

HIERARCHICAL ALIGNMENT IN MOVIMA¹

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In Movima (unclassified, lowland Bolivia), the arguments of a transitive clause are encoded according to the position of their referents in an indexability hierarchy. The argument whose referent is lower in this hierarchy is encoded in the same way as the sole argument of an intransitive clause. This argument, furthermore, is syntactically privileged: it can be relativized and topicalized, while for the argument with the higher-ranking referent to undergo one of these processes, a detransitivizing voice operation is used. Semantic role assignment is carried out by direct and inverse marking on the predicate. Movima represents a hitherto undescribed case of hierarchical alignment, in which an indexability hierarchy has direct impact on syntax and the less salient noun phrase has the privileged syntactic status.

[KEYWORDS: Amazonian languages, direct/inverse, hierarchical alignment, split ergativity, pivot]

1. Introduction. Movima is an endangered, genetically unclassified Southwestern Amazonian language, spoken by several hundred people in and around Santa Ana del Yacuma in the lowland Bolivian Department of Beni. Movima shows a highly unusual argument encoding pattern. The argument of a transitive clause whose referent is located lower in the indexability hierarchy is encoded in the same way as the argument of an intransitive clause, and it has a syntactically privileged status. The assignment of semantic roles is carried out on the predicate, which is marked as either direct or

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inverse to indicate which argument represents the actor and which argument represents the undergoer in the event.

In 2.1 I describe the encoding of the arguments in a transitive clause. The indication of semantic roles through direct and inverse marking is then illustrated in 2.2. In 2.3, the effects of the indexability hierarchy on argument encoding are demonstrated. In 3, I show that the argument whose referent is lower in this hierarchy aligns with the sole argument of an intransitive clause. Section 4 discusses the syntactic status of the argument with the lower-ranking referent. Two pivot-sensitive constructions (relativization and topicalization) and a detransitivizing operation are described, which show that the argument whose referent is lower in the indexability hierarchy is syntactically privileged. In 5, I conclude that while Movima can be described as having two transitive constructions, one with ergative and one with accusative alignment, this is not an adequate basis for describing its morphosyntactic pattern. Rather, Movima represents a hitherto undescribed type of hierarchical alignment, which involves a hierarchically based pivot, with the lower-ranking argument being syntactically privileged.

The presentation here is largely restricted to the encoding of third-person participants. The encoding of first- and second-person participants (see Haude [forthcoming a]) is more complex and beyond the scope of this paper; it does not, however, contradict the analysis given here. The description presented in this paper is also limited to affirmative main clauses, as negative and embedded clauses contain nominalized forms and show a different pattern of person encoding (see Haude [forthcoming b]).²

²This study is based on text and elicitation data collected in Santa Ana del Yacuma, Bolivia, between 2001 and 2007. Elicited examples are marked [e], examples from spontaneous discourse are marked [tx]; examples that occurred both in texts and in elicitation are marked with both symbols. Where tense is not overtly encoded, the tense in English translations of text examples is chosen according to the context, and elicited examples are translated with the English simple past. Orthographic symbols whose phonetic realization is not self-explanatory are *b* [β], *d* [d̥], ' [ʔ], syllable-final *p* [p̠^m], syllable-final *t* [t̠^m], syllable-final *k* [ʔ], *ch* [tʃ], *j* [h], *y*[j]. Syllable structure is (C)V(C) or (C)V: . Stress is usually on the penultimate syllable. Special symbols used in the examples are: = internal cliticization; -- external cliticization; ~ reduplication; < > infixation. Abbreviations in the glosses are: 1 = first person; 2 = second person; 3 = third person; AB = absential; ART = article; DETR = detransitivizer; BE = bound nominal element; BR = bound root; CAUS = causative; CO = coparticipant; DEM = demonstrative; DR = direct; DSC = discontinuous; DUR = durative; F = feminine; HAB = habitual; INV = inverse; LN = linking nasal; LV = linking vowel; M = masculine; MD = middle; MOV = moving; N = neuter; NMZ = nominalization; NSTD = nonstanding; NTR = neutral; OBL = oblique; OBV = obviative; PST = past; PL = plural; PRO = free pronoun; R/R = reflexive/reciprocal; REL = relativizer; SG = singular; SPC = speculative; STD = standing. For more information on Movima phonology and grammar, see Haude (2006).

