          human.being  advise
          'He gave advice to humans'

(86)<sup>ITQ</sup> **Tamakori tukuna     makoniok**
Tamakori  human.being advise
'Tamakori gave advice to humans'

(87)<sup>ITQ</sup> **Tamakori na     tukuna     makoniok-nin**
Tamakori FOCUS human.being advise-DURATIVE
'It was Tamakori who was giving advice to humans'

In accordance with the terminology used in this paper so far, (81) is an instance of an "ergative clause", in contrast to (84–87), which are instances of "accusative clause". The verb of the accusative clause requires a realised internal argument, but unlike for the ergative clause type, the internal argument of the accusative clause does not take any marked case, nor does it alternate with the personal paradigm of verbal prefixes. Due to this second characteristic, the verb always appears in its citation form, which makes it more similar to the monovalent verb than its person-inflectable counterpart.

That the accusative clause is non-basic can be inferred from its low frequency in discourse — about one tenth that of the ergative type — and from the semantic properties of its object noun phrase, which generally refers to a generic participant, as in (84-87). This semantic distinction can be seen in the contrast between the (specific) individuated patient seen in the ergative clause in (88) versus the generic plural reading in the accusative clause in (89).

(88)<sup>ITQ</sup> **Tamakori na=buhuk     tukuna**
Tamakori MKCASE=make human.being
'Tamakori created a/the person'

(89)<sup>ITQ</sup> **tukuna     buhuk Tamakori**
human.being make  Tamakori
'Tamakori created the people'

This tendency is clear, but there are exceptions. For example, in elicitation sessions a noun determined by a numeral is accepted in the object position (90). (While the numeral prevents the noun from being interpreted generically, the latter does remain indefinite.)

(90)<sup>BIA</sup> **obawa poako ho:na Hayo**
two     paddle bring  Hayo
'Hayo brought two paddles'

Speakers reject speech act participant pronouns as the patient of an accusative clause, but some accept a proper noun. Speakers of the Itaquai dialect (but not Bia

speakers) accept both a third person pronoun and a noun plus a demonstrative determiner. More work on spontaneous speech is needed with regard to this topic.[33]

No exhaustive inquiry has been carried out yet on the coreference patterns displayed by the accusative construction, but several observations converge toward neat accusative pivots. The internal argument, the patient, is unable to control the possessive on the agent (91), in spite of its precedence in linear order — compare (91) with ergative Examples (49-50), where both arguments are allowed to control possessor coreference (whatever the configuration in terms of word-order and c-command).

(91)[BIA]   $anya_1$   otohik   $a_2$-okpu
           woman look.for 3SINGULAR-son
           'His/her son looks for a woman [to live with]'

Coordination is homogenously accusative as well. In (92) a reference pivot is established between an agent antecedent and an S target, whereas in (93) S is the antecedent, and the agent is the target.

(92)[ITQ]   tukuna        buhuk $Tamakori_1$ tona niama $\emptyset_1$
           human.being make   Tamakori   leave then
           'Tamakori created the people and then left'

(93)[BIA]   a.  daandi  $Tamakori_1$   hak-dik...
               come    Tamakori    house-LOCATIVE
               '$Tamakori_1$ came out of his house...

           b.  ... wanadakbi:  haori     buhuk niama     $\emptyset_1$
               palm.sp     rope       make   then
               ... and then $he_1$ made a palm sp. rope'[34]

(94) shows that the accusative construction is allowed in the auxiliary construction seen in 2.8, provided the patient meets the semantic condition of being generic. This, of course, yields a much more familiar situation, where the external argument of the complement non-finite clause has no overt expression and looks for antecedence in the external argument of the matrix clause.[35]

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**33.** Also, imperfectivity cannot be discarded as a conditioning factor of some accusative constructions.

**34.** Data from Zoraide dos Anjos G.S. (p.c.).

**35.** Due to the marked status of the accusative construction, instances of this clause type as complement of auxiliaries are less frequent. For instance, no example of it with auxiliary **bak** is yet available. This makes a discussion on the issue of control vs. raising premature. In addition, such a discussion would be irrelevant here, since its basic motivation rests on the issue of alignment and hierarchy in the ergative pattern.

(94)<sup>ITQ</sup> **takara   oma nin=wu           adu**
chicken buy  DEPENDENCE=want 1SINGULAR
**tyo**
EXCLAMATIVE
'I want to buy hens!'

Although the title of Section 4 may have created other expectations, there is no doubt that the existence of an accusative pattern is, in itself, not evidence for the existence of ergative alignment. On the other hand, its non-basic status in some way is.

## 4.2   Antipassive

Restrictions obtaining in the access of several syntactic mechanisms to the agent internal noun phrase are obviated through the use of a construction in which (i) the verb is marked for reduction of valence by a prefix **wa**-, which occupies the morphological slot of the personal agent prefix, (ii) the agent appears as an absolutive external noun phrase, and (iii) no other nominal bears a direct grammatical relation to the verb. The patient can be omitted (96), instantiated through a bare noun (97), or instantiated by an adjunct phrase marked as such by the sociative-instrumental postposition **katu** (98).

(95)<sup>ITQ</sup> **i-pu           tu         barahai**
1SINGULAR-eat NEGATION meat
'I didn't eat the meat'

(96)<sup>ITQ</sup> **wa-pu           tu          adu**
ANTIPASSIVE-eat NEGATION 1SINGULAR
'I didn't eat'

(97)<sup>ITQ</sup> **piya wa-pu-nin              barahai**
men ANTIPASSIVE-eat-DURATIVE meat
'Men are eating meat'

(98)<sup>BIA</sup> **wa-toman         adu        wiri    katu**
ANTIPASSIVE-shoot 1SINGULAR peccary SOCIATIVE.INSTRUMENTAL
**wa**
PROSPECTIVE
'I am going to shoot peccaries'

Motivations for use of the antipassive construction are syntactic and, probably, functional as well. Among the latter, a generic[36] patient seems sometimes to play a

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**36.**   Or indefiniteness. This point is unclear.

role (98), as well as a kind of emphasis on the agent, presumably different from the contrastive focus seen in 2.4.[37]

(99)[ITQ]  **waro   wa-minkudak-boni             wa:pa**
parrot ANTIPASSIVE-hindquarters-peck dog
'It is the parrot that pecked the dog's hindquarters'

The syntactic motivation for the antipassive consists in making the agent accessible to mechanisms or statuses that are forbidden for it in the basic active divalent clause, such as ostension (100, see 2.3), true contrastive focus (101, see 2.4), coordination (102, see 2.5), interrogation (103, see 2.6), relativization (104, see 2.7), coreference pivothood in clause coordination (105) and clause subordination (106–107).

(100)[ITQ]  **itiyan    wa-ohoho**
this.one ANTIPASSIVE-call
'This one called'

(101)[ITQ]  **itiyan kawahiri kana   wa-duni             tyon**
this    cat      FOCUS ANTIPASSIVE-catch rat
'It's this cat that caught the rat'

(102)[ITQ]  **Nodia Hanani wa-hoho-nin             Owi**
Nodia Hanani ANTIPASSIVE-call-DURATIVE Owi
'Nodia and Hanani are calling Owi'

(103)[BIA]  **hanian tan   wa-dyuman         tahi   yu?**
who     here ANTIPASSIVE-spread water INTERROGATION
'Who spread the water here?'

(104)[ITQ]  **i-hik              nyan   piya wa-dahudyi-nin**
1SINGULAR-know deictic man ANTIPASSIVE-bring-DEPENDENCE
**Hanani**
Hanani
'I know the man who brought Hanani'

(105)[ITQ]  **[Nodia₁ na=pikan]     Owi₂, wa-tohik          tu          niama Ø₂**
 Nodia   MKCASE=hear Owi   ANTIPASSIVE-see NEGATION then
'Nodia₁ heard Owi₂, but she₂ did not see [him₁]'

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**37.**   In spite of the apparent contrastive reading in my translation of (99).

(106)[ITQ]  **i-toman**            **anyan**₁      **tya**     **bo,**
           1SINGULAR-shoot 3SINGULAR FUTURE EXCLAMATIVE
           **wa-bi:wik-nin**                Ø₁ **kotuda**
           ANTIPASSIVE-smoke-DEPENDENCE     again
           'I'll shoot that one if he smokes[38] again!'

(107)[ITQ]  **donmana Makuana**₁ **wa-pu**         **niama**        Ø₁
           go.fish    Makuana   ANTIPASSIVE-eat DEPENDENCE
           'Makuana went fishing in order to eat'

Despite the absence of the patient in some of the last examples adduced, in this syntactic antipassive, where the motivation is primarily to promote the agent to absolutive-external noun phrase, the clause tends to retain the expression of the patient, which occurs, more often than not, as a bare noun in a position that is not typically peripheral (108).

(108)[ITQ]  **hanian tu**           **adu**      **wa-pikik**        **niama**
           who    INTERROGATION 1SINGULAR ANTIPASSIVE-drip then
           'Who is dripping [liquid on] me, now?'

It is an issue for future research whether the patient in the syntactic antipassive bears — or is on its way to acquire — any grammatical relation to the predicate.[39]

## 5.   Grammatical relations: A first synthesis

So far, we have seen that the basic divalent clause — the ergative clause, as I have called it — shows a clear asymmetry between its two arguments: in intuitive prototypical semantic terms, the agent and the patient. Morphology (case marking on noun phrases, form of the pronominal elements) and syntax (constituency, order, movement, elision, ostension by determiner or pronoun, coordination, and extraction processes such as focalization, interrogation, and relativization) all point to the same conclusion: the patient is ranked above the agent (i.e. it has privileges in accessibility constraints) and aligns with S. When the agent needs to overcome access restrictions imposed on privileges exclusive to the patient of the divalent basic structure, the speaker may resort to other structures which will rank the agent above the patient, namely, antipassive and accusative constructions. Except for control/raising constructions, which are clearly ergative, coreference is not conclusive, but it features in a more ergative than accusative fashion.

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**38.**   Literally 'suck', divalent.

**39.**   An inverse pattern could be at a diachronic incipient stage. I owe to Stephan Dienst (p.c.) the idea that inverse could be somehow involved here.

**Table 1.** Semantic, coding and behaviour mappings in the ergative clause

| Semantic role | Coding & constituency properties | Behaviour properties |
|---|---|---|
| PATIENT | ABSOLUTIVE | SUBJECT |
| AGENT | ERGATIVE | OBJECT |

The whole group of converging phenomena constitute neat evidence for the mappings in Table 1.

The pragmatically and statistically marked divalent clause — the accusative clause — shows a parallel asymmetry between its core arguments (except for the lack of case morphology / bound pronominal forms for the internal-patient argument): pronominal unbound forms align the agent with S, and syntactic properties (constituency, order, movement, elision, and extraction processes, as well as control of coreference) show that the agent is ranked above the patient, and aligns with S, yielding the mappings in Table 2.

Since the agent external argument of the accusative clause *also* aligns in coding and behavioural properties with the patient of the basic divalent clause, a further generalization can be attained by collapsing the *absolutive* argument of the ergative clause type and the *nominative* of the accusative clause type into a single category. Properties of absolutives are not, in all ergative languages, as straightforwardly reducible to those of nominatives (see Massam 2006). Nevertheless, in the case of Katukina this generalization is not only possible, but is invited by grammatical patterns, which clearly link:

– S of all monovalent verbal predicates, including lexically monovalent verbs and de-transitivized verbs (reflexive, antipassive)
– The external phrase of noun and postposition predicates
– For lexically divalent verbs
    – the patient in the ergative clause type, and
    – the agent of the accusative clause type.

**Table 2.** Semantic, coding and behaviour mappings in the accusative clause

| Semantic role | Coding & constituency properties | Behaviour properties |
|---|---|---|
| AGENT | NOMINATIVE | SUBJECT |
| PATIENT | ACCUSATIVE | OBJECT |

**Table 3.**  Semantic, coding and behaviour mappings in divalent clause-types

| Clause type | Semantic role | Coding & constituency properties | Behaviour properties |
|---|---|---|---|
| ERGATIVE | PATIENT | NOMINATIVE | SUBJECT |
|  | AGENT | MARKED | OBJECT |
| ACCUSATIVE | AGENT | NOMINATIVE | SUBJECT |
|  | PATIENT | MARKED | OBJECT |

The unmarked case, or NOMINATIVE, covers both what would traditionally be called the *absolute* in ergative clauses and the *nominative* in accusative clauses, as well as the S of derived monovalent clauses such as the antipassive. The MARKED CASE also subsumes multiple types of arguments: what would traditionally be called the *ergative* case in ergative clauses, plus the genitive within a noun phrase headed by a divalent noun (see below 6.3), the object of a postposition and, since we rely on the unmarked character of nominative beyond strict case inflectional morphology, the *accusative* in accusative clauses. A synoptic table of the mappings between the three levels of structure in both divalent clause-types is showed in Table 3.

In my view, the syntactic functions (or grammatical relations) of *subject* and *object* as such are purely formal entities, based strictly on the hierarchies between arguments which behavioural and control properties highlight (Anderson 1976). In every language, we observe a great deal of interference — be it synchronic or diachronic — between the syntactic functions of arguments and (i) the semantic properties of participants (the parts they play in the event, their inclusion in specific classes of beings, and so on) and (ii) the pragmatic treatment of referents (relevance and pre-eminence at the moment of the speech act). In spite of this, I maintain that a level of formal structure has to be taken into account if we are to understand something of how speakers build their utterances and how listeners process them. In a language like Katukina, this leads to the conclusion that, in the basic active divalent verbal clause, the patient is a subject, and the agent is an object.

A clear illustration in this language of the necessity of keeping grammatical relations apart from other levels of morphosyntactic organization — not only roles, but cases as well — can be seen in the different treatment given to the internal argument — the case-marked noun — of the verb phrase vs. the noun phrase. As we have seen above (2.3), the agent - ergative - object is not accessible to ostension, whether the latter is manifested by a determiner or by the pronominal counterpart. In contrast, the marked genitive noun, which otherwise displays the same coding and constituency properties, is (109–110). In the same vein, the genitive is also accessible to interrogation, which the agent - ergative - object is not (111). As a

consequence of this, the *participant* coded as ergative can be relationally promoted through the antipassive, whereas the *participant* coded as genitive cannot.[40]

(109)[ITQ]  **daan  niama itiyan ityaro   na=tyo**
go    then   this   woman MKCASE=daugter
'This woman's daughter went away'

(110)[ITQ]  **itiyan    na=tyo          tona**
this.one MKCASE=daugter go
'This one's daughter went away'

(111)[ITQ]  **hanian na=okpu     tu               an-nin?**
who    MKCASE=son INTERROGATION COPULA-DURATIVE
'Whose son is he?'[41]

Such syntactic discrepancies between ergative and genitive noun phrases, if not accounted for by case or constituency, can only be attributed to behaviour, the domain of grammatical relations. In other words, in spite of their case and constituency isomorphism, the "possessor" expression plays a role at the phrase level (adnominal modifier), while the agent expression, notwithstanding its inclusion in an immediately larger phrase, plays a role at the clause level (co-argument of a predicate).

