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Chapter 4

Deictic directionals revisited in the light of advances in typology*

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Abstract:

This study explores the issue of Associated Motion (hereafter AM) in five languages spoken in Africa and Asia. We investigate grammatical morphemes whose function is to add a motion process to the event encoded in the verb expressing the main (non-motion) event, and to specify the temporal sequence of these two events (motion-prior-to-action or motion-subsequent-to-action). We show that an AM analysis adequately accounts for the function of

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morphemes previously considered as directionals in Wolof and Burmese, whereas in Sereer, Northern Mandarin and Japanese, AM markers are concurring with morphemes marking deictic orientation. Our results support recent studies showing that AM is a widespread linguistic phenomenon, and thus raise the question of the place of AM in a typology of motion events.

Keywords:

Atlantic languages, Burmese, Japanese, Mandarin, deictic orientation, motion-prior/subsequent-to-action

This study explores the issue of Associated Motion (hereafter AM) in five languages spoken in Africa and Asia. We investigate grammatical morphemes whose function is to add a motion process to the event encoded in the verb expressing the main (non-motion) event, and to specify the temporal sequence of these two events (MOTION-PRIOR-TO-ACTION or MOTION-SUBSEQUENT-TO-ACTION). We show that an AM analysis adequately accounts for the function of morphemes previously considered as directionals in Wolof and Burmese, whereas in Sereer, Northern Mandarin and Japanese, AM markers are concurring with morphemes marking deictic orientation. Our results support recent studies showing that AM is a widespread linguistic phenomenon, and thus raise the question of the place of AM in a typology of motion events.

Keywords: Atlantic languages, Burmese, deictic orientation, Japanese, Mandarin, motion-prior/subsequent-to-action.

1. Introduction: understudied aspects of dynamic deixis

Our chapter focuses on the encoding of dynamic deixis as expressed by grammatical morphemes that are also called “directionals” in some linguistic traditions, and investigates the use of such “deictic directionals” to encode

Associated Motion. Its aim is to present the first results of an ongoing project that focuses on the encoding of dynamic deixis as one constitutive element of a motion event.¹ The notion of “dynamic deixis” is understood here as the variation in time of the distance to a viewpoint (Fortis and Fagard 2010). This implies a direction along an axis defined by its relation to the deictic center (or viewpoint).

The approach we espouse in this chapter is functional-typological and, by doing so, we aim to contribute to developing “working typologies” (Grinevald 2011b) of linguistic phenomena (here “directionals” and “Associated Motion”). Such typologies are considered to be dynamic as they evolve over time to incorporate new findings and data, while at the same time providing a framework for language description.

The first aim of our study is to make an inventory of the devices (lexical, grammatical or constructional) used in typologically diverse languages to encode the notion of “dynamic deixis”. At the same time, we aim at shedding light on the semantic notions co-expressed with dynamic deixis and the relations they bear with dynamic deixis.

In the process of exploring the typology of the particular functional domain of “dynamic deixis”, within a more general typology of “motion events”, we found that the label *directional* was widely used in describing languages we work on (Sino-Tibetan languages, Niger-Congo languages, and Austronesian languages) for quite different morphosyntactic forms. Directionals may correspond to Talmy’s “path satellites” and have in some cases been explicitly analyzed as such (see for instance Grinevald 2011a on

¹ The authors were members of a crosslinguistic research project of the CNRS-TUL (Typology and Linguistics Universals, FRE 2559, 2015–2018) named “Dynamic Deixis”, which focused on the encoding of dynamic deixis in motion event descriptions, in order to contribute from a wider perspective to the elaboration of a typology of the expression of motion events.

Jakaltek Popti' directionals, Talmy 2000: 109 and Lamarre 2003, 2008 on Chinese directionals, and Voisin 2013 on some Atlantic languages spoken in Senegal).

In the course of our empirical reflections on these issues, we have come to reconsider the status of some morphemes instantiating various stages of grammaticalization. These morphemes encode secondary motion events that actually correspond to Associated Motion, and not just the deictic orientation of the main motion event. They have been previously labelled as directionals (in Atlantic languages) or aspectual markers (Burmese), or analyzed as full verbs in a serial verb construction (Northern Mandarin) or in a complex predicate (Japanese). Hence, whereas the present definition of Associated Motion is mostly based on languages with dedicated forms (e.g. languages spoken in Australia or in Amazonia, see below), our contribution is to bring into the discussion data from languages where Associated Motion is expressed merely by morphemes that mark dynamic deixis.

Furthermore, we also aim to contribute to the motion event typology initially proposed by Talmy (1985, 2000) by exploring how Associated Motion fits into this typological landscape. As observed by several authors (Guillaume 2006: 433–434, 2016: 90, Voisin 2013: 133 and Vittrant 2015: 595–596), Associated Motion has not been directly taken into account in Talmy's typology of path encoding, hence, its place within this typology remains to be investigated.²

² As noted previously by Wilkins (1991: 209) and Guillaume (2006: 434), Talmy (1985: 116–117, 2000: 122–123) does mention that a number of Atsugewi satellites may be used to encode how the main event is related to an ongoing locomotion event, with meanings such as 'go and V', but considers such functions as aspectual. Incidentally, many of the forms he listed in Table 2.14 (e.g. 'go and V', 'go Ving along', 'come Ving along') seem to be related to deictic motion. Atsugewi is a Hokan language spoken in California.