TABLE 1
ARTICLES

	Presential/Generic	Absential	Past
ART.M	<i>us</i>	<i>kus</i>	<i>us</i>
ART.F	<i>i'nes</i>	<i>kinos</i>	<i>isnos</i>
ART.N	<i>as</i>	<i>kos</i>	<i>os</i>
ART.PL	<i>is</i>	<i>kis</i>	<i>is</i>

TABLE 2
THIRD-PERSON PRONOUNS

	Presential		Absential	
	Free	Bound	Free	Bound
3M	<i>u'ko</i>	<i>u'</i>	<i>usko</i>	<i>us</i>
3F	<i>i'ne</i>	<i>(i)'ne</i>	<i>isne</i>	<i>(i)sne</i>
3N	<i>a'ko</i>	<i>a'</i>	<i>asko</i>	<i>as</i>
3PL	<i>i'ko</i>	<i>i'</i>	<i>isko</i>	<i>is</i>

2. The structure of transitive clauses.

2.1. Argument encoding in transitive clauses. Movima clauses are usually predicate-initial. The predicate is a content word, typically a verb. Arguments always contain a referential element, i.e., they either contain an article (see table 1), which is an obligatory part of a noun phrase, or they consist of a pronoun (see table 2 for third-person pronouns). Referential elements distinguish between entities present at or absent from the speech situation; articles indicate when an absent referent has ceased to exist (see Haude 2004). The article does not distinguish definite from indefinite reference.

The referential elements representing core arguments are morphologically unmarked, while articles or pronouns representing adjuncts are marked by the oblique prefix *n-*. Transitive clauses are defined by the fact that they may contain two overt core arguments. This is illustrated in (1), where the core arguments are represented by the noun phrases *as pa:ko* and *as mi:chi*.

- (1) *lap-na=as pa:ko as mi:chi*
 bite-DR=ART.N dog ART.N cat
 'The/a dog bit the/a cat'. [e]

Intransitive clauses, in contrast, may contain only one overt core argument; other nominal constituents are marked as oblique. Example (2) illustrates this with the monovalent verb *kaykay* 'eat'.

- (2a) *kay-kay is tochik-mo n-is aro:so*
 MD-eat ART.PL small-BE.bird OBL-ART.PL rice
- (2b) . . . **is aro:so*
 ART.PL rice

‘The chicks eat (the) rice’. [e]

While not differentiated through morphology, the arguments of a transitive clause are distinguished by their position in the clause, by grammatical obligatoriness vs. optionality of overt expression, and by the way in which they are phonologically attached to the predicate.

The argument that refers to the participant higher in the indexability hierarchy (see below), and which I label the Proximate Argument (ARG_{prox}), occurs directly after the predicate; it is obligatorily realized and is attached to the predicate by what I call “internal cliticization,” which I explain below.³ In contrast, the argument that refers to the participant lower in the indexability hierarchy, and which I label the Obviate Argument (ARG_{obv}),⁴ occurs in second position after the predicate; it is not obligatorily realized but can be inferred from the context; and when realized as a bound pronoun, it is phonologically attached by “external cliticization,” as explained below. A bound pronoun representing ARG_{obv} receives a particular “obviative” marker when sharing referential properties with ARG_{prox} . In 2.1.1–2.1.4, these formal properties of the core arguments of a transitive clause are described in detail.

2.1.1. Obligatoriness. That ARG_{prox} is obligatorily realized is obvious from the fact that the absence of an overt marker implies the first-person singular:⁵

- (3) *ena’ toroj-na=∅ os mari:ko*
 DUR.STD shake_out-DR=1SG ART.N.PST bag
- ‘I was shaking the bag’. [tx]

That the overt encoding of ARG_{obv} , in contrast, is not grammatically obligatory is illustrated in (4). Even though all three verbs in this example are biva-

³ These properties are identical to possessor encoding (see Haude [forthcoming c] on possible implications of this parallel).

⁴ See Bickel (in press) for the first use of the terms “proximative” and “obviative” to refer to the nominal constituents in Movima. I use the capital letters to show that, while semantically based, they refer to formal categories (see Haspelmath 2007:125). In Haude (2006), the arguments were labeled ARG_1 and ARG_2 , respectively, according to their linear order.

⁵ The first person can optionally be overtly encoded by a free pronoun or by the element (*i*) preceding the host.

lent (as indicated by the direct marker; see 2.2 below), only ARG_{prox} is overtly expressed (here by the second-person pronominal enclitic *-n*).

- (4) *bes-a-łe=n, chi-poj-na=n, che jayna way-na=n*
 detach-DR-CO=2 go_out-CAUS-DR=2 and DSC grab-DR=2
po:ra
 briefly
 ‘You take (it) off, you take (it) out, and then you grab (it) quickly’. [tx]

2.1.2. Internal cliticization. The two arguments in a transitive clause are furthermore distinguished by the way in which they are attached to the preceding constituent. Internal cliticization, which is the process by which a pronoun or article encoding ARG_{prox} is attached, creates a prosodic word, with stress on the penultimate syllable. This can be seen from the phonetic representation of (5a), where a bound pronoun is cliticized, in contrast to (5b), where no overt element is attached to the predicate.