As to putative grammatical relations obtaining in the accusative clause, the available evidence — which, in my reckoning, is not prolific — points to a common accusative-type mapping: the agent - nominative - external - subject is opposed to the patient - (accusative)[42] - internal - object.

## 6.   Argument structure variations

It is generally assumed that derived constructions which affect argument structure are founded on — and hence reveal — the hierarchy of arguments in the basic construction they derive from. In this section we consider first the reflexive construction, which is neutral with respect to alignment, then proceed to argue that applicative, noun incorporation and, to a lesser extent, causative constructions can

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**40.**  A difference quite parallel to that obtaining between ergative and instrumental in Dyirbal (Dixon 1994: 1971).

**41.**  It is unclear under which conditions the copula occurs in nominal clauses. In many instances, the nominal predicate appears without this element.

**42.**  No case marker.

be considered as three clearly accusative-oriented phenomena, weakening the overall ergative pattern of the language.[43]

## 6.1    Reflexive

Only one argument is present in the reflexive structure. Nothing like a reflexive noun phrase appears. The formal properties of the extant argument are those of an external argument (or subject as defined in Section 5).[44] The verb gains an intransitivisation suffix -**hik**[45] and loses its capacity to host the paradigm of person prefixes (113, 115).

(112)[ITQ]  **Owi na=hak        Nodia**
Owi MKCASE=stab Nodia
'Owi stabbed Nodia'

(113)[ITQ]  **hak-i                      Owi**
stab-INTRANSITIVISER Owi
'Owi stabbed herself'

(114)[ITQ]  **i-hak            Nodia**
1SINGULAR-stab Nodia
'I stabbed Nodia'

(115)[ITQ]  **hak-i                      adu**
stab-INTRANSITIVISER 1SINGULAR
'I stabbed myself'

In none of these clauses can we determine whether the stabber or the stabbed controls the reflexive. In the reciprocal construction, the intransitivisation suffix and the sole remnant noun phrase are the same as in the reflexive construction. A noun phrase-like constituent yielding the reciprocal meaning appears before the verb. Its form is a pronoun 'another one', which we see in (116–117), and which may also have a noun phrase determiner function, as in (118).

(116)[ITQ]  **wuradyi o**
wake.up  another.one
'Another one woke up'

---

43.   This section is a synthetic — but at times more fine-grained — version of Queixalós (2003b).

44.   Since what is at stake herein is the hierarchy of divalent clause arguments, and not to prematurely bias the issue, when talking about the arguments of new constructions I will refrain from using grammatical relations terminology — subject and object — and keep with more neutral labels like intuitive agent and patient or constituency-based internal vs. external.

45.   In both dialects, -**hik** is the base form; -**ik**, -**i** and -**k** are variants (which, notwithstanding, do not seem to quite have the status of allomorphs).

(117)[ITQ]   **o**       **na=hi:kna**       **niama kotuda**
        another.one MKCASE=find.over.there then    again
        'Then another one found it over there again'

(118)[ITQ]   **itaro**   **na=o**       **o**    **koya**
        woman MKCASE=drink other pap
        'The woman drinks other paps'

With this as background, consider the examples of the reciprocal construction in 119–121. In all three cases, the verb appears in its intransitivized form, preceded by the pronominal form **o**. In (119), there is an explicit external noun phrase and in (120) this same noun phrase has been elided. In (121), the reciprocal is used for an event involving only two individuals — the scene is a call to an opponent to fight a duel.

(119)[ITQ]   **o**       **pu-k**         **nuk**
        another.one eat-INTRANSITIVISER group
        'The people ate one another'

(120)[BIA]   **o**       **tohi:k-i**
        another.one look.at-INTRANSITIVISER
        'They looked at one another'

(121)[ITQ]   **o**       **hak-i**        **adik**    **tyo**
        another.one spear-INTRANSITIVISER 1PLURAL EXCLAMATIVE
        'Let's spear each other'

If we assume that the reciprocal construction is simply built upon the reflexive construction, there is something counterintuitive in adding to an intransitivized clause a second core argument noun phrase, the **o** pronoun. We will return to this matter below in order to account for the syntactic status of the **o** phrase (*circa* (160), Section 7).

## 6.2   Applicative

In the applicative construction, a participant which in the basic clause can only be coded obliquely (i.e. in a postpositional phrase) becomes a core argument of the applicative verb. The postposition is incorporated into the verb, with the effect of an increase in valence. Comparing the monovalent clause in (122) to the divalent applicative clause in (123), the external argument of the monovalent clause, **kariwa** 'non Indian', becomes the internal argument of the ergative applicative clause; the external argument slot it leaves behind is taken up by the promoted participant. Examples (124–125) show the same comparison between sentences with

pronominal forms, and examples (126–127) show the same comparison, but with another postposition, the recipient-benefactive **ama**.

(122)[ITQ] **hoki kariwa    Poroya na=katu**
talk   non.Indian Poroya MKCASE=SOCIATIVE.INSTRUMENTAL
'The non-Indian is talking to Poroya'

(123)[ITQ] **kariwa      na=katu-hoki        Poroya**
non.Indian MKCASE=APPLICATIVE-talk Poroya
'The non-Indian is talking to Poroya'

(124)[ITQ] **hoki adu       no-katu**
talk   1SINGULAR 2SINGULAR-SOCIATIVE.INSTRUMENTAL
'I am talking to you'

(125)[ITQ] **i-katu-hoki            i:dik**
1SINGULAR-APPLICATIVE-talk 2SINGULAR
'I am talking to you'

(126)[ITQ] **Dyomi na=donman-na            Mayon na=ama**
Dyomi MKCASE=go.fishing-DIRECTIONAL   Mayon MKCASE=RECIPIENT
'Dyomi went fishing for Mayon'

(127)[ITQ] Dyomi na=ama-donman-na                 Mayon
Dyomi MKCASE=APPLICATIVE-go.fishing-DIRECTIONAL Mayon
'Dyomi went fishing for Mayon'

Applicative on divalent verbs results in demotion of the patient to an obliquely marked adjunct phrase, thus keeping untouched the two-place valency of the predicate.

(128)[BIA] **yo-ama-wandoki          idi:k**
1SINGULAR- APPLICATIVE-cook 2SINGULAR
**don-katu          wa**
fish- SOCIATIVE.INSTRUMENTAL PROSPECTIVE
'I am going to cook fish for you'

Not all applicative constructions result from the incorporation of something as clearly identifiable as a postposition. For example, the applicative prefix **o-** (129) is unattested as a postposition.[46] This applicative seems to cover a large span of meanings around the notion of benefactive-malefactive.

(129)[BIA] **hiya      Ayobi**
be.afraid Ayobi
'Ayobi is afraid'

---

46.   Its origin may perhaps be traced back to the pronoun **o** 'other' seen in 6.1.

(130)^BIA **Ayobi na=o-hiya**                    **idi:k**
Ayobi MKCASE=APPLICATIVE-be.afraid you
'Ayobi is afraid of you'

The crucial observation to be made here is that the syntactic position open to host the promoted participant is that of the external argument, prototypically the position of the patient.

## 6.3    Noun incorporation

Noun incorporation in Katukina is not as developed as in other languages of the region, but its motivation seems to be clearly syntactic: It is of the redistributive kind, i.e. its purpose is to demote a participant in order to allow another, syntactically lower ranked, participant, to fill the position that the demoted participant left vacant; as such, there is no change in valence value.

A necessary preliminary to the discussion of noun incorporation is to identify a distinction between mono- and divalent nouns, a morphosyntactic rephrasing of the semantic labels "alienable" and "inalienable", respectively (see Queixalós 2005). Divalent nouns are heads of phrases within which a dependent referent has obligatorily overt expression, coded as a case-marked noun phrase or a personal prefix to the head. We saw examples of that structure when introducing the genitive in (4) and (13). When put in predicative function other than existential, these nouns also take an external argument, hence their assumed diadic argument structure. Monovalent nouns, which as predicates also take an external argument, cannot directly be heads of phrases containing a genitive, be it a case-marked noun phrase or a personal prefix to the head. They have to engage in a complex structure, not radically different from the applicative in form, where a 'relational generic noun' (RGN) **wa**, a sort of dummy divalent noun,[47] intermediates between them and their case-marked noun or personal prefix (131–132).

(131)^BIA **Kontan no=wa**[48]         **hak**
Kontan MKCASE=RGN   house
'Kontan's house'

---

47.   Other languages can have a more or less extensive class of these relational generic nouns, the so-called 'genitive classifiers', with more specific but still generic meanings. In Katukina, **wa** is the sole one of its kind, hence no particular meaning beyond 'possessed thing' attaches to it.

48.   In the Bia, but not in the Itaquai dialect, the case marker requires here an allomorph /**no**/, a plausible phonological consequence of its procliticization to **wa**.

(132)<sup>BIA</sup> **a-wa        hak**
3SINGULAR-RGN house
'His house'

Divalent nouns may be incorporated into the verb in order to leave their syntactic position free to host another participant, the dependent in the noun phrase they originally head. In (133–136), the promoted participant is expressed pronominally through bound / unbound forms: in a monovalent clause in (133)–(134) and a divalent clause in (135)–(136). In (137–138), the promoted participant has full lexical expression. The functional motivation for this so-called possessor-promoting incorporation is clearly the foregrounding of a more salient participant.

(133)<sup>BIA</sup> **ti:k      yo-ki**
be.black 1SINGULAR-head
'I have plenty of hair [lit.: my head is black]'

(134)<sup>BIA</sup> **ki-ti:k        adu**
head-be.black 1SINGULAR
'I have plenty of hair [lit.: I am head-black]'

(135)<sup>BIA</sup> **yo-kohi          yo-mi**
1SINGULAR-clean 1SINGULAR-bottom
'I cleaned my bottom'

(136)<sup>BIA</sup> **no-tya-tyurukman      adu        tyo**
2SINGULAR-penis-chop 1SINGULAR EXCLAMATIVE
'Chop my penis off!'

(137)<sup>ITQ</sup> **Mayon na=tuku     Aro na=bakon**
Mayon MKCASE=cut Aro MKCASE=finger
'Mayon cut Aro's finger'

(138)<sup>BIA</sup> **Hi:wuk na=pan-tyurukman Dyirimi**
Hiwuk MKCASE=arm-chop  Dyirimi
'Hiwuk chopped Dyirimi's arm off'

Monovalent nouns do not incorporate themselves as straightforwardly. No instances are available of such nouns incorporating into monovalent verbs; the few cases of plain incorporation — that is, incorporation being the sole formal change observed on the verb — involve divalent verbs, and these generate monovalent lexical compounds. For example **bara** 'game', and **don** 'fish', combine with **man** 'make' to yield **bara-man** 'go hunting' (lit. 'game-make'), and **don-man** 'go fishing' (lit. 'fish-make', cf. Example (126)). Attempts to create sentences typical of productive noun incorporation were rejected (140). Similarly, attempts to create examples of "possessor" promotion with monovalent nouns were rejected (142). Only in

combination with the applicative construction is it possible to find productive incorporation of a monovalent noun (144 — compare to 127 above).[49]

(139)[BIA]  **Hayo na=ho:na      poako**
Hayo mkcase=catch paddle
'Hayo caught a paddle'

(140)[BIA]  ***Hayo na=poako-ho:na**
 Hayo mkcase=paddle-catch

(141)[BIA]  **Hayo na=ho:na      atya poako**
Hayo mkcase=catch my   paddle
'Hayo caught my paddle'

(142)[BIA]  ***Hayo na=poako-ho:na      adu**
 Hayo mkcase=paddle-catch 1singular

(143)[BIA]  **Hayo na=o-poako-ho:na          adu**
Hayo mkcase=applicative-paddle-catch 1singular
'Hayo caught my paddle'

(144)[ITQ]  **Dyomi na=ama-amatyuru-man-na**
Dyomi mkcase=applicative-fish.sp[50]-make-directional
**adu**
1singular
'Dyomi fished *amatyuru* (fish sp.) for me'

Let us admit that something like Haspelmath & Müller-Bardey's (2004) assumption holds for Katukina, that there are upper limits which lexical primitive verbs impose on the valence of derived predicates, such that if no trivalent verbs exist in the lexicon, then no trivalent derived construction will be allowed. A plausible reason for the observed state of affairs could be that, since monovalent nouns trigger a reduction of verb valence,[51] the only way for a divalent verb to open a syntactic position to an incoming salient participant is to lose a place through incorporation, then create one through applicative. A fine spontaneous example is seen in (145).

(145)[BIA]  **a-o-korion-tokman          pi:da**
3singular-applicative-vine-cut jaguar
'He cut jaguar's vine [the vine the jaguar was hanging from]'

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**49.** Generic **don**, 'fish', has lexicalized its combination with **man**, 'make, get'. There is no lexicalization on specific zoological nouns as **amatyuru**.

**50.** In Brazilian Portuguese: tambaqui.

**51.** More precisely: …presumably used to trigger at the diachronic stage of the language that saw the creation of lexicalized **don-man** and others.

For our current concern, the crucial observation to be made is that the syntactic position from which the noun is demoted to incorporated status is the one initially filled by the external, patient argument.

### 6.4   Causation

Causatives are achieved through two basic devices, one synthetic and the other analytic. The former appeals to two verb suffixes. The first, -**ti:ki**, allows direct causal as well as permissive meanings.

(146)[ITQ]   **bak        barahai**
be.good game.meat
'Game meat is good'

(147)[ITQ]   **aobatyawa na=bak-ti:ki            barahai**
his.wife     MKCASE=be.good-CAUSATIVE game.meat
'His wife improved [seasoned] the meat'

(148)[ITQ]   **aobatsawa na=tyuku-ti:ki        Yowai**
his.wife     MKCASE=die-CAUSATIVE Yowai
'Yowai's wife let him die'

The second causative suffix, -**man**, is derived from the verb 'make, get, say',[52] yielding a causative construction which in certain cases (e.g. 149) is parallel to (i.e. not discernibly different in meaning from) the -**ti:ki** causative of (147), whereas in others (e.g. 150), it conveys a manipulative causation. By virtue of either suffix, the verb increases its valence, the causee stays intact, and the causer enters the construction at the agent position in an ergative type clause.