This chapter is organized as follows: in section 2, we first illustrate a few cases of grammatical morphemes that encode deictic orientation. In section 3, after briefly introducing the category of Associated Motion (hereafter AM), we show that in some languages the morphemes marking deictic orientation may also mark Associated Motion, and we discuss several of these cases as documented in certain languages spoken in Asia and Africa. We argue that an AM analysis can sometimes more adequately account for the function and behavior of morphemes described under various labels such as “directionals” than existing analyses, and we discuss the relationship between AM markers and morphemes marking dynamic deictic orientation. The thesis we defend thus supports recent studies showing that this linguistic phenomenon is more widespread than what was assumed in previous descriptions of AM. In section 4, on the basis of the data presented in section 3, we discuss a few salient issues concerning Associated Motion and refer to our findings when relevant. We set out our conclusions in section 5.

2. Deictic orientation and deictic directionals

2.1. The relative autonomy of the deictic component

In Talmy’s framework, deixis is considered as a “component of path” in a motion event: “The deictic component of path typically has only the two member notions of ‘toward the speaker’ and ‘in a direction other than toward the speaker’” (Talmy 2000: 56–57). However, Talmy (2000: 57) mentions that Korean, a language of the path verb type, “structurally distinguishes the Deictic component from the Conformation component of Path”. Similarly, Slobin (1997: 30) notes that Satellite-framed languages do not necessarily work in accordance with the same pattern:

Path satellites in German encode directionality, as in English. But in addition, they encode deictic viewpoint by means of the particles *hin* ‘thither’ and *her* ‘hither’, which can combine with the directional particles. The range of possibilities is thus considerably greater than in English, allowing for expression of VIEWPOINT PERSPECTIVE along with directionality of motion. (Slobin 1997: 30)

In other terms, previous research has shown that the way a language encodes deictic path cannot be entirely predicted from the way it encodes path in general: languages do not necessarily encode deictic path and non-deictic path in a consistent way. Some languages (such as Jakaltek, see Craig 1993 and Grinevald 2011a, or Chinese, see Chao 1968: 468 and Lamarre 2003, 2008) have bipartite path satellites, with a dedicated slot for the expression of deictic orientation. Other languages (such as English or Hungarian) tend to encode path in satellites, except for deictic path encoded in the verb (e.g. *come* and *go* in English). In the former type of languages, deictic orientation is more readily expressed, following what Talmy calls (2000: 128) “the principle of ready inclusion of extra information under backgrounding”. In a recent study, Matsumoto (2017) mentions other languages (such as Newar, a Sino-Tibetan language, and Dom, a Trans-New Guinea language) that behave in this regard more like English and Hungarian, and observes that studies on the typology of motion events in fact point to some degree of “autonomy” of the deictic component.

For practical purposes, therefore, we have adopted the label “deictic directionals” for the forms that are dedicated to the encoding of deictic orientation, and we use “deictic orientation” as a cover term for both the deictic path and the deictic viewpoint as a discourse perspective taken by the speaker. We are dealing here exclusively with what Talmy (2000: 25) calls “translational motion”, which implies a change of location with respect to a reference point.

2.2. Deictic orientation: a few examples

Oceanic languages and Mayan languages are among those for which an extensive description of deictic directionals is available (see for instance Ozanne-Rivierre 2004 on Iaaï, an Oceanic language spoken in the Loyalty Islands, and Craig 1993 on Jakaltek Popti', a Mayan language spoken in Guatemala). Examples (1) and (2) respectively illustrate the use of directionals marking deictic orientation in East Uvean (an Austronesian language spoken in East Uvea [known as Wallis in French], Oceania, see Moysse-Faurie 2016) and in Jakaltek Popti' (Craig 1993). Centripetal motion is glossed here as DIR_{CTP} and centrifugal motion as DIR_{CTF}.³ Directionals may belong to distinct sets, and be organized in distinct paradigms encoding different types of path, as seen in example (2) where the directional glossed as DIR_{DOWN} in Jakaltek precedes the deictic directional DIR_{CTP}.

- (1) East Uvean (adapted from Moysse-Faurie 2016)

Ne'e ina toho mai tona kupegá

PST 3SG pull DIR_{CTP} his net

'He pulled his net back to him.'

(French: Il a ramené son filet vers lui)

- (2) Jakaltek Popti' (adapted from Grinevald 2011a)

a'-ay-tij tx'otx' xhalu y-ib'anh q'a'.

move-DIR_{DOWN}-DIR_{CTP} earth pot its-ON fire

³ We use the terms 'centripetal' and 'centrifugal' here rather than 'venitive' (or 'ventive') and 'andative' (or 'itive'), also used in the literature on motion events. 'Centripetal' and 'centrifugal' place the focus on the deictic center, and allow other directions such as 'transverse'. 'Venitive' and 'andative' directly refer to deictic morphemes (e.g. Romance deictic verbs). Other terms such as 'cislocative' and 'translocative' are sometimes found in the literature too. See Bourdin (Chapter 5, this volume) for a diverging opinion on this terminological issue.

(Lit. ‘Move-down-this way the (earth) pot on the fire!’)

‘Take the pot down from the fire!’

The following examples show similar paradigms in Standard Chinese, a Sinitic language (Sino-Tibetan): in (3a) the verb *niǎn* ‘chase’ bears a bimorphemic path directional. Bimorphemic patterns prevail in colloquial Standard Chinese, as shown in (3b), where the directional *-xia* ‘down’ is compulsory before the deictic directional, although the verb *diào* ‘fall’ includes a path component ‘down’.⁴

(3) Standard Mandarin (TV series *Married for ten years*)

- a. *Tā gǎn huí-lai wǒ jiù bǎ tā*
3SG dare return-DIR_{CTP} 1SG then OBJ 3SG
niǎn-chu-qu.
chase-DIR_{OUT}-DIR_{CTF}

‘If she dares to come back, I will chase her out [of here]!’