- (5a) *aya-na=us*
 wait_for-DR=3M.AB
 [aja'naʔus]
 ‘He waited for (him/her/it/them)’. [e, tx]

- (5b) *aya:-na=∅*
 wait_for-DR=1SG
 [a'ja:na]
 ‘I waited for (you/him/her/it/them)’. [e, tx]

Articles of noun phrases expressing ARG_{prox} are also internally cliticized; this creates the same stress pattern as with internally cliticized pronouns, as shown by the phonetic representation of (6).⁶

- (6) *man<a>ye=is pa:ko os rulrul*
 meet<DR>=ART.PL dog ART.N.PST jaguar
 [mana'jeʔis 'pa:ko os 'rulrul]
 ‘The dogs found a jaguar’. [tx]

⁶ The fact that articles, which belong syntactically to the following content word, are also affected, is one reason to analyze this morphophonological process as cliticization instead of suffixation; another reason is that internally cliticized third-person pronouns have the same form as externally cliticized ones, which cannot be analyzed as suffixes. Furthermore, unlike in typical suffixation, a penultimate open syllable of a word containing an internal clitic is never lengthened.

Finally, when an internal clitic is attached to a consonant-final host, the epenthetic vowel *-a* is inserted:

- (7) *łok-a-poj-a=is* *kis* *ko'o*
 fall-DR-CAU-LV=3PL ART.PL.AB tree
 'They fell the trees'. [tx]

2.1.3. External cliticization. The phonological attachment of a pronoun encoding ARG_{obv}, which I refer to as "external cliticization" and which is represented by a double dash (--), does not have any of the phonetic effects of internal cliticization. Stress remains in place, as shown by the phonetic representations of (8) and (9). Furthermore, externally cliticized elements can be directly attached to a consonant, as illustrated in (9); unlike the case with two adjacent words, the consonant then forms the syllable onset.

- (8) *aya:-na=∅--us*
 wait_for-DR=1SG--3M.AB
 [a.'ja:.na.ʔus]
 'I wait for him'. [e]
- (9) *łok-a:-poj=∅--is*
 fall-DR-CAUS=1SG--3PL.AB
 [ło.'ka:.po.his]
 'I fell them'. [e]

Articles are never externally cliticized. This is shown by the phonetic representation in (10), where the article is not resyllabified with the preceding consonant but is preceded by the glottal stop.

- (10) *łok-a:-poj=∅* *is* *ko'o*
 fall-DR-CAUS=1SG ART.PL tree
 [ło.'ka.poh .ʔis .'ko.ʔo]
 'I fell the trees'. [e]

2.1.4. Obviative marking. A bound pronoun encoding a third-person ARG_{obv} is preceded by a *k-* when ARG_{prox} is or includes a third person (i.e., third-person or first-person plural exclusive). This is illustrated in (11) for the case in which ARG_{prox} is a third-person pronoun, and in (12) for the case in which ARG_{prox} is the first-person plural exclusive.

- (11) *jiwa-łe-na='ne-k-a'* *ney*
 come-CO-DR=3F--OBV-3N here
 'She brought it here'. [tx]

- (12) *jayna muy-a-kwa=y'li--k-isne*
 DSC shut-DR-BR.mouth=1PL--OBV-3F.AB
 'Then we closed her mouth'. [tx]

This overt marking of a pronoun in contexts where both arguments share the feature of third-person reference (see 2.3) is reminiscent of obviative marking in Algonquian languages. In analogy to the Algonquianist practice, I gloss the pronoun-initial *k-* as an obviative marker. Note, however, that these forms only involve bound pronouns and only occur in transitive constructions.⁷ They do not serve any reference-tracking purposes. Furthermore, the obviative marker is redundant in Movima, since the formal properties of the arguments described above reflect their status in the indexability hierarchy as well.

2.2. Direct and inverse marking. As is demonstrated in detail in 2.3 below, the encoding of arguments as ARG_{prox} or ARG_{obv} is determined by their position in an indexability hierarchy. The participant higher in the indexability hierarchy is encoded as ARG_{prox}, and the participant lower in the hierarchy is encoded as ARG_{obv}. Therefore, in themselves, the formal properties of ARG_{prox} and ARG_{obv} do not indicate the semantic roles of the arguments, i.e., they are not instances of case marking. Semantic roles are instead assigned through direct and inverse marking on the predicate. In (13), the direct suffix *-na* on the verb indicates that ARG_{prox} (= 'ne) is the actor and ARG_{obv} (*is empana:da*) the undergoer.⁸

- (13) *ena' kon-na='ne is empana:da*
 DUR.STD drain-DR=3F ART.PL empanada
 'She is taking out the empanadas (of the oil)'. [tx]

When, in contrast, the verb contains the inverse suffix *-kay*, as in (14), this means that the roles are reversed: ARG_{prox} (= 'ne) is the undergoer and ARG_{obv} (*os alamre*) is the actor.

- (14) *ew-kay-a-'ne os alamre*
 hold-INV-LV=3F ART.N.PST wire
 'A wire held her back'. (Or: 'She was held back by a wire'.) [tx]

⁷ There seems to be only one intransitive construction with the obviative-marked pronoun: the construction with the interrogative predicate *naya* 'where', e.g., *naya' k-is* (where OBV-3PL.AB) 'Where are they?' This may be a hint that the obviative marker *k-* is related to the *k-* that marks absential articles (see table 1).

