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Source-Goal (in)difference and the typology of motion events in the clause[*]

Starting from the clause, the functional domain of motion events with the three loci Verbal, Adnominal, and Adverbal, the paper investigates various grammatical and lexical means of expression for the encoding of the local roles Source and Goal in a sample of 117 languages and in more detail in one language with grammatically indifferent Source-Goal encoding, Mapudungun. It is found that the feature Source-Goal (in)difference forms a global cline with Consistent languages clustering in Eurasia and Indifferent languages being most frequent in the New World.

1. Introduction

We consider motion events to be a semantic domain of the clause with the three loci **Verbal (V)**, **Adnominal (AN)**, and **Adverbal (AV)** (WÄLCHLI 2001). Thus, in (1), where *the cat* is Figure, and *the garden* is Ground, *ran* is the Verbal locus, the preposition *from* the Adnominal, and the adverb or particle *in* the Adverbal locus. In (1) and the following examples V is underlined, AN is in italics and AV is boldface.

(1) English (Indo-European)
The cat <u>ran</u> **in** *from* the garden.

Example (1) wrongly suggests that motion events tend to be encoded by one lexical or grammatical element in each locus. Each locus can be represented several times and none of the three loci is obligatory. Consider example (2) from Spanish with two Verbal positions and without AV, example (3) from Navajo with two Adverbal positions and example (4) from Bernese German without V.

(2) Spanish (Indo-European)
El gato <u>entró</u> <u>corriendo</u> *a* la casa.
the cat entered running to/in(to) the house
'The cat ran into the house.'

(3) Navajo (Athabascan, North America, Young & Morgan 1992: 938)[1]
Mósí tł'óó-*déé'* **yah** **a**-náá-l-wod
cat outdoors-from inside out.of.sight-back-CL-run.ASP.MOD
'The cat ran back in from outside.'

(4) Bernese German (Indo-European)
D Chatz isch *vo-m* Gaarte *i ds* Huus.
the cat is from-the.DAT garden in the.ACC house
'The cat went/ran from the garden into the house.'

It goes without saying that each explicit Ground can have its own AN elements as in (4) where the Source (garden) has a Source preposition and the Goal (house) has a Goal preposition. Each Ground

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Capitalized are the following terms: Grammatical categories in particular languages (e.g., Accusative in Russian), terms for local roles (Source, Goal, etc.), the three loci in motion events, and the values of typological features.

[1] Note that even though Navajo encodes figure in verb stems and displays an intricate interplay of verb prefixes and verb roots with no parallels in English (the root *-wod* actually means 'bend, flex', and the meaning 'run', more precisely 'flex one's legs', obtains thanks to the *l*-classifier), both languages make extensive use of Adverbal markers and have Adnominal markers to encode Source and Goal yielding a quite functional division of labor among the loci.

can then have several AN elements associated with it as is the case in (4), where case (*i* with Accusative denotes Goal in contrast to *i* with Dative for Place) encodes motion along with the preposition. The typology considers only elements encoding motion and abstracts from everything else. Thus, the auxiliary *isch* in (4) is disregarded. The typology does not distinguish between affixes and free elements, both case and adpositions are considered AN markers and both directional affixes and free adverbs or particles are considered AV markers. Moreover, the form of verbs, whether they are finite (as Spanish *entró*) or non-finite (as *corriendo*) is disregarded.[2]

The typology outlined above is far too simple to account for all aspects of motion events. In the literature on motion events the focus of interest has been on the semantic dimensions of the verb. In distinguishing between **movement** (*mouvement*; motion activity irrespective of the resulting change of place, e.g., *run*, *swim*) and **displacement** (*déplacement*; change of place irrespective of motion activity, e.g. *enter*, *descend*, *pass*), TESNIÈRE (1959: 307-310, based on previous work by MALBLANC 1944), focusing on French and German, made the first noteworthy contribution to the contrastive analysis of lexicalization patterns of motion verbs.[3] Better known is TALMY's influential work (1972, 1985, and 1991; all revised and expanded in 2000) originally designed to capture the differences in lexicalization patterns of motion verbs in English (**manner**, corresponds to TESNIÈRE's 'movement'), Spanish (**path**, corresponds roughly to TESNIÈRE's 'displacement'), and Atsugewi, a Hokan language of North America (**figure**, this type being restricted to some North American languages including Navajo). Depending on which semantic dimensions are typically lexicalized in verb roots in addition to motion, his typology originally envisaged the following three types (simplified here): Type I, path in verb; Type II, manner in verb, path in satellite, and Type III, figure in verb and path in satellite. This taxonomy is frequently reduced to an opposition between verb-framed (Type I) and satellite-framed (Types II/III). Modifications of this typology have been proposed by SLOBIN (2003, 2004) and CROFT (2003); these deal especially with various cases of multiple verb constructions, which are difficult to account for if, as in TALMY's model, only a single Verbal position is allowed for (complicating TALMY's notion of satellite).

In the literature on lexicalization patterns of motion events it is usually disregarded that, as far as intransitive clauses are concerned, the major strategy competing with displacement verbs are not manner or figure verbs (which are fairly infrequent in most languages), but the light verb 'go', or where there is a deictic or pseudo-deictic distinction (which is the unmarked choice, see RICCA 1993 for European languages), the light verbs 'go' and 'come'. How this domain is lexicalized and how 'go/come'-verbs interact with displacement verbs and other aspects of motion events is a field of study of its own. Let us just mention here that some languages also have verbs meaning 'go to' and 'come from' which have some affinity with displacement verbs and that verbs meaning 'arrive' and 'depart' are intermediate between displacement verbs and 'go/come' verbs.

It is not possible to give a full survey on the literature on lexicalization patterns of verbs and all its merits here. However, this literature often neglects that the domain of motion events also contains adnominal encoding with semantic dimensions of its own. When comparing the semantics of the Adnominal locus to the semantic dimensions of the verb, these are associated rather with displacement than with manner and figure. Semantic dimensions of the adnominal locus have been distinguished at various places in the literature by different authors independently. They play, for instance, a role in FILLMORE's work on semantic case where he distinguishes (1971/75: 26) what we will call here **local roles** (**Source**, **Goal**, Location, and **Path**; "case-like notions that we have need of for descriptions of instances of locomotion" ibid., 'locomotion' being his term for displacement) and **localization** (surface, interior, neighborhood, front, back, top, bottom, etc. "associated with the space semantics of words naming locations and objects", ibid.).[4] The same distinction has been known in

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[2] Quite similar to our typology is LEVINSON's approach (2003: 95-97). He emphasizes that directional information can also be coded in adpositional phrases, and his tripartite division into ground phrase, adverbial nominals and locative verbs comes very close to our Adnominal, Adverbal and Verbal loci. Further promising approaches to the typology of motion events that are not restricted to the study of limited groups of parts of speech are PLUNGIAN's (2002) "category of verbal orientation", ZLATEV's (2003) "holistic spatial semantics", and SINHA & KUTEVA's (1995) "distributed spatial semantics".

