Sequenced Place and Goal components express Source of motion: a cross-linguistic study*

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Abstract

This explorative study discusses a hitherto underdescribed Source of motion expression type that is based on sequencing a Place-denoting component with a Goal-denoting component. Nine languages that show this bipartite coding strategy are discussed in detail, and are compared with regard to eventhood criteria, such as shared TAM marking. This type of Source expression shows that some languages make do without dedicated Source verbs and without grammatical Source marking. Instead, they are headed by Goal verbs which are iconically ordered with Place-denoting forms. Together, they express two subevents (*staying at X, going to Y*), the combination of which results in a Source of motion event (*leaving [from] X*). The bipartite and iconically ordered Source expression type is a crosslinguistically attested strategy which shows some formal variety across languages. The bipartite strategy is further contrasted with Goal/ Source expressions where Path is inferred from lexical semantic contrast.

1 Introduction

Inference has received little attention in comparative language studies and linguistic typology. Some language-individual descriptions place emphasis on the subject whenever contextual and otherwise inferred information is crucial in given languages. For instance, in a dedicated study on spatial relations in the Austronesian language Kavalan, Jiang (2006: 58) notes that the language "places emphasis on nonlinguistic inference, which compensates for the information loss of topological relations". Linguistic studies of motion events often deal with overt grammatical and dedicated lexical items which express Places (*in* London), Goals (*to* London) and Sources (*from* London) of motion. Many studies explicitly focus on presence or absence of grammaticised forms (cf. Creissels 2009; Pantcheva 2011; Lestrade 2010; Wälchli/Zúñiga 2006; Nintemann et al. 2020; Stolz et al. 2017, among others).[1] Languages with few or without grammati-

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[1] Grounds are arguments that encode locations which are referred to in an utterance. Grounds are interpreted depending on their relationship with the moving or stationary Figure. Types of Ground arguments discussed in this

cised forms rely on the lexical semantics of motion verbs (cf. Wilkins/Hill 1995; Matsumoto et al. 2017; Nakazawa 2007, among others). Several studies on Goals and Sources of motion across languages, such as the papers in Kopecka/Vuillermet (2021), contribute to the understanding that there are often notable asymmetries in Goal and Source expressions. This asymmetry has also been discussed in comparative perspectives (cf. Bourdin 1997; Wälchli/Zúñiga 2006). Sources tend to be more complex than Goals, and Goals tend to be more complex than Places in terms of constructional complexity (cf. Nintemann et al. 2020; Stolz et al. 2017). Goal-bias across languages has also been discussed in terms of frequency (e. g. Verkerk 2017 on European languages; Stefanowitsch/Rohde 2004 on English), the results being in line with general ideas about form-frequency matches in language (cf. Haspelmath 2021).[2]

Goal and Source readings of Ground arguments generally rely on verbal semantics in the absence of dedicated grammatical coding (cf. Pantcheva 2010: 1071; Nintemann et al. 2020: 402). Individual analyses of motion event expressions (cf. Schapper 2011; Vuillermet 2021) have shown that other factors such as iconic ordering of sub-event expressions constitute a third type of Source expressions, besides grammatical marking and dedicated Source verbs. Example (1)[3] from Kutep shows how the ordering of a bare Ground argument and a Goal-verb are the sole means to distinguish Goal and Source readings. In (1a), the motion verb *bá* 'come' precedes the Ground argument *iké* 'here' which is thus interpreted as a Goal. In (1b-c), the same verb follows the Ground arguments *uyínn* 'sea' and *akā* 'where', which are interpreted as a Sources due to the ordering of elements.

(1) Kutep (Atlantic-Congo)

a.

Atī	*rū*	***bá***	***iké***	*íré*
1PL	move	come	here	yesterday

We came here yesterday'

(Koops 2007: 202)

b.

Abā	*tsō*	***uyínn***	***bá***
3SG	ascend	sea	come

'He came up from the sea.'

(Koops 2007: 203)

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study are places, goals and sources of motion. Following Talmy (1985), Place refers to a location where the figure is *at*/*in*/*on*/*under*/*next to* or *close to*. Goal refers to a location the Figure moves *to* or *towards*, and source refers to a location the Figure moves *(away) from*. In an English sentence such as *Leo goes from London to Madrid*, the argument *Leo* expresses the Figure, *London* expresses a Source Ground, and *Madrid* a Goal Ground. Accordingly, *Leo goes from London* is a Source-oriented expression and *Leo goes to Madrid* is a Goal-oriented expression.

[2] For instance, Dirven et al. (2004: 84) argue from a cognitive linguistic perspective that "when human action is involved, goal is far more salient than (…) a starting-point" and that "(f)or human actions, the goal is usually more important than the source, and the source and goal are usually more important than the Path". Kopecka/Vuillermet (2021: 7–15) offer a detailed summary of the literature on the various aspects of Source-Goal asymmetry and Goal bias in the linguistic literature.

[3] Glossing abbreviations in this paper are adopted from the published descriptions of the sample languages or from field researchers' glossing in the case of personally communicated data and only slightly adjusted for better readability, and boldface has been added to highlight discussion points. A list of the abbreviations can be found at the end of the text.

c.
Afu *rū* ***akā*** ***bá****?*
2SG move where come
'Where did you come from?'
(Koops 2007: 203)

Source of motion expressions which consist of two sequenced components and for which element ordering is crucial are the focus of this explorative study.The article aims to provide a cross-linguistic survey of this expression type, applying a framework-free (cf. Haspelmath 2009) approach to compare data from a convenience sample of nine languages. It is shown that, across languages and families, Source can be expressed by combining and sequencing (i) a Place-marked or bare Ground argument with (ii) a following Goal-oriented verb. This expression type leaves a 'from' component lexically and grammatically unexpressed. Source is inferred from the "iconic ordering" (Schapper 2011) of events, and the ordering of components reflect the temporal sequence of the two spatial sub-events of 'leaving': (i) Being at a location, and subsequently (ii) going to another location. The combination of (i) and (ii) results in the location of (i) being interpreted as Source of motion only with the temporally iconic ordering. This expression type reflects a Goal bias, not only due to complexity of the Source construction, but also since main verbs in these expressions are usually verbs which in isolation receive default Goal-oriented readings, such as *bá* in (1) above.

The introductory parts of this article discuss distinctions of Goal and Source that are driven by situational context (Section 1.1), as opposed to distinctions that are inferred from lexical cues and semantic contrast (Section 1.2). Sections 2 to 7 focus on distinctions driven by iconically ordered motion event components, i. e. the expression type introduced in (1b-c). Section 2 is an overview of previous research. Section 3 is an introduction to eventhood analysis in bipartite Source expressions. Section 4 presents the sample languages. Sections 5 and 6 include data presentation and discussion: Section 5 examines languages that attest to biverbal patterns, and Section 6 discusses monoverbal bipartite patterns. Section 7 is a crosslinguistic comparison of the Source expressions discussed in Sections 5 and 6, and general conclusions are drawn in Section 8.

1.1 Context-driven distinctions between Goal and Source of motion

For the present study it is crucial to differentiate between Goal verbs, which in isolation or by default refer to Goals of motion, and Source verbs, which by default refer to Source Grounds. For example, the English verbs of Romance origin *leave*, *depart* and *exit* are dedicated Source verbs. Versatile motion verbs such as English *go* have default Goal readings in isolation, i. e. in the absence of accompanying Source-denoting forms such as *from*. Although they may occur in Goal and Source expressions alike (cf. English *go* (*to*) *there* versus *go from there*), they are referred to as Goal verbs in this study.[4] Nikitina's (2009) analysis of Goal and Source expressions in Wan will serve as introductory examples. Nikitina (2009: 1121) scrutinizes the verb

[4] It should be noted that some motion verbs may generally vary as to their ability to occur with overt Ground arguments, and some may only occur without Ground argument. For instance, Lai (2021: 355) describes that the Siyuewu Khroskyabs (Sino-Tibetan) translocative verb *ɛɛ́ɐ̀d* 'go away, leave' "is never attested with a Ground argument". This study restricts itself to the discussion of verbs that occur with overt Ground arguments.

repertoire of Wan and states: "Unlike adpositions of Indo-European languages, which tend to encode both types of information, in Wan, postpositions only carry information about the search domain. The relation between the search domain and the Figure is either encoded in the verb or needs to be inferred from context." Example (2) shows the paradigm of a stative verb *yí* 'sleep' for Place (2a), and dedicated verbs *gà* 'go' for Goal (2b) and *gò* 'leave, take away' Source (2c), respectively, which all occur in their past tense forms in (2).

(2) Wan (Southeastern Mande)

a.