([7-20])⁵

- b. *Wǒ shì pà nǐ diào-xia-qu.*
1SG be afraid 2SG fall-DIR_{DOWN}-DIR_{CTF}

‘[It’s because] I’m afraid you might fall down.’ (said by a father to his son carried on his shoulders, complaining that his father holds his hands too hard) ([12-43])

⁴ A bare verb *diào* would not be felicitous. Standard Chinese data are transcribed in the *pinyin* system of transcription, where diacritics on the main vowel express lexical tone. Directionals are unstressed and lose their distinctive tone features. Although Chinese also uses path verbs, we follow the prevalent opinion in Chinese linguistics that Chinese directionals share many characteristics with Talmy’s path satellites (see Talmy 2000: 109, Lamarre 2003, 2008).

⁵ The Chinese title is *Jiéhūn shí nián*. Here 7 indicates the number of the episode, 20 indicates the time when the sentence occurs in the episode (minute 20).

In Sereer, an Atlantic language (Northern group) spoken in Senegal, deictic orientation is expressed by a verbal suffix, as illustrated in (4). Atlantic languages described up to now do not use path directionals to encode non-deictic path information such as ‘down’ or ‘out’ (Voisin 2013).

(4) Sereer (adapted from Renaudier 2012: 96–97, see Voisin 2013)

Ten yen-iiid-u ga-kall al-e [...]

3SG fall-DIR_{CTP}-FOC CL-arm.of.the.sea CL-PROX

‘She fell down into the sound (toward the island where the speaker is located).’

In the next section, we show that in both Standard Chinese and Sereer, the same morphemes that express deictic orientation also encode MOTION-PRIOR-TO-ACTION, a subtype of Associated Motion. We also discuss another subtype of Associated Motion, MOTION-SUBSEQUENT-TO-ACTION, attested in Japanese and in Burmese.

3. Associated motion and deictic orientation

3.1. Associated motion as a “cross-linguistically valid conceptual category”

Associated motion (henceforth AM) is defined as follows in Guillaume and Koch (2021: 3):

Associated Motion (AM) is a relatively newly established descriptive and comparative concept that we define as a *verbal grammatical category, separate from tense, aspect, mood and direction, whose function is to associate, in different ways, different kinds of translational motion (spatial displacement / change of location) to a (generally non-motion) verb event.*

It was first described in Australian languages (see Koch 1984, Wilkins 1991, 2006), but has been documented since in other parts of the world such as

America (O'Connor 2004, Guillaume 2006, 2016, Vuillermet 2012, 2013), Africa (Bourdin 2005, 2006, Renaudier 2012, Voisin 2013, Belkadi 2015) and Asia (Jacques 2013, Vittrant 2015).

Koch (1984) noted with regard to Kaytej, an Arandic language of Central Australia, that AM should be added to the list of grammatical categories pertaining to the verb. This view is shared by Wilkins (1991: 209), who insists that “languages as typologically, geographically and genetically distinct as Hausa, Atsugewi and Mparntwe Arrernte possess morphemes relating main verb events to background motion events”, and argues in favor of AM as a “cross-linguistic valid conceptual category” worthy of recognition, as well as a “grammatical category which can be added to the list of notions such as tense, mood and aspect”.

Table 1 shows some of the parameters at work in the Arrernte AM system, based on Wilkins (1991, 2006: 49). The specific AM morphemes listed in the original table are omitted here. Only parameters observed when the performer of the action is also the moving entity are included in the table.

Table 1. Some parameters at work in Arrernte AM system (based on Wilkins 2006)

Action and Motion Concurrent		Action and Motion Non-concurrent		
Directed: Deictic	Oriented		GO	GO BACK
DO COMING	DO PAST	Prior Motion	GO & DO	GO BACK & DO
DO COMING BACK	DO UPWARDS	Subsequent Motion	DO & GO	DO & GO BACK
DO COMING THRU	DO DOWNWARDS			
REVERSIVE: (a) Do going back (b) Do back to	Quickly DO DOWNWARDS	Subsequent Motion Hurried	Quickly: DO & GO	Quickly: DO & GO BACK

This newly defined concept was later applied to Amazonian languages: Guillaume (2006, 2016) and Vuillermet (2012, 2013) described elaborate AM systems in Cavineña and Ese Ejja, two Takanan languages spoken in South

America. Ese Ejja possesses an AM system of ten verbal suffixes, which are organized along several parameters related to deictic orientation and to the sequence of the action expressed in the main verb and of the motion (motion prior to, simultaneous with or subsequent to the action).

Table 2 shows some of these parameters as described in Vuillermet (2013). The specific AM morphemes listed in the original table are omitted here. Only parameters related to the motion of the performer of the action are included .

Table 2. Some parameters at work in the Ese Ejja AM system (based on Vuillermet 2013)

Motion	Orientation		
(True deictics)	Towards reference point	Away from reference point	No reference point
Prior	COME TO DO	GO TO DO	
	DO ARRIVING		
	ARRIVE & DO (TRANSITORY)		
Simultaneous	DO RETURNING	DO GOING	DO HERE & THERE
Subsequent	DO & RETURN	DO & LEAVE	

The descriptions of the elaborate AM systems observed in Amazonian languages contributed to our understanding of Associated Motion, through a larger set of data from very distant languages, thus allowing for a better definition of this rather neglected category.

This new descriptive tool was further applied to languages spoken in other areas of the world, and recent studies looking into a new batch of languages show that AM is probably quite widespread: it is also attested in Africa, in Atlantic languages such as Sereer, Wolof and Pular (see Renaudier 2012 on Sereer, and Voisin 2013 for a comprehensive study) and in Afroasiatic languages such as Berber (Belkadi 2015), as well as in East Asia, in Sino-Tibetan languages such as Gyalrongic and Kiranti languages (Jacques

2013, Jacques, Lahaussais and Zhang 2021) and also in Tungusic languages including Manchu (Alonso de la Fuente and Jacques 2018, Pakendorf and Stoyanova 2021).