(149)[ITQ]   **aobatyawa na=bak-man            barahai**
his.wife     MKCASE=be.good-CAUSATIVE game.meat
'His wife improved [seasoned] the meat'

(150)[ITQ]   **a-wa            nyama na=dadohi-man        Yowai**
3SINGULAR-RGN mother MKCASE=run-CAUSATIVE Yowai
'Yowai's mother told him to run'

In analytic two-clause constructions, the main clause is also of the ergative type, headed in the Kanamari dialect by the full verb **man** 'make, get, say' or (less frequently) **nobu** 'give an order', and in the Bia dialect by **ba:bu**, 'make do, give an order'. The causer enters the agent slot of the main clause and the patient slot of the main

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**52.**   "Suffix" because if **man** were used as an auxiliary, the two-verb sequence here would be intermediated by the subordinating **nin**, see 2.8.

clause is filled by the caused event together with its participants. Compare synthetic and analytic causation in (151–152). So far, we lack evidence of any difference in content. In (153), we see that manipulation is not an intrinsic semantic function of analytical causation. For divalent verbs, analytical causation is obligatory (154). As before, derived constructions which would create trivalent clauses are avoided.

(151)[BIA]   **Raymunda  na=dyan-ti:ki                    Kopa**
Raymunda  MKCASE=go.hunting-CAUSATIVE Kopa
'Raymunda sent Kopa to go hunting'

(152)[BIA]   **Raymunda  na=babu           Kopa dyan-nin**
Raymunda  MKCASE=make.do Kopa go.hunting-DEPENDENCE
''Raimunda sent Kopa to go hunting'

(153)[BIA]   **Kopa na=babu            oman dawuhan-nin**
Kopa MKCASE=make.do tree    fall-DEPENDENCE
'Kopa felled the tree'

(154)[ITQ]   **ma$_1$-man-na                    wiri$_3$   a$_2$-toman-nin**
3PLURAL-make-DIRECTIONAL    wild.pig 3SINGULAR-shoot-DEPENDENCE
'They$_1$ sent him$_2$ to shoot wild pigs$_3$'

In this section, the crucial observation is that the syntactic position at which the irruptive causer occurs is the one reserved to the main clause agent, instantiated in (154) by the third person plural prefix **ma-** 'they'. As mentioned above, the dependent clause contains the expression of the event, 'shoot', and all its participants, the causee-killer, third person singular prefix **a-**, and the killed, 'pigs'.

## 7.   Grammatical relations and the diachrony of ergativity

We established in Sections 1–5 that basic clause alignments, morphological as well as syntactic, clearly entail a hierarchy of core arguments where the patient argument is ranked above the agent argument. We considered this as evidence of a relation between a set of semantic roles and a set of grammatical relations where the patient maps to the subject (a picture already outlined by Marantz [1984] and a few others, be it in formal frameworks or not)[53] and the agent maps to the object.

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**53.**   E.g. Johns (1984), Kibrik (1985), Mel'čuk (1988), Levin (1993), Jacquesson (1994), Manning (1996). Of course, differences in frameworks may lead to differences in proposals. More noteworthy, however, is the fact that along with the assumption that the transitive patient is a subject, we face a pervasive reluctance to draw the conclusion that the transitive agent, while clearly a core argument, is an object (Marantz [1984] and, to a lesser extent, Dowty [1991] and Mahieu [2004] counting among the exceptions).

In Section 6 we saw four processes involving argument structure changes, one more or less neutral in terms of argument hierarchy, the other three neatly biased toward a hierarchy where the agent ranks above the patient. To be more precise, two of them select a syntactic position — host for an applicatively promoted participant, and launcher for an incorporated noun — which typically, universally perhaps, is lower in divalent clauses, and which, both in Katukina and in other languages, is assigned to the patient, and the third selects a syntactic position — host for a causer participant — which typically, universally perhaps, is higher in divalent clauses, and which, again in Katukina as in other languages, is devoted to the agent. In short, (i) basic clause morphosyntax is quite homogenously ergative, with an antipassive serving the overall ergative pattern and an accusative pattern clearly marked semantically and discoursively; but (ii) except for voice (antipassive), derived clause morphosyntax patterns in a very clear accusative fashion, and where it does not, neither does it pattern in an ergative fashion.

Following Baker (1988: 427–428) this kind of split should not exist, since in an ergative syntax, noun incorporation, for example, should involve the agent argument; only in accusative syntaxes should it involve the patient argument. Yet in Katukina syntax, it involves the patient. The lack of cross-linguistic evidence for agent incorporation should thus, following Baker, be taken as a sign that ergative syntax does not exist altogether. Nevertheless, as far as basic clause structure is concerned, ergative syntax exists in Katukina. This undeniable fact suggests two possible explanations, which may not be mutually exclusive: (i) synchronic argument structure changes like those discussed in Section 6 are more driven by semantic role than is usually suggested by theories, and (ii) the kind of mismatch we are dealing with is typically the result of diachronic drifts that affect different layers of grammar at different rates of speed. I consider each in turn.

Currently, processes that entail argument structure changes are accounted for in syntactic terms: subject, direct object, and so on (e.g. Keenan & Comrie's hierarchies, 1977). If we recognize the ergative nature of Katukina syntax, then accessibility constraints in applicative, incorporation and causative constructions cannot be seen as purely form-dependent, since they clash with the syntactic hierarchy of arguments. In terms of these processes, what Katukina has in common with accusative languages is, in very simplified words: things happen either to agents or to non-agents, involving respectively the agent place and the non-agent place in the divalent clause. Thus, in a causative construction, the causer goes to an agent position (subject in the accusative syntax, object in the ergative syntax); in an applicative construction, benefactive-malefactive participants and the like go to a non-agent position (object in the accusative syntax, subject in the ergative syntax); in incorporation, a non-agent abdicates its non-agent position (object in the accusative syntax, but subject in the ergative syntax). These assumptions may seem a little

provocative, but I adduce two facts in favour of the idea that argument structure changes such as the ones considered here may to a certain extent be semantically driven (Croft 1991; Manning 1996; Haspelmath & Müller-Bardey 2004). First, it is notoriously difficult to characterize incorporable nouns cross-linguistically in straightforward syntactic terms. On the one hand, objects are good candidates for incorporation, but adjuncts may incorporate too, as do subjects. On the other hand, not all objects, not all adjuncts, and even fewer subjects incorporate; further, the observable filters imposed on candidates for incorporation seem indeed to be semantically motivated, e.g., when subjects incorporate, they are necessarily poor agents or not agents at all — subject of an unaccusative verb, or inanimate subject of a transitive verb.[54] Second, we must decide what kinds of definitions we want for grammatical entities in typology. For example, if we were to give a really functional definition to applicatives, we should have to admit the possibility of applicative constructions where the promoted participant occurs in the subject's position, not the object's.[55] Another track that appears to be attractive in order to account for the mismatch, in Katukina, between formally defined grammatical relations and argument manipulations at work in argument structure changes, lies in diachrony.[56] Verbs, as well as nouns, are unsaturated predicates (Frege 1984 [1891]). Each lexical entry has its intrinsic valence (Tesnière 1959). Let us assume, relying on the similarity between divalent verb phrases and divalent noun phrases — compare (1) and (6) — that contemporary basic clause structure in Katukina started as comparable ones did in other parts of the world (be they recognized as ergative or not), e.g. Austronesian (Haudricourt 1979; Starosta, Pawley & Reid 1982/83, Himmelmann 1991), West Caucasian (Paris 1979), Eskimo (Lowe 1978; Johns 1992), Ouralic (Perrot 1996), Maya (Sasse 1991):[57] the divalent verb, found in its basic form in finite accusative-patterned verb phrases, appears also in a non-finite, nominal-like phrase, whose external argument is the patient and whose genitive internal argument refers to the agent, something like the pair in (155).

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**54.**  Rice (2008) provides nice Athapaskan examples of semantically atypical subjects of transitive which undergo incorporation.

**55.**  Extremely common in several Romance languages, like this real life instance from Brazilian Portuguese, in its literal English translation: 'Damn it! It's been a bad day. I had *the car* stolen, *the foot* cut, and *the wife* taken to the hospital.' (Walkiria Praça, p.c.). An indirectly involved participant — owner, whole, partner — of the respective patients — car, foot, wife — enters the core not as the object of an applicative verb, but as the subject of a main (if semantically vacuous, indicating nothing more than involvement) predicate.

**56.**  This part of the argument owes much to conversations with Spike Gildea. I must admit that it has a strong speculative bias (for which I claim full responsibility, of course), since no comparative data are available for reconstruction.

**57.**  For a more recent survey than Allen (1964), see Lazard (2004)

(155)   a.   **the jaguar [killed grandfather]**
        b.   **grandfather [(is) the jaguar's killed one]**.

Several questions arise. Concerning motivation, we can tentatively try to figure out what functional factors might have led speakers to create a patient-orientated nominalization, the *b* synchronic alternative to (155)*a*, reversing the grammatical hierarchy between the killer and the killed: obliterating/lowering the salience of an event's agent is a linguistic attitude that speakers from everywhere adopt permanently in daily life, and is probably more frequent than — but not exclusive of — highlighting a non-agent. Can this lead to morphosyntactic crystallisation beyond the cross-linguistically multiple and well documented productive derivational mechanisms devoted to this task? By "morphosyntactic crystallisation" I mean that the *b* option, even though it has a subordinate clause as its precursor, eventually becomes the primary, basic way to describe an event. Grammaticalization necessarily entails form progressively taking over function and introducing arbitrariness — structure — in linguistic expressions. As a result, the original motivation for a given pattern may get eroded up to complete disappearance. If Foster's (1979) observations are right, a split in transitivity leading to the creation of an ergative clause type is on its way, before our eyes, in a variety of American English, with obvious cultural and cognitive factors involved.

A second question deals with the possibility of positing the accusative clause in (82) as a remnant of the basic divalent clause prevailing before the upheaval in which (155)*b* becomes basic. Provided, of course, that the monovalent clause remains unchanged through time. One clue to the validity of this assumption is that it lends a simpler picture of the way the ergative pattern appeared, by preserving the sequential order *predicate - subject*. Furthermore, the synchronic semantic restriction — genericity — imposed on its object is accounted for in a natural way as an effect of the very general affinity between subjecthood and specific reference: divalent clauses with generic objects did not shift to the ergative pattern (cf. Trask's explanation for noun phrase splits [1979: 394]).

Another question raises the issue of the destiny of the grammatical devices — the equivalents of past and copula morphemes in the English rendering in (155) — that are presumed to have given the clause its finite character before the verb phrase took its nominal move. The fact is that today no TAM morphology shows up in verbs, in either of the transitive patterns or in the intransitive clause. The lack of finite morphology on today's accusative construction points to two logical possibilities: (1) no such morphological devices existed at the time accusativity obtained in the language, and the accusative construction is indeed a relic of the former basic finite clause; or (2) the accusative construction too is the result of a nominalization. I would be prone to favor the first option for the following reasons: (1) the ergative construction is the only one to display explicit morphology

typical of nominalizations, namely the affixation of a "possessive" pronominal form to the verb;[58] seeing the accusative construction as a nominalization forces us to see the intransitive construction in the same way, that is a nominalized verb. (2) Particles perform, today, the task of expressing finiteness — together, perhaps, with the as yet poorly-studied copula on true nominal predicates. If particles were present in the accusative times, the nominalizing process of the verb could have been easier to deal with in terms of morphological apparatus. Contemporary particles (another still poorly-studied area of Katukina grammar) are fully used only in verbal independent clauses, a fact which strengthens the idea that former deverbalized constructions have recovered finite properties.

The last question bears on the status of arguments through time. It is important to see that the killer in (155)*b* (**jaguar**) is by no means an adjunct phrase: it is the internal argument of the predicate phrase headed by the noun **the-killed-one**. The reanalysis undergone by (155)*b* consists in reading the constituent between square brackets as a finite verbal phrase. As a consequence, its internal noun phrase ceases to be the modifier of a nominal head and captures some properties of a clause level co-argument, precisely those which select the lower ranked co-argument of the predicate, that is, an object (see Section 5 *in fine*). Now, I take the lack — or the weakness — of coreference pivots (Section 3) as a symptom that the agent not only shifted from the status of a phrase structure element to the status of a clause structure element, but that it took its first step toward the gradual attracting of the subject properties until then exclusively owned by the patient-subject. This point is crucial: in its drift from "non-term" status — noun phrase modifier[59] — to subject status, I see it as highly probable that the agent goes through a phase where it typically has the status of a lower ranked core argument, *not* of an inverse clause — and this is crucial, see Section 8 — *but* of a basic clause. This phase is exactly that which Katukina data attest (see Section 8 for the significance of this state of affairs). What the future steps should be is a fascinating theme of investigation for languages where comparative work is possible, but we can assume that eventually the agent phrase will leave the verb phrase (see Mahieu [2004] for an illuminating discussion of this issue in Eskimo).

Now we return to the mismatch between basic clause patterns and argument structure changes. We may safely speculate that in the accusative ages speakers already needed to pack the delivered information into reflexive, reciprocal, applicative,

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**58.**   See the punctual-perfective predicates in Indonesian (Verhaar 1983) for an example of nominalization achieved through this same single device.

**59.**   Or obliquely marked adjunct such as instrumental or others, so often observed in Australian languages.

incorporative, and causative moulds and that they did this based on the patterns that obtained at that time, specifically, nominative-accusative alignment:

(156)[ITQ]  **koya o      adu**
          pap   drink 1SINGULAR
          'I drink pap'

(157)[ITQ]  **tyuku wa:pa**
          die     dog
          'The dog died'

As far as divalent basic clauses were concerned, it was the positions occupied by the patient and the agent in (156) that argument structure-changing mechanisms took as the origin and/or target of the displacements imposed on participants. The historical scenario is not that the basic clause alignment switched to ergative and then speakers wondered how to achieve argument structure changes within the new situation, but that they kept the old mechanisms as they were and mapped upon them the nominal-like predicate phrase structure that gave birth to the ergative pattern. This is because what speakers are interested in is what to do with participants, not what to do with syntactic positions. In a word, I assume that today's situation is a mix of — putatively — cross-linguistic semantic-based argument structure variations, and recent ergativization of basic clauses that has left almost untouched the mechanisms by which these variations were accomplished.

Some evidence of the accusative clause as the soil on which variation mechanisms took place comes from two different sources. (i) Causation is still possible on the contemporary accusative clause when its patient bears generic reference, as in (158)[60] morphologically causativizing a monovalent, and (159) analytically causativizing a divalent clause.

(158)[BIA]  **nayo    tahi  piaya-ti:ki**
          mother water be.hot-CAUSATIVE
          'Mother heated water'

(159)[ITQ]  **tyo-nobu      niama koya bu-nin**
          1PLURAL-order then   pap  do-DEPENDENCE
          'We then sent her to make pap'

(ii) Recall that the reciprocal construction (as in 160, formerly 121) is built on the intransitivizer suffix which serves the purpose of reflexivization, plus a pronoun 'other' in preverbal position. A possible way of accounting for the somewhat strange occurrence of an extra core argument — pronoun **o** — in a monovalent

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60.  Note this instance of agent movement from post-verbal to initial position.

clause [[verb-**i**] [external argument]] is to assume that the valence-reducing mechanism is based on the accusative pattern. Under this analysis, the 'one another' phrase began as a dummy, non-referring argument occupying the patient internal position of a divalent verb phrase in an accusative clause which, eventually, attracted the valence reducing suffix.