[3] French (*déplacement*), Spanish (*desplazamiento*), and Swedish (*förflyttning*; VIBERG 1981) have the advantage that in those languages terms for displacement are directly understandable without further explanation. In English and German (*Dislokation*) it is more difficult to find an appropriate term.

[4] Note that Path in the FILLMOREan sense is the local role for 'through/along/over G' and is not to be confused with path in the TALMYan sense, this being one major reason why we use TESNIÈRE's term displacement.

the Russian literature since KIBRIK (1970) under the names of *dvigatel'noe značenie* ('moving meaning') and *orientirujuščee značenie* ('orienting meaning', *orientir* being KIBRIK's term for Ground), and Plungian (2002) uses the same terms (*lokativnye roli* and *lokalizacija*) as proposed here. The motivation to refer to Source, Goal, Place (which we prefer as a term for stative locative role in place of the more vague Location), and Path as roles derives from the circumstance that any Ground can assume those roles irrespective of its form, whereas localization always depends at least partly on the form of the concrete kind of Ground involved, and each Ground has its preferred, natural kind of localization associated with it (for instance, top for hills, inside for houses, fit for keyholes, below for shelters).

Within a typology of the adnominal locus, most Indo-European languages of Europe are specific in that they tend to conflate the expression of local role and localization in prepositions, most markedly in a language like Russian (*v*+ACC 'into', *k*+DAT 'to', *na*+ACC 'onto', *v*+LOC 'in', *u*+GEN 'at', *na*+LOC 'on', *iz*+GEN 'out of', *ot*+GEN 'from', *s*+GEN 'down from'; while the morphological case governed by the prepositions has a non-consistent tendency to indicate role: Locative for Place, Genitive for Source, Accusative for Goal), and less markedly in Romance languages like French, which has a general Source preposition *de*, but distinguishes localization for Goal, Place, and Path (*à*, *en*, *dans*, *sur*, *par* etc.), English and other Germanic languages being somewhere in-between. However, it is much more common cross-linguistically to distinguish sharply between local role and localization. One strategy is to have sets of cases or adpositions marked for both dimensions, as is well-known from Uralic languages and the Daghestanian languages which served KIBRIK (1970) as a basis to develop his semantic typology of local cases (see also KIBRIK 2003).

In many languages, localization is expressed by adpositions derived from weakly grammaticalized relational nouns, while motion verbs may serve as occasional local role indicators where disambiguation is required. This is common, for instance, in languages of Subsaharan Africa and lead HEINE et al. (1991: 140) to distinguish between N- and V-adpositions, which capture the fact that in many languages, as in Ewe (5), role adpositions grammaticalize from verbs (underlined, in "transition from verbs to prepositions" WESTERMANN 1907: 96; HEINE et al. 1991: 142) while localization adpositions grammaticalize from nouns (boldface).

(5) Ewe (Niger-Congo, West Africa)
a. ...wò-yi <u>ɖe</u>   to   la **dzi**...
   s/he-go reach mountain DET surface/top
   '...he goes up into a mountain...' [Mark 3:13][5]

b. ...wo-le ɖiɖim   <u>tso</u>   to   la **dzi**...
   they-be descending come.from mountain DET surface/top
   '...they came down from the mountain...' [Mark 9:9]

While local role and localization are the two most salient semantic dimensions in the adnominal locus, there are also other options: In some languages, other semantic dimensions besides local role and localization are encoded via adnominal markers. In Apalai and other Carib languages, for instance, the nature or shape of Grounds is encoded in postpositions together with local role (*kuaka* 'into liquid', *kuae* 'from liquid', *htaka* 'into fire', *htae* 'from fire', etc.; KOEHN & KOEHN 1986: 99). It is sometimes difficult to strictly distinguish localization and shape of Ground as in Avar and some other NE-Caucasian languages where there is a distinction made by means of case marking between the inside of hollow spaces (house, pocket, sack, basket, desert) and the inside of filled spaces (water, crowd, fire, cloud, etc.); see KIBRIK (1970: 120).

Of the three loci, the semantics of the Adverbal locus, as far as not being considered simply a satellite of the Verbal locus, is least understood from a typological point of view and least discussed in the literature. PLUNGIAN (2002) is an important pioneer study in this field.

In this paper we focus on a single aspect of the cross-linguistic expression of local role, notably how Source and Goal are encoded in motion events. This entails necessarily a focus on the Adnominal locus where this distinction is grammaticalized in many languages as case and/or adpositions. In Section 2 we consider a single language, Mapudungun, lacking a grammatical Source-

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Another reason is that in a number of languages, lexicalizations from a noun with the meaning 'path' are manner rather than displacement verbs, as in Spanish *caminar* 'walk' and Bahasa Indonesia *ber-jalan* 'walk'.

[5] Here and elsewhere the King James Version is given as English translation.

Goal distinction and what it can contribute to a better understanding of the typology of motion events. In Section 3, we consider the typology of Source and Goal in a sample of 117 languages from all continents, and finally, in Section 4 we discuss the consequences of our findings for grammaticalization and the relationship of lexicon and grammar in general.

2. Mapudungun: a "source-goal indifferent" language.

Before we address the feature of Source-Goal distinction from a typological perspective, we will discuss data from a single language, Mapudungun (isolate, ca. 200.000 speakers in Chile and Argentina). We discuss Mapudungun not because motion events in this language are encoded in an exceptional way, but rather because the encoding of motion events differs most markedly in one aspect from an average Eurasian language, viz. the treatment of local roles.