This chapter looks more specifically into languages where a morpheme encoding dynamic deixis happens to play the role of an AM marker (an issue which will also be discussed in the next chapter, see Bourdin, this volume). In the next sections, we look more closely into the subfunctions of AM found in the African and Asian languages we work on (section 3.2). Some of these forms were labelled “directionals” in previous descriptions, but do not actually mark deictic orientation. This is the case of Central Burmese and Wolof (section 3.3). In other languages, the same marker may encode deictic orientation and AM. This is, we would argue, the case for Sereer, Northern Mandarin, and Japanese (section 3.4). These languages exhibit simpler systems than those described in Australian and Amazonian languages, but may help further our understanding of the typical and less typical semantic features of Associated Motion markers as elements encoding secondary motion events.

3.2. The subfunctions of Associated Motion discussed in this study

As noted by O'Connor (2004) and Rose (2015), the label “Associated Motion” is rarely used in grammatical descriptions, and relevant morphemes may be described under various labels, such as “directionals,” as is the case in some of the languages discussed here. In this study, we discuss morphemes whose function is to add a motion process to the event encoded in the verb expressing the main event and to specify the temporal sequence of these two events: motion prior or subsequent to action. The AM subtypes investigated here actually only cover a small part of those described in Australian or South

American languages.⁶ All of the AM markers we have come across involve motion of the agent of the verb. We analyze the following two subtypes:

(a) MOTION-PRIOR-TO-ACTION, Gloss: [COME&DO, GO&DO]: ‘come or go and/to do’

(b) MOTION-SUBSEQUENT-TO-ACTION, Gloss: [DO&COME, DO&GO, DO&RETURN, DO&LEAVE]: ‘do before coming, going, returning or leaving’

In terms of the temporal sequence, in the MOTION-PRIOR-TO-ACTION pattern the motion co-event occurs before the action expressed by the main verb, whereas the MOTION-SUBSEQUENT-TO-ACTION pattern conveys the idea of an action completed before the motion. See for instance examples from Ese Ejja:⁷

(5) Ese Ejja (Vuillermet 2013)

a. *Ixya-wa!*

eat-COME_TO_DO-IMP

‘Come and eat!’

b. *Ka’a-nana-kwe!*

⁶ By focusing on these two subtypes, we leave out the delicate issue of the criteria to be used for patterns that could be analyzed either as AM markers encoding concurrent motion or as deictic directionals. This issue requires a separate study involving specialists of the relevant languages, as these criteria are likely to be language-specific.

⁷ In Vuillermet (2013), the gloss chosen for the AM morpheme in (5a) is COME_TO_DO, which implies that the action denoted by the verb V is the purpose of the motion. In Vuillermet (2012), the gloss chosen for the AM morpheme in the example corresponding to (5b) is FAIRE&ALLER (i.e. DO&GO), which looks more “deictic” than ‘DO&LEAVE’ used in Vuillermet (2013). We are aware that these issues require further investigation.

lock-DO&LEAVE-IMP

‘Lock the door before going!’

3.3. Associated Motion in Burmese and Wolof

The MOTION-PRIOR-TO-ACTION subtype is attested in Wolof (Niger-Congo phylum). Examples (6a) and (6b) show that, in Wolof, the suffixes *-si* ‘come and do’ and *-i* ‘go and do’ encode Associated Motion of the MOTION-PRIOR-TO-ACTION subtype: they express a deictic motion event “associated” to the action denoted by the main predicate, which does not convey motion.⁸

(6) Wolof (Niger-Congo phylum, adapted from Voisin 2013)

a. *Waadëkk bépp a wall-si woon.*
villager all SE rescue-COME&DO PST

‘The whole village came to the rescue.’

b. *Dafa dox-i ci tefes gi.*
VE3SG walk-GO&DO LOC beach DEF

‘He went to the beach and walked.’

Voisin (2013: 142–143) observes that these markers do not encode deictic orientation in a motion event, but have sometimes been called “directionals”.

We find the MOTION-SUBSEQUENT-TO-ACTION subtype in Central Burmese (Sino-Tibetan) where, in the following sentences, the marker *Khe^l* marks the centripetal motion of the subject of an action expressed by the main verb. Only the DO&COME (‘do before coming’) type is attested with this function in Central Burmese; it has no centrifugal counterpart.

(7) Central Burmese (adapted from Vittrant 2013)

⁸ In example (6b), the main event verb ‘walk’ rather conveys the meaning of ‘to take a walk’, and does not contribute to the encoding of translational motion.

- a. $k\omega^2phi^2$ $\theta a\omega?$ ***Khe***¹ $Pa^2=Te^2$
 coffee drink DO&COME POL=REAL.
 ‘(He) drank a coffee [before coming.]’ (* He drinks a coffee.)
- b. $?e^3-di^2$ $ywa^2 =Ma^2$ $?a?$
 DEM.anaph village-LOC leave.with
 $tha^3 =Khe^1 =Te^2$
 PUT=DO&COME=REAL
 ‘(I) left (my bicycle) in that village [then I left and came here].’
- c. she^3khaN^3 $m\partial = la^2 =KhiN^2$ $mye?siN^3$
 hospital NEG=come=before eye.drop
 $kha? =Khe^1 =Pa2$
 put = DO&COME =POL
 ‘Before coming to the hospital, put some [eye-lotion] drops [in your eyes].’