à̀	***yī***	*kālɛ̄*	***gó***
3PL	sleep.PST	forest	in

'They fell asleep in the forest.'
(Nikitina 2009: 1121)

b.

à̀	***gā***	*kālɛ̄*	***gó***
3PL	go.PST	forest	in

'They went to the forest.'
(Nikitina 2009: 1122)

c.

à̀	***gō***	*kālɛ̄*	***gó***
3PL	go.PST	forest	in

'They left the forest.'
(Nikitina 2009: 1122)

Example (3) contrasts with (2) in that knowledge of extra-linguistic context is necessary to differentiate between Goal and Source readings. The deictic verb *zò* 'come' can combine with both Goal and Source Grounds (cf. Nikitina 2009: 1125) and the static postposition *lé* does not denote Goal or Source. Nikitina (2009: 1125) states that the expression is to be "disambiguated in context, depending on the location of the deictic center of the narration".

(3) Wan (Southeastern Mande)

è	***zō***	*bā*	*é*	*lé*	*ɓé*	*é*	*pɔ̄*	*lɔ̄*
2SG.SBJ	come.PST	field	DEF	at	then	3SG	thing	eat.PST

'He came **to** the field and had a meal' or 'He came **from** the field and had a meal.'
(Nikitina 2009: 1125)

The same applies to (4), where both expressions in Teiwa are headed by the same deictic motion verb *ma* 'come' and show the same element order. The information needed to identify the Ground argument as Goal or Source is either deictic, i. e. referring to the physical location of the speaker or addressee at the time of the utterance, or otherwise contextually known, i. e. predictable or inferred from conversation or extra-linguistic cues.

(4) Teiwa (Timor-Alor-Pantar)

a.

Gi	[*bo'oi*	***ma***]$_{\text{GOAL}}$	*yix-in.*
3PL	river	come	descend-REAL

'They went down **to** the river.'
(Klamer 2011 as discussed in Schapper 2011: 102; original square brackets)

b.
[*Sangubal* ***ma***]$_{\text{SOURCE}}$ *bir-an* *daa.*
Sangubal come run-REAL ascend
'(They) ran up **from** Sangubal'
(Klamer 2011 as discussed in Schapper 2011: 102; original square brackets)

Goal-Source distinctions can involve default associations and interpretations, based on typical characteristics of entities lexically expressed in the clause or sentence. The combined meaning of verb(s), Figure and Ground arguments, and their relationship to each other in extra-linguistic context resolves ambiguity via inference. Default readings can also arise from more frequent use of certain verbs for specific meanings, such as conventionalized locations. For instance, in Bunaq, "[t]he verbs *sai* 'exit' and *pir* 'reach' have an additional deictic motion meaning 'go down to garden' and 'go up to home' respectively, when used independently without any specification for origin and/or goal location" (Schapper 2010: 462). Apart from universal (such as physical) laws and frequency, also cultural conventions and canonical associations can be relevant to the understanding of default readings of spatial lexicon (cf. Wilkins 1989 for a discussion of Eastern Arrernte conventions). With adirectional motion verbs, such manner of motion verbs, distinctions between Place and Goal or Source may be purely context-driven or otherwise inferred from extra-linguistic cues. In Ese Ejja, biclausal expressions involving nonfinite posture verbs can be ambiguous as to Place/Source interpretations, thus the distinction "depends on the context" (Vuillermet 2021: 265), as shown in (5a) with the verb *towaa-* 'jump'. Another type of Ese Ejja Source expressions relies on the motion verb following a Ground argument marked for locative and occuring with a posture verb in a separate, locative clause, as in (5b) with *neki-* 'stand'.

(5) Ese Ejja (Pano-Tacanan)
a.
E-sho'i *towaa-ani* *[kwei-sawa=jo* *neki].*
NPF-child jump-PRS river-side=LOC stand.NF
'He's jumping **on** the riverbank.' or 'He is jumping **from** the riverbank.'
(Vuillermet 2021: 245; original square brackets)
b.
*[E-iy****=jo*** ***neki]****(=Ø)* *towaa-ani.*
NPF-hill=LOC sit.NF(=ABS) jump-PRS
'He is jumping from the hill.' (Lit. Standing on the hill he's jumping.)'
(Vuillermet 2021: 265; original square brackets)

In Ese Ejja, "biclausal Source expressions acquire their Source reading from the main clause motion verb" and "[i]f the verb of the main clause is not a motion verb, the biclausal construction has a locative meaning" (Vuillermet 2021: 264).[5] The bipartite structure of Place-denoting and subsequent Goal-denoting components, although not always consisting of two clauses, is attested throughout several languages and families, as will be discussed in Sections 5 and 6.

[5] Ese Ejja is discussed further in Section 5.6.

1.2 Distinctions of Goal and Source driven by semantic contrast

Goal/Source distinction can rely on contrasting meanings such as opposite indications of verticality, or involve typical characteristics of the Ground and/or Figure which contrast with the semantics of the accompanying verb. As discussed in Section 1.1, Wan has dedicated Goal and Source verbs, but "all verbs with flexible role assignment share one aspect of lexical meaning: they all describe directional motion characterized by an inherent asymmetry in the properties of the source and the goal" (Nikitina 2009: 1127). In the absence of explicit contextual information, potential Goal-Source ambiguity is resolved by associations. Relating to (6) this means that the verb *zià* 'descend' is flexible and can refer to a Source Ground if the context implies the possibility to descend to a location even further down from the ground. However, it is naturally inferred that the Figure descended from an elevated location *to* the ground.

(6) Wan (Southeastern Mande)

é	*ziā*	*trɔ̄ɔ́*	*mì*
3SG.SBJ	descend.PST	ground	by

'He came down to/??from the ground.'
(Nikitina 2009: 1127)

In Nedebang, identifying the topological relation between Figure and Ground, as well as Place/Goal/Source readings of spatial Grounds, tend to be "a matter of whatever interpretation fits best with the semantics of the verb" (Schapper 2020b: 81). In (7a), no Goal or Source marker is present, and the combination of the verb *cukku* 'descend', the locational noun *gammi* 'inside' and the Ground argument *taa* 'sea' lets the addressee infer that the Figure descended from elsewhere *into the sea*, rather than descending from the sea into a location *within* or *below* the sea. In (7b), the default inference is that the Figure fell *from* the top of the tree, and not from an elevated location *onto* the top of the tree, although the second interpretation is possible (i. e. Figure falls from another location onto the tree).

(7) Nedebang (Timor-Alor-Pantar)

a.

Nang	*taa*	*g-ammi*	*cukku.*
1SG.NOM	sea	3SG-inside	descend

'I descended into the sea.'
(Schapper 2020b: 81)

b.

Nang	*watha*	*tagga*	*ba'a.*
1SG.NOM	coconut	top	fall

'I fell from the top of the coconut tree.'
(Schapper 2020b: 81)

Contrasting specifications of elevation, such as in the Manambu example in (8) with *da-* 'go downwards', is interpreted according to the addressee's knowledge of the geographic area.

(8) Manambu (Ndu)

alawur	*Kabla-say*	*da:d*
DEM.DIST.F.SG+'up'	Screw.River+LNK-TRANSP	go.down+3M.SG.BAS.VT

'He went down from up there via Screw River'
(Aikhenvald 2008: 158)

The Ground argument *alawur* in (8) is overtly specified for a distal deictic location that is elevated, and the combination with the verb *da-* 'go down' expresses that the motion must be *from* 'up' to(wards) somewhere *down*. The monoverbal expression involving three Grounds, the Source *alawur* 'up there', the Median *kabəl* 'Screw River' and the implicit Goal 'down (somewhere)' is structured via semantic contrast and the transportative case marker on the Median Ground. Goal versus Source readings can therefore arise from inference based on typical or perceived characteristics of Figure and/or Ground, but they can also depend entirely on semantic opposites or contrasts such as differing elevation specifications within the same expression.

2 Previous studies on bipartite Source of motion expressions

The bipartite Source expression type has been discussed in detail in descriptions of individual languages but has only been touched upon in comparative and typological studies. Few comparative studies of motion event descriptions have recognized these bipartite Source expressions, notably Bourdin (1997: 189), Kopecka/Vuillermet (2021: 12f.) and Kopecka/Ishibashi (2011).[6] Also Fortis/Vittrant (2016: 18), referring to Ese Ejja, note the pattern and summarize: "This way of expressing a relation to a source dispenses with any explicit description of the relation itself. There is therefore the possibility that the specification of a path be left entirely to inferences based on sequenced events, with no path encoding form at all. Insufficient attention has been paid to this multiclausal strategy, its possibly systematic use in some languages, and its role in diachrony."