(160)[ITQ]    **o**       **hak-i**            **adik**     **tyo**
         another.one spear-INTRANSITIVISER 1PLURAL EXCLAMATIVE
         'Let's spear each other'

To sum up, I assume that the shift to ergativity is a very recent event in this language. For this reason, even though ergative patterns are pervasive, argument structure-changing devices still operate in old moulds, appearing perhaps as a conservative domain of syntax.


## 8.   Conclusion

Whatever theoretical background the observer relies on, ergativity shows up as a kind of a puzzle for two reasons. First, current paradigms — notably built on European languages — are at odds with grammatical systems which seem to suffer from a sort of schizophrenic disease — an object that looks like a subject and so on. Second, currently labelled ergative languages display extraordinarily heterogenous patterns, internally and cross-linguistically. This could lead us to cast doubt on the very existence of ergativity as a licit object of scientific thought, an idea that follows the lines of: this object, having no consistent internal structure to be described, is no scientific object at all (see DeLancey 2004).

      In my opinion, an ergative pattern is one in which core arguments of a basic divalent construction display a mapping between their semantic roles and their morphosyntactic properties so that the patient formally outranks the agent. "Basic" is to be understood in terms of semantic prototypicality, simpler formal defining features, and higher frequency in discourse. "Outrank" has two meanings: (a) an argument is non-marked in terms of coding devices, i.e. it is coded in the same way as the sole argument of the basic monovalent construction; (b) an argument is privileged for accessing syntactic phenomena sensitive to some hierarchy of arguments, in much the same way as the sole argument of the basic monovalent construction. Thus, merging ergativity with the passive is discarded because the passive is neither basic nor divalent; nor could this be done with the inverse because the inverse is not basic; nor with split intransitivity (classically, so called active/stative systems) because there is, in this case, no monovalent construction that may be called more basic than another. Moreover, this definition of ergativity

also leads us to discard what we may call ubiquitous ergativity, pervasive in many phenomena — not necessarily peripheral in grammar but, indeed, not at the core of finite basic clause patterns — throughout all types of languages (e.g. plurality of an absolutive argument on suppletive or reduplicated verbal forms, but also nominalizations). Whether or not one and the same argument captures properties (a) and (b) yields, respectively, homogenous ergativity (morphology and syntax) or heterogenous ergativity (only morphology). Note that by this definition, the difference between the nominative-accusative pattern and the absolutive-ergative pattern rests solely on how semantic roles map onto morphosyntactic entities. (A clear parallel to this is the direct-indirect object vs. primary-secondary object distinction launched by Dryer 1986.) From a strictly formal point of view, both patterns are identical and, in name of parsimony in science, no need for different concepts arises. This is Marantz's (1984) position on ergativity (and my own [2003a] on the hierarchy of objects).

Concerning ergativity, I take the stand that a formal account that consists in rejecting the relevance of semantic roles is healthy up to a point, when the goal is to describe *how* the grammar works. If beyond that point the goal turns out to be understanding *why* grammar works as it does, something more than synchronic form is needed. Given the increase in the number of descriptions and in the number of more or less theoretically oriented accounts of ergative systems during the last thirty-five years or so, I assume that if ergativity continues to be a puzzle, it is because we have overlooked the intertwining of two fundamental factors at work in the shaping of linguistic form: cognition and diachrony.

As for cognition, I put forward the *cognitive accusativity* hypothesis. I assume that the human mind introduces asymmetry when processing the two participants of a transitive event, as a consequence of being pre-conditioned to pay attention to entities that move — other things equal, humans —, especially when they have a visible effect on other entities in the world. This lends the agent a clear privilege for attracting attention, which, as Tomlin has experimentally established (1997), correlates well with properties associated with subjecthood in natural language.[61] Grammars map this cognitive bias toward agent when they adopt accusative morphosyntactic alignments. Ergativity is thus to be seen as a highly marked pattern for morphosyntax. The label "cognitive accusativity" is perhaps new, but the idea behind it certainly is not (see Silverstein 1976; Keenan 1976; Dixon 1979; Givón 1981). The problem here is that the

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**61.**  Thanks again to Spike Gildea for helping me formulate this idea more elegantly.

idea has been appealed to solely by linguists speaking about grammar. This issue definitely demands the support of evidence coming from experimental psychology.[62]

Turning to diachrony, the cognitive accusativity hypothesis and its corollary, ergativity as a marked pattern, have a plausible consequence: such a grammatical system should be diachronically unstable (see Comrie 1978; Estival & Myhill 1988).[63] This would account for the observed fact that ergative languages are much less frequent than accusative ones (Mallinson & Blake 1981) and that homogenously ergative languages such as Katukina are a minority within this minority. Their ergative architecture faints faster due to its mismatch with cognitive accusativity, therefore it must be less observable "in nature". This leads me to posit a complementary hypothesis, that of the *reaccusativisation path*. It involves the grammatical status of the agent. When, for whatever reasons in the history of the language, a structure with a lower ranked agent takes over from another type of basic clause pattern, the agent immediately starts on its way to recovering the privileges that the ergative upheaval suddenly let the patient take for itself. This is accomplished gradually, and another — and related — fascinating research programme would consist in seeing whether this reaccusativisation path is uniformly unidirectional, and predictible in its successive stages. For example, I take the weakness, or lack, of coreference pivots in Katukina as clear evidence that the agent already engaged in the reaccusativisation path:[64] the linguistic expression of the agent began to capture subject properties with respect to coreference. In fact, I assume, based on fragmentary empirical observation and the consideration of (1) discourse topicality of agents (Du Bois 1987), (2) ease of reanalysis, that this is the very first step which diachrony takes cross-linguistically once the agent is back into the sphere of core arguments. Another example, at the opposite end,

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**62.** Goldin-Meadow's (2003) experiments on deaf children are exactly the type of tests we are in need of. I say "tests", not results: the author reaches the conclusion of the existence of a cognitive ergativity (my terms). Nevertheless, the actual results are in fact revealing of something different, namely what I call the all-intransitive — stage of — languages: a grammatical architecture whereby no lexical verb root has a primitive valence superior to one (much in the vein of Nichols [1982] and Mel'čuk [1988] on North-East Caucasian languages, Dixon [1988] on Polynesian, or Beck [2000] on Salishan: most or all transitive verbs are explicitely derived). A stage which I consider to be, along with derived monovalent predicates (either verbal or deverbalized), the only other possible origin of homogenous ergativity. I am indebted to Andrew Nevins and Gilles Authier for calling my attention to Goldin-Meadow's and Beck's works, respectively.

**63.** Note, however, the strong time stability that Kaufman (2007) credits comparable structures in Austronesian, which, nonetheless, have undergone "disintegration" in the Indonesian branch, as the same author points out.

**64.** Recent observations suggest that the Bia dialect is more conservative than Kanamari in this respect. Yanomami, as described by Ramirez (2003), seems to be at a slightly earlier stage than Katukina.

is: extraction mechanisms, and particularly relativization, could be among the last ergative syntactic patterns to be dropped.[65]

In my view, the puzzle, the schizophrenia, the heterogeneity which are so frequently assigned to ergativity boil down to the fact that this once — not so long ago — exotic feature of grammars is, more often than not, scrutinized through strictly synchronic slices, and that when diachronic considerations enter the scene, no such model as the reaccusativisation path is at hand.

I conclude with one of those fieldwork anecdotes which — if I may paraphrase Givón's (1973) metaphor — make the linguist feel like an archaeologist stumbling over a stone axe. The assumption that ergativity is recent in Katukina ensues from (i) the strong homogeneity of ergative patterning, (ii) in part, the still clearly accusative bias of argument structure-changing mechanisms, (iii) the incipient renegotiation of coreference rules, *and* (iv) a tiny clue to some kind of a relic of functional motivation for the ergative construction, involving focus on the patient. During an elicitation session with an informant, I was once working on the accusative construction, illustrated in (82), which I recall here as (161). Eventually we came to test the compatibility of determiners with the internal complement of the accusative construction, and I suggested (162), which was straightforwardly rejected as ungrammatical. Correcting the sentence, the informant proposed spontaneously the ergative (163), with the demonstrative on the patient showing up as a sort of floating determiner.[66]

(161)[ITQ]  **koya o    adu**
       pap   drink  1SINGULAR
       'I drink pap'

(162)[BIA]  ***itohuyan anya    hi:k opatyin**
        that       woman find child
        'The child found that woman'

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65. For Van Valin (1981), relatives — and clefts, both extraction processes — wold be at both ends of the diachrony of ergative syntaxes. Shipibo-Konibo relatives — the only ergative syntactic feature — could be a relevant instance of my assumption (Valenzuela 2004; but since relatives are akin to nominalizations, what we have is perhaps a mere instance of ubiquitous ergativity — see above for this notion). Also Yupik (Miyaoka 1986). Many discussions with Nicole Tersis and Marc-Antoine Mahieu led me to the strong feeling that Eskimo variants, if observed through the double prism of the diachronic axis past-present and the geographic axis west-east, offer us a near-perfect movie picture of the re-accusativization path. See also Johns (2006).

66. A fact not irrelevant for the hierarchy issue: Shibatani (1991), for instance, mentions the ability to launch floating quantifiers as a subject property controlled by topichood.

(163)[BIA]   **itohuyan a-hi:k          anya**
           that      3SINGULAR-find woman

My expectation was that, following the common definite reading of the personal prefix, the translation of the example would have been 'He found that woman', with perhaps some emphasis on the ostensive intention about the woman. But when asked for its equivalent in Portuguese, and in spite of both of us having been talking at length about the child as the finder, the informant uttered: 'Foi achada aquela mulher', literally 'Was found that woman'. Now, a canonical passive is less than common in Bia Katukinas' Portuguese, who are far from fluent in that language. In fact I have never heard a spontaneous one since that day. Thus, we must credit my informant with a good reason for proposing such a translation. For me, the reason is that the ergative pattern is so recent that it still retains something of its original pragmatic motivation, namely, demoting the agent.

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67.  Available at http://celia.cnrs.fr/FichExt/Documents%20de%20travail/Ergativite/Introductions_ergativite.htm.

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**68.**  See footnote 67.

**69.**  See footnote 67.

**70.**  See footnote 67.

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**71.** See footnote 67.

**72.** See footnote 67.

# The intransitive basis
# of Movima clause structure

Katharina Haude

In Movima (unclassified, lowland Bolivia), the arguments of a transitive clause are basically encoded according to the position of their referents in a salience hierarchy, which includes deictic, semantic, and pragmatic levels. The participant roles of the arguments (actor or undergoer) are indicated by direct and inverse marking on the predicate. The argument whose referent is lower in the hierarchy is encoded in the same way as the single argument of intransitive clauses, and it also has a privileged syntactic status. This results in an unusual split-ergative alignment pattern: the direct construction, which is pragmatically unmarked, patterns ergatively, and the inverse construction patterns accusatively. I propose that the system can be accounted for by the syntactic similarity of nouns and verbs and the identical encoding of the possessor and the salient argument of a transitive clause. Both transitive and intransitive clauses may, therefore, have arisen from an intransitive equational construction with either a monovalent/ nonpossessed or a bivalent/possessed predicate nominal.

## 1.   Introduction[1]

Movima is an unclassified, endangered language still spoken by perhaps a thousand adults in and around Santa Ana del Yacuma in the Beni department of lowland Bolivia. The language was first investigated by the SIL linguists Robert and Judith Judy in the early 1960s. The present study is based on a corpus of elicitation

and about 12 hours of text data from approximately 15 speakers during a total of 15 months collected by myself between 2001 and 2007.[2]

The phoneme inventory of Movima contains 19 consonants (represented orthographically with phonetic specification when not self-explanatory): *p, t, k* (realized as [p͡ʔm], [t͡ʔn], and [ʔ], respectively, in coda position), *'* [ʔ], *kw, b* [ɓ], *d* [ɗ], *ch* [tʃ], *v* [β], *s, j* [h], *ɬ, m, n, l, r* [ɾ], *w, y* [j], and *y'* [jʔ]. The five vowel phonemes are *i, e, a, o*, and *u*. Syllable structure is (C)V(C) or (C)V(:). Stress generally falls on the penultimate syllable of the word, except when the word ends in a glottal(ized) consonant, which causes stress on the last syllable. A penultimate open syllable is usually lengthened, the major exception involving words that end in the glottal stop. Lexical roots must minimally consist of a heavy syllable, i.e. (C)VC or (C)V:. Morphologically, Movima is agglutinating (one morpheme = one meaning), but many content words are synchronically monomorphemic. Most morphemes are suffixes, but there is one prefix (the oblique marker *n-*) as well as infixes and several reduplicating processes. Compounding and noun incorporation are frequent. Tense, mood, and aspect are not expressed by verbal morphemes, but by particles. Referential elements (articles, personal pronouns, demonstratives) indicate natural gender, number, presence, absence, position, and ongoing vs. ceased existence of the referent.[3]

Movima clause structure, the topic of the present paper, is characterized by largely fixed constituent order (predicate initial). Case marking is restricted to the distinction between structural (unmarked) and oblique (morphologically marked) case. The organization of transitive clauses is governed by referential properties of the arguments according to a salience hierarchy: the argument that denotes the nonsalient participant in a two-participant event has the same coding properties as the argument of an intransitive clause; this argument also has the syntactically privileged status. Direct and inverse marking on the predicate indicate the participant roles of the arguments in a transitive clause, direct indicating that the salient participant is the actor and the nonsalient participant the undergoer, inverse indicating the opposite constellation. The direct construction patterns ergatively and the inverse construction patterns accusatively. A valence-decreasing voice operation enables the argument encoding the salient participant in a two-participant event to function as the privileged syntactic argument.

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**2.**   The data presented here were contributed by Esaltación Amblo Ovales, Jovina Amblo Ovales, Masimina Cayalo Almaquio, Eligardo Chirimani Malue, Etelvina Gualusna Amblo, Julia Malale Humasa, Herlan Rojas Rossel, and Ela Rossel Chori. The texts are currently being archived in the DobeS archive at the Max-Planck-Institute for Psycholinguistics, Nijmegen (http://corpus1.mpi.nl/ds/imdi_browser/).