⁸ The base-final suffix *-na* has a base-internal allomorph *-a* (or <*a*>), whose distribution is phonologically conditioned: *-a* is inserted in complex verbal bases whose root has the structure (C)VC; *-na* occurs with other types of bases, like simple verb roots and complex bases whose roots are either disyllabic or have the form (C)V:.

Constructions of the type in (14), though easily translated with a passive (and analyzed as passive by Judy 1965), are transitive according to the criterion given in 2.1 above: they can contain two overt core arguments, i.e., two noun phrases or pronouns that are not marked as oblique. They do not show any sign of being derived from the direct construction. And, as is demonstrated in 2.3, the “choice” of this construction is based on the referential properties of the arguments. Accordingly, we are dealing here not with a passive but with an inverse construction (see, e.g., Payne 1997:209). In the following section, I analyze the factors that determine the encoding of a nominal constituent as either ARG_{prox} or ARG_{obv} and, consequently, the application of direct and inverse marking.

2.3. The indexability hierarchy. The encoding of arguments as ARG_{prox} and ARG_{obv} in transitive clauses is basically determined by the position of the referents in an “indexability hierarchy” (Bickel and Nichols 2007).⁹ For Movima, this hierarchy can be subdivided into a person/animacy hierarchy and a topicality hierarchy. The Movima person/animacy hierarchy is given in (15).

(15) 1sg/pl > 2sg/pl > 3 human > 3 nonhuman animate > 3 inanimate¹⁰

The topicality hierarchy (16) comes into play when the event participants are equally ranked in the person/animacy hierarchy. Here the topical referent, i.e., the referent known from the context, outranks the nontopical referent.

(16) topic > nontopic

In a clause describing a two-participant event, the participant higher in the indexability hierarchy is encoded as ARG_{prox} and the participant lower in the hierarchy is encoded as ARG_{obv}. Direct and inverse marking indicate who is the actor and who is the undergoer in the event.

Examples of third-person human participants interacting with inanimate ones were given above, showing that the direct form of the predicate is used when a human acts on an inanimate entity (13) and the inverse form when an inanimate entity acts on a human (14). In (17) below, the inverse is used

⁹Other terms used in the literature are “empathy hierarchy” (DeLancey 1981), “(extended) animacy hierarchy” (Comrie 1989 and Croft 2003), “hierarchy of ontological salience” (Klaiman 1991), “Nominal Hierarchy” (Dixon 1994), and “Extended Animacy Hierarchy” (Croft 2003).

¹⁰Further subdivisions inside each of these categories are possible. For example, there is evidence that inside the inanimate category, natural forces rank higher than other inanimate entities (see also DeLancey 1981:644).

for an animal acting on a human, even though the animal (*os karawa:chi*) was introduced as the topic by the preceding intransitive clause.¹¹

- (17) *da'* *day-labal* *os* *karawa:chi* *n-os*
 DUR.NST lie-BE.ground ART.N.P gecko obl-ART.N.P

rada-n-le-sne *che* *lap-kay-a=sne--k-as*
 door-LN-CO=3F.AB and bite-INV-LV=3F.A--OBV-3N.A

n-os *dimpoj-a=sne*
 OBL-ART.N.P toe-LV=3F.A

'A gecko was sitting on the ground in her doorway, and it bit her in her toe'. [tx]

The situation described in (18) is that of an animal being acted upon by the inanimate state of "being full" (expressed by a nominalized form), which requires the inverse.

- (18) *joro-poj-kay-a='ne* *as* *jidan-wa='ne* *i'nes* *Luz*
 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'. [tx]

When two participants occupy the same level in the person/animacy hierarchy, as is possible with third persons, they are encoded on the basis of their relative topicality. The topical participant, i.e., the one known from the context, is encoded as ARG_{prox} and the nontopical participant as ARG_{obv}. This is illustrated in (19) and (20). (19) describes events with human participants. The sole argument of the intransitive clause in (19a) (*--us*) is coreferential with ARG_{prox} of the second clause in (19b) (*=us*), and the newly introduced participant in (19b) (*is kwe:ya di' so:te*) is encoded as ARG_{obv}.

- (19a) *en-chet--us*
 stand-R/R--3M.AB

 (19b) *che* *yok-na=us* *is* *kwe:ya* *di'* *so:te*
 and catch-DR=3M.AB ART.PL woman REL other_person
 'He stopped and caught the other women'. [tx]

(20) illustrates the same phenomenon for interacting animals. The dogs (*is pa:ko*) are introduced first, as the only argument of the intransitive clause in (20a). In the transitive clause (20c), they are encoded as ARG_{prox}, while the new participant, the jaguar (*os rulrul*), is encoded as ARG_{obv}.