As the following sections show, biclausality is not an obligatory characterisic of bipartite Source expressions. Relevant expression types can be mono- or multiclausal, mono- or multiverbal, and can show subordination or co-subordination of the Place-denoting clause in biclausal types (see Table 1, Section 7). Both components of biclausal expressions can have distinct TAM specifications, raising questions about eventhood (Section 3). Bipartite Source expressions can be the preferred strategy, the only documented strategy or the only non-ambiguous strategy to express a Source of motion event, as in Ese Ejja, where it is a recent innovation (cf. Vuillermet 2021).

3 On eventhood

Bipartite Source expressions require two sequenced components which denote distinct spatial meanings in isolation. It is thus worthwhile to inquire whether, and under which circumstances, bipartite Source expressions are conceptually segmentable events.[7] The possibility to formally segment a Source event can be expected since "[i]nformation about an event is usually not mapped onto a single lexical item, but is distributed across phrases, clauses and larger chunks of discourse" (Bohnemeyer et al. 2007: 496). Bohnemeyer et al. (2007) provide an analysis of

[6] Kopecka/Ishibashi (2011) discuss Polish (Indo-European), Japanese (Japonic), Yek'wana (Cariban) and Ese Ejja (Pano-Tacanan) expressions that pertain to biclausal Source expressions, and Bourdin (1997: 189) and Kopecka/Vuillermet (2021: 12f.) discuss a biclausal structure attested in the Nuclear Trans New Guinea language Kobon as described by Davies (1981: 129). For reasons of space, the Kobon example is not repeated here.

[7] Eventhood is likely language-specific or group-specific (cf. Foley 2010; Durie 1997, among others), and bipartite Source expressions may show distinct stages of grammaticalization of the Place-denoting component. These assessments, however, are outside the scope of this paper and need to be assessed in detailed diachronic studies.

event segmentation in complex motion events that involve two overtly specified Grounds or more (e. g., *from Rochester via Batavia to Buffalo*) by assessing whether the same temporal specification has scope over all subevents. Whenever subevents can occur with different temporal specifications, the respective expressions can be analyzed as depicting multiple events. In their approach, motion event expressions attest to a "macro-event property" whenever a shared temporal specification is provided, which can also apply to serial verb constructions (SVCs) (cf. Bohnemeyer et al. 2007: 506). In the absence of sufficient data to test systematically for temporal specifications in bipartite Source expressions, and since many languages do not have tense marking (such as Kalamang, see Section 6.2), aspect and mood scopes are considered the closest equivalents to tense specifications and individual remarks on TAM are made throughout the data presenting sections.

4 Data

The data discussed in the following sections are from published grammars of natural languages (i. e. of *doculects*, in the sense of Cysouw/Good 2013) as well as additional, partly unpublished field data retrieved from colleagues.[8] Nine languages are discussed in the following sections, in addition to Kutep discussed in (1) above, and the results are summarized in Section 7. Except the Benue-Congo languages Ọ̀kọ and Kutep, the sample languages are from different families. More than half of the sample languages are Papuan, i. e. Abui (Alor-Pantar), Mian (Mountain Ok), Walman (Nuclear Torricelli), Manambu (Ndu), Marind (Anim), and Kalamang (West Bomberai). Choctaw (Muskogean) is spoken in North America and Ese Ejja (Tacanan) is spoken in South America.

5 Bipartite Source expressions involving two verb stems

Bipartite Source expressions involving more than one verb, as presented in the following sections, tend to be syntactically asymmetrical, as the Place-denoting component preceding the location-change verb is subordinated or co-subordinated in a separate clause. The Place-denoting verb stem often shows marker-like behavior since the same form fulfills this function across all expressions, or it belongs to a small restricted subclass. These Place verbs are often structurally reduced. The second component always hosts a Goal verb, i. e. a motion verb with default Goal-orientation.

5.1 Abui (Timor-Alor-Pantar)

Abui has both asymmetrical and symmetrical SVCs, the latter involving verbs of unrestricted sets which in combination "encode the reported event in a step by step fashion" (Kratochvíl 2007: 347). A general locational verb *mia* 'be in' occurs in Place expressions in isolation, and must be followed by finite motion verbs to indicate Source of motion (cf. Kratochvíl 2007: 356; Saad 2020: 334). In Source expressions, *mia* "refers to the origin location of an event when it is followed by a motion verb" (Kratochvíl 2007: 356). Example (9a) shows a Place-denoting multiverb construction with *mia* in the first slot, indicating "the location of an event reported by the second verb" (Kratochvíl 2007: 355). In (9b), *mia* is absent and the Goal expression

[8] Concerning all data discussed in this study, but especially field notes kindly provided to me, any errors made in the analyses of language data are entirely my own.

hosts the verb *yaa* ‘go’ in its alternated shape *yaar* ‘go.CPL’ which implies completion (Kratochvíl 2007: 84). In (9b) it refers to the preceding Ground NP, indicating its default Goal interpretation *home*.

(9) Abui (Timor-Alor-Pantar)

a.

moku	*bataa*	*wò*	***mia***	***mui-l-a***	*mai*	*bataa*	*ho-fak-i*
kid	tree	DST.L	be.in	play-give-DUR	CONJ	tree	3II.REC-break-PFTV

‘children were playing under the tree, when it broke on them’

(Kratochvíl 2007: 355)

b.

na	*ne-melang*	***yaar***	*ba*	*na-wai=se*
1SG	1SG.AL-village	go.CPL	LNK	1SG.PAT-turn=INCP.I

‘I will go to my village and finally return (home)’

(Kratochvíl 2007: 212)

Whenever *mia* “follows a motion verb, its argument expresses a goal location” (Kratochvíl 2007: 356). In (10), *yaa* ‘go’ expresses Goal-oriented motion and *mia* marks the endpoint of the same event, whereas *pa* ‘touch’ indicates proximity of the recipient or animate Goal Ground (cf. Kratochvíl 2007: 357).

(10) Abui (Timor-Alor-Pantar)

yaa	*neng*	*ho-pa*	***mia****!*
go	man	3II.REC-touch.CNT	be.in

‘go to your husband!’

(Kratochvíl 2007: 357; original square brackets omitted)

As (11) further illustrates, *mia* is employed in Place interrogative constructions as sole verb (11a), whereas Source interrogative constructions require *mia* to co-occur with a finite verb indicating motion (11c). Goal expressions, such as the interrogative in (11b), frequently occur with a bound form *=n(g)* ‘see’ but require only a Goal verb. Examples (11b) and (11c) further show that the same verb *yaa/yaar* ‘go’ appears in Goal and Source expressions. Source expressions require sequencing with *mia*, whereas Goal expressions require minimally a motion verb but may additionally include *=ng* ‘see’.

(11) Abui (Timor-Alor-Pantar)

a.

kaai	*te*	***mia****?*
dog	where	be.in

‘Where is the dog?’

(Kratochvíl 2007: 227)

b.

a	*te=ng*	***yaar****-i,*	*raata?*
2SG	where=see	go.CPL-PFTV	brother-in-law

‘where did you go, brother-in-law?’

(Kratochvíl 2007: 212)

c.
A *te* ***mia*** ***yaar-i***
you where be.in go-PFTV
'Where are you coming from?'
(Kratochvíl 2007: 495)

Abui SVCs are monoclausal and share intonation contour and negation scope, whereas inflection is not obligatorily shared (cf. Kratochvíl 2007: 348). The lexicalized form *mia* 'be.in' is likely historically derived from *mi-* 'be.in' and the durative aspect suffix *-a*, so that, diachronically, an analysis of distinct TAM specifications of both components is possible. Synchronically, there are instances of an intervening clause linker *ba* between *mia* and the motion verb, indicating two distinct clauses (12a). *Ba* is a simultaneous linker, as opposed to the sequential linker *ya* which "signals an iconic ordering of events" (Saad 2020: 292). In the Source expression in (12a), original location is expressed by *hen* 'there' in a distinct clause than the following clause which contains the directional verb *mara* 'go.up'. Example (12b), on the other hand, is monoclausal. The Ground NP *fala* 'house' is identified as Source via the Place-denoting *mia* and the subsequent location change indicated by *yaa* 'go'.

(12) Abui (Timor-Alor-Pantar)
a.
he-n *mia* ***ba+*** *mara* *melang* *mi-a-d-i+*
3II.LOC-see.CPL be.in LNK go.up.CNT village be.in-be.at-hold-PFTV
'from there they went up and got to the village'
(Kratochvíl 2007: 428)
b.
fala *mia* *yaa!*
house be.in go
'go from the house!' (lit. 'be in the house, go!')
(Kratochvíl 2007: 356)

The Place-denoting form *mia* occurs in all isolated Source expressions in Abui.[9] Although *mia* shows characteristics of a grammaticized form in some expression types, it retains its function as a full verb in Abui, unlike some of its cognates in other Timor-Alor-Pantar languages. In Bukalabang (cf. Steinhauer 2020), a postposition *mi* is attested which occurs with posture verbs but does not head PPs, unlike the verb *ming* 'be.in'. In Reta, the verb *mi* 'in, at' is described as "highly versatile in function and appears to be grammaticalizing into a de-verbal element" (Willemsen 2020: 253). Reta *mi* occurs as a postposition coding Place Grounds, as applicative and in temporal constructions. In SVCs, it codes Place, allative Goal, illative Goal and Source Grounds. Element order seems flexible for Place and Goal, but in Source expressions, *mi* must be followed by a Goal verb, see (13).