Mapudungun is agglutinative and polysynthetic: the verb complex may include a long series of derivational and inflectional suffixes encoding, e.g., person and direction, aspecto-temporal categories, evidentiality, spatial deixis, in addition to voice markers and nominal incorporees. Nominal morphology is comparatively simple, with only possessives and adpositions appearing together with simple or compound nouns; *pu* encodes plural number with humans/animates, and the only oblique marker is the postposition *mew*, which shall concern us shortly. (For more details on the language, see AUGUSTA 1903, SMEETS 1989 or ZÚÑIGA 2000.) With respect to motion verbs, Mapudungun differs only in some details from a displacement verb language (or verb-framing language in TALMY's terms) such as Spanish. However, what makes it unusual from a Eurasian point of view is its almost complete lack of any semantic distinctions in Adnominal position. Consider the following examples:

(6) Mapudungun (Isolate, South America)
a. Chi narki tripa-y ruka *mew*.
    the cat   exit-IND house PPOS
    'The cat went out of the house.'

b. Puw-i   chi kalku   taiñ   ruka *mew*.
    Arrive.there-IND the warlock our:PL   house PPOS
    'The warlock arrived in our house.'

c. Elkaw-ün   mawida   *mew*.
    hide-1SG:IND mountain PPOS
    'I hid in the mountain.'

d. Mollfüñ   *mew* ngüḻfü-nge-ke-y   feychi   pilun ofisha…
    blood   PPOS anoint-PASS-HAB-IND the   ear   sheep
    'With blood they anoint the sheep's ear…' (AUGUSTA 1903: 302)

As a rule, Grounds always take the same oblique Adnominal marker *mew*, which can mean both Source (6a) and Goal (6b), and also other oblique roles including Place (6c) and Instrument (6d). Put differently, the job of *mew* only to mark an NP as oblique, and it depends completely on the verb and the context to determine the role of the NP marked by *mew*. Together with *tripa* 'exit' in (6a) it means Source and together with *pu(w)* 'arrive.there' in (6b) it means Goal. This is what makes Mapudungun motion verbs differ from Spanish motion verbs, which are indifferent to local role. As a matter of fact, Mapudungun motion verbs have typical role orientation:

(7) Selected Mapudungun motion verbs with their typical role orientation (ZÚÑIGA 2002):
    aku- 'arrive.here' [Source]   *pu(w)-* 'arrive.there' [Goal]
                                        küpa-   'come'   [Goal]
                                        amu-   'go'   [Goal]
    tripa- 'exit'   [Source]   *kon-*   'enter'   [Goal]
    nag-   'descend'   [Source]   *püra-*   'ascend'   [Goal]

Other (less frequent) local adpositions include the postposition *püle* 'towards' and the preposition *pu* 'in' (homophonous with the human plural marker mentioned above): *Lafkenche püle* 'towards the People of the Sea', *pu kütral* 'in the fire'. Like *mew*, these do not distinguish Source and Goal.

The Mapudungun motion encoding inventory as presented above looks quite simple (and it is rather simple in contrast to other complex aspects of its structure, such as alignment). There are, however, some features in the Verbal and Adverbal loci that make it slightly more complicated. The Mapudungun verb complex includes some suffixes encoding aspects of motion, notably deixis: the Cislocative *-pa* 'hither' (probably derived from *küpa-* 'come'), the Translocative *-pu* 'thither' (probably derived from *puw-* 'arrive.there'), and the Andative *-me* (round trip, without any known etymology):

(8) Adverbal marking in Mapudungun
    Lef-**pa**-y   / lef-**pu**-y   / lef-**me**-y   chi ngürü.
    run-CIS-IND   run-TRANS-IND   run-AND-IND   the fox
    'The fox ran hither / thither / thither and returned'

That is, unlike Indo-European languages, Adverbal marking is associated diachronically with verbs rather than local adverbs. It is therefore no surprise that Mapudungun also has double verb constructions (formally root serialization) as in (9):

(9) Root serialization in Mapudungun
a.   Ütrüf-püra-m-ün   chi kura
     throw-ascend-TR-1SG.IND   the stone
     'I threw the stone upward.'

b.   Rüngkü-kon-i   chi ngürü.
     jump-enter-IND   the fox
     'The fox jumped in.'

If we now turn back to the expression of Ground we might wonder how Mapudungun expresses clauses with two Grounds, such as 'she went from the forest to the city.' The answer is simply: it does not. The explicit expression of both Source and Goal—which is admittedly unnatural from a non-Eurasian perspective—can only be accomplished by means of a clause linkage strategy that combines a non-finite and a finite predicate as in (10):

(10) Clause linkage in Mapudungun
    Tripa-lu   lemu mew, amu-y waria mew.
    exit-PTCP   forest PPOS go-IND city   PPOS
    'She went from the forest to the city.'

Mapudungun data like these may suggest that languages without local role distinction tend to have maximally one single explicit local role per motion verb. Conversely, we might expect more than one explicit Ground per motion verb to be more common in languages with Source-Goal distinction.

3. Toward a typology of Source-Goal distinction

If there were only languages like Mapudungun and Spanish, we could limit ourselves here to simply listing whether or not languages make a Source-Goal distinction in the Adnominal locus. Since there are, however, many intermediate cases, such as Ewe (see (5) above) with Source and Goal markers that are not used fully consistently and that are not simply adpositions but also retain some properties of verbs, some discussion is required. To keep things simple we consider here two features and how they correlate: (a) **Source marker**: is there an at least weakly grammaticalized Source marker and of which kind (AN, local auxiliary V2, or AV), and (b) **Source-Goal (in)difference**: is the marking of Source and Goal distinct and to which extent?

The values for these features are listed in Appendix A for the 117 languages of the sample, which is admittedly biased toward Eurasia. In order to keep the impact of large stocks within some limits, the sample contains not more than six languages per (established) stock (and as genetically and areally different ones as possible). The material used in this section, along with reference grammars and dictionaries, are parallel texts, that is, translations of the same text into various languages; here the Gospel according to Mark is used. Some problematic aspects of this source of data and how they can cause errors of classification are discussed below. Here it shall be mentioned only that this source of data, in spite of many shortcomings, has also many invaluable advantages especially for the cross-

linguistic comparison of continuous features, since it allows for a direct comparison of use and frequencies across languages.

3.1 Source marker

In addressing Source-Goal distinction we focus on Source marking, Source being the marked choice of local role in motion events (Grounds with Source function are considerably less frequent than Grounds with Goal function in texts since Source unlike Goal is often given information in narrative discourse). Intransitive verbs subcategorizing for Source, such as Mapudungun *tripa* 'exit', and transitive 'leave'-verbs, such as English *leave* and French *quitter* are disregarded if they do not occur with any salient frequency as second verbs (local auxiliaries) in clauses containing another lexical intransitive motion verb. Paraphrases of Source as Goal with outside localization ('to the outside of') are also disregarded. Put differently, we consider only those Source markers that are at least weakly grammaticalized; these are then classified as Adnominal, Adverbal, or Verbal (if they are verbs or at least derive transparently from verbs).