¹¹ Note, however, that with animals acting on humans, the animal can also be encoded as ARG_{prox} and the human as ARG_{obv}. This may have to do with discourse pragmatics or with actor prominence (see Haude [forthcoming c] for discussion).

(20a) *kaw-poy* *is* *pa:ko* *di'* *pa:ko=y'ti*
 much-BR.animal ART.PL dog REL dog=1PL

(20b) *che* *ilo:ni--y'ti* *n-os* *chapmo*
 and walk--1PL OBL-ART.N.PST bush

(20c) *che* *man<a>ye=is* *pa:ko* *os* *rulrul*
 and find<DR>=ART.PL dog ART.N.PST jaguar

‘We had many dogs [lit., “the dogs that were our dogs were many”].
 And we walked through the forest, and the dogs found a
 jaguar’. [tx]

(21) illustrates the case with third-person human participants in two transitive clauses. In both clauses, the topical participant (represented by the pronouns =*'ne* and *i'ne*) is ARG_{prox}. In the first clause (21a), this participant is the actor, so that the direct construction is used. In the second clause (21b), the actor role is taken over by a newly introduced participant (*i'nes a:kay-a='ne* ‘her older sister’). This participant is encoded as ARG_{obv} and the inverse construction is used.

(21a) *asko* *ona-waj-na='ne* *chot* *i'ne* [. . .]
 PRO.3N.AB know-BE.place-DR=3F HAB PRO.3F

(21b) *joy-te-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. Her older sister had always taken her
 (there)’. [tx]

That ARG_{prox} is typically the topical participant is also reflected in the fact that this argument is typically expressed by a bound pronoun, while ARG_{obv} is often represented by a full noun phrase. Note, however, that the indexability hierarchy in Movima does not directly differentiate between the different formal expressions of the arguments. In (22), ARG_{prox} is a full noun phrase and ARG_{obv} is a bound pronoun.¹²

(22) *yok-na=is* *pa:ko--k-as*
 catch-DR=ART.PL dog--OBV-3N.AB

‘The dogs caught it’. [tx]

¹² For the sake of regularity, the bound pronoun is represented as an external clitic despite the fact that when it occurs after an NP, no phonological evidence for cliticization of an ARG_{obv} pronoun can be provided: this is only possible for vowel-initial pronouns following a consonant-final host; when following an NP, the pronoun is always marked as obviative by the initial *k-*.

3. Argument encoding in intransitive clauses. The sole argument of an intransitive affirmative main clause (ARG_{intr}) has the same formal properties as ARG_{obv} of a transitive affirmative main clause. Its realization is not grammatically obligatory; when represented by a noun phrase, it is phonologically independent, and when represented by a bound pronoun, it is attached through external cliticization.

The following examples of intransitive clauses illustrate this. In (23), the argument is omitted altogether. In (24), it is expressed by a phonologically independent noun phrase (*as tami:ba*); and the phonetic representation of (25) shows that the argument pronoun (*is*) is externally cliticized.¹³

(23) *ji:yi che ji:yi che ji:yi*
 cry and cry and cry
 ‘(She) cried and cried and cried’. [tx]

(24) *jayna nokowa chi:~chi as tami:ba*
 DSC right_now MD-go_out ART.N baby
 ‘Right now the baby will come out (i.e., be born)’. [tx]

(25) *kuyna:nak--is*
 play--3PL.AB
 [kuj.'na:.na.kis]
 ‘They played’. [tx]

Thus, ARG_{obv} and ARG_{intr} can be viewed as representing one single grammatical relation. In the following section we shall see that ARG_{obv} is the central argument in Movima not only with regard to its encoding but also with regard to its behavioral properties.

4. The syntactic status of the Obviative Argument. There is evidence that ARG_{obv} has a syntactically privileged status. Only ARG_{obv} , not ARG_{prox} , can be relativized. Likewise, of the two transitive arguments, in principle only ARG_{obv} occurs in marked-topic position. A detransitivizing construction is used to relativize ARG_{prox} or to let ARG_{prox} be encoded as the marked topic. Other “subject tests,” however, such as coordinated constructions, reflexives, and complement or purposive clauses, are not helpful in determining the syntactic status of the arguments. In coordinated constructions, either of the arguments can be omitted. Complement and purposive clauses, like most embedded clauses in Movima, involve nominalization and possessive person encoding, a fact that deserves discussion in its own right (see

¹³ The final /k/ of the verb in (25) would be realized as a glottal stop if it did not constitute the syllable onset.

Haude [forthcoming *b*]). Reflexive verbs are monovalent. Only the imperative construction shows signs of working on a nominative/accusative basis, but this is the expected case (see Dixon 1994:131). The following subsections describe coordination (4.1), the marked-topic construction (4.2), relativization (4.3), and the detransitivizing voice operation (4.4).

4.1. Coordinated constructions. Deletion in coordination provides one test for a syntactically privileged relation (Keenan 1976). In Movima, the argument of an intransitive clause coordinated with a preceding transitive clause may always be overtly expressed, but it may also be omitted. It can be coreferential with either of the two arguments of the transitive clause. When the argument of the intransitive clause is omitted, its identity is recovered from the meaning of the predicate or from the larger context.