3.4. When the same forms function as deictic directionals and as AM markers

Unlike in Wolof and Burmese, in Northern Mandarin, Sereer and Japanese, a deixis-related form may, in a similar sequence of morphemes [VP + deixis-related morpheme], be interpreted as marking either the deictic orientation of the process denoted by the verb, or a distinct motion event associated with the verb. Owing to the semantics of the predicate referring to the main event, most utterances are unambiguous, but in some cases both readings are available. On the other hand, one could also analyze AM, in this case, as “one mechanism allowing deictic directionals far greater productivity than they exhibit when they can only attach to verbs of motion”, to follow Bourdin (this volume, section 3.3). We respectively discuss below the cases of Sereer and Northern Mandarin, where the same form may express either deictic orientation or the MOTION-PRIOR-TO-ACTION subtype of AM, and the case of

Japanese, where grammaticalized deictic motion verbs may express either deictic orientation or the MOTION-SUBSEQUENT-TO-ACTION subtype of AM.

3.4.1. *The MOTION-PRIOR-TO-ACTION subtype: Sereer and Northern Mandarin*

In Sereer (Northern Atlantic group) and in Northern Mandarin (a Sinitic language, Sino-Tibetan), the same sequence [verb + marker of deictic orientation] allows two distinct readings: 1) the deictic orientation of the motion denoted by the verb, and 2) AM of the MOTION-PRIOR-TO-ACTION subtype (‘GO&DO’, ‘COME&DO’).

In Sereer, *-iid* encodes deictic orientation of the centripetal type (centripetal: towards the speaker), as illustrated in example (4), reproduced here as (8a). The same verbal suffix in (8b) shows that it may also encode AM of the MOTION-PRIOR-TO-ACTION subtype (‘COME&DO’).

(8) (=4) Sereer (adapted from Renaudier 2012: 96, see Voisin 2013).

- a. *Ten yen-iid-u ga-kall al-e [...]*
 3SG fall-CTP-FOC CL-arm_of_the_sea CL-PROX
 ‘She fell down into the arm of the sea (toward the island where the speaker is located).’
- b. *Tiit k-e a-ñaaam-iid-aa kaaf k-e*
 bird CL-PROX S.3-eat-COME&DO-IPFV millet CL-PROX
 ‘Birds come to eat millet.’

Note that Atlantic languages behave rather like verb-framed languages in terms of Talmy’s typology (Voisin 2013), whereas Standard Chinese shows many features typical of satellite-framed languages (Talmy 2000: 108-109, Lamarre 2003, 2008).

In Standard Mandarin (based on the Beijing Mandarin variety), the clitics *lai* and *qu* that express deictic orientation are related to the deictic verbs *lái* ‘come’ and *qù* ‘go’, and may also encode a MOTION-PRIOR-TO-ACTION

subtype of AM as in (9a) and (9b). They often attach to the object NP of a transitive verb, as in (9) below:

- (9) Standard Mandarin (TV series *Married for ten years*)
- a. *Xǐ shǒu=qu!*
 wash hand=GO&DO
 ‘Go and wash your hands!’ ([6-07])
- b. *Nǐ gàn má=lai le?*
 2SG do what=COME&DO CRS
 ‘What are you coming for?’ ([6-31])

When the centrifugal and centripetal clitics attach to the VP as in (9a) or (9b), they exhibit phonetic erosion typical of grammaticalization (loss of tone distinction, and for the centrifugal counterpart *qu* [tɕʰy], unrounding of [y] to [i]). There is no consensus on how *qu* and *lai* should be analyzed in (9a) and (9b). Even those who consider them as the second verb in a serial verb construction (the prevailing analysis in reference grammars) often mention that they do not behave as full verbs, and Chao 1968: 479–480 considers them as ‘particles of purpose’ (see Lamarre 2020 for a detailed review). Note that in Standard Mandarin, MOTION-PRIOR-TO-ACTION may also be expressed by full lexical verbs taking a purpose VP as their complement, as illustrated in (10a), where *qù* ‘go’ is usually analyzed as the first verb of a serial verb construction (hereafter SVC); (10b) illustrates the corresponding AM pattern.

- (10) Standard Mandarin
- a. *Wǒ qù xǐ shǒu.*
 1SG go wash hand
 ‘I go and wash my hands.’
- b. *Wǒ xǐ shǒu=qu!*
 1SG wash hand=GO&DO
 ‘I go and wash my hands.’

Examples (11a) to (11c) illustrate the verb *ná* ‘take in one’s hand’ combined with a deictic directional, an association marker, and a full verb, respectively. In (11a) *qu* is a deictic directional, in (11b) an AM marker attached on a bare verb (the patient of the action ‘take’ is here covert, which explains why the sequence of verb and deictic marker is similar in 11a and 11b). The same purposive meaning as (11b) may also be expressed by an SVC, as in (11c).

(11) Standard Mandarin (TV series *Married for ten years*)

- a. *Zhè qián nǐ ná-qu ba.*
 DEM_{PRO} money 2SG take-DIR_{CTF} ADVI⁹
 ‘Take this money (away).’ (Deictic orientation) ([18-33])
- b. *Kuài ná=qu!*
 quickly take=GO&DO
 ‘Hurry up, go and take it!’ (MOTION-PRIOR-TO-ACTION reading.
 This is said by a father to his daughter, ordering her to go and
 fetch her notebook so that he can look at her homework) ([3-03])
- c. *Qù ná!*
 go take
 ‘Go take it!’ (SVC) [3-03]

In Southern Sinitic varieties such as Cantonese (Yue) and Taiwanese (Southern Min), the only pattern available to express motion-cum-purpose is a serial verb construction [deictic verb + purpose VP], the same pattern that was illustrated above in (10a) for Standard Mandarin. This is shown in (12a) for Chaozhou (also called Teochew, a Min dialect spoken in the Guangdong province of China), where a full deictic verb *k^hu*²¹³ ‘go’ precedes the verb ‘take’. Example (12b) has only one reading of deictic orientation ‘take away (from the speaker)’ (Tan’s data, see also Tan 2014 on Chaozhou, and see

⁹ Sentence-final particle *ba* has the effect of toning down advices and commands.