Adnominal Source markers (be it case, such as ablative or ablative and elative, or adpositions, such as English *from* and *out of*) are so widespread and common, especially in Eurasian languages, that they do not need any further illustration here (see (1) from English, (3) from Navajo and (4) from Bernese German above). Source verbs typically have one (or two) of the following lexical meanings: 'exit', 'come.from', 'originate.from', 'leave' (transitive), or 'be.at'. An example for a Verbal Source marker in Ewe, *tso* 'come.from', has been given above (5). In contrast to Verbal Source markers, Adverbal Source markers are rare. An example is Ojibwa *onji-* besides the Verbal Source marker *onjiba* 'come from' that contains *onji-* (*-ba* is not a free stem). Among the languages of the sample, Somali is remarkable in having a consistent Source marker in Adverbal position. Somali *u* 'to' and *ka* 'from', despite their Adverbal positions, behave in some respects as if they were adpositions (and they are in fact postpositions with 1st and 2nd person Grounds, the form of the 3rd person being zero). Consider example (11), with a sequence of two adjacent "adpositions" (called "case particles" by BIBER 1995: 75), *u* 'to' and *ka* 'from', morphonologically fused to *uga*. Somali "adpositions" form a kind of discontinuous postposition phrases together with noun phrases. In example (14) the noun phrase associated with *ka* (underlined) occurs before the declarative marker:

(11) Somali (Afro-Asiatic)
  ...<u>meel</u>   <u>kastana</u> waa   lo**oga**(la-**u**-**ka**)   y-**imi**-d.
  <u>place</u>   <u>all</u>   DEC   PASS-**to:him-from**   3SG.M-**come**-SG
  '...and they came to him from every quarter.' [1:45]

In Paumarí there is at least one verb suffix for Source, *-onani* 'out.of', indicating, however, only that a motion event involves a Source component without conveying any information about the local role of the Ground phrase, which is why we classify Paumarí as Indifferent. In Paumarí, displacement is predominantly expressed in the Adverbal locus by means of verb suffixes that encode direction as well as shape of Ground in the wide sense of the term (i.e., including Source, Goal and Path). Explicit reference to local constituents is made only rarely (CHAPMAN & DERBYSHIRE 1991: 274). Interestingly, 'out of the ship' and 'up into a mountain' are expressed by the same suffix in (12a) and (12b). Displacement in Paumarí is often oriented with respect to water. 'Down from the mountain' in (12c) is expressed by a suffix *-foni* 'to water edge' (in the given context this is appropriate because there actually is water below the mountain).

(12) Paumarí (Arauan, South America)
a. ...a-vi-**gai-mori**-'a-ha...
  away-PL-**go-up.bank**-COMP-THEME
  '…and when he was come out of the ship...' [5:2]

b. ...arabo   nama-hi-ki-**a**   o-**gai-mori**-'a-ha
  mountain   above-AUX-DESC-**ERG/OBL**   away-**go-up.bank**-COMP-THEME
  '…and he goes up into a mountain...' [3:13]

c. ...**ai**   vi-hi-'a-ha,   va-**joi-foni**-na...
  depart PL-AUX-COMP-THEME   PL-**return-to.water.edge**-DEPINTR
  '…and as they came down from the mountain...' [9:9]

Paumarí has thus a strategy of "Ground phrase aversion" different from Mapudungun (see Section 2 above). Since verb suffixes encode the character of Source, Path and Goal of a motion event in their mutual relationship, an explicit expression of Ground is seldom required.

3.2 Source-Goal (in)difference

A major question to be considered after having identified various types of Source markers is whether there is any correlation between the type of Source marker and the (in)consistency of Source marking. The following examples convey further evidence that less grammaticalized Source markers, notably those of verbal origin, tend to be less consistent in use than highly grammaticalized ones (AN).

In Haitian Creole, the serial verbs *soti* 'exit' and *kité* 'leave', also occurring as single verbs on their own in displacement clauses (see also BUCHELI 2001: 8), are occasional Source markers. Like many Niger-Congo languages, Haitian Creole marks only localization (surface, inside, neighborhood, etc.) in Adnominal position, but not local role. Thus, the preposition *nan* 'inside' in (13b-c), is very different in its function from French *dans* (to which it is formally related), which expresses the local roles Goal and Place, but never Source. If localization need not be specified, there is often no preposition in Haitian Creole. This is especially the case with place names as in (13a):

(13) Haitian Creole (French-based Creole)
a. Dirèktè   la   loua ki té **désann**   **soti** Jérisalèm...
    director   DET   law   that be **descend** **exit** J.
    'And the scribes that came down from Jerusalem...' [3:22]

b. Jézi **désann**   **soti**   **nan**   kannòt la…
    J.   **descend** **exit**   **inside** boat   DET
    'And when he was come out of the ship...'[5:2]

c. …li **tounin** **nan**   kannòt la…
    he **return** **inside** boat   DET
    '…entering the ship again…' [8:13]

In Tagalog, there is a general oblique marker *sa* (*kay* with personal names) indicating Source, Goal and other oblique roles (much like *mew* in Mapudungun), unless the oblique role in question is promoted to pivothood by a voice operation marked on the verb, in which case the NP is marked by *ang*. Like in Mapudungun, the motion verb chosen is usually the relevant clue for the interpretation of a *sa*-phrase as Source, Goal, or other role (see also SCHACHTER & OTANES 1983: 77). In (14a), *sa* encodes Source with *labas* 'exit' and Goal with *pasok* 'enter'. There are, however, some predicates that can be thought of combining either with Source or Goal, the most prominent one being *dating* 'come'. With *this* predicate*, the marker *sa* usually means Goal; if, however, Source is intended, an element *mula* (alternatively, *galing*) occurs before *sa*, as in (14b):

(14) Tagalog (Austronesian, insular South East Asia)
a. **L<um>abas** **sa**   tao   ang   masasama-ng   espiritu at
    <AFOC>exit **OBL** man   FOC   evil.PL-LNK   spirit   and
    p<um>asok   nga   **sa** mga   baboy…
    <AFOC>enter indeed   **OBL** PL   pig
    'And the unclean spirits went out, and entered into the swine…' [5:13]

b. S<in>abi   naman   ng   mga   eskriba-ng
    < OFOC>say   REPEV   NFOC   PL   scribe-LNK
    d<um>ating mula   **sa**   Jerusalem…
    <AFOC>come come.from **OBL**   J.
    'And the scribes that came down from Jerusalem said...' [3:22]

The two stems *mula* and *galing* both form Source verbs (*magmula* 'originate from', *manggaling* 'come from'). When used to indicate Source with *sa*, however, they lack the aspectual and the so-called focus markers that typically appear on verbal predicates. Given the notorious difficulty in

qualifying Tagalog stems as verbal or nominal, the challenge presented in deciding the word class status of *mula* and *galing* is not surprising. But since we conceive of motion verbs as broadly as possible we classify *mula* and *galing* as Verbal here, being aware that this is not the only possible solution.