The following examples contain an intransitive clause connected to a preceding transitive clause by the conjunction *che* ‘and’. In the first two examples, ARG_{intr} is omitted. (26) illustrates the case in which this argument is coreferential with ARG_{obv} (*is arandi*) of the preceding transitive clause. The interpretation of the intransitive clause is clear from the context.

- (26) *jayna il-na=as tinno is arandi*
 DSC spread-DR=ART.N sun ART.PL bamboo_stick
che ena’ botkadi:pi
 and DUR.STD make_cracking_noise

‘The sun has already heated the bamboo sticks and (they) are making a cracking noise’. [tx]

In (27), the omitted ARG_{intr} is coreferential with ARG_{prox} (=is) of the preceding transitive clause. It is identifiable here as well, due to the interaction between animate and inanimate participants and to the meaning of the verb.¹⁴

- (27) *jayna kel-a-kwa=is che jayna kay-kay*
 DSC open-DR-BR.mouth=3PL.AB and DSC MD-eat
ni-kis chochol-a=kis ney to’’im
 OBL-ART.PL.AB nut-LV=ART.PL.AB here to’’im

‘Then they open (the nuts) and then (they) eat the nuts of those *to’’im* (trees)’. [tx]

More often than not, however, the argument of a coordinated intransitive clause is overtly expressed, since its omission can potentially lead to ambiguity. In (28), the free pronoun *inta* ‘I’ is coreferential with ARG_{prox} (zero-encoded) of the preceding clause, and in (29), the bound pronoun *isne* is coreferential with ARG_{obv} of the preceding clause.

¹⁴ Recall that the verb *kaykay* ‘eat’ is monovalent (see 2 above).

- (28) *joy-ɛ:-kay=∅* *us* *pa:toron-a=y'ɛi* *che* *buka'*
 go-CO-INV=1SG ART.M boss-LV=1PL and DUR.MOV
ji:bal *inla*
 slowly PRO.1SG

'Our boss took me with him, and I was moving slowly'. [tx]

- (29) *tek-na=us--k-isne* *che* *joy* *choy* *rey*
 kick-DR=3M.AB--OBV-3F.AB and SPC certainly again
sot-tek--isne
 other-BE.breath--3F.AB

'He kicked her, and probably she fainted'. [tx]

To conclude, the omission of realization of the argument of a coordinated intransitive clause is not biased toward either ARG_{prox} or ARG_{obv}. To use Dixon's (1994) terminology, coordinated constructions do not have a pivot in Movima.

4.2. The marked-topic construction. The difference in the syntactic status of ARG_{prox} and ARG_{obv} becomes apparent in what I call the marked-topic construction. In this construction, one argument is represented by a free form, typically a personal pronoun (otherwise a NP or a demonstrative pronoun; see Haude 2006:264ff.), before the predicate. The marked-topic construction is used to single out a participant that has just before been introduced as the new topic, different from the previous discourse topic. This is the participant that is usually encoded as ARG_{obv}. The following examples illustrate the marked-topic construction in transitive clauses, (30) with a direct and (31) with an inverse predicate.

- (30) *jayna* *asko* *jam-a-ɛe='ne*
 DSC PRO.3N.AB bind-DR-CO=3F

'That one [the mosquito net mentioned just before] she hangs up then'. [tx]

- (31) *che* *is* *so:te* *di'* *senyo:ra,* *isko*
 and ART.PL other_person REL lady PRO.3PL.AB
kayɛ:-kay=∅ *n-is* *justan*
 give-INV=1SG OBL-ART.PL bra

'And the other ladies, they gave me bras'.¹⁵ [tx]

¹⁵ Three-participant events are expressed by transitive clauses with the actor and the recipient as core arguments.

To illustrate the parallel with intransitive argument encoding, an example of an intransitive clause with a topicalized argument is given in (32).

- (32) *usko* *tijka:rim*
 PRO.3M.AB work
 ‘He works’. [tx]

The restriction of topicalization to ARG_{obv} is not as strong as in the case of relativization (see 4.3). While it is typically ARG_{obv} that is encoded as a marked topic, ARG_{prox} can be encoded in this way as well. The free pronoun occurs then in addition to the obligatory bound pronoun.

- (33) *u’ko* *invitar-na=u--k-isne*
 PRO.3M invite-DR=3M--OBV-3F.AB
 ‘He invited her’. [tx]

However, in elicitation, speakers tend to reject the construction illustrated in (33). For the participant higher in the indexability hierarchy to be encoded as the marked topic, the detransitive voice construction is preferred (see 4.4).

4.3. Relative clauses. The strongest evidence that ARG_{obv} has a syntactically privileged status is provided by relativization. Relative clauses follow the noun they modify and are introduced by the particle *di’*. They may only be headed by ARG_{obv} or ARG_{intr}, which may not be overtly realized. Accordingly, an intransitive relative clause, as in (34), does not contain an overt core argument.