**3.**   For detailed information on the Movima phonology and grammar, see Haude (2006).

In the following two Sections (2-3), argument encoding in intransitive and transitive clauses is described in more detail. Section 4 then presents the ergative-accusative alignment split pattern and demonstrates that the ergative construction is pragmatically unmarked. Section 5 presents a possible explanation of the facts: the syntactically privileged status of the less salient argument may have arisen from the identical encoding of the salient participant and a nominal possessor in connection with the nearly identical syntactic status of nouns and verbs. In this way, at least from a hypothetical historical perspective, all clauses can be interpreted as intransitive, equational clauses. The direct/inverse opposition may be a grammatical reflection of the cognitive parallel between a prototypical transitive event and a prototypical possessive relationship.

I will concentrate as far as possible on the encoding of third persons in affirmative main clauses. Most of the claims put forward here also hold for first and second person, whose encoding is, however, more difficult to describe (cf. Haude 2006: 268ff.; Haude to appear). Subordinate and negated clauses involve nominalization and therefore have a slightly different person encoding pattern (cf. Haude 2006: 305ff.).

## 2.   The structure of simple clauses

Canonical clauses are predicate-initial. The predicate consists of a content word, typically a verb. The arguments appear as pronouns or as determiner phrases (DPs), the latter consisting of a content word (typically a noun) preceded by a determiner, typically an article. To facilitate the understanding of the examples below, the articles and the third-person pronouns are listed in Tables 1 and 2, respectively. Note that the article does not mark definiteness, but is used for definite as well as for indefinite reference.

**Table 1.**  Articles[4]

|           | presential/generic | absential | past  |
|-----------|--------------------|-----------|-------|
| masculine | *us*               | *kus*     | *us*  |
| feminine  | *i'nes*            | *kinos*   | *isnos* |
| neuter    | *as*               | *kos*     | *os*  |
| plural    | *is*               | *kis*     | *is*  |

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**4.**   "Presential" and "absential" indicate presence at or absence from the speech situation; "past" indicates that the  referent has ceased to exist.

**Table 2.** Third-person pronouns

| | presential | | | absential | |
|---|---|---|---|---|---|
| | free | enclitic[5] | | free | enclitic |
| masculine | *u'ko* | *u'* | | *usko* | *us* |
| feminine | *i'ne* | *(i)'ne* | | *isne* | *(i)sne* |
| neuter | *a'ko* | *a'* | | *asko* | *as* |
| plural | *i'ko* | *i'* | | *isko* | *is* |

## 2.1   Argument encoding in intransitive clauses

Intransitive clauses may contain one DP or pronoun that is not marked as oblique. All non-core DPs and pronouns are overtly marked as oblique by the prefix *n-*. In (1), the core argument is represented by a DP:[6]

(1)   *joy-cheł   us       so:te           n-os           sot-lo:los*
       go-R/R    ART.M other_person OBL-ART.N.PST other-village
       'The other (man) went to another village.'          [HRR_300703 191]

When the argument of an intransitive clause is realized as a pronominal enclitic, it is attached to the predicate through "external clitization" (to be explained in 2.2), which is represented by a double dash ( -- ). It can also be encoded by a free pronoun before the predicate, as in (3) (see 3.1 below for this construction).

(2)   *kuyna:nak--i'ne*
       play--3F
       'She plays.'                                         [EAO_Basket 010]

(3)   *i'ne    kuyna:nak*
       PRO.F play
       'She plays.'                                                       [e]

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**5.**   The glottal stop of *u', a',* and *i'* is dropped when the pronoun is cliticized to a vowel.

**6.**   Elicited examples, which usually stem from more than one speaker, are marked as [e]; for text examples, the speaker acronym, the title of the text, and the record number in my Toolbox database are indicated. Spontaneous utterances that occurred during eliciation are marked as [spont.]. Examples that lack a source indication are frequently occurring expressions. When tense is not overtly encoded, elicited examples are translated with the English present tense and text examples according to the context. Since definiteness is not a morphological category in Movima (see Haude 2006: 142), the choice of the definite or indefinite English article is generally based on my intuition and should not be considered relevant.

When the argument is known from the context, it can be omitted, so that an intransitive clause can consist of the predicate alone:

(4)  *ji:yi che  ji:yi che  ji:yi*
cry  and cry  and cry
'(She) cried and cried and cried.'                    [EAO_Desvelada 006]

## 2.2    Argument encoding in transitive clauses

Transitive clauses are identified by the fact that they may take two core arguments, i.e. two DPs or pronouns that are not marked as oblique. In a canonical transitive clause, both arguments follow the predicate, as in (5).

(5)  *man<a>ye=is        pa:ko  os          rulrul*
meet<DR>=ART.PL dog    ART.N.PST jaguar
'The dogs found a jaguar.'                         [EAO_Tigre y perro 003]

Apart from linear order, several other factors distinguish the two arguments of a transitive clause. The argument that comes first after the predicate is obligatorily expressed and phonologically closely attached to the predicate through "internal cliticization" (see below). The argument in second position, in contrast, has the same properties as the argument of an intransitive clause: its overt realization is not grammatically obligatory; it has a freer position in the clause; when represented by a pronominal enclitic, it is attached through "external cliticization" (see below).

As will become clear in the following Sections (2.3 and 2.4), the formal encoding of the arguments corresponds to the position of their referents in a salience hierarchy involving person, animacy, and topicality. I will refer to the argument represented by the first constituent after the predicate as Proximate Argument (short: PROX) and to the one represented by the second constituent as Obviative Argument (short: OBV).[7]

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7.    See Bickel (in press) for first using the labels "proximate" and "obviative" for the nominal constituents in Movima. The capital letters in "Proximate" and "Obviate Argument" used here are intended to show that, while semantically/pragmatically based, they refer to formal categories (cf. Haspelmath 2007: 125). In Haude (2006), the arguments were labeled ARG$_1$ and ARG$_2$, respectively, according to their linear order in the clause.

That PROX is obligatorily realized is obvious from the fact that the absence of a pronominal clitic from a bivalent predicate indicates the first person singular:[8]

(6)  *ona      loy pak-na=Ø    kis        pul-a-cho:-pa*
     lets_see ITN count-DR=1SG ART.PL.AB sweep-DR-BE.inside-AG
     'Let's see, I'll count the cleaning women.'        [EAO_Barredoras 014]

OBV, in contrast, does not need to be overtly realized when it is known from the context. Consider (7), where the manioc (*is chinała*) mentioned in the first clause is not referred to again in the second.

(7)  *jayna mere', jiran-ni  is      chinała; jiwa-łe-na='ne*   ney
     DSC  big    nice-PRC ART.PL manioc  come-CO-DR=3F    here
     'The manioc was already big, nice; she brought (it) here.'
                                                     [EAO_Tomina' 042f.]

PROX is obligatorily expressed after the predicate also when there is a coreferential clause-initial free pronoun, as illustrated in (8) (see also 3.1 below). This is not the case with OBV, as can be seen in (9).

(8)  *i'ne   jiwa-łe-na='ne*
     PRO.F come-CO-DR=3F
     'She brought (it.)'                                          [e]

(9)  *i'ne   jiwa-łe-na='u*
     PRO.F come-CO-DR=3M
     'He brought her.'                          [EAO_Antes de fiesta 004]

As far as the contrasting phonological attachment of the arguments is concerned, I differentiate between "internal cliticization", represented by an equals sign ( = ), and "external cliticization", represented by a double dash ( -- ). Internal cliticization, which characterizes PROX, creates a structure whose stress properties are those of a prosodic word: when a monosyllabic element is internally cliticized, this causes stress shift, stress moving one position to the right. When the host has an open penultimate syllable, this syllable loses its lengthening.[9] Internally cliticized elements furthermore require a preceding vowel, so that when the host ends in a consonant, the linking vowel *-a* is inserted; the hiatus created by the cliticization

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8.   The first person can optionally be additionally encoded by the element *ł* preceding the predicate (cf. example (54); see Haude 2006: 271f.).

9.   This feature distinguishes internal cliticization from canonical suffixation.

of a vowel-initial element is resolved by a glottal stop.[10] The phonetic representations in (10) illustrate the stress shift and the shortening of the vowel: with internal cliticization of a syllabic element, as in (10b), stress falls on the last syllable of the host, and not on the penultimate, as is the case when there is no overt pronominal clitic, as in (10a). (Recall from (6) above that the first person singular is zero-encoded on bivalent verbs.)

(10)  a.  *aya:-na=Ø*
          wait_for-DR=1SG
          [a'**ja:**na]
          'I wait for you/him/it etc.'

      b.  *aya-na=us*
          wait_for-DR=3M.AB
          [aja'**na**ʔus]
          'He waits for him/it etc.'

The occurrence of the linking vowel -*a* before an internal clitic is illustrated in (11), where an article is cliticized to the host-final consonant *j*. This example also demonstrates that internal cliticization involves articles of DPs as well as pronouns.

(11)  *kay-a-poj-**a**=us*        *itila:kwa as*        *pa:ko*
      eat-DR-CAUS-LV=ART.M man      ART.N.AB dog
      'The man feeds the dog.'                                          [e]

External cliticization, which characterizes OBV and the single argument of the intransitive clause, does not have the phonological effects of internal cliticization. Here, stress and length remain in place. Externally cliticized elements can attach to a vowel, as in (12), as well as to a consonant, as in (13), in which case the consonant forms the syllable onset. Furthermore, this process only occurs with pronouns, but not with articles, as can be seen from the occurrence of the glottal stop in (14).

(12)  *aya:-na=Ø--us*
      wait_for-DR=1SG--3M.AB
      [a'**ja:**naʔus]
      'I wait for him.'

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**10.**  The insertion of the linking vowel may give rise to the hypothesis that the glottal stop is an integral part of the pronoun or article analyzed here as vowel-initial, and  in fact, this question is not yet completely resolved. The problem with this analysis is the absence of the glottal stop on externally cliticized vowel-initial elements. Therefore, I assume the glottal stop to be an automatic phenomenon on all vowel-initial morphemes (cf. Haude 2006: 38ff.).

**Table 3.** Formal properties of argument encoding

| PROX (and possessor)[11] | OBV (and argument of intransitive clause) |
| --- | --- |
| internal cliticization ( = ): stress shift, epenthetic /a/ | external cliticization ( -- ): resyllabification, no stress shift, no epenthetic /a/ |
| pronouns and articles are cliticized | only pronouns are cliticized |
| obligatory (also when additionally expressed in clause-initial position) | not grammatically obligatory |

(13)  *kay-a:-poj=Ø--as*
  feed-DR-CAUS=1SG--3N.AB
  [ka'**ja:**po**h**as]
  'I feed it.'

(14)  *kay-a:-poj=Ø  as  pa:ko*
  eat-DR-CAUS=1SG ART.N dog
  [ka'ja:po**h ʔ**as pa:ko]
  'I feed the dog.'

The principal properties that formally distinguish PROX and OBV, apart from linear order, are summed up in Table 3.

  In terms of constituency, the two arguments can thus be characterized as internal vs. external to the predicate phrase, as shown in (15).[12]

(15)  [[PRED =PROX] [--OBV]]

## 2.3 The salience hierarchy

The encoding of the participants as either PROX or OBV is determined by the salience hierarchy in (16), which is subdivided into a deictic (a), a semantic (b), and a pragmatic (c) scale ( > meaning "higher than").

(16)  a. person:   1 > 2 > 3
   b. animacy:  human > non-human animate > inanimate
   c. topicality: topic (given) > nontopic (new)

In a clause describing a two-participant event, the salient participant, i.e. the one that is further to the left on the scale, is encoded as PROX, and the nonsalient participant, i.e. the one that is further to the right, is encoded as OBV. Direct and

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11. For possessor encoding, see 5.1 below.

12. I owe this analysis to F. Queixalós (p.c.).

inverse marking, to be described in 2.4 below, map the participant roles onto these syntactic categories.

Due to the presence of pragmatic factors in the hierarchy, the relative ranking of the three sub-scales is problematic and requires further research. The ranking of the person hierarchy (a) over the animacy hierarchy (b) is clearly formally reflected: there are no pronominal clitics which can encode speech-act participants as OBV.[13] Therefore, whenever a speech-act participant interacts with a third person, the speech-act participant is encoded as PROX and the third person as OBV. With regard to the animacy hierarchy (b), in contrast, we find cases in which the encoding of the participants goes against the hierarchy (see 4.2 below). This is probably due to the influence of pragmatic factors (scale c). Still, the ranking of the animacy scale over the topicality scale seems to be confirmed by the fact that the apparently contradictory cases are only found when the participant that is nonsalient on the animacy scale is the actor.[14]

## 2.4    Direct/inverse marking

The participant roles of the arguments are indicated by direct or inverse marking on the predicate. Direct marking, carried out by the suffix *-na* or its base-internal allomorph *-a-* in affirmative main clauses, and present in all the above examples of transitive clauses, indicates that PROX is the actor and OBV the undergoer.[15] The inverse marker *-kay* indicates that PROX is the undergoer and OBV the actor. A direct and an inverse clause are contrasted in (17) and (18), respectively:

(17)  *yok-**na**='ne    as      jokme*
      catch-DR=3F  ART.N bird
      'She caught the chicken.'                              [EAO_Gallina 011]

(18)  *ew-**kay**-a='ne    os        alamre*
      hold-INV-LV=3F  ART.N.PST wire
      'A wire held her back.'                               [EAO_Escape hija 072]

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**13.**  An exception is the second person plural, which can be encoded as OBV by an external clitic. The ranking of first over second person is reflected by the choice of direct and inverse marking on the predicate (see Haude 2006: 276; Haude to appear).

**14.**  On the problem of determining the underlying factors of hierarchies see in particular Comrie (1989: 198f.).

**15.**  The allomorph *-a-* (represented as <*a*> when infixed to a synchronically unanalyzable base) is inserted in second-syllable position on verbal bases that are morphologically complex, have a monosyllabic and consonant-final root (CVC), and whose second-syllable position is not occupied by the affix *-ka* (MLT). The suffix *-na* occurs in all other environments (see Haude 2006: 323ff.).

Example (18) illustrates the use of the inverse when an inanimate entity acts on a human. In (19) below, the inverse form is used to describe an event with an animal acting on a human. The situation described by the inverse clause in (20) is that of an animal being acted upon by the inanimate state of "being full" (denoted by a nominalized form).

(19)  *jayłe   os        pa:ko, kajłe-**kay**-a=us            os        pa:ko*
      then   ART.N.PST dog    go_to_meet-INV-LV=3M.AB ART.N.PST dog
      'Then the dog, the dog went to meet him.'            [JMH_Perro II 043]

(20)  *joro-poj-**kay**-a='ne      as      jidan-wa='ne    i'nes Lus*
      sleep-CAUS-INV-LV=3F ART.N be_full-NMZ=3F ART.F Luz
      'Her being full has made her, Luz (name of a dog), fall asleep.'
                                                            [JMH_spont.]