Chao 1968: 479–480 for further comments on a northern vs. southern varieties of Sinitic contrast for purposive patterns).

(12) Chaozhou (Southern Min, Sinitic, A. Tan)

- a. *k^hu²¹³* *k^hio²⁵*
go take.in.one's.hand
'Go and take it (and bring it back here).'
- b. *k^hio²⁵* - *k^hu²¹³*
take.in.one's.hand-DIR_{CTF}
'Take it (away from the deictic center).' (not: 'Go and take it.')

Associated motion would provide a convincing candidate for the grammatical category encoded by centrifugal and centripetal clitics in Northern Mandarin purposive patterns (see Lamarre 2020 for a detailed discussion).

3.4.2. The MOTION-SUBSEQUENT-TO-ACTION subtype: Japanese

Japanese *kuru* 'come' and *iku* 'go' are deictic motion verbs that may combine with another predicate through a *-te* linkage morpheme to form a complex motion predicate. As argued in Moriyama (1988: 196–197), these verbal complexes behave as one lexical unit with respect to prosody, which excludes an analysis as biclausal patterns.¹⁰ Japanese example (13a) illustrates the case of a manner-of-motion predicate 'run', combined with the deictic verb *kuru* (whose stem is *ki*), to express a running motion towards the speaker. Example (13b) illustrates the case of a path verb 'return', combined with the same deictic verb *kuru* 'come' that expresses deictic orientation (see Morita 2011

¹⁰ See also Matsumoto (1996: Chapters 9 and 10) for an in-depth discussion showing that complex motion predicates function as one word at functional structure and argument structure. This is why we choose to gloss the complex motion predicates discussed in this comparative study as one unit, with a hyphen between the verb and the following linker (CVB) *te*.

and Imbert et al. 2011). We keep the same gloss ‘come’ for *ki-* in (13a) and (13b). In Example (13c), the same form *-kita* ‘came’ encodes the MOTION-SUBSEQUENT-TO-ACTION subtype of AM. The latter is very similar to example (7a) above, in Burmese, which expresses an action (here ‘drink coffee’) occurring before the drinker moves to the place where the clause is uttered (i.e. to the deictic center).

(13) Japanese

- a. *Koko=made hashit-te-ki-ta.*
 here=to run-CVB-come -PST
 ‘I ran all the way here.’ (Jamassy 1998/2015: 267)
- b. *Sen-getsu Nihon=ni kaet-te-ki-mashi-ta.*
 last-month Japan=to return-CVB-come-POL-PST
 ‘[I] came back to Japan last month.’ (Jamassy 1998/2015: 250)
- c. *Koohi=o non-de-ki-ta.*
 coffee=OBJ drink-CVB-DO&COME-PST
 ‘I drank a coffee before coming.’

Previous studies (Moriyama 1988: 186–189 and Shibatani 2007, among others) provide various pieces of evidence, among which argument structure and the scope of negation, to prove that *kuru* ‘come’ and *iku* ‘go’ behave as the head of a complex predicate when they occur with manner of motion verbs (e.g. 13a), but are grammaticalized in sentences such as (13c) where they encode a motion following an action. For instance, a ground phrase *kissaten-de* ‘at a coffee shop’ may be added before the verb ‘drink’ (13d), to express the location of the action ‘to drink’. It would be incompatible with *kita* ‘came’

alone, whereas a goal NP *gakkoo* ‘school’ marked by the goal marker *-ni*, usual with ‘come’, would be infelicitous (13e).¹¹

(13) Japanese

- d. *Kissaten=de koohi=o non-de-ki-ta.*
 coffee.shop=at coffee=OBJ drink-CVB-DO&COME-PST
 ‘I drank a coffee in a coffee shop [before coming].’
- e. **gakkoo=ni koohi=o non-de-ki-ta.*
 school=to coffee=OBJ drink-CVB-DO&COME-PST
 Intended meaning: ‘I drank a coffee before coming to school.’

3.4.3. Deictic orientation markers and AM markers: a summary

The data discussed above show that in Sereer, Chinese and Japanese, the deictic morphemes encoding AM may also be added to motion verbs to encode the deictic orientation of a motion event. As pointed out by Belkadi (2015: 54), the crucial difference between the deictic directional interpretation and the AM interpretation is that “in the former the deictic path is a subcomponent of the motion event encoded by the verb, while in the latter, deictic path is external to that event”.¹²

Table 3 shows, for the languages discussed here, the subtypes of AM attested, and indicates whether the same form can also encode deictic orientation.

¹¹ Shibatani (2007) argues that in AM patterns, *iku* ‘go’ and *kuru* ‘come’ are more grammaticalized, less “verby” than when they occur with path verbs to express deictic orientation (ex. *de-te-ku-ru* ‘come out’) or with manner of motion verbs (e.g. *hashit-te-ku-ru* ‘come running’), and hypothesizes that this involves the semantic congruity of the co-event.

¹² Unlike Belkadi (2015), we restrict the term “deictic directional” to markers that encode deictic orientation in a motion event, and do not use it for AM markers.

Table 3. Subtypes of AM and their relation to deictic orientation markers

Languages and AM markers (centripetal/centrifugal)	MOTION- PRIOR-TO- ACTION	MOTION- SUBSEQUENT-TO- ACTION	also encodes deictic orientation*
Central Burmese VP + <i>Khe'</i> (CTP only)	–	+	no
Japanese <i>V-te-kuru</i> / <i>V-te-iku</i>	–	+	yes
Standard Mandarin VP + <i>lai</i> / VP + <i>qu</i>	+	–	yes
Sereer (Atlantic) <i>V-iid</i> / <i>V-ik</i>	+	–	yes
Wolof (Atlantic) <i>V-si</i> / <i>V-i</i>	+	–	no

* “Yes” means that the same form may encode deictic orientation in a motion event, for instance with a path verb or a manner of motion verb.