In Kamang, *mi* 'in' is one of four locative postpositions and can head PPs in Place, Goal and Source expressions (Schapper 2011: 103). In (14a), *mi* 'in' expresses Place in a verbless construction. In (14b), it follows *sooran* 'push' as a postposition to *kadii* 'house' to express motion

[9] Motion *away* without overt Source Ground can be expressed with the minor verb *we* 'leave' in asymmetrical SVCs (cf. Kratochvíl 2007: 363).

'into'. In (14c), the sequentiality is reversed, so that *kadii mi* 'in the house' refers to the static position which precedes the 'pushing out' event, rendering *kadii* 'house' the Source of motion.

(14) Kamang (Timor-Alor-Pantar)

a.

Nal *[kadii* ***mi]***$_{\text{STATIC.LOC}}$
1SG house in
'I am in the house.'
(Schapper 2011: 103, original square brackets)

b.

Na *Markus* *ga-**sooran*** *[kadii* ***mi]***$_{\text{GOAL}}$
1SG.AGT Markus 3.PATI-push house in
'I pushed Markus into the house.'
(Schapper 2011: 104, original square brackets)

c.

Na *Markus* *[kadii* ***mi]***$_{\text{SOURCE}}$ *ga-**sooran**.*
1SG.AGT Markus house in 3.PATI-push
'I pushed Markus out of the house.'
(Schapper 2011: 104, original square brackets)

5.2 Manambu (Ndu)

In Manambu, "while locative case marks location and allative case (…) marks direction, there is no special ablative case to express provenance" (Aikhenvald 2008: 151). Manambu has a rich set of landscape-oriented motion verbs and directional markers derived from these verbs (cf. Aikhenvald 2008: 380), but inherently locational nouns such as place-names may occur without overt marking in Place and Goal contexts, such as in (15) with the verb *yi-* 'go'.

(15) Manambu (Ndu)
Swakap *yi-dana*
TOPO go-3PL.SBJ.VT+3F.SG.BAS.VT
'They went to Swakap'
(Aikhenvald 2008: 74)

Isolated Source expressions are biclausal. Example (16) involves a locative verb form *tə-* 'stay' which follows the Place interrogative form, and the Goal verb *ya-* 'come' heads the expression in a distinct clause. The Place verb is marked for same-subject, and can be analyzed as pertaining to the interrogative clause. Completive marking on *tə-* 'stay' serves to link clauses and indicates "that the action of the dependent clause was fully completed before the start of the action of an adjacent or a main clause" (Aikhenvald 2008: 452). The Place verbs attested in Manambu Source expressions appear with switch-reference markers that are typical in medial clause types (cf. Aikhenvald 2008: 447), so that the Place-denoting component is analyzed as dependent clause.

(16) Manambu (Ndu)
[akəm ***tə-**ku]* ***ya-**na-d*
where+LOC stay-CPL.SS come-ACT.FOC-3M.SG.BAS.VT
'Where is he coming from?' (lit. 'Where having stayed he come?')
(Aikhenvald 2008: 151; original square brackets)

Similarly, the imperative expression in (17) shows a bipartite Source construction but involves a distinct Place-denoting component. The deictic form *aləm* 'there' is identified as a Source Ground via a Place verb *kwa-*, here marked for person and different-subject, and the subsequent location change via *ya-* 'come'. The verb root *kwa-* 'stay' belongs to the polyfunctional verbs in Manambu and can be used as open-class positional verb, as copula meaning 'be in/at', as support verb in lexicalized predicates or as an auxiliary (cf. Aikhenvald 2008). Also in this example, the Goal component is expressed in a distinct clause and hosts the main VP.

(17)

[wun-a	*ta:kw*	*aləm*	***kwa**-lə-k]*	*[wa-yakə-gur-ək]*	***ya**-kwa*
I-LNK	wife	DEM.DIST+F.SG+LOC	stay-3F.SG-CPL.DS	say-throw-2PL-CPL.DS	come-IMP.3+F.SG

'Get my wife to come from there' (lit. 'My wife having stayed there, you order (lit. say-throw) her: may she come')

(Aikhenvald 2008: 282; original square brackets)

The Manambu Source expressions in (16) and (17) show completive marking of the Place verbs, in contrast to the Goal-oriented main verbs in the following clauses which takes *versatile* tense referring to a present or recent past event (cf. Aikhenvald 2008: 254f.) in (16), and imperative marking in (17). It is thus questionable whether a macro-event property as defined by Bohnemeyer et al. (2007) applies to these expressions. In the motion event expression involving Source, Median and Goal in (8), macro-event structure is given due to a single tense specification by the sole verb, and additionally via transportative marking. Isolated Source expressions, on the other hand, require two verb stems in distinct clauses, which may host different TAM specifications.

5.3 Mian (Mountain Ok)

Mian's Goal verb repertoire includes landscape-neutral as well as river-based directional adverbs, and "[b]asic motion verbs readily combine with and can even fuse with any of the directionals functioning as a directional adverb to indicate the direction of the movement" (Fedden 2011: 333).[10] Source expressions show a biclausal structure (cf. Fedden 2011: 405–484) which contains a co-subordinated clause headed by a Place-denoting verb preceding a clause headed by one or more Goal verbs. In (18a), a locative verb *daa* 'dwell' is the predicate of the first clause, and the second clause contains a manner of motion verb *mêin* 'fall' and a directional verb *daake* 'come down'. To illustrate its use in Goal expressions, (18b) shows the fused form of the basic motion verb *tl~te*/*te*, *tle* 'come' with the directional *daak* 'down'.

[10] In multiverb constructions, Mian directionals also contribute to complex Goal of motion readings in medial verb positions, inflected for same-subject and sequentiality (cf. Fedden 2011: 336), whereas atelic direction can be expressed by postpositional phrase adjuncts (cf. Fedden 2011: 337).

(18) Mian (Mountain Ok)

a.

unáng	*mak=o*	*abíl=dim=ut*	***daa**-n-o=a*	
woman(F)	some=F.SG	sky=on=up	dwell.PFTV-SEQ-3SG.F.SBJ=MED	
om-mêin		***daake**-bi-Ø-o*		*kesoa*
3SG.F_class.SBJ-fall.PFTV		come.down.PFVT-exist-IPFV-3SG.F.SBJ		because

'because some woman fell down from the sky'

(Sebastian Fedden, personal communication)

b.

imen-deib	*daake-s-ib=ta*
taro-for	come.down.PFV-DS.SEQ-2/3PL.AN.ABJ=MED

'they (the Telefol women) came down for taro, and then they (i. e. the Mianmin men) ...'

(Fedden 2011: 334)

Structurally, the motion event in (18a) is segmentable into a 'dwelling' subevent which precedes a 'falling down' subevent. However, tense marking may, but does not necessarily always have, scope over two chained clauses in Mian, leaving open several possibilities for eventhood analysis. In the second clause in (18), the verbal complex *daake-bi-Ø-o* contains the existential verb *bi* 'exist, remain' which often expresses continuation of the result of the event that is expressed by preceding perfective verbs in the same expression (cf. Sebastian Fedden, personal communication). The presence of *bi* therefore suggests a combined-event or macro-event reading of (18).

5.4 Walman (Nuclear Torricelli)

Walman employs a verb root *-an* 'be at' which can function as locative copula verb (Brown/Dryer 2008: 540) before Ground arguments, as shown in (19a) and in the Goal event in (19b) where it is preceded by the verb *-esi* 'go out'. Example (19c) shows that *-an* acts as main verb in Place-denoting expressions.[11]

(19) Walman (Nuclear Torricelli)

a.

Na	*tu*	*n-alma*	*nta*	*n-**an***	*puchar!*
son	PERF	3SG.M-die	here	3SG.M-be.at	inside

'(Our) son has died here inside this house!'

(Brown/Dryer 2008: 546; original square brackets omitted)

b.

Ako	*runon*	*n-aro-Ø*	*mue*	*y-**esi***	*y-**an***	*chalien.*
then	3SG.M	3SG.M-and-3SG.F	sister	3PL-go.out	3PL-be.at	outside

'So [he and his sister] came outside.'