- (34) *koro’* *kos* *si:doj* *di’* *a:mon* *no-kot*
 DEM.N.AB ART.N.AB monkey REL enter OBL-ART.N.AB.1
 baytim
 field

‘There is a monkey that enters into my field’. [tx]

When the relative clause is transitive, then either the direct or the inverse construction is used, depending on the semantic role of the head (ARG_{obv}). In (35), the relativized participant is the undergoer, as can be seen from the direct marking on the verb. (35a) illustrates the main clause and (35b) the corresponding relative clause as it occurred in spontaneous discourse.

- (35a) *naye-1e-na=us* *kinos* *alwaj-a=us*
 marry-CO-DR=3M.AB ART.F.AB spouse-LV=3M.AB
 ‘He married his wife’. [e]

- (35b) *kinos alwaj-a=us di' naye-le-na=us*
 ART.F.AB spouse-LV=3M.AB REL marry-CO-DR=3M.AB
 'his wife, whom he had married'. [tx]

In (36b), the relativized participant is the actor, as indicated by inverse marking on the predicate.

- (36a) *alwani-kay-a=y'ti us ney juyeni*
 talk-INV-LV=1PL ART.M here person
 'That person spoke to us'. [e]
- (36b) *us ney juyeni di' alwani-kay-a=y'ti*
 ART.M here person REL talk-INV-LV=1PL
 'that person who spoke to us'. [tx]

Since ARG_{obv} represents the participant lower in the indexability hierarchy (in 35, it is a nontopical, newly introduced participant; in 36, it is lower in the person hierarchy), the restriction to ARG_{obv} in relativization has the effect that only the lower-ranking participant can be relativized.¹⁶ The following section describes the detransitivizing operation, which allows relativization of the higher-ranking participant.

4.4. Detransitive voice. I demonstrated in 4.2 and 4.3 that topicalization and relativization work on an ARG_{obv} pivot. This identifies ARG_{obv} as the privileged argument in transitive clauses. To enable the nonprivileged argument, i.e., ARG_{prox}, to be topicalized or relativized, a detransitivizing voice operation is used.

The decrease in transitivity is created by the particle *kaw* (often pronounced as *kwey*; see Haude 2006:287ff.) before the predicate. A clause with *kaw* is intransitive despite the fact that the verb contains a direct or inverse marker. The former ARG_{obv} is optionally realized as an oblique argument (marked by the prefix *n-*).¹⁷ This can be observed in the marked-topic construction in (37b), which contrasts with the simple transitive construction in (37a).

- (37a) *bay-a-cho=us as wa:so*
 knock-DR-BR.inside=3M.AB ART.N glass
 'He broke the/a glass'. [e]

¹⁶ This is actually not very surprising, since nontopical participants are more likely to be expressed by a free noun phrase than topical ones (see DuBois 1987), and the function of relative clauses is to provide more information on an NP referent.

¹⁷ At the same time, this construction seems to have the effect of emphasizing the participant more strongly, often in a contrastive manner.

- (37b) *usko kwey bay-a:-cho n-as wa:so*
 PRO.3M.AB DETR knock-DR-BR.inside OBL-ART.N glass
 ‘He was the one who broke the/a glass’. [e]

(38) and (39) illustrate the occurrence of the detransitive marked-topic construction in texts. In (38), the topicalized participant is higher in the animacy hierarchy; in (39), the topicalized participant is on the same animacy level as the nontopicalized participant (i.e., the old topic); however, as the context shows, it has been established as the new topic in the preceding discourse.

- (38) *us itila:kwa usko kwey buka’ ji:sa:-na*
 ART.M man PRO.3M.AB DETR DUR.MOV make-DR
ni-kis sitkwa
 OBL-ART.PL.AB hole

‘The man (as opposed to the woman), he is the one who moves along making the holes’. [tx]

- (39) *che kinos ney senyo:ra_i, [. . .] isne_i kwey*
 and ART.F.AB here lady PRO.F.AB DETR
joy-a:-te n-isne_j
 go-DR-CO OBL-PRO.3F.AB

‘And that lady_i, [. . .] she_j was the one who took her_j’. [tx]

(40) shows that the marked-topic construction with *kwey* also works with inverse clauses, so that a higher-ranking undergoer is topicalized. Note, however, that no example of the inverse construction has been found in texts.

- (40) *usko kwey lap-kay n-os mimi:di*
 PRO.3M.AB DETR bite-INV OBL-ART.N.PST snake
 ‘He was the one who was bitten by the/a snake’. [e]

In contrast to the marked-topic construction, which is not entirely restricted to ARG_{obv} (see 33 above), the detransitive operation is obligatory for the relativization of ARG_{prox}. This is illustrated in (41) and (42). In these examples, the main-clause construction is provided in (41a) and (42a), the corresponding relative construction (from spontaneous discourse) in (41b) and (42b).