Example (21) illustrates the case with third-person human participants, which are only distinguished by their relative topicality (scale c). In both (21a) and (21c), the topical participant (represented by the pronominal enclitic *='ne*) is encoded as PROX. In the first clause (21a), this participant is the actor, so that the direct construction is used. In the third clause (21c), the actor role is taken over by a newly introduced participant, represented by a DP. Accordingly, the new participant is encoded as OBV, and the inverse construction is used.[16] (In the intermediate intransitive clause (21b), the topical participant is only expressed on the nominalized predicate of the temporal adjunct.)

(21)  a.  *asko        ona-waj-**na**='ne        chot i'ne   [...]*
          PRO.N.AB know-BE.place-DR=3F HAB PRO.F

      b.  *chot joy-cheł  n-os             to<chi~>chik-a='ne*
          HAB go-R/R    OBL-ART.N.PST small<NMZ~>-LV=3F

      c.  *joy-łe-**kay**-a='ne   i'nes  a:kay-a='ne*
          go-CO-INV-LV=3F ART.F older_sibling-LV=3F
          'She knew that (place), she did [...]. (She) had always gone (there) when she was small. Her older sister had always taken her (there).'
                                                    [EAO_Escape hija 047–049]

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16.   Note that in general, the expression of the event participants is in line with the findings by DuBois (1987): the salient participant is typically expressed as a pronoun, the nonsalient one as a DP.

## 3.   The privileged syntactic status of OBV

As was shown in the preceding sections, Movima displays an asymmetry in argument encoding that is based on the salience hierarchy: OBV, which typically represents the nonsalient participant, has the same formal properties as the argument of the intransitive clause, while PROX, which represents the salient participant, is encoded differently. This is schematized in Figure 1 (S = single argument of intransitive clause).

This section will demonstrate that, moreover, OBV has a privileged syntactic status. Only OBV can be relativized, and it is preferred for topicalization (3.1). For the participant normally encoded as PROX to be relativized or topicalized, a valence-decreasing voice operation is used (3.2). Other constructions which might help to identify the syntactic status of the core arguments (cf. e.g. Keenan 1976; Dixon 1994; Van Valin & LaPolla 1997) do not show a preference for either of the arguments: the argument of an intransitive clause coordinated with a transitive clause can either be dropped or overtly expressed, regardless of whether it is coreferential with PROX or OBV of the preceding transitive clause (see Haude 2009a); reflexive predicates are intransitive, which means that reflexive constructions do not help to determine a privileged argument; purposive clauses, like subordinate clauses in general, are formed through nominalization, which involves obligatory possessive argument encoding (see Haude submitted). No construction has been found yet in which PROX has syntactic control properties.[17]
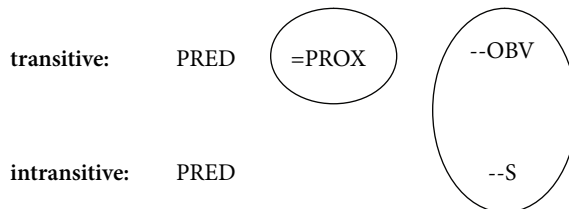


**Figure 1.**  The hierarchical alignment pattern

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17.   Only imperative constructions display signs of accusative alignment (as may be expected; cf. Dixon 1994: 131). On both transitive and intransitive imperative verbs, the plural addressee is encoded by the suffix *-kweɬ*, which is partly identical with the second-person plural marker for PROX *=nkweɬ*.

### 3.1   Relative clauses and the marked-topic construction

Relative clauses follow the DP they modify and are introduced by the particle *di'*. They can only have an intransitive argument or OBV as their head, which is not overtly realized. Accordingly, an intransitive relative clause, illustrated in (22), does not contain an overt core argument:

(22)  *koro'   kos     si:doj   [di' a:mon no-koł         baylim=Ø]*
      DM.N.AB ART.N.AB monkey   REL enter  OBL-ART.N.AB.1 field=1SG
      'There is a monkey that has entered my field.'          [ERC_Mono 001]

When the relative clause is transitive, then either the direct or the inverse construction is chosen, depending on the role of the participant encoded as OBV. In (23), OBV is the undergoer, as indicated by the direct marker on the predicate.

(23)  *isos       wa:ka [di' chik<**a**>ye=**is**    neyru=s  bet'i]*
      ART.PL.PST COW     REL find<DR>=3PL.AB here=DET grassland
      'the cows which they (the people) had found in this grassland'
                                                               [GB_Ganado 002]

In (24), the relativized participant is the actor, as indicated by the inverse morphology.

(24)  *is       mo:so=us     [di' alpani-**kay**-a=us]*
      ART.PL servant=3M.AB  REL help-INV-LV=3M.AB
      'his servants who helped him'                           [EAO_Cbba 053]

Thus, only OBV can be relativized by the above construction. To relativize PROX, which represents the salient participant, a valence-decreasing voice operation is used (see 3.2).

       To a lesser degree, the difference in syntactic status of the two arguments also becomes apparent in what can be labeled the "marked-topic construction". In this construction, one argument is represented by a free form (usually a free pronoun) before the predicate. It is used to single out a participant that was introduced just before.[18] The following examples illustrate the marked-topic construction in transitive clauses, (25) with a direct and (26) with an inverse predicate.

(25)  *jayna asko     jam-**a**-łe='ne*
      DSC   PRO.N.AB bind-DR-CO=3F
      'That one [i.e. the mosquito net mentioned just before] she hangs up then.'
                                                               [EGA_Alojamiento 035]

---

**18.**   For more examples see Haude (2006: 264ff). More research on Movima information structure is needed before the functions of this construction can be characterized more accurately.

(26)  *asko*      *łat* *tet-poj-**kay**-a=is*          *we:ye*
      PRO.N.AB EV  scare-CAUS-INV-LV=ART.PL OX
      'That [i.e. the dog that had suddenly appeared], they say, scared the ox.'
      [EAO_Ay'ku I 018]

The restriction of topicalization to OBV is not as strong as in the case of relativiza-tion. The PROX argument can be encoded by a clause-initial free form as well, as shown in (27). As was already shown by (8) above, the free pronoun then occurs in addition to the obligatory pronominal enclitic.[19]

(27)  *u'ko*    *invitar-**na**=u--k-isne*
      PRO.M invite-DR=3M--OBV[20]-3F.AB
      'He invited her.'                                            [EAO_Visita 094]

Note, however, that while this construction is frequent in texts, speakers usually reject it in elicitation and propose the voice construction with *kaw* instead, to be described in the following section.

## 3.2    The voice particle *kaw*

It was demonstrated in 3.1 that OBV, which refers to the less salient participant in a two-participant event, has the privileged syntactic status. To promote PROX to the privileged status, Movima has a voice operation that allows the former PROX to appear as the single argument of an intransitive clause.

This valence-decreasing operation is carried out by the particle *kaw* (pro-nounced as *kwey* by most speakers) preceding the predicate.[21] The former PROX is then encoded like the argument of an intransitive clause, and the former OBV, if expressed at all, is marked as oblique. This can be observed in the relative clause in (28b). The corresponding main-clause construction is provided under (28a).

(28)  a.  *vel-**na**=’nes*          *senyo:ra* *kos*      *asna=Ø*
          look_after-DR=ART.F lady        ART.N.AB home=1SG
          'The lady looks after my house.'                        [e]

---

**19.**  There is no corresponding inverse construction in the corpus.

**20.**  The prefix *k-* (OBV) occurs on third-person OBV enclitics when PROX is or includes a third person.

**21.**  There is also a tense particle *kwey*, which indicates the time just preceding the speech mo-ment. One criterion to distinguish the two particles is that the voice particle is pronounced as *kaw* by some speakers, while this is not the case with the tense particle (see also Haude 2006: 538f.).

  b. *i'nes   senyo:ra [di'   **kwey** vel-**na**      **no**-kos      asna=Ø]*
  ART.F lady      REL *kaw* look_after-DR OBL-ART.N.AB home=1SG
  'the lady that looks after my house'              [EAO_Cbba 243f.]

Example (29b) illustrates the valence-decreasing operation in a marked-topic construction; it contrasts with the transitive construction in (29a), which is from the same text.

(29)  a. *way-**na**='ne os      joł-kwa*
      take-DR=3F ART.N.PST egg-ABS
      'She took the egg.'                    [EAO Huevo 007]

  b. *i'ne    **kwey** way-**na** n-os      joł-kwa*
      PRO.3F *kaw* take-DR OBL-ART.N.PST egg-ABS
      'It was her who took the egg.'             [EAO Huevo 017]

The valence-decreasing construction is common with direct predicates (where it has an antipassive effect), but it is hardly ever found with inverse ones (where it would have a passivizing effect; see below). In the corpus there is only one example in which the PROX of an inverse clause is topicalized, reproduced in (30b), and none in which PROX is relativized (in fact, the corpus does not seem to contain any example in which a salient undergoer is relativized). The topicalization example in (30b) can, furthermore, be considered exceptional in that it contains the verb *jirampojkay* 'to be pleased', which seems to be to some degree lexicalized (since the literal translation would be 'to be made nice').

(30)  a. *jiram-poj-**kay**-a=is      os      rey  je'=Ø*
      nice-CAUS-INV-LV=3PL.AB ART.N.PST MOD state=1SG
      'They were pleased by my way of being, you see.              [e]

  b. *isko     **kaw** jiram-poj-**kay**  n-os      rey  je'=Ø*
      PRO.PL.AB *kaw* nice-CAUS-INV OBL-ART.N.PST MOD state=1SG
      '<u>They</u> (as opposed to others) were pleased by my way of being, you see.'
                                  [HRR_300703 048]

That the valence-decreasing operation can also operate regularly on the inverse construction only becomes apparent in elicitation. A relative clause is shown in (31b), (31a) illustrating the basic inverse clause. The marked-topic construction is provided in (32).

(31)  a. *lap-**kay**-a=us      itila:kwa os      mimi:di*
      bite-INV-LV=ART.M man      ART.N.PST snake
      'The snake bit the man.'                     [e]

b. *us      itila:kwa [di'  **kwey** lap-**kay**  **n-os**          mimi:di]*
   ART.M man      REL *kaw*  bite-INV OBL-ART.N.PST snake
   'the man that was bitten by the snake'                    [e]

(32) *u'ko    **kwey** lap-**kay** n-os        mimi:di*
    PRO.3M *kaw*  bite-INV OBL-ART.N.PST snake
    'He (as opposed to others) was bitten by the snake.'              [e]

To sum up, the voice construction with *kaw* allows the participant encoded as PROX in a transitive clause to become the single argument of an intransitive clause, which can henceforth be topicalized or relativized. This construction is usually found with direct predicates, where PROX is the actor; it is not grammatically restricted to it, however: elicitation shows that the inverse construction, where PROX is the undergoer, can also be subject to the voice operation.

## 4.   Analyzing Movima in terms of SAO

### 4.1   The split-alignment pattern

It was shown above that OBV patterns like the single argument of an intransitive clause and that it has the privileged syntactic status. This means that there is an asymmetry in argument encoding, as was illustrated in Figure 1 above. The pattern is reminiscent of the asymmetry that characterizes constructions as either accusative (S=A) or ergative (S=O).[22] While it was shown above that the asymmetry in Movima is conditioned by different factors than participant roles, it is obvious that the transitive constructions created by direct and inverse marking have different alignment patterns in terms of participant roles and formal encoding ("remapping inverse", cf. Zúñiga 2006). In the direct construction, the privileged argument (OBV) is O, and in the inverse construction, the privileged argument is A. In other words, the direct construction patterns ergatively and the inverse construction accusatively. This split caused by direct and inverse marking is represented in Figure 2.[23]

---

**22.**   In this section, the terms actor and undergoer are replaced by Dixon's (1994) A and O.

**23.**   In negative and subordinate clauses, where due to nominalization and possessive marking the intransitive argument is encoded in the same way as PROX, this split is reversed (cf. Haude 2006: 306f.).
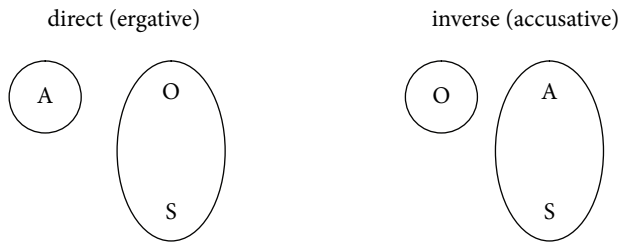
**Figure 2.** The direct/inverse split pattern

The pattern in Figure 2 is untypical of a hierarchically based alignment split: it is conditioned by the position of the participants relative to each other, not by their absolute position in the indexability hierarchy. The typical cases of hierarchically based alignment splits, in contrast, have a fixed cut-off point, e.g. between speech-act-participants and third persons (cf. DeLancey 1981: 628; Dixon 1994: 83ff.; Silverstein 1976).

While the ergative and accusative patterns are clearly observable, I do not consider it sufficient to describe the Movima system in terms of the SAO model. The underlying rationale that forms the basis of this pattern is the salience hierarchy. The ergative and absolutive patterns simply result from the asymmetry in argument encoding, i.e., the fact that only one of the arguments patterns in the same way as the single argument of the intransitive clause, and this argument can be either A or O.[24]

Nevertheless, there are signals that Movima has a bias towards ergative argument encoding and alignment. This will be outlined in the following section.

## 4.2   The unmarked status of the direct construction

Typologically, inverse constructions are "marked" as opposed to direct constructions (Croft 2003: 172). In some languages with a direct/inverse system, only the inverse is overtly morphologically marked (cf. Payne 1997: 213f.), while the reversed case, with an unmarked inverse and a marked direct form of the predicate, does not seem to be attested. This is due to the fact that direct constructions describe situations in which salience and agentivity (or "viewpoint" and "starting point"; DeLancey 1981) coincide, which is the prototypical case, whereas inverse constructions describe situations in which the two features do not coincide. Also in

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**24.** Direct/inverse systems do not necessarily involve such an asymmetry in argument encoding. In Plains Cree, for example, the argument of an intransitive clause is encoded by the same person affix on the verb as in a transitive clause, no matter whether it is the salient or the nonsalient one (cf. Dahlstrom 1991: 30f., 36, 38).

languages that have overt direct marking, this tendency is reflected by the fact that the direct construction is more frequent (cf. Dahlstrom 1991: 59 for Plains Cree).

The cross-linguistic tendency that the direct construction is pragmatically unmarked as opposed to the inverse can be observed in Movima as well. First of all, the direct construction occurs much more frequently in discourse: a text count of a subset of the corpus revealed that 90% of the transitive clauses with third-person participants are direct and only about 10% inverse. (When transitive constructions with at least one speech-act participant are included, the ratio is 80% for direct and 20% for inverse clauses.)[25] In other words, the large majority of transitive affirmative main clauses patterns ergatively.