(Brown/Dryer 2008: 534; original square brackets omitted)

c.

Nyiki	*lapo-y*	*ri*	*y-p-a*	*kipin*	*k-**an***	*porue*
woman. PL	old- PL	3PL	3PL-1.OBJ-and	1PL	1PL-be.at	birthing.shelter

'The old women, they stay with us in the shelter…'

(Brown/Dryer 2008: 535; original square brackets omitted)

[11] Note that the Walman 'and'-verb cannot act as main verb (cf. Brown/Dryer 2008: 550).

Source expressions consist of *-an* ‘be at’ followed by the Ground argument, such as the interrogative Path-neutral stem *nyien* in (20a). Moreover, Goal verbs such as *-arau* ‘go up’ (20b) and *-unau* ‘go landward’[12] (20c) follow both *-an* ‘be at’ and the Ground argument in Source expressions.

(20) Walman (Nuclear Torricelli)

a.

Chi	*n-aro-Ø,*	*to*	*cha*	*ch-**an***	*nyien*	*to*	*ch-**ara**?*
2SG	2SG-and-3SG.F	then	place	2PL-be.at	where	then	2PL-come

‘You two (you and her), where do you come from?’

(Brown/Dryer 2008: 542)

b.

lasi	*runon*	*kamte-n*	*n-**an***	*wul*	*repea*	*n-**arau***
immediately	3SG.M	person-M	3SG.M-be.at	water	under	3SG.M-go.up

‘and suddenly a man came up out from under the water’

(Becker 1971: 789; glossing by Matthew Dryer/Lea Brown, personal communication)

c.

Elieu	*akos,*	*ngan*	*n-**an***	*Kavieng*	*n-**unau***	*pek*
war	finish	father	3SG.M-be.at	TOPO	3SG.M-go.landward	back

n-esi	*n-a-ø*	*nyue*	*y-an*	*to*	...
3SG.M-arrive	3SG.M-and-3SG.F	mother	3PL-be.at	then	

‘When the war was over, father came back from Kavieng to be with mother, and then he gave birth to me...’

(Matthew Dryer/Lea Brown, personal communication)

It is possible but rare for *-an* ‘be at’ and co-occuring Goal verbs in such multiverb expressions to be modified independently by time specifiers. Since this is sparsely attested, there may be two distinct expression types at hand (Matthew Dryer, personal communication).

5.5 Choctaw (Muskogean)

In Choctaw, Source events are frequently expressed by ordering of two verb forms, involving participles which are phonologically reduced forms of verb stems, such as *hikiit* from the verb *hikiiyah* ‘to stand’ and *wakaat* from *wakaayah* ‘to rise’. Both reduced forms denote ‘starting from’ (cf. Broadwell 2006: 220).[13] Reduced verb forms with a final *-t* generally follow their objects and form VPs on their own, rather than being part of verbal compounds with a main noun. Acknowledging the similarity to clause chaining phenomena in Papuan languages, Broadwell (2006: 218) notes that “the verbs in these reduced clauses must be interpreted as sharing the inflectional categories of the final [main] verb”. In (21a), the participle is a dedicated Source form *ifalammih* ‘to leave’ which behaves like a full verb and has as its complement the

[12] Note that “[t]he verb *-unau* is used either for going south a long distance or for going west a short distance” (Brown/Dryer 2008: 544, footnote 24).

[13] A Goal-oriented participle is, for example, *pit* ‘towards there; motion away from reference point’, which is likely derived from the verb *pilah* ‘to send, throw’ (cf. Broadwell: 2006: 220). Irregularity of the reduced forms points to an alternative analysis as marker-like forms such as postpositions. As Broadwell (2006: 220) states, “some of the contracted participles do not have clear parallels in uninflected verbs”, for instance deictic directionals such as *iit* ‘towards here’.

Source Ground, whereas the following fully inflected verb has as its complement the Goal Ground. In (21b-c), the Source component contains the Place form *hikiit* instead of a dedicated Source form.

(21) Choctaw (Muskogean)

a.

Oklahoma	***i-falammi-t***	*California*	*ala-li-ttook*
TOPO	III-leave-PTCPL	TOPO	arrive-1SG.A1-DPAST

'I left Oklahoma and came to California (long ago).'

(Broadwell 2006: 264)

b.

Moore	***hikii-t***	*Norman*	*ona-li-tok.*
TOPO	stand-PTCPL	TOPO	arrive-1SG.A1-PST

'I went from Moore to Norman.'

(Broadwell 2006: 247)

c.

Ma	***hikii-t***	*Goodland*	*on-aachi-ka*	*kowi'*	*oshta-ttook*
there	stand-SS	TOPO	arrive-IRR-COMP:DS	mile	four-DPAST

'It was four miles to Goodland from there.'

(Broadwell 2006: 359)

Broadwell (2006: 246) notes that Goal verbs are "considerably more common" than Source verbs, and Sources may "need to be licensed by some additional grammatical element". This element is, for some verbs, the locative prefix *aa-*, which is shown in (22a) in its applicative locational use. In the Place, Goal and Source expressions in (22), the Ground argument precedes the finite verb. Examples (22b) and (22c) illustrate the contrast between Goal and Source expressions. The Goal expression in (22b) consists of the Ground argument followed by a Goal verb. The Source expression in (22c) shows prefixation with the locative *aa-* on the the Goal verb *mi̲tih* 'come', the locative prefix being the Place-denoting component of the bipartite Source expression. Lastly, the Source expression in (22d) shows a locative-marked participle *hikiit* 'stand' following the Ground argument and preceding the Goal verb *iyah* 'go'.[14]

(22) Choctaw (Muskogean)

a.

Oklahoma	***aay-oktosha-h.***
TOPO	LOC-snow-TNS

'It's snowing in Oklahoma.'

(Broadwell 2006: 156)

b.

South Carolina	***mi̲ti-li-h.***
TOPO	come-1SG.A1-TNS

'I came to South Carolina.'

(Broadwell 2006: 246)

c.

South Carolina ***aa-mi̲ti-li-h.***

[14] Verbs glossed as 'go' across languages may more generally encode location change, however, "verbs of motion in [Choctaw] can be divided into those that have a goal object and those that have a source object. The verb *iyah* 'to go', for example, has as its object a goal (…)" (Broadwell 2006: 246).

TOPO LOC-come-1SG.A1-TNS
'I came from South Carolina.'
(Broadwell 2006: 246)

d.

Obah-at	*m-ako*	***aa-hikii-t***	***iya**-h.*
rain-NM	there-CON:ACC	LOC-stand-PTCPL	go-TNS

'The rain started off over there.'
(Broadwell 2006: 247)

Expressions in (21) and (22) attest to macro-event structure as proposed by Bohnemeyer et al. (2007) due to a single TAM specification according to language-specific criteria, as bipartite Source lack morphological specification for different-subject. Broadwell (2006: 109; ftn. 3) observes that "[i]n general, the construction V1-Participial V2 indicates simultaneity of the events denoted by the two verbs, while V1-*na* V2 indicates that V1 is prior to V2", and adds that "[p]erhaps […] there is or was a parallel distinction between prior causes and simultaneous causes". The single-event bipartite Source pattern is not a very recent development in Choctaw, as (23) from 19th Century Choctaw similarly shows Source of motion being expressed by the following 'stand' participle, which again is followed by the 'come' verb.[15]

(23) Choctaw (Muskogean, 19th Century)

tabʊkʊli	*vlhpiesa-ho*	*Mrs Foster*	*in-chuka*	*ii-ala-tuk,*
noon	exactly-PTCPL:DS	PROPN	A3.SG-house	1PL-arrive-PST
onnahinli-ho	*Joseph Tanitʊbbi*	*in-chuka*	***hike**-t*	*e-minti-tok*
morning-PTCPL:DS	PROPN	A3.SG-house	stand-PTCPL	1PL-come-DPAST

'We got to Mrs. Foster at noon, coming from Joseph Tanitʊbbi's place in the morning.'
(George Aaron Broadwell, personal communication)

5.6 Ese Ejja (Pano-Tacanan)

Ese Ejja has two dedicated adnominal Goal markers and one adnominal Median=Source syncretic marker, but tends to express inanimate Sources (and sometimes Goals or Medians) biclausally.[16] Source readings arise from combinations of one member of a subset of four posture verbs with any semantically adequate motion verb (Vuillermet 2021: 242).[17] As Vuillermet (2021: 258) points out, "Source-oriented events are mostly expressed in two clauses (literally '[being at Ground], Figure moves' for 'Figure moves out of Ground')". Contrary to the potentially ambiguous perlative/ablative marker, the biclausal Source expression is unambiguous and occurs more frequently. Only biclausal expressions can be employed to express topologically specified Sources such as 'from the top of' (cf. Vuillermet 2021: 255). The first clause of a biclausal Source expression consists of a relativized, non-finite locative construction that includes a Ground argument with overt Place-marking via *=jo*, and one of the four posture verbs. The second part of the Source expression must contain a finite motion verb (cf. Vuillermet

[15] Note that the Missionary orthography in (23) is different from Broadwell's (2006).