It is essential to consider all Source markers in their interplay. Vietnamese has three grammaticalized Source markers: the preposition *từ* and the co-verbs *ở* 'be at' (preposed) and *khỏi* 'avoid', none of which is a consistent Source marker on its own:[6]

(15) Vietnamese (Austro-Asiatic, continental SE Asia)
a. Các tà-ma **ra** **khỏi** người đó, bèn **nhập vào** bậy heo...
    PL   spirit **exit** **avoid** man that then **enter enter** flock pig
    'And the unclean spirits went out, and entered into the swine...' [5:13]

b. ...**ở** nhà hội **ra,** Chúa và môn-đô **đi**...
    be.at house gather **exit** Lord and disciple **go**
    vào nhà Si-môn và Anh-rê.
    enter house S.   and A.
    '...[when] they were come out of the synagogue, they entered into the house of
    Simon and Andrew' [1:29]

c. ...các người Pha-ri-si... **từ** thành Giê-ru-sa-lem **đến**
   PL   man Pharisee **from** city J.   **come**
   '...the Pharisees...that came from Jerusalem...' [7:1]

However, if we disregard innumerous contexts containing the verb *lìa* 'leave' and the AN element *ngoài* 'outside', there do not remain any examples without explicit Source marking by one of the three Source markers in the text considered, which is why we classify Vietnamese as consistently distinguishing Source and Goal. Note also that word order plays a certain role in Vietnamese: Source as a complement of *ở* 'be.at' occurs always in front of the main verb (*ở* Ground V), with *từ* this order is optional, whereas Goal always follows the main verb.

To sum up the cases discussed so far, we can distinguish the following three major types for the feature Source-Goal (in)difference: Consistent (consistently distinguishing Source and Goal): English, Spanish, Navajo, Vietnamese, and Somali; Mixed (there is some weakly grammaticalized Source marker or construction): Ewe, Haitian Creole, and Tagalog; and Indifferent: Mapudungun. The Indifferent type is rare in the Old World. One of few examples in our sample is Lahu. In Lahu, the postposition *lo* (for inanimate Grounds) "has a general locative meaning that is devoid of intrinsic directionality. Whether a [N + *lo*] is to be translated 'to/toward/into N', or 'in/at N', or 'from/out of/away from N' depends entirely on the semantics of the clause's main verb" (MATISOFF 1973: 162). This is exactly what we also find in the Gospel according to Mark (orthography of the source, different from that in MATISOFF 1973):

(16) Lahu (Sino-Tibetan, continental SE Asia)
a. ...Hpa_ri_sehˇ teˇ hpa_   Ye_rûsa_lehn_ venˇ **lo** **lạ** ve...
   Pharisee   one whole.group J.   city **LOC** **come** IND
   '...the Pharisees...that came from Jerusalem...' [7:1]

b. …Ye_sû Ga_li_lehˇ mvuhˇ mị **lo** **lạ** ve yọ.
    J.   G.   heaven earth **LOC** **come** IND DEC
    '...Jesus came into Galilee...' [1:14]

Besides Consistent, Mixed, and Indifferent there are two minor types called here Source extended and Inanimate. Source extended means that Source marking is consistent but the same marker also occurs in a restricted area of Goal. To this group belong Italian and Gbeya (Niger-Congo) where the preposition for Source (Italian *da*, Gbeya *ha*) is used also for human Goal (Italian *viene da lui* 'comes to him'), French and Rumanian (not in the sample) where one verb with Goal participant, 'approach'

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[6] Co-verbs are "verbs in adpositional function" (BISANG 1992: 57), according to BISANG on a continuum between verb and adposition.

(French *s'approcher de*), has the same preposition as used for Source, and Rhaeto-Romance (Sutsilvan, not in the sample), where some few Ground expressions, notably *da l'otra vart* 'to the other side', take the same preposition as used for Source. Inanimate means the Source-Goal distinctions is restricted to non-human or non-animate Grounds while human or animate Source and Goal Grounds are marked indifferently by the same marker. Three languages of Australia belong here: Warlpiri (animate), Burarra (human), and Worora. Consider example (17) from Warlpiri with Dative case marking both animate Source and animate Ground phrases:

(17) Warlpiri (Pama-Nyungan, Australia)
 ...**wilypi=pardi**-ja   wati-**ki**,   **yaarl=yuka**-ja-lku-lu-jana
 PV=exit-PST   man-**DAT**   **PV=enter**-PST-then-3PL.SUBJ-3PL.OBJ
 nguurrnguurrpa-**ku**-ju.
 pig.PL-**DAT**-EMP
 '[And the unclean spirits] went out, and entered into the swine...' [5:13]