In addition, there are cases in which we find the direct construction in contradition to the salience hierarchy, in particular, the animacy scale (16b); the inverse construction, in contrast, is not found in opposition to the hierarchy. This is an indication that direct and inverse are not entirely parallel constructions, as was suggested in the previous sections, but that there is an ergative bias: the encoding of the arguments as either PROX or OBV does sometimes not take place on the basis of salience, but on the basis of participant roles, the actor being encoded as PROX and the undergoer as OBV independently of their position in the salience hierarchy.

The pragmatically unmarked status of the direct construction is evident in examples where both third-person arguments are encoded in the same way, i.e., as either bound pronouns or as full DPs. We see this, first of all, in elicitation. In an elicited transitive clause with two DPs, the actor is encoded as PROX and the undergoer as OBV, even when this contradicts the animacy hierarchy, and the verb is marked as direct. This is illustrated in (33a), which is a translation of the Spanish sentence *el perro buscó a mi nieto* ('the dog looked for my grandson'). The inverse construction in (33b), where the person is encoded as PROX and the animal as OBV, was accepted when I suggested it; however, the speakers explicitly pointed out that it was no better than (33a).

(33)  a.  *sal-**na**=as       pa:ko kus      ona:cho=Ø*
          search-DR=ART.N dog    ART.M.AB grandchild=1SG
          'The dog looked for my grandson.'                    [e]

   b.  *sal-**kay**-a=kus           ona:cho=Ø        as      pa:ko*
          search-INV-LV=ART.M.AB grandchild=1SG  ART.N  dog
          'The dog looked for my grandson.'                    [e]

---

**25.** This count is based on a sample of over 40 texts collected in 2002, with a total duration of 2,45 hours and consisting of approximately 2370 sentences, 960 of them transitive clauses of which 360 describe events with two third-person participants. Most texts stem from one single speaker (2:10hs), but they are of different types, including narratives with humans and/or animals as protagonists, instructions, descriptions, and two conversations.

The inverse construction is offered spontaneously only when the salient under-goer is established first as the discourse topic, so that it can subsequently be taken up by an anaphoric bound pronoun, as in (34). This is most adequately translated by an English passive.

(34)   *la'   joy-cheł   us   itila:kwa n-as   chapmo*
       ANT go-R/R   ART.M man   OBL-ART.N bush
       *che tikoy-**kay**-a=us   os   mimi:di*
       and kill-INV-LV=3M.AB ART.N.PST snake
       'The man went into the forest and was killed by a snake.'   [e]

Example (35) shows that the atypical direct construction can undergo the valence-decreasing process when an actor lower on the animacy scale is topicalized. What would be expected instead, in line with the animacy hierarchy, is the inverse con-struction without *kaw* (cf. (26) above).

(35)   *as   yana:we, a'ko   **kwey** tikoy-**na** n-us   itila:kwa*
       ART.N anaconda PRO.N *kaw* kill-DR   OBL-ART.M man
       'The anaconda, that was what killed the man.'   [e]

The elicited example in (36) illustrates a relative clause in which the relativized argument refers to the salient participant. Here as well, the inverse construction with *kaw* would be expected ((36b), repeated from (31b) above). However, as with all elicited examples with a nonsalient actor, it was the direct construction (36a) that was offered first.

(36)   a.   *us   itila:kwa [di' lap-**na**=os   mimi:di]*
            ART.M man   REL bite-DR=ART.N.PST snake
            'the man that the snake bit'   [e]

       b.   *us   itila:kwa [di' **kwey** lap-**kay**   n-os   mimi:di]*
            ART.M man   REL *kaw* bite-INV OBL-ART.N.PST snake
            'the man that was bitten by the snake'   [e]

The above examples are translations from Spanish and may therefore be consid-ered as being of limited empirical value. Nevertheless, these examples demonstrate that in the absence of contextual information, argument encoding is not necessar-ily determined by the salience hierarchy; when it is not, the actor is encoded as PROX and the verb is marked as direct.

What is more important is that also in texts, an actor, even when it is lower on the animacy scale (16b), is typically encoded as PROX when it is higher or equal on the topicality hierarchy (16c). The examples again involve the interaction be-tween an animal as actor and a human as undergoer. Consider the subordinate

transitive clause (37b), which follows an intransitive subordinate clause in which the animal was established as the topic, (37a). In (37b), the topical participant is taken up by a bound pronoun, which is encoded as PROX, although its referent ranks lower on the animacy scale.

(37) a. *asko*     *n-os*         *des-wa=os*       *mimi:di*
      PRO.N.AB  OBL-ART.N.PST jump-NMZ=ART.N.PST snake

    b. *che asko*    *n-os*         *la~lap-wa=as--k-us*
      and PRO.N.AB  OBL-ART.N.PST DR-bite-NMZ=3N.AB--OBV-3M.AB
      'That (was) when the snake jumped, and that (was) when it bit him.'[26]
                                    [EAO_víbora 093f.]

Example (38) involves direct speech. The text from which this example was taken does not provide straightforward clues as to the relative topic-hood of the participants: both were introduced before; that they are referred to by full DPs is probably due to the type of utterance, which reflects a spontaneous reaction to an event. Again, the actor, although it is an animal acting on a human, is encoded as PROX, and the construction is direct.

(38) *jay,*  *jayna lap-**na**=as*    *mimi:di us*     *majni=Ø,*    *jankwa=Ø*
     EXCL  DSC  bite-DR=ART.N snake    ART.M offspring=1SG say=1SG
     'Ah, now the/a snake has bitten my son!, I said.'     [EAO_víbora 096]

Example (39), finally, demonstrates that the pragmatically determined choice of the direct over the inverse construction is restricted to third-person participants. Here, the actor is an animal (*os awaro*), and the two undergoers are the first person singular and a third person (*isnos senyo:ra*). The verb involving the first person undergoer is marked as inverse with the first person as PROX, in accordance with the deictic scale (16a); the verb involving a third-person human undergoer, in contrast, is marked as direct, with the animal encoded by a PROX pronoun.

(39) *os*        *awaro da'*    *pasineł-**kay**=Ø,*
     ART.N.PST parrot DUR.NSTD listen-INV=1SG
     *pasineł-**na**=as*   *isnos*    *senyo:ra*
     listen-DR=3N.AB ART.F.PST lady
     'The parrot was listening to me, it was listening to the lady.'
                                    [JMH_Loro 029]

---

**26.** In subordinate clauses, the direct marker *-na* is optionally replaced by initial CV-reduplication. Due to nominalization, the single argument of the intransitive subordinate clause (37a) is encoded as a possessor, i.e. by an internal enclitic (see Haude submitted); this does not affect the interpretation of the example, however.

The above examples have shown that under certain circumstances, a participant that ranks lower in the animacy hierarchy (16b) is encoded as PROX in the direct construction. However, we do not find the reversed case, i.e. the inverse construction with the less animate participant encoded as PROX, as illustrated by the hypothetical example in (40).

(40)  ? *tikoy-**kay**-a=as    mimi:di us    itila:kwa*
        kill-INV-LV=ART.N snake   ART.M man
        ('The man killed the snake.')

In effect, this means that the direct construction is the default transitive construction, used when in the third-person domain, actor and undergoer are ranked equally on the topicality hierarchy. The inverse construction, in contrast, is restricted to the situation in which the undergoer outranks the actor. The default pattern of transitive affirmative main clauses in Movima, therefore, is ergative.

## 5.   Towards an explanation

The preceding sections have shown that in Movima, the syntactically privileged argument is the one that ranks lower than the nonprivileged argument – if not in terms of salience, then in terms of the participant role hierarchy, in which the actor outranks the undergoer (cf. Van Valin and LaPolla 1997: 146; Zúñiga 2006: 24), as was demonstrated in 4.2. This is quite remarkable from a cross-linguistic perspective: syntactically ergative languages are rare, and a language whose syntactic organization is determined by salience factors seems to have been unattested up to now. The question is, therefore, how this system may have come into being.

The explanation proposed here is inspired by similar accounts of other unusual non-accusative alignment systems (see Himmelmann 1991 and Himmelmann 2008 on Philippine languages; Sasse 1991 on Mayan). It is based on the observation that PROX has the same formal properties as a nominal possessor (5.1) and that nouns and verbs, although morphologically distinct, have an almost identical syntactic status (5.2). The synchronic clause structure of Movima, therefore, may have arisen from a reanalysis of predicate nominal constructions.

Before comparing the syntactic properties of nouns and verbs, it has to be pointed out that morphologically, the two word classes are clearly distinct. Nouns can be incorporated, but verbs cannot: *sal-a-mo:ri* (search-DR-flower) 'to look for flowers' is fine, but e.g. *\*sal-a-ilo:ni* [search-DR-walk], with the intended meaning 'to look for a person who walks', is not (for argument incorporation see Haude 2006: 367ff.). Furthermore, while nouns and verbs share some derivational affixes,

there are a number of affixes that attach to nouns, but not to verbs, and vice versa.[27] For instance, nouns, but not verbs, can be combined with the verbalizing suffix -*tik* to denote an event typically associated with the denotee of the noun (e.g. *roya:-tik* [house-VBZ] 'to build a house'; see Haude 2006: 486ff.).

## 5.1 Possessed nouns

There are significant parallels between possessed nouns and bivalent verbs in Movima: the possessor is encoded in the same way as PROX, and the addition of the particle *kaw* has the same effect on possessed nouns as on bivalent verbs.

The encoding of the possessor through internal cliticization is illustrated in (41b) with a DP and in (42) with a pronominal enclitic. The phonetic representations in (41) illustrate the shortening of the penultimate vowel and the stress shift associated with internal cliticization, and (42) illustrates the addition of the epenthetic vowel -*a* to the possessed noun.

(41)  a.  *as      ro:ya*
          ART.N house
          [as ˈroːja]
          'the house'

      b.  *as      roya=us    itila:kwa*
          ART.N house=3M  man
          [as roˈjaʔus …]
          'the man's house'

(42)  *as     baytim-a=us*
      ART.N field-LV=3M.AB
      'his field'

Many nouns in Movima, including kinship terms and nouns denoting parts of wholes, are obligatorily possessed. On these nouns, the absence of an internally cliticized element implies the first person singular possessor. The word *baytim* 'field' is such a noun:[28]

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27.  Note that the direct and inverse markers are not restricted to verbal bases alone, but can be attached to nouns, as in *lawajes-kay-a='ne* (remedy-INV-LV=3F) 'He/she/it/they healed her.'

28.  Nouns that are not obligatorily possessed are marked for the first person possessor by the element *ɬ* attached to the determiner: *aɬ ro:ya* (ART.N.1 house) 'my house'. This element is optional with obligatorily possessed nouns (as well as with bivalent verbs; see Haude 2006).

(43)   *as      baytim=Ø*
     ART.N field=1SG
     'my field'

Hence, Movima bivalent verbs are remarkably similar to obligatorily possessed nouns in that zero marking implies the first person singular – something that is common cross-linguistically for inalienable possession marking, but not for verbal argument encoding (Denis Creissels p.c.).

Like bivalent verbs, all nouns that can be possessed can productively be combined with the particle *kaw*.[29] The effect is that the referent of the DP is not the denotee of the noun, but its possessor, while the noun is not marked as possessed. The possessed entity is optionally encoded by an oblique pronoun, like the former OBV in a verbal clause with *kaw* (3.2).

(44)   a.   *is      wa:ka*
        ART.PL COW
        '(the) cattle'

      b.   *us     kwey wa:ka (n-i'ko)*
        ART.M *kaw* COW (OBL-PRO.PL.AB)
        'the owner of (that) cattle'                [e]

Especially with terms denoting kinship or social relations, the function of the marker *kaw* on nouns is not entirely clear, since both counterparts of these possessive relations can be referred to by lexical items. There are terms that can refer to either part of the relationship, such as *ulchał* 'in-law' or *alwaj* 'spouse'; for others, there are completely unrelated lexical items, e.g. *nonok* 'grandparent' vs. *ona:cho* 'grandchild'. For three relations, one of the parts is named by a term containing the inverse marker: *ya:ya'* 'uncle', *ya:ni:kay* 'nephew';[30] *ti:ye* 'godchild', *tiyeni:kay* 'godparent'; and the pair *a:na* 'younger sibling' (presumably containing the direct marker *-na*) and *a:kay* 'older sibling'. Therefore, in the text example in (45) below, it is not clear why the term *kwey a:na* is used instead of *a:kay-a=us* 'his older siblings', illustrated in (46), which is used elsewhere in the text. The speaker confirmed that both expressions are equivalent.[31]

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**29.** Not all nouns can be marked as possessed, including, for example, instrumental nouns with the ending *-ni*, which also derives monovalent verbs (cf. Haude 2006: 478f.).

**30.** The suffix *-ni* normally derives monovalent verbs denoting a process (see Haude 2006: 493f.); it is also part of many words that are rather to be considered nouns, e.g. *wulwanra:ni* 'crops' (ibid: 478f.).

**31.** Possessive phrases with *kaw* in transitive clauses are rare in texts, and in elicitation, only isolated DPs were used; therefore, it is impossible to say at this point if their encoding as PROX or OBV plays a role here.

(45)  *joy-a-łe=is*      **kwey** *a:na*         *n-os*        *bet'i*
go-DR-CO=ART.PL *kaw* younger_sibling OBL-ART.N.PST grassland
*nokoldé*
over_there
'(His) older siblings took (him) to the grassland over there.'

[EAO_víbora 010f.]

(46)  *volye-łe-na=us*              *is*      *a:kay-a=us*
turn_around-CO-DR=3M.AB ART.PL older_sibling-LV=3M.AB
'He turned around towards his older siblings.'        [EAO_víbora 076]

The identical encoding of possessor and PROX as well as the effect of the particle *kaw*, together with the fact that PROX does not seem to have syntactic control properties (Section 3), indicate strong parallels between possessed nouns and bivalent verbs. This hints at a common historical source of these categories: as will be argued in the following section, it is possible that bivalent verbal predicates have their origin in the reanalysis of possessed predicate nominals.

However, there are also two significant differences. First, while verbs can only take a PROX argument when they are overtly marked as direct or inverse, nouns are marked as possessed without containing morphology of this type (apart from the few cases mentioned above that contain the ending *-ni:kay*; since this ending is not productive on possessed nouns, they can be considered lexicalized). Second, there is no straightforward evidence at this point that possessors are chosen according to the salience hierarchy, as is the case with PROX.[32] It is clear, however, that in general, prototypical possessors are high in salience, both with regard to deixis/animacy and to topicality (cf. Siewierska 1998: 29f.), and they share this property with PROX. It is therefore very well possible that the analogy with prototypical possessors is the historical source of the salience-based argument encoding in Movima.

## 5.2    The syntactic distribution of nouns and verbs

Nouns and verbs differ only slightly with respect to their syntactic properties: nouns can function as predicates and verbs can occur inside a DP without any morphological modification. The only syntactic difference is that the argument of a clause with a possessed predicate nominal does not have the same distributional possibilities as OBV of a transitive verbal clause. In this section, I will first discuss predicate nominals and then verbs in DPs.