[16] For human Sources, "speakers either left the Source unmentioned or used the transitive verb *jiña-* 'leave behind'" (Vuillermet 2021: 262). Goal-Source asymmetry and biclausal Source expressions in Ese Ejja are described in detail by Vuillermet (2021).

[17] Posture verbs in these functions tend to refer to cultural associations with the Grounds and do not have to depict actual posture (cf. Vuillermet 2021: 263).

2021: 245), which is the main verb of the expression denoting Source. In (24), original square brackets by Vuillermet (2021) indicate the Place-denoting subordinated clause, hosting *neki-* 'be standing', which frequently marks original location in bipartite Source expressions in (24a) and *jaa-* 'by lying' in (24b).

(24) Ese Ejja (Pano-Tacanan)

a.

E-pona	*[shijje-tata=jo*	***neki**](=Ø)*	*poki-ani.*
NPF-woman	corn-inside=LOC	stand.NF(=ABS)	go-PRS

'A woman is going (out) from the cornfield.' (Lit. A woman, standing in the field, is going.)

(Vuillermet 2021: 245, original square brackes; original boldface omitted)

b.

[Enaojjo=jo	***jaa]***	*meshi=yasijje*	*neki-sowa-ki-'io-ani*
river-LOC	lie-NF(.ABS)	ground=ALL	stand-go.up-GO.TO.V-TEL-PRS

'He is going up from the river to the ground.'

(Vuillermet 2021: 259; original square brackets)

The posture verbs partaking in these expressions only combine with few grammatical markers, for example with the ergative to identify the agent of transitive expressions of caused motion events (cf. Vuillermet 2021: 260). The locative clause is nonfinite as the posture verbs must remain unmarked for tense or mood (cf. ibid.), so that biclausal Source expressions have a single temporal specification, i. e. the one associated with the main verb. Ese Ejja Source expressions are therefore likely to attest to macro-event structure (cf. Bohnemeyer et al. 2007). In terms of element order, Vuillermet (2021: 259) specifies that the subject of the main clause, the clause containing the finite motion verb, must precede the relativized locative clause. The Place-denoting verbal component in Ese Ejja shows marker-like behavior, with four posture verb roots ocurring in this function (cf. Vuillermet 2021: 242). The subordinated posture verbs alone do not suffice to code Source since "biclausal Source expressions acquire their Source reading from the main clause motion verb" and thus "[i]f the verb of the main clause is not a motion verb, the biclausal construction has a locative meaning" (Vuillermet 2021: 264). Indeed, with adirectional motion verbs like *towaa-* 'jump', biclausal expressions involving nonfinite posture verbs can be ambiguous as to Place and Source (cf. Vuillermet 2021: 265) so that only contextual inference resolves Goal-Source ambiguity (cf. [5a] in Section 1.1 above).

5.7 Ọ̀kọ (Benue-Congo)

Ọ̀kọ express has overt and dedicated prepositions coding Place and Source Grounds, but also resorts to path-conflating verbs that express the three functions without any overt grammatical coding. Example (25) shows the Source preposition *kàba*, which is employed infrequently and indicates emphasis (cf. Atoyebi 2010: 142), involving Goal and Source of the same motion event.

(25) Ọ̀kọ (Benue-Congo)

áde	*yọ̀*	*úbó*	***kàba***	*ẹ̀kọ*
Ade	go	house	from	here

'Ade went home from here.'

(Atoyebi 2010: 142)

Both Place and Source expressions frequently employ the locative verb *wó* 'be'. Atoyebi (2010: 142; 147) discusses marker-like functions of uninflected *wó*, denoting 'in, at, from'. In motion event expressions, the locative verb has marker-like functions but retains verbal syntactic behavior. As Atoyebi (2010: 147) summarizes: "[T]here are a few other markers in the language which sometimes behave like verbs and sometimes as prepositions. These are*: nẹ~nọ*, which sometimes means 'give', and at other times can translate as 'for', 'to', and *wó*, which sometimes functions as the locative verb, but at some other times it translates as 'in', 'from'."

As (26a) indicates, *wó* appears as the sole or main verb in simple locative clauses. Source expressions with *wò* require another verb with the same TAM specification and with Goal-orientation to follow the Ground argument (26c). In Source expressions, the motion verb does not precede the Ground as in Goal expressions (26b) but follows it. Note that pronominal forms along with TAM marking underlie vowel-harmony rules and that the same verb *cá* 'come' heads both (26b) and (26c).

(26) Ọ̀kọ (Benue-Congo)

a.

*ù-**wó***	*ẹ̀kọ*
2SG-LOC	side/here

'You are here.'

(Atoyebi 2010: 57)

b.

*à-á-**cá***	*ẹ̀kọ*
3SG-PROG-come	side/here

'He is coming here.'

(Joseph D. Atoyebi, personal communication)

c.

*è-é-**wó***	*ẹ̀kọ*	*à-á-**cá***
3SG-PROG-be	side/here	3SG-PROG-come

'He is coming from here'

(Joseph D. Atoyebi, personal communication)

Macro-event structure in the sense of Bohnemeyer et al. (2007) is given since both verbs have the same TAM specifications, and neither of the two verbs is structurally subordinated. As *wó* is a bare verb in this construction, the combination of two verbs in examples such as (28c) can be analyzed to express a 'result-state' with meaning rooted in the first verb (cf. Atoyebi 2010: 203). A biverbal Source expression can be segmented into localization of the Figure by *wó* as a result-state component, and subsequent motion as lexical main verb, so that the deictic Ground argument is identified as Source of motion. *Wó* is marker-like not only due to its functions and syntactic behavior but also due to the restriction of bipartite Source expressions to invariably have *wó* as the first component, whereas the Goal component can be any semantically adequate motion verb.

6 Monoverbal bipartite Source expressions

This section discusses Marind (Anim) which combines default locative marking in combination with a Goal verb to express Source (cf. 2.2.1.5 on Choctaw), and Kalamang (West Bomberai) which combines lative marking and directed motion verbs. Marind Source expressions (Section

6.1) rely on motion verbs and morphologically Place-marked Ground, whereas Kalamang Source expressions (Section 6.2) involve contextual readings of constructions with the lative marker. Bipartite Source expressions discussed in this section largely attest to Bohnemeyer et al.'s (2007) macro-event property since TAM specifications, if any, are provided by the main verb and have scope over all arguments.

6.1 Marind (Anim)

Marind (Anim) has a repertoire of bound forms denoting direction, such as bound spatial adverbials indicating Place or Path,[18] the directional prefix *k-* denoting path or Goal,[19] and the locative *nd-* denoting Place or Source (Olsson 2017: 309–312).[20] Source expressions require two overtly coded components to express Source, the Place=Source syncretic marker *nd-* and a Goal-oriented verb. Olsson (2017: 316) specifies that "the Locational *nd-* has two functions: marking the location of a durative situation, and marking the source of punctual events". Place expressions taking *nd-* are headed by stative verbs, such as the posture verb *hamat(-a)* 'many be sitting' in (27a). Large-scale translational motion events tend to be zero-coded and expressed with dedicated Goal-verbs, such as *man* 'come' in (27b). (27c) shows that *man* can also head Source expressions in combination with the locational prefix. Note also that in (27b), the same verb precedes the Ground argument, whereas it follows the Ground argument in (27c).

(27) Marind (Anim)

a.

nok *bak* ***nd**-an-d-e-**hamat**-a*

1 outside LOC-1.A-DUR-1PL-many.sit-EXT

'We were sitting outside.'

(Olsson 2017: 317)

b.

Salibay *menda-b-**Ø**-**man*** *Walahatin*

Salibay PERF-ACT-3SG.A-come TOPO

'Salibay already arrived in Walahatin.'

(Olsson 2017: 101)

c.

Wewung ***nd**-o-**man***

TOPO LOC-2SG.A-come

'you came from Wewung'

(Olsson 2017: 570)

In (28a), the place-name *Mopa* is marked with the locative prefix and combines with a main verb *umuh* 'go, take off, leave'. Example (28b) shows a Source expression with a deictic

[18] The marking of Goal and Source via the bound adverbials occurs mainly with "stereotypical locations (e. g. geographical landmarks) and with deictic expressions ('here', 'there')" (Olsson 2017: 311; 318).