Worora (Wororan, Australian NW coast) behaves similarly in that there is a lack of Source-Goal distinction in pronominal affixes for objects (Worora, as other Northern Australian languages is heavily head-marking) which functionally cover a large part of human Grounds. For instance, *ba keŋgunal-ḍaga* [1:26] (out he.go.PST.hither-3SG.M.OBJ) 'he came out of him' and *kaueraṇurulal-ḍaga* [9:20] (they.bring-3 SG.M.OBJ) 'they bring (him) to him'. The postpositional Source marker *(d)i ḍagu/ḍagạm*, which agrees in gender with the dependent noun, has a close formal affinity to the affix for the 3rd person singular affixes for objects: M/N w-class -*ḍaga*, F -*ḍagạnja*, N m-class -*ḍagạm* (LOVE 1999: 12, 29). Interestingly it holds for all languages of the sample that if a language makes a Source-Goal distinction for animate/human Grounds it does also for inanimate Grounds.
 There is a small number of languages where there is some reason to doubt whether the Gospel according to Mark, used as one source of data for all languages considered, reflects idiomatic language use in respect of Source-Goal (in)difference: these are Thai, Fijian, and Shilluk (the latter two not in the sample). In Thai, the verb *càak* 'leave' almost consistently occurs with Source (as a coverb or main verb). It combines obligatorily as a coverb for Source with the verb *ɔɔk* 'exit', but there are some rare contexts where it may be lacking with some few other verbs: *loŋ rótmee* 'descend bus > leave the bus' and *khŷn rya* 'ascend boat > leave the boat' (see KÖLVER 1984: 12, BISANG 1992: 330, and ZLATEV 2003). However, since the parallel text considered has *khŷn càak rya* 'ascend leave boat > leave the boat', we classify Thai as a language with systematic Source-Goal distinction. In Fijian, a consistent Source-Goal distinction exists in formal Literary Fijian (based on the Bible translation), but not in Colloquial Fijian (SCHÜTZ 1985: 349, 353). In Shilluk, the preposition *ke*, glossed as 'with' in the grammar (KOHNEN 1933: 79 "indicates instruments or company"), occurs consistently as Adnominal Source marker in the translation without any mention of such a function in the grammar (*ke* is given, among other forms, for 'from' in the dictionary section, ibid. 246).
 One might be suspicious also about Mesoamerican languages using the borrowed Spanish Source preposition *de*. In the sample this holds for Mezquital Otomi (Consistent) and Zapoteco del Isthmo (Mixed, *de* occurs with most Source Grounds), but there is reason to believe that this reflects the situation in real language use (V. GAST, T. STOLZ, p.c.). Strangely enough, many modern dialects of Mesoamerican languages have borrowed Spanish prepositions and use them partly or even consistently in the same way as Spanish does.
 Let us turn now to the areal distribution of Source-Goal (in)difference. For this purpose, we consider the two minor types Source extended (with consistent Source marking) and Inanimate (with a consistent distinction for inanimate Grounds) as subtypes of Consistent. Table 1 shows the areal distribution for the three major types.

Table 1: Areality of Source-Goal (in)difference

	Creoles	Africa	Eurasia	SEA&Oc	NG&Au	N Amer	S Amer	total
Indifferent	-	1	-	1	-	**10**	4	16
Mixed	**4**	**10**	1	3	2	7	3	30
Consistent	2	7	**26**	**10**	**13**	6	**7**	71

The feature Source-Goal (in)difference has a very characteristic areal distribution. It fails the Dryer test (DRYER 1989), this being an indicator for macro-areality. This means that there is no uniform majority value for all continents, and this is a robust result even if we use a very different sampling technique from DRYER.[7] In the resulting areal distribution, Eurasia (without South East Asia) is almost completely homogeneously Consistent (with the exception of NW-Caucasian) whereas Subsaharan Africa and Mesoamerica are predominantly Non-consistent, Mixed being the dominant value in Africa, Indifferent in Mesoamerica. Australia is predominantly Consistent. Other areas, North America proper, South America proper, and New Guinea, are more diverse. Unfortunately, these happen to be the areas where our sample is least representative. Nevertheless, since the sample is much better for the areas that emerge as homogeneous, the distribution that we find is robust, despite of the incomplete sample. There seems to be a global cline (NICHOLS 1992: 246): the area with most Consistent languages is found in the Old World (Eurasia) while Indifferent languages concentrate in the New World (especially Mesoamerica).

3.3 The correlation of the two features

Let us now consider how the two features, Source-Goal (in)difference and Presence/Absence of a Source marker, correlate. For this purpose we conflate Indifferent and Mixed to Non-Consistent (Table 2).

Table 2: Source-Goal (in)difference and kind of Source marker

	Non-consistent	Consistent S/G distinction
AN Source marker(s) only	Hausa, Samoan, Tobelo, Zapotec (Isthmus), Zoque	60 languages
AN and AV/V Source markers	Yoruba	Vietnamese, Sougb, Cree
AV or V Source marker(s)	24 languages	Somali, Nama, Tamil, Dungan Chinese, Thai (?), Atoni, Kuot
No Source marker	17 languages	Hmong Njua

The result is a significant and not unexpected correlation: Adnominal Source markers tend to be obligatory (put differently, more grammaticalized), whereas Verbal and Adverbal Source markers tend not to be obligatory (put differently, less grammaticalized). Unfortunately, there is no place here to address the exceptions in detail; a few notes must suffice.

Two remarkable languages are Hmong Njua and Tobelo. In Hmong Njua, Source is expressed by a construction rather than by a specific marker. The form of this construction is V Ground V2, V being the lexical verb and V2 one of the three deictic verbs *moog* 'go', *tuaj* 'come (to other place)', and *lug* 'come (home/back)'. There results a consistent Source-Goal distinction without there being any morphological Source or Goal marker. In Tobelo, the ablative *-ino* is homophonous with the cislocative verbal suffix (HOLTON 2003: 47). Interestingly, deixis plays a role also for the "ablative", which is not restricted to Source, but marks also Goal, if the Goal is 1st person or, more generally, if there is motion hither.

In Dungan Chinese, the coverb *ta* 'come from' (always preposed to the main verb together with the NP it precedes) is a consistent Source marker. In Tamil, Source is marked either by *-iliruntu* 'from' and reduced variants thereof (sometimes termed Ablative, but actually consisting of the locative case *-il* and *iruntu* the converb of 'be', LEHMANN 1993: 41) or Accusative case plus *viṭṭu* (the converb of 'leave'), that is there is Verbal marking at least diachronically. Another language in the sample with a verby origin of a postposition is Nama *xǔ* 'leave, go away, let go' > *xú* 'from' (HEINE & KUTEVA 2002: 188).[8] In Atoni, many prepositions, including the Source preposition, can inflect for tense and are verby in this respect. It remains controversial whether the Source markers in Dungan, Tamil, and Nama are still Verbal diachronically. We have opted here for this solution because we do not want to minimize the number of counterexamples to our generalization. As concerns Samoan, we made the

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[7] DRYER takes account of as many genera (genealogic level below stock; that is, Romance and Germanic rather than Indo-European) as possible, while we, in our much more limited sample, tend to restrict the impact of large genealogic stocks, such as Indo-European, Niger-Congo, and Austronesian, by keeping the number of languages per stock small.

[8] In few cases, *-xu* occurs also as a verbal suffix (in Adverbal position).

opposite choice.[9] Hausa and Yoruba come close to being Consistent, there are, however, some examples without grammaticalized Source markers in the texts.

Further correlations include that Mixed is connected to Verbal Source markers (of 27 languages with Verbal Source markers 20 are Mixed and of 29 Mixed languages 20 have Verbal source markers. Adverbal Source Markers, however, are too rare to exhibit any clear correlations in the sample (8 languages).

We may conclude that there is a significant correlation between the nature of Source markers and Source-Goal (in)difference. Languages without Adnominal Source markers tend to not distinguish consistently between Source and Goal and languages with Adnominal Source markers tend to distinguish consistently between Source and Goal.