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**32.**  Note e.g. the historically complex expression *nononikay-a=a* (pet_owner-LV=3N) 'its owner (of the pet)', which is derived from *no:no* 'my pet' by the inverse marker, and enables the semantically nonsalient entity (the pet) to be encoded as the possessor.

Movima affirmative clauses have no copula.[33] To express equation or proper inclusion, nouns can function as predicates without any morphological modification. The argument of an equational clause, illustrated in the examples below, is encoded like the single argument of an intransitive verbal clause (cf. 1–4 above): as a phonologically independent DP (47); as an externally cliticized pronoun (48); as a free pronoun in topic position (49); and it can be omitted when it is known from the context, as in (50). Clauses with predicate nominals, therefore, are formally identical to clauses with monovalent verbal predicates.

(47)  *mayoro:mo  kus        alwaj=Ø*
      housekeeper ART.M.AB spouse=1SG
      'My husband (was) a housekeeper.'                    [EAO_Sueño 003]

(48)  *dittej--i'ne, choy tolkosya--'ne di:ra*
      strong--3F  sure girl--3F      still
      'She's strong, she's still a young woman of course.'   [Dial. EAO&AHA]

(49)  *ayru=s       kori:di, a'ko lopa:vos,    ayru*
      DM.N.SPK=DET stick    PRO.N manioc_stem DM.N.SPK
      'This stick here, this (is) a manioc stem, this one here.'   [EAO_Yuca 002]

(50)  *jayna mo'incho:but*
      DSC   manioc_ mass
      '(It was) already fermented manioc mass.'             [EAO_Tomina' 066]

When the predicate nominal is a possessed noun, the clause resembles a transitive verbal clause, due to the identical encoding of PROX and the possessor. The argument of a clause with a possessed predicate nominal, however, can only be realized as a free pronoun in topic position, as in (51). The ungrammaticality of encoding the possessed item by an externally cliticized pronoun is illustrated in (52).

(51)  *ka<ya:~>y-ak, a'ko   nono=n*
      eat<RED~>-IRR PRO.N pet=2
      'May (it) eat, it's your pet!'                        [EAO_spont.]

(52)  a.  *asko        pa:ko=us*
          PRO.N.AB  dog=3M.AB
          'It is his dog.'

      b.  *\*pa:ko=us--k-as*
          dog=3M.AB--OBV-3N.AB
          ('It is his dog.')                                [e]

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**33.**   There may be a copula present in negative main clauses, whose main predicate is nominalized.

Example (53) below illustrates the use of the voice marker *kaw* with a possessed noun in predicate function. The predicate is the obligatorily possessed noun *majni(w)* 'offspring'. In the basic construction (53a), the clause-initial free pronoun refers to the possessed entity denoted by the predicate nominal. In contrast, the free pronoun in (53b) refers to the possessor of the predicate nominal, which is not marked as possessed anymore. The particle *kaw*, therefore, has the same effect in clauses with possessed predicate nominals as in clauses with bivalent predicates (cf. e.g. (28) and (29) above).

(53)  a.  *i'ko      majniw-a='ne*
        PRO.PL  offspring-LV=3F
        'They are her children.'             [EAO_Neighbours 002]

    b.  *isko       **kwey** majni    **ni-kis**         ney*
        PRO.PL.AB *kaw*  offspring  OBL-ART.PL.AB  here
        *di~di-n-a=is*
        RED~BR.seed-LN-LV=3PL.AB
        'They are the parents of their seeds.'        [EAO_Lo"im 002]

The fact that, as was illustrated in (52), the argument of a clause with a possessed predicate nominal is not expressed in the same way as a canonical OBV or as the single argument of an intransitive clause, provides evidence that nominal and verbal predicates are not synchronically equivalent.[34] However, an interpretation of verbal clauses as diachronically analogous with clauses headed by predicate nominals facilitates the understanding of the syntactic patterns described above.

This interpretation, to be illustrated below, is supported by the fact that not only nouns can function as predicates, but that also verbs can occur inside DPs without any morphological modification:

(54) *nokowa      ł    rimeł*-na = Ø   *is      yey-na=n*
     right_now 1SG buy-DR=1SG    ART.PL want-DR=2
     'Now I'll buy the (things) you want.'     [EAO_Abuelo 039]

The referent of a DP containing a verb is not an event, but a participant in the event (in (54), the objects wanted). This participant is determined by the argument structure of the verb: it is the one which would be encoded as the intransitive

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34.  Other differences, still to be investigated, may include the use of TAM particles before the predicate (e.g. *loy* 'intentional'), which may be restricted to verbal predicates.

argument or OBV of the same verb in predicate function.[35] The article of such a "verbal DP" indicates the referential properties of this participant (see Table 1 above). Example (55) shows that when an actor-oriented monovalent verb is combined with an article, as in (55b), the referent of the phrase is the actor.

(55)   a.   ***joy-cheł***   *is*        *kwe:ya*
            go-R/R      ART.PL woman
            '(The) women went.'

       b.   *pe'łełe*   *jemay kwe:ya is*           ***joy-cheł***   *di'*   *kay~kay*
            all         pure woman ART.PL.AB go-R/R        REL   MD~eat
            'Only women went there to eat.'          [EAO_Llamada hija 019]

When an undergoer-oriented monovalent verb occurs in a DP, the referent is the undergoer:

(56)   a.   ***katpit--<u>as</u>***
            broken--3N.AB
            'It was broken.'                              [ERC_Sapo 004]

       b.   *jayna=ł*   *vel-na=Ø*         *os*         *rey*   ***katpit***
            DSC=1      look_at-DR=1SG ART.N.PST MOD   broken
            'Then I looked at the broken (part), you know.'   [ERC_Sapo 016]

Bivalent verbs, i.e., verbs with direct or inverse marking, behave in the same way, the only difference being that they are marked for PROX/possessor. A DP containing a direct-marked verb, as in (57b), refers to the undergoer of the event, which is the participant encoded as OBV when the verb is the predicate, as shown in (57a).

(57)   a.   ***rimeł-na=us***   *os*          *mere'* *ro:ya*
            buy-DR=3M.AB ART.N.PST big    house
            'He bought a big house.'                              [e]

       b.   *mere'*   *ro:ya jiran-di:-ni*        *os*        ***rimeł-na=us***
            big       house nice-BE.house-PRC ART.N.PST buy-DR=3M.AB
            'A big, nice house (was what) he had bought.'   [EAO_Escape hija 004]

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**35.**   There are some exceptions, however. A DP containing the monovalent actor-oriented verb *ya:lo:we* 'to drink' refers to the undergoer (the liquid that is drunk). Likewise, phrases containing verbs with an incorporated undergoer argument refer to the undergoer, even though they are actor-oriented when occurring as predicates (see Haude 2006: 300). It is possible that inside a DP, these verbs are interpreted as nominal compounds headed by the incorporated element.

The verb in (58) is inverse, and accordingly, the referent of the phrase in (58b) is the actor.

(58)  a.  *yey-kay-a=n--us*
      want-INV-LV=2--3M
      'He loves you.'                                                  [e]

    b.  *jayna ji<wa:~>wa us    rey   **yey-kay**-a=n*
      DSC   come<MD~> ART.M MOD want-INV-LV=2
      'The one who loves you, you know, has come already.'
                                                      [JAO_Naye 052]

Bivalent verbs inside a DP can also be combined with the valence-decreasing particle *kaw*. This is illustrated in (59). As expected, the phrase is then not marked as possessed anymore; instead, the possessor is the referent of the phrase. (There is no example of this construction with an inverse verb.)

(59)  *asko     yana:we os        **kwey** yok-na   n-os          ney*
     PRO.N.AB anaconda ART.N.PST *kaw* catch-DR OBL-ART.N.PST here
    *daya'*
    DUR.NSTD
     'It (was) an anaconda (that) had caught [the dog] there.'
                                                     [EGA_Sicurí 049]

The occurrence of a verb inside a DP is pragmatically marked. DPs containing verbs are by far less frequent in texts than those containing nouns (occurring in only 5% of the clauses in the statistically evaluated subset of the corpus, see footnote 25). In addition, most clauses with a verb in argument function are headed by a predicate nominal (like *kwe:ya* 'woman' in (55b), *mere' ro:ya* 'big house' in (57b), *yana:we* 'anaconda' in (59)). However, it is clear that formally, there is no restriction on the syntactic position of either nouns or verbs.

## 5.3   The equational hypothesis

Given that nouns can function as predicates of equational clauses and that verbs can occur in DPs referring to an event participant, it is possible to interpret Movima verbs, independently of their position in the clause, as denoting not events, but event participants (see also Haude 2009b). Clauses with verbal predicates can accordingly be analyzed as expressions of equation, similar to predicate nominals. The English paraphrases of the following examples (repeated from (2), (25), and (26), respectively) serve as an illustration of this view. Note that the transitive clauses (61) and (62) have the same structure as clauses with possessed predicate

nominals, the OBV argument being encoded by a free pronoun in topic position and PROX rendered as a possessor (cf. (49), (51), (52) above).

(60)  *kuyna:nak--i'ne*
      play--3F
      'She (is) (someone who) plays.' (I.e. 'She plays.')

(61)  *jayna asko      jam-a-ɬe='ne*
      DSC   PRO.N.AB bind-DR-CO=3F
      'That (is) her hung-up (one) then.' (I.e. 'That one she hangs up then.')

(62)  *asko       ɬat  tet-poj-kay-a=is            we:ye*
      PRO.N.AB EV  scared-CAUS-INV-LV=ART.PL OX
      'That, they say, (was) the scarer of the ox.' (I.e. 'That, they say, scared the ox.')

Also canonical transitive clauses, where both arguments follow the predicate, can be interpreted in this way, despite the fact that there are no parallel constructions with predicate nominals (cf. (52) above):

(63)  *man<a>ye=is      pa:ko os        rulrul*
      meet<DR>=ART.PL dog   ART.N.PST jaguar
      'The dogs' found (one) (was) a jaguar.' (I.e. 'The dogs found a jaguar.')

Especially in the case of bivalent verbs, the nominal interpretation is reminiscent of participant nominalization with either actor- or undergoer orientation (cf. Payne 1997: 225ff.): like participles, the verbs "characterize an individual in terms of a certain type of participant role it plays in a state of affairs, e.g. as actor or under-goer" (Sasse 1993: 654). The diachronic scenario of verbal predicates having developed from nominalized forms has frequently been discussed with respect to other non-accusative alignment systems (cf. Comrie 1978: 374ff.; Gildea 2000: 87; Himmelmann 1991: 2; Sasse 1993: 660f.; Siewierska 1998: 31f.; Trask 1979: 398ff.).

For Movima, however, there is no evidence that verbal main-clause predicates have originated from nominalization; as was mentioned above, nouns and verbs are morphologically distinct: verbs cannot be incorporated, and they are not found with certain morphemes that can attach to nouns. Furthermore, morphologically un-marked verbs behave syntactically like verbs marked as direct or inverse: as was il-lustrated in the previous section, any verb type can occur inside a DP.[36] However, even without morphological evidence for nominalization, it may still be possible to

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36.  Note, however, that the suffix -*na* does have a nominalizing function on so-called inher-ently monovalent verb roots and bases (Haude 2006: 339ff.), from which it derives nouns denot-ing a location. Unlike direct verbs, these derived nouns can be incorporated, they can receive nominal morphology, and when functioning as a predicate, their argument can only be ex-pressed by a free pronoun in topic position.

consider the similar distributional properties of verbs and nouns as having arisen from a "nounlike" component in the semantics of verbs, which primarily seem to characterize the role of a participant in an event rather than the event itself.

## 6.   Conclusion

It was shown in this paper that argument encoding in Movima is determined by a salience hierarchy involving deictic, semantic, and pragmatic features, and that the participant lower in this hierarchy is encoded as the syntactically privileged argument. The participant roles of the arguments are indicated by direct and inverse marking on the predicate. The asymmetry in alignment, which provides one core argument with a privileged status, leads to an unusual split-alignment pattern: the direct construction patterns ergatively, with the privileged argument representing the undergoer, and the inverse construction patterns accusatively, with the privileged argument representing the actor. Moreover, it can be shown that the ergative construction is pragmatically unmarked.

Interpreting all verbal clauses as originating from equational intransitive clauses with predicate nominals allows an understanding of this unusual pattern. The intransitive interpretation is possible, first of all, because verbs and nouns have similar distributional properties: both lexical categories can occur equally well as a predicate and inside a DP. Furthermore, there is as yet no evidence that PROX has a syntactic argument status – for the time being, I consider it an argument simply because verbs and nouns are synchronically clearly distinct lexical categories. Historically, PROX may have originated from a phrase-internal modifier, similar to a possessor.

The fact that under this interpretation, OBV is (historically) the only core argument, explains why only this argument is accessible to relativization and topicalization. That this argument encodes the nonsalient participant may be due to the cognitive parallel between possession and transitive actions: a possessive relationship is asymmetrical, and a prototypical possessor is more salient than the entity possessed by it; the same is true of prototypical transitive actions – which is why inverse constructions are typologically marked.

Thus, while for this language it will probably never be possible to identify the diachronic details of the scenario, the data strongly suggest that an explanation of the syntactic patterns of Movima can be found along similar lines as those that are sometimes proposed for other non-accusative systems. The major distinctive property of Movima in this respect is that the syntactic patterns explained in this way are not only based on discourse pragmatics, as in the Philippine language type, or on participant roles, as in predominantly ergative languages, but also on ontological salience.

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## Symbols and abbreviations

| | | | |
|---|---|---|---|
| = | internal cliticization; | INV | inverse; |
| -- | external cliticization; | IRR | irrealis; |
| ~ | reduplication; | LV | linking vowel; |
| < > | infixation; | M | masculine; |
| 1 | first person; | MD | middle; |
| 2 | second person; | MOD | modal; |
| 3 | third person; | MOV | moving; |
| AB | absential; | N | neuter; |
| ABS | absolute state; | NEG | negation; |
| AG | agent nominalization; | NMZ | nominalization; |
| ANT | anterior; | NSTD | non-standing; |
| ART | article; | OBL | oblique; |
| BE | bound nominal element; | OBV | obviative; |
| BR | bound root; | PRED | predicate; |
| CAUS | causative; | PST | past; |
| CO | co-participant; | PL | plural; |
| DET | determiner; | PRC | process; |
| DM | demonstrative; | PRO | free pronoun; |
| DR | direct; | RED | reduplication; |
| DSC | discontinuous; | REL | relativizer; |
| DUR | durative; | R/R | reflexive/reciprocal; |
| EV | evidential; | SG | singular; |
| EXCL | exclamation; | SPK | close to speaker; |
| F | feminine; | VBZ | verbalizer. |
| HAB | habitual; | | |

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