[19] The directional prefix *k-* codes, for instance, caused motion. Goals can further be expressed without dedicated marking by *k-* when they act as objects and co-occur with a subset of general motion verbs (cf. Olsson 2017: 360).

[20] Whenever an event is durative and path is expressed (such as 'drive along the beach'), *k-* is employed. However, verbal semantics and path information may swap the functions of the bound spatial adverbials, as "verbs that do not have motion or entry into posture as part of their meaning the Directional *k-* can be used to express the location of a punctual event denoted by the verb" (Olsson 2017: 311). Furthermore, the allative *ind-* and the separative *is-* are used with animate Goals and Sources, respectively (cf. Olsson 2017: 311, 368).

Ground argument and an object-oriented Goal verb *uhwasig* ‘go up from water’ (cf. Olsson 2017: 304). Example (28c) shows that *nd-* also occurs in Source expressions with verb stems that do not primarily express motion. In a mildly lexicalized combination with the allative marker *ind-*, and flagging the patient with dative marking, *tanggiɣ* ‘give orders’ obtains a patient-oriented reading ‘order somebody’ (cf. Olsson 2017: 373). The verbal complex expresses a telic ‘send (somebody)’ meaning and, in combination with Place-marking, identifies the preceding Ground as Source.

(28) Marind (Anim)

a.

Mopa ***nd****-am-bat-e-****uma****⟨n⟩ah*
TOPO LOC-1.A-AFF-1PL-go⟨1U⟩
‘We went from Mopa.’
(Olsson 2017: 316)

b.

nok *epe* ***nda****-no-na-****hwasig***
1 there LOC-1SG.A-1.U-go.up.from.water
‘I went up from there.’
(Olsson 2017: 346)

c.

nok *Simson* *epe* ***nd****-a-n-ind-a-****tanggiɣ***
1 PROPN there LOC-3SG.A-1.DAT-ALL-1.DAT-order
‘Simson sent me from there.’
(Olsson 2017: 318)

Whenever tense-aspect suffixes are absent, tense value in Marind “depends on the semantics of the verb” (Olsson 2017: 390). However, it seems that “[s]peakers seem to prefer to use other marking options to express movement away from less typical entities” (Olsson 2017: 318), such as the additional marking of Source by the postposition *IVk*. Also, similar to animate Sources, the directional *k-* (instead of locational *nd-*) creates a Source reading of *etob* ‘sea water’ in combination with the separative *is-* ‘away (from)’ and a generic motion verb in examples such as (29).[21]

(29) Marind (Anim)
etob ***k****-ak-****is****-e-awan*
sea.water DIR-1.A-SEP-1PL-many.run
‘We ran from the [approaching] sea water.’
(Olsson 2017: 312)

Also, the separative marker adds to the Source reading of *etob* ‘sea water’, as well as the inferred characteristics of the Source Ground, the sematics of which suggest motion ‘away’.

6.2 Kalamang (West Bomberai)

Kalamang bipartite Source expressions differ from bipartite Source patterns described in the previous sections in that they include a Goal=Source syncretic lative marker and a location-change verb. The Kalamang examples discussed here involve inference of Path via Ground

[21] According to Olsson (2017: 312), this construction type “typically refers to something fled from”.

characteristics and other lexical semantic cues. Formal Goal=Source syncretism is reflected in Kalamang spatial interrogatives, as the interrogative stem *tama-* combines with the spatial enclitics *=ko* and *=ka* to form *tama-n=ka* 'to/from where' and *tama-t=ko* 'where' (cf. Visser 2020: 153f.). The enclitics also attach to nouns and demonstratives to form inanimate Place, Goal and Source Grounds, e. g. wa-t=ko 'here' *wa-n=ka* 'to/from here' (Visser 2020: 111). Example (30) attests to indistinct grammatical marking via lative *=ka*, as the cliticized noun provides the Ground argument and precedes the motion verb in both expressions. There is no syntactic distinction of Goal and Source event expressions.[22] The expression in (30a) is headed by a non-motion directional verb *gonggung* 'call' whereas in the negated clause in (30b) it is headed by a generic motion verb.

(30) Kalamang (West Bomberai)

a.

mu	*he*	*kelak=**ka***	*gonggung*
3PL	IAM	mainland=LAT	call

'They called from the mainland.'

(Visser 2020: 195)

b.

ma	*in=konggo*	*telin*	*ma*	*he*	*leng-un=**ka***	*bo-t=nin*
3SG	1PL.EX=AN.LOC	stay	3SG	IAM	village-3POSS=LAT	go-EP=NEG

'He stays with us, he doesn't go back to his village any more.'

(Visser 2020: 195)

Deictic context can be inferred without extra-linguistic information in (30b), as *telin* 'stay' and the animate locative Ground argument *in=konggo* 'with us' contrasts with a negated motion event involving the Figure's usual point of return (i. e. his village). In (31), the lative postposition indistinctly identifies *kewe* 'house' as Ground of a motion event. The two verbs employed in the first clause in, a complex predicate hosting the lexical main verb *kuru* 'bring' and a motion verb *marua* 'move seawards', express the direction of the same motion event. Note that Kalamang has no tense marking but complex predicates always share aspect, mood and polarity (cf. Visser 2020: 349).

(31) Kalamang (West Bomberai)

he	*kewe=**ka***	*kuru*	*di=**marua**-t=kin=ta*		*to*
AM	house=LAT	bring	CAUS=move.seawards-T=VOL=NFIN		right
me	*karena […]*	*mu*	*maulma*	*ra-n*	*metko*
DIST	because	3PL	bend	move-n	DIST.LOC

'They wanted to bring [the corpse] from the house to the sea, right, because […] they go there and bend [it straight].'

(Visser 2020: 262)

The Goal expression in (31) shows opposite ordering of Ground and motion verb. Ordering of elements may support disambiguation of Kalamang Sources and Goals in certain instances, as in the isolated Source expression in (32) the deictic Goal verb follows the Ground. There is no indication of Path by Goal-Source syncretic *=ka*, despite the 'far distal' demonstrative base

[22] Source in Kalamang can also be expressed with motion verbs such as *ecie* 'return' with a preceding Source-Ground marked as object, not showing the lative marking (cf. Visser 2020: 298).

owa being able to combine with particles to form the locative form *owa-t=ko* and the dynamic lative-marked form *owa-n=ka* (Visser 2020: 254). The expression in (32) consists of a deictic Ground marked for focus, followed by the deictic Goal-oriented verb *mia* 'come'.

(32) Kalamang (West Bomberai)

ma	***owa=ba***	*pesawat=ki*	***mia***
3SG	FDIST=FOC	aeroplane=INS	come

'She comes from over there by aeroplane.'

(Visser 2021: 190)

Source reading of (32) is supported by the semantic contrast between the deictic Ground argument and the directed motion verb *mia* 'come' which indicates motion towards the deictic center or a pre-established Goal. The deictic center implied by *mia* seems to be the speaker by default, as indicated by the implied deictic proximal Ground in (33).[23]

(33) Kalamang (West Bomberai)

lebai	*ka*	***mia***	*eba*	*pier*	*minum~minum=et*
better	2SG	come	then	1DU.INCL	drink~RED=IRR

'You better come here, then we drink [alcohol].'

(Visser 2020: 412)

In Kalamang, Goal=Source syncretic marking may render expressions of Goal and Source formally ambiguous, which indicates a more complex pattern of Ground identification, involving verbal semantics and often depending on further inter-sentential or situational contextual information (Eline Visser, personal communication).

7 Discussion

The comparison of the available examples reveals that bipartite Source expressions show some formal variety but rely on the same principle, i. e. the sequenced combination of Place-denoting forms which mark the Ground with a Goal-oriented verbal component. Based on language-individual criteria, they can be monoclausal or biclausal, and may involve one or more verb stems. Moreover, they can attest to distinct TAM specifications of the two obligatory components. The obligatory shared characteristic is the iconic ordering of two components in the sense of Schapper (2011). Apart from few instances of Source verbs partaking in these expressions, such as Choctaw *ifalammih* 'to leave' in (21a), bipartite Source expressions are characterized by the absence of any dedicated Source-denoting material, such as the English preposition *from*, the English verbs *leave* or *exit*, or dedicated grammatical marking that is attested in other languages. As many bipartite Source expressions are monoclausal, the Place component is often marker-like, even when consisting of a full verb, as there is usually only one form attested for this function or the Place-denoting part hosts a Place verb from a small and closed class, such as the four posture verbs in Ese Ejja (Section 5.6). Most of the attested Place-denoting forms are reduced forms, and it is often unclear whether Place components in bipartite Source expressions maintain exactly the meanings and functions they have elsewhere. However, analyzing the Place component plainly as Source marker may be unnecessarily simplifying, as it neglects

[23] Kalamang has another dedicated 'come' verb *luk* that denotes 'movement towards deictic centre' (cf. Visser 2020: 306).

the event-structuring properties of the verbal semantics, especially when iconic ordering is evident and both components are obligatory.[24] It is possible that invariant Place components of bipartite Source expressions give rise to grammaticalization channels for genuine Source markers, and as a diachronic examination is outside the scope of this study, it is hoped for further research.[25] Regarding eventhood, Table 1 summarizes the sample languages for which there is sufficient data, including relevant syntactic criteria and TAM specifications to be compared.