4. Conclusions

In this paper we have argued that motion events are properly addressed at the clausal level, where the typologies of Verbal, Adnominal, and Adverbal means of expression should be considered in their mutual interplay. Unlike other approaches focusing primarily on lexicalization patterns in verbs (surveyed in Section 1), we concentrated on one semantic dimension predominantly encoded in Adnominal position, viz. local roles. We found that, between the extreme poles of fully grammaticalized Source markers in Adnominal locus—a hallmark of the average Eurasian language—and the complete lack of grammaticalized Source markers—as found especially in the Americas (see the discussion of Mapudungun in Section 2)—there is a great variety of weakly grammaticalized non-obligatory Source markers in the Verbal and the Adverbal loci. In the sample considered here, we found that Adnominal Source marking goes together with a consistent Source-Goal distinction while Verbal or Adverbal Source markers go together with non-consistent Source-Goal distinction (with most of the few exceptions to this rule located at the edge of the large Eurasian and North African Consistent area). This is exactly what we expect from a grammaticalization perspective: fully grammaticalized is obligatory. However, the fact that most consistent Source markers are diachronically opaque (i.e., they cannot be traced back to any lexical verbal or nominal origin, e.g., there is no lexical etymology of the Ablative in Indo-European or in Uralic), is in our view a problem for grammaticalization. Even though it does not represent evidence against grammaticalization, it is an odd fact that grammaticalization, while neatly explaining the nature of weakly grammaticalized elements, has little to say about the concrete origin of the most grammatical means of expression.

A major result of our study is that Source-Goal (in)difference is a feature of great relevance for areal typology. There is a global cline: Consistent languages cluster in the Old World in Eurasia, North Africa, and Australia, while most Indifferent languages are found in the Americas. Furthermore, Source-Goal (in)difference can be extremely stable genealogically. All Indo-European languages are Consistent (with minimal diversity represented only in some Source extended Romance languages), there being very few other features where all Indo-European languages behave alike. The feature is also of great relevance for Creole studies (some Creole languages with Indo-European lexifier languages behave differently from all Indo-European languages, being typologically similar rather to their substrate languages) and language contact (consider the borrowed Spanish preposition *de* in Mesoamerican languages, to mention only one remarkable example).

Motion events are a very suitable domain for the study of functional interdependencies between grammatical and lexical means of expression. If a certain semantic distinction (such as Source vs. Goal) is not encoded grammatically by case or adpositions, this does not entail that is grammatically encoded elsewhere in the clause. Rather, lexical expressions, notably verbs, with a certain preponderance of either Source or Goal connotation, may then serve as occasional Source or Goal indicators. This may lead to a weak grammaticalization of certain verbs, such as 'exit', 'be.at' or 'leave', as Source markers, but such Source verbs seem not to develop in languages already having a consistent grammatical Source-Goal distinction. However, since there is no functional need for the next step, viz. a strong grammaticalization involving obligatorification, this stage of weak grammaticalization can be very time-stable.

There are other indications for interdependencies between various aspects of motion event

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9   In Samoan, a Source-Goal distinction is made in the majority of cases by means of the preposition *mai* (of verbal origin [*'come']; more rarely *nai*), but there remains a considerable residue of examples where the general local preposition *i* (the product of a merger of two prepositions, **i* locative and **ki* directional) is found for Source (Mosel & Hovdhaugen 1992: 144).

encoding. In the discussion of Mapudungun in Section 2 we found that at least some languages with Source-Goal indifference tend to restrict the number of Ground phrases to one per clause. Moreover, in at least one Source-Goal indifferent language, Paumarí, there is a general tendency to avoid Ground phrases wherever possible. This suggests that Ground phrases are generally more frequent in languages where they are obligatorily marked for local role. If such a correlation (which cannot be tested on the basis of material from parallel texts) should prove to be valid, it could contribute to explain why the feature is so stable both areally and genealogically. If (a) frequency of Ground phrases and obligatoriness of local role encoding and (b) absence of Ground phrases and lack of local role encoding go together typologically, a language with an obligatory distinction will not be inclined to abolish it, because it is frequently made in discourse and functionally loaded. On the other hand, a language lacking the distinction has little reason to introduce it, since Ground phrases are infrequent anyway. Further research, based on original texts, is needed to clarify this point.

Appendix A

   The following table lists the languages of the sample grouped according to linguistic continents (where Maltese belongs to Africa). The table contains the Source-Goal (in)difference value and the weakly and strongly grammaticalized Adnominal, Adverbal, and Verbal Source markers without giving lexical translations for which there is no space.

	AN Source marker(s)	AV Source marker(s)	V2 Source marker(s)	Source-Goal (in)difference
Creoles				
Papiamento	*di, fo'i*	—	—	Consistent
Haitian Creole	—	—	*soti, kité*	Mixed
Seychelles Creole	—	—	*sorti*	Mixed
Kriol	*brom*	—	—	Consistent
Sranan	—	—	*komoto, komopo*	Mixed
Tok Pisin	—	—	*lusim*	Mixed
Africa				
Amharic	*kä*	—	—	Consistent
Maltese	*minn*	—	—	Consistent
Tamachek	—	—	—	Indifferent
Hausa	*daga*	—	—	Mixed
Somali	—	*ka*	—	Consistent
Nubian (Kunuzi)	*-(i)r/ro/do/lo-ton*	—	—	Consistent
Pökoot (Suk)	—	Suffix	—	Mixed
Acholi	—	—	*'aà*	Mixed
Murle	—	—	*duŋna*	Mixed
Songhay	—	—	*hun*	Mixed
Kunama	*-kin*	—	—	Consistent
Efik	—	—	*tó*	Mixed
Ewe	—	—	*tso, le*	Mixed
Yoruba	*láti, (lara)*	—	*kuro, ti*	Mixed
Bambara	—	—	*bo*	Mixed
Zulu	—	—	*vela*	Mixed
Gbeya	*ha*	—	—	SourceExtended
Khoekhoe (Nama)	—	*-xu*	*-xu*	Consistent
Eurasia				
Lithuanian	*iš*+GEN, *nu*+GEN	—	—	Consistent
Armenian (Classical)	*i*+ABL	—	—	Consistent
Hindi	*se*	—	—	Consistent
Greek (Modern)	*apo*	—	—	Consistent
Italian	*da*	—	—	SourceExtended
Irish	*as, ó*	—	—	Consistent
Basque	*-tik*	—	—	Consistent
Georgian (Modern)	*-(i)dan, -(i)gan*	—	—	Consistent
Adyghe	—	—	*-ć'ə*	Mixed
Avar	*-a*	—	—	Consistent
Lak	*-a(tu)*	—	—	Consistent
Lezgian	*-aj*	—	—	Consistent
Udi	*-Vxo*	—	—	Consistent
Hungarian	*-tÓl, -rÓl, -bÓl*	—	—	Consistent
Mari (Eastern)	*deč, gyč*	—	—	Consistent
Estonian (Setu)	*-st, -lt, mant*	—	—	Consistent
Chuvash	*-rAn/tAn*	—	—	Consistent
Tuva	*-dAn*	—	—	Consistent
Khalkha	*-aas, -ees*	—	—	Consistent