- (41a) *vel-na=’nes senyo:ra kos asna*
 look_after-DR=ART.F lady ART.N.AB my_home
 ‘The lady looked after my house’. [e]

- (41b) *i'nes senyo:ra di' kwey vel-na no-kos*
 ART.F lady REL DETR look_after-DR OBL-ART.N.AB
asna
 my_home

'the lady that looked after my house'. [tx]

- (42a) *ena' ji:sa-na='nes tolkosya is empana:da*
 DUR.STD make-DR=ART.F girl ART.PL empanada
 'The girl is making empanadas'.

- (42b) *i'nes tolkosya di' ena' kwey ji:sa:-na*
 ART.F girl REL DUR.STD DETR make-DR
n-is empana:da
 OBL-ART.PL empanada

'the girl who is making empanadas'. [tx]

The pair in (43) illustrates the voice operation in a relative clause with an inverse predicate: the higher-ranking, relativized participant is the undergoer. Again, note that this example is elicited: as is the case with an inverse topic construction with *kaw* (see 40 above), the text corpus contains no example in which a higher-ranking undergoer is relativized.

- (43a) *lap-kay-a=us itila:kwa os mimi:di*
 bite-INV-LV=ART.M man ART.N.PST snake
 'The/a snake bit the/a man'. [e]

- (43b) *us itila:kwa di' kwey lap-kay n-os*
 ART.M man REL DETR bite-INV obl-ART.N.PST
mimi:di
 snake

'the/a man that was bitten by the/a snake'. [e]

As can be seen, the voice operation with *kaw* allows the higher-ranking participant, normally expressed as ARG_{prox}, to become the only argument of the clause, which can be topicalized or relativized. The existence of this operation, which works both with the direct and the inverse construction, provides further evidence that ARG_{obv} is the syntactically privileged argument.

5. Conclusion. On the basis of the encoding of third persons in affirmative main clauses, I demonstrated that the syntax of Movima works on the basis of the referential properties of the nominal arguments. The argument

whose referent is lower in the indexability hierarchy is singled out as the privileged syntactic argument both by its coding and by its behavioral properties: it aligns with the sole argument of an intransitive clause; it is the only argument that can be relativized; and it is preferred for topicalization. A detransitivizing voice operation is needed for the argument with the higher-ranking referent to be relativized or topicalized. Movima, therefore, has two highly noteworthy properties: first, it has a hierarchical pivot and, second, this pivot works on the argument with the lower-ranking referent.

Alternatively, the Movima system might be analyzed in terms of the SAO model (Dixon 1994), i.e., according to the formal encoding of semantic roles. Under this analysis, Movima has two parallel transitive construction types: an ergative construction (direct), where the privileged argument is O, and an accusative construction (inverse), where the privileged argument is A. Each construction would have its corresponding voice operation: when the particle *kaw* operates on the direct construction, this has an antipassive effect, and when it operates on the inverse construction, it has a passive effect. The entire system would then be described in terms of split alignment, with a split conditioned by the relative hierarchical ranking of the event participants.

However, this second analysis is based solely on the superficial effect caused by an underlying principle. As has been shown, the underlying rationale which governs argument encoding in Movima is the position of the nominal referents in the indexability hierarchy, and not their semantic role.¹⁸ It is clear that no matter where the referents are located in this hierarchy, they can be actor as well as undergoer in an event, and a language must have a means to indicate this. Movima indicates it through morphological markers on the predicate.

Still, it remains to be explained why it is the noun phrase with the lower-ranking referent that has the privileged status. The hierarchical systems known so far work in the opposite way, with the argument encoding the higher-ranking participant as the syntactically privileged one (see Zúñiga 2006:28). This is intuitively more plausible because the indexability hierarchy then coincides with the grammatical relation hierarchy, where subjects outrank objects (see, e.g., Aissen 1999 and Croft 2003:146).

For an explanation of this phenomenon, other facts of Movima syntax have to be taken into consideration. In particular, it is significant that nouns in Movima can function as predicates in the same way as verbs, and that pos-

¹⁸ See, however, Haude (forthcoming *c*) on the tendency toward ergative argument encoding in Movima, where it is shown that with third-person participants, the direct construction and the encoding of the actor as ARG_{prox} are favored independently of the actor's position in the animacy hierarchy.

sensors are encoded in the same way as ARG_{prox} (see Haude [forthcoming c]). Accordingly, at least historically, all clauses may have a basically intransitive origin, with an opposition between relational (possessed or bivalent) and nonrelational (nonpossessed or monovalent) predicates. It may, therefore, be possible to account for the Movima system in a way similar to accounts proposed for other nonaccusative alignment systems (e.g., Mayan, Austronesian [see Sasse 1991 and also Himmelmann 1991; 2008]). The restriction of the core argument status to the lower-ranking participant may be related to the fact that a prototypical possessor, like an actor, is higher in the indexability hierarchy.

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