Language/variety	**Clausehood**	**Hierarchy**	**Shared TAM**	**Iconic ordering**
Abui	biclausal; monoclausal	-	yes	yes
Mian	biclausal	Place is co-subordinated	possible	yes
Walman	biclausal; monoclausal	-	yes	yes
Ọ̀kọ	monoclausal	-	yes	yes
Kutep	monoclausal	-	yes	yes
Choctaw	biclausal	Place is subordinated	yes	yes
Ese Ejja	biclausal	Place is subordinated	yes	yes
Manambu	biclausal	Place is subordinated	no	yes
Kalamang	monoclausal	-	yes	yes
Marind	monoclausal	-	yes	yes

Table 1: Summary of sample languages based on attestation in available data

Shared TAM in Table 1 can mean that the Place component inherits the value from the main verb or that the Place-denoting verbal form is congruent with the main verb (cf. Ọ̀kọ in Section 5.7). Clausehood, hierarchy and TAM values in Table 1 are likely to be enriched with more possibilities when additional data become available. Clausehood and embedding analyses underlie not only language-specific criteria but also varying definitions. For this explorative study, the takeaway of the comparison shall be that, across languages, both biclausal as well as monoclausal structures are attested, and that Place and Goal components may have the same as well as differing TAM specifications. Shared TAM tends to apply to biclausal expressions as well, but with exceptions (cf. Section 5.2). The sample languages thus indicate that, structurally, Source events can be expressed as two-separate sub-events, or as a single event. The sample also reveals that typologically and genealogically distinct languages map event structure onto syntax in different ways. As bipartite Source expressions show distinct coordination or

[24] In the absence of dedicated material expressing Source, syncretic markers do not have several distinct lexematic meanings in isolation but depend on a second component. This component can be covert or inferred, as has been proposed in this study. Non-dedicated grammatical items that introduce a Ground argument are parts of multipartite coding strategies that require dedicated verbs, and/or inferred information or context to disambiguate Place/Goal/Source.

[25] Forms referring to motion from a Source can in fact grammaticalize from Goal-oriented forms, for instance, Modern English *from* relates to a former 'forward' meaning in Old English (cf. Hoad 2003: 305). Another well-known diachronic development is that among Oceanic languages we find grammaticalized dedicated Source markers from the Proto-Oceanic verb form *ma(i)* 'come towards speaker' (cf. Ross 2004). Hypothetically, there is also a grammaticalization channel from a general Place verb to a restricted subclass, such as uninflected closed-class positional verbs in bipartite Source expressions, to a Source marker.

subordination patterns, the only shared and obligatory criterium is the iconic ordering of components, as identified as early as by Davies (1981: 129) for Kobon.

8 Outlook

Source expressions are generally underdescribed in the linguistic literature on motion events and spatial relations, paralleling their often lower frequency in speech as opposed to Goals (as detected, for example, by Verkerk 2017 for European languages). Connecting to observations by Bourdin (1997: 189) and studies by Kopecka/Ishibashi (2011), Vuillermet (2021), and Schapper (2011), among others, the data presented in this study demonstrate that Source events are not only expressed with dedicated grammatical or lexical items such as ablative markers, adpositions or dedicated Source verbs, but can also be inferred via semantic contrast, via situational context or via sequencing of Place forms with motion verbs that express Goal in isolation, i. e. as their default function. Bipartite Source expressions show that spatial deictic motion verbs can structure motion events in a way that renders grammaticalized or lexicalized Source material purely optional in human language. Source can be assembled rather than lexically or morphologically encoded, and languages exploit event sequencing efficiently. This adds a new aspect of compositionality to the widely discussed Goal-Source asymmetry in the world's languages.

Moreover, these expressions contribute spatio-temporal aspects to discussions on iconicity in human language. Bipartite Source expressions build on the extra-linguistic fact that all location change events imply both a Source and a Goal, and what is expressed as a Source of motion was a Place at a previous moment in time. Whenever a Figure located at a Place undergoes a motion event implying location change, the Place becomes a Source. The structural sequencing of Place and Goal components to express Source has been described as iconically reflecting temporal sequentiality of events, as Schapper (2011: 99) summarizes: "[T]he sequence of linguistic forms in a sentence matches the sequence of experiences". Bipartite Source expressions have previously been described as involving "inference" (Fortis and Vittrant 2016: 358) and this study presented several types of inference-driven strategies that play a role in expressing Path. Similar to other Goal/Source expression types which more heavily involve inference, bipartite expression of Source is based on semantic contrast, with a temporal-aspectual layer. Apart from semantics and inference, syntactic ordering of components is crucial to disambiguate Goal and Source whenever "Source and [G]oal are not distinguished by morpheme, but by their position in the clause" (Schapper 2011: 100). Goal verbs are pivotal in all expression types revised here, their main function being to express location-change. All inference-driven expression types discussed here shed light on the complex semantics of motion verbs, which may drive interpretations that further depend on intra- or intersentential context, deixis, gestures, frequent associations and language-specific or culture-specific defaults. Follow-up research on bipartite Source expressions will ideally contain corpus-based studies on individual languages, to investigate their relationships with the general spatial repertoire, and include factors such as gesture and types of context.

Whereas many typological or comparative studies focus on the presence or absence of overt grammatical marking, research on motion events would also profit from closer scrutiny of word order, and the types of context required for resolving formal ambiguities. Instead of treating

Sources as a matter of morphology or lexicon only, this study shows that the field must also take into account constructional strategies. Bipartite Source expressions must be integrated in typologies, and also come to the awareness of field linguists, so that relevant data are not overlooked or misanalyzed. Regarding the lexical semantics of relevant forms, detailed studies on functions and scopes of motion verbs across languages will also help to include inference as one of the driving factors in the linguistic coding and decoding of motion evens. As Jiang (2006: 138) states: "[T]he role played by inferencing should never be underestimated" and "[m]eanings, after all, arise from our knowledge about the world in which we live". The aim to understand the role of inference in language should thus be part of linguistic research, and it has been shown here that it supports the understanding of multipartite coding strategies.

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Abbreviations

1	first person
2	second person
3	third person
3II	third person undergoer or possessor with a distinct reference from the Actor
A	Actor
A1	agreement class 1 (Choctaw)
A3	agreement class 3 (Choctaw)
ABS	absolutive
ACC	accusative
ACT	actualis
ACT.FOC	action focus

AFF	affectionate
AGT	agent
AL	alienable possession
ALL	allative
AN	animate
APPLIC	applicative
BAS	basic cross-referencing (Manambu)
CAUS	causative
CNT	continuative verb stem (Abui)
COMP	complementizer
CON	contrastive
CONJ	conjunction
CPL	completive
DAT	dative
DEF	definite
DEM	demonstrative
DIR	directional
DIST	distal
DPAST	distant past
DS	different subject
DST.L	distal deictic indicating a low and distal location (Abui)
DU	dual
DUR	durative
EP	epenthesis
EXT	extended
F	feminine
FDIST	far distal
FOC	focus
GO.TO.V	associated motion ‘go to do’ (Ese Ejja)
IAM	iamitive (‘already’)
INCL	inclusive
INCP.I	inceptive inchoative aspectual marker (Abui)
INS	instrumental
IPFV	imperfective
IRR	irrealis
LAT	lative
LNK	linker
LOC	locative

M	masculine
MED	medial verb marker (Mian)
NEG	negation
NF	nonfinite
NFIN	non-final
NOM	nominative
NPF	noun prefix
PAT	bound pronoun realizing U argument identified as patient undergoing a change of state or condition (Abui)
PATI	patientive
PFTV	perfective
PL	plural
POSS	possessive
PROG	progressive
PROPN	proper name
PRS	present tense
PST	past tense
PTCPL	participle
REAL	realis
REC	bound pronoun realizing U argument identified as recipient or goal (Abui)
RED	reduplication
SBJ	subject
SEP	separative
SEQ	sequential
SG	singular
SS	same subject
SVC	Serial Verb Construction
TAM	Tense-Aspect-Mood
TEL	telic
TNS	default tense
TOPO	toponym/placename
TRANSP	transportative
U	undergoer
VOL	volitional
VP	Verb Phrase
VT	versatile tense