Korean	*-eyse*	—	—	Consistent
Ainu	*orowa (no), wa-(no), o-*	—	—	Consistent
Tamil	—	—	*-(il)+iruntu, viṭṭu*	Consistent
Tibetan	*-las, -nas*	—	—	Consistent
Garo	*-o-ni*	—	—	Consistent
Naga (Tanghkul)	*-wui eina*	—	—	Consistent
Santali	*-khɔn*	—	—	Consistent
Khasi	*na*	—	—	Consistent
SEA & Oceania				
Burmese	*mya, ka*	—	—	Consistent
Lahu	—	—	—	Indifferent
Dungan Chinese	—	—	*da*	Consistent
Nicobarese (Car)	—	—	*ṛa=ang*	Mixed
Khmer	*pi*	—	—	Consistent
Vietnamese	*từ*	—	*ở, khỏi*	Consistent
Hmong (Njua)	—	—	—	Consistent
Thai	—	—	*càak*	Consistent (?)
Bahasa Indonesia	*dari*	—	—	Consistent
Timorese (Atoni)	—	—	*na'ko, asaitan*	Consistent
Tagalog	—	—	*mula sa, galing sa*	Mixed
Samoan	*mai (nai)*	—	—	Mixed
Ulawa (Sa'a)	*mwaani+*PRO*, kei(kei)+i*	—	—	Consistent
Yabem	*aŋga*	—	—	Consistent
NG & Australia				
Toaripi	—	—	*kiripai, pea*	Mixed
Kâte	*-(k)o-nec*	—	—	Consistent
Waris	*-rini, -namini*	—	—	Consistent
Tobelo	*-ino*	—	—	Mixed
Sougb	*dau*	*-dau*	—	Consistent
Kuot	—	—	*olai*	Consistent
Gumatj (Dhuwala)	*-ñuru, -walañu*	—	—	Consistent
Kala Lagaw Ya	*-ngu/zi/nguz*	—	—	Consistent
Kuku-Yalanji	*-mun, -ndVmun*	—	—	Consistent
Pitjantjatjara	*-nguṟu, -languṟu*	—	—	Consistent
Warlpiri	*-ngurlu, -jangka*	—	—	Inanimate
Wik Mungkan	*-am/antam, anpal*	—	—	Consistent
Worora	*(d)i ḍagu/ḍaḡạm*	—	—	Inanimate
Burarra	*wenga*	—	—	Inanimate
Nunggubuyu	*-w₁ala/gala*	—	—	Consistent
North America				
Inuktitut (Labrador)	*-mit (*PL *-nit)*	—	—	Consistent
Navajo	*-déé'*	—	—	Consistent
Cree	*oo"tshi*	*oo"tshi-*	—	Consistent
Ojibwa	—	*onji-*	*onji-baa*	Mixed
Seneca	—	—	—	Indifferent
Dakota	*-(ya)taŋhaŋ*	—	—	Consistent
Choctaw	—	—	*minti*	Mixed
Muskogee (Creek)	—	—	*en-kvpvk*	Mixed
Hopi	*-ngaqw, *PRO*-ngqw*	—	—	Consistent
Huichol	—	—	—	Indifferent
Nahuatl (Guerrero)	—	—	—	Indifferent
Purépecha (Tarascan)	—	*-a-ku*	—	Mixed
Cakchiquel	—	—	—	Indifferent
Yucatán Maya	—	—	—	Indifferent
Tlapanec	—	—	—	Indifferent
Mixe (Coatlán)	—	—	—	Indifferent
Zoque (Copainalá)	*-k*	—	—	Mixed
Totonac (Sierra)	—	—	—	Indifferent
Otomi (Mezquital)	*de (< Spanish)*	—	—	Consistent
Mixtec (San Miguel el Grande)	—	—	—	Indifferent
Trique	—	—	—	Indifferent
Mazatec (Huautla)	—	*-ni*	—	Mixed
Zapotec (Isthmus)	*de (< Spanish)*	—	—	Mixed
South America				
Miskito	*wina*	—	—	Consistent
Bribri	—	—	—	Indifferent
Guaymi (Valiente)	—	*(kobore)*	—	Indifferent
Kuna	—	—	—	Indifferent
Piro	*— (-ya)*	—	—	Mixed

Language				
Yanesha' (Amuesha)	*-o-ĩ*	—	—	Consistent
Paumari	—	*(-onani)*	—	Indifferent
Shipibo	*-oa/a/nia/mea/quea-ašh*	—	—	Consistent
Chiquitano	*-qui*	—	—	Consistent
Lengua (Maskoy)	—	—	*kyïñeêkteyï*	Mixed
Quechua (Imbabura)	*-man-ta*	—	—	Consistent
Aymara	*-ta*	—	—	Consistent
Guaraní	*-gui*	—	—	Consistent
Mapudungun	—	—	—	Indifferent

Abbreviations: ACC accusative, Adv adverbial prefix, AFOC actor focus, AN Adnominal, AND andative, ASP aspect, AUX auxiliary, AV Adverbal, CIS cislocative, CL classifier, COMP completive, DAT dative, DEC declarative, DEPINTR dependent intransitive, DESC descriptive, DET determiner, EMP emphasis, ERG ergative, F feminine, FOC focus, FUT future, GEN genitive, HAB habitual, IND indicative, LNK linker, LOC locative or general kind of local marker, M masculine, MOD mode, N neuter, NFOC non-focus, O undergoer, OBJ object, OBL oblique, OFOC object focus, PASS passive (non-specified subject in Somali), PL plural, PPOS postposition, PST past, PTCP participle, PV preverb, RE 'again/back', REPEV repeated event, SG singular, S subject, THEME theme, TR transitivizer, TRANS translocative, TRL translative, V Verbal, = hyphen in original orthography.

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