4. Discussion of a few specific issues related to AM

This section brings up several issues that have been under discussion in previous studies concerning AM, and comments when relevant on what we found in the data we have gathered up to now.

4.1. The inventory of AM markers

4.1.1. Dynamic deixis

This research started with a study of the various meanings and functions taken in some languages by morphemes expressing dynamic deixis. It is thus not surprising that our conclusions establish that there is a close link between deixis and AM. Furthermore, AM systems described up to now often include subsystems related to deictically anchored morphemes. This can be observed

for instance in the following sample provided by Guillaume (2016: 82) in his comprehensive study of Associated Motion systems in South America to illustrate the various kinds of motion occurring with the verb ‘see’ in the Amazonian language Cavineña and in the introduction of a volume dedicated to AM (Guillaume and Koch 2021):

(14) Cavineña (Takanan; Guillaume 2016: 82, Guillaume and Koch, 2021)

<i>ba-</i>	‘see O’
<i>ba-ti-</i>	‘ <u>go and</u> see O’
<i>ba-na-</i>	‘ <u>come and</u> see O’
<i>ba-aje-</i>	‘see O <u>while going</u> ’
<i>ba-be-</i>	‘see O <u>while coming</u> ’
<i>ba-kena-</i>	‘see O <u>and go</u> ’
<i>ba-dadi-</i>	‘see O <u>while O is moving away</u> ’
<i>ba-tsa-</i>	‘see O <u>while O is approaching</u> ’

Although (14) does not provide an exhaustive list of the AM markers of this language, it shows the importance of deictic orientation in AM systems. However, there are also AM markers not related to deictic orientation (Rose 2015, Guillaume 2016, Appendix).

The relation between AM markers and deictic verbs is also discussed by Wilkins (2006: 47–48), who notes about Arrernte that “[t]he associated motion inflections can occur on all verbs, with the exception of verbs from the ‘deictic’ motion subclass.” This is due, he explains, to the fact that “much of the information encoded by the associated motion forms is identical to information lexicalized in the ‘deictic’ motion forms”. Interestingly, according to Wilkins (2006: 51), the subtypes that remain in the speech of younger speakers in the process of language attrition in Arrernte also correspond to those directly related to deictic motion: younger speakers only use 8 of the former 14 forms, having lost all the forms referring to motion in the vertical dimension, those that encode velocity and complex notions such

as ‘do coming through’ and ‘do on Z’s arrival’. Further cross-linguistic investigation is thus required to determine whether dynamic deixis is a “typical” or a “core” semantic component in AM systems (and if it is, to determine the motivation for this link).

4.1.2. Motion back (home)

In paradigms where deictic opposition plays an important role, the inventory of AM markers often comprises “motion back to source” (i.e. “return”) together with canonical deictic meanings such as “go” and “come”. This is for instance the case in Lowland Chontal (a Tequistlatecan language), (see O’Connor 2004), whose AM paradigm includes four verbal suffixes: “motion away from source”, “motion to goal”, “motion towards source” and “motion back to source” (or “reversive”). This raises stimulating questions about the perimeter of deixis in individual languages.

Among the languages investigated here, Japanese uses AM patterns with *kaeru* ‘return’, which are identical with the patterns containing *iku* ‘go’ and *kuru* ‘come’. *V-te-kaeru* means ‘do before going back (to home base)’, and it encodes the MOTION-SUBSEQUENT-TO-ACTION subtype of AM. These patterns are highly conventionalized, but have not attracted much attention so far.

(15) Japanese (Yahoo Japan *chiebukuro*)¹³

¹³ This sentence is very commonly heard in Japanese, as spoken to family members, before leaving home or when calling home. Here is an example taken from a Japanese Yahoo website called *chiebukuro* in a section on English. To the question (in Japanese) “How do you say in English ‘*kyoo wa tabetekaeru yo*’?”, three answers were provided (presumably by Japanese native speakers): ‘Today, I’m eating out with my friends’, ‘I return home after dinner with my friends (today)’, and ‘I will eat dinner with my friend, then go home today’. Retrieved from

Kyoo=wa tabe-te-kaer-u yo.
 today=TOP eat-CVB-DO&RETURN-NPST RLV
 ‘Today, I’m eating out with my friends (then going home).’

The link of Japanese *kaeru* with deixis is commented on by Fillmore (1992: 50–51), in a discussion about the concept of the “home base” as a feature in lexical semantic systems: *kaeru* actually means ‘to go home’ rather than ‘return’, he says.

4.1.3. “Roundtrip” motion

Another feature found in Japanese is what Bourdin (2005, 2006) calls a ‘roundtrip’ motion that encodes “the return portion of a roundtrip rather than the outgoing segment” for the centripetal item *kuru* in its AM function. Example (16) is taken from Bourdin (2006: 20), and illustrates roundtrip motion in Somali, where the ventive preverbal clitic *soo* means ‘go and do then come back’. Example (17) is a Japanese sentence typically uttered by a speaker as they leave to go to the store.

(16) Somali (Bourdin 2006: 20)

hibib soo iibi!
 meat VEN buy:IMP.2SG
 ‘Go buy us some meat (and come back)!’

(17) Japanese

Pan=o kat-te-ku-ru.
 bread=OBJ buy-CVB-DO&COME-NPST
 ‘I go and buy some bread (and come back).’

https://detail.chiebukuro.yahoo.co.jp/qa/question_detail/q1095849015, on October 3, 2017. Note that from the point of view of prosody, *V-te-kaeru* compounds behave like one word, not like two words, just as *V-te-iku* and *V-te-kuru*.

The similarity between Somali and Japanese ventive markers was pointed out by Bourdin (2006: 27), who argues that “grammaticalization along a particular pathway is notionally driven”, and that “we are dealing with language-specific instantiations of a *bona fide* cross-linguistic category”, i.e. *directional deixis* (Bourdin 2006: 29). Berber Taqbaylit (Belkadi 2015) and Quechua ventive markers carry much the same meaning. Weber (1989: 134–143, also quoted in Belkadi 2015) describes a directional suffix *-mu* that, along with several other meanings, encodes centripetal orientation ‘toward here’ with motion verbs, and roundtrip motion ‘go off and do (with implication of coming back)’ with verbs that do not imply motion.

- (18) Huallaga Quechua (Weber 1989: 137)
- | | |
|--|-----------------------|
| <i>tanta-ta</i> | <i>ranti-rI-mu-y.</i> |
| bread-OBJ | buy-SUD-AFAR-2IMP |
| ‘Go buy bread (and return quickly).’ ¹⁴ | |

Such striking semantic proximity involving centripetal markers in languages as distant as Berber, Somali, Japanese and Quechua is worth noting. Alamin et al. (2012) observed in the case of Tima, a Niger-Congo language spoken in Sudan, that a “ventive marker” may express centripetal motion after the action (e.g. ‘wash and come towards speaker’ with the verb ‘wash’, i.e. typical MOTION-SUBSEQUENT-TO-ACTION), or may imply, in situations where

¹⁴ The gloss AFAR chosen by Weber (1989:137) for *-mu* here means “toward here from a distance or occurring at a distance” (Weber 1989: xxiii). The same marker triggers a cislocative interpretation ‘toward here’ when it follows a manner of motion verb or a motion verb (Weber 1989:135). SUD means ‘sudden(ly)’. See also Kerke and Muysken (1990) for a discussion of the functions of the particle *mu*, and Guillaume (2016) on the reasons why he categorizes (“for the time being”) *mu* in Quechua as marking prior motion (in our terms, MOTION-PRIOR-TO-ACTION).

the speaker and the listener are both at the same place, that one of them leaves the deictic center to do something, then comes back (Alamin et al. 2012: 26–29). This fits with the situation that triggers such readings in Japanese (see Moriyama 1988: 188–189 and Dhorne 2005: 69–73). In these languages, the same form also expresses deictic orientation (centripetal, towards the speaker, for example ‘come out’ with the verb ‘exit’).

4.2. Source for AM markers and grammaticalization paths

For some of the languages discussed here, the link between AM markers and deictic verbs is obvious (Chinese, Japanese), and the key issues in an AM analysis rather concern the evidence for their grammaticalization. In (Central) Burmese, the AM marker likely originates in a former deictic verb (see Vittrant 2013), whereas in Sereer, the etymology of the markers is unclear (Voisin 2013).

The issue of the source of AM markers has attracted some attention in the literature (Wilkins 1991, Guillaume 2016, etc.), but it is beyond the scope of the present chapter for each of the languages we have examined. The issue of the factors that may trigger the emergence and development of AM markers must be tackled individually for each language.

We can also expect internal variation to provide some hints as to the way AM systems emerge: among Atlantic languages, the deixis-related suffixes encode both AM (MOTION-PRIOR-TO-ACTION) and deictic orientation in Sereer, whereas in Wolof only the AM function is attested for the suffixes *-i* and *-si* (Voisin 2013). In northern Sinitic, MOTION-PRIOR-TO-ACTION is encoded by clitics occurring after the purpose VP, while southern varieties may only use independent full motion verbs located before the purpose VP in SVCs, which excludes them from the languages where AM is attested as a grammatical category (Lamarre 2020). The Burmese data discussed here were found in a non-standard variety of the language (Vittrant 2013).

Another related issue that we cannot address in detail here is the ability of a lexical deictic verb to compete and sometimes co-occur with a grammaticalized AM device, which is found in many Northern Mandarin varieties (see Wilkins 1991, Jacques 2013, Guillaume 2016, footnote 11).

4.3. *Argument structure of a complex verb including an AM marker*

Koch (1984: 26) notes that, in the complex verb form in which an activity is associated with a motion, associated motion is subordinate to the main verb, which determines the transitivity of the complex verb. Rose (2015:122) also emphasizes that, when the Associated Motion marker is homonymous with a verb root, the syntax of the clause may provide evidence to analyze it as a grammatical category rather than as an element of a compound: if the argument structure is determined by the verb referring to the activity, and not by the morpheme expressing motion, it makes it plausible to analyze the latter as an AM marker rather than only as a verbal element in a compound.

This feature is significant in the case of Japanese, an OV language where the identification of *kuru* ‘come’ and *iku* ‘go’ in some verb complexes as “grammaticalized” is far from being obvious when they retain their spatial meaning. In Japanese, complex predicates always appear in the fixed order of manner, path, and deixis (e.g. *de-te-kuru* [exit-TE-come] ‘come out’, and *tobi-de-te-kuru* [fly-exit-TE-come] ‘fly out (towards the speaker)’), where the final deictic verb bears tense, aspect and mood markers. However, as mentioned above, Moriyama (1988: 188–189) and Shibatani (2007), among others, showed that in the case of complex motion predicates that indicate MOTION-SUBSEQUENT-TO-ACTION, the argument structure is determined by the verb referring to the action preceding the motion, not by the deictic verb (see 3.4.2 above for details and examples).

The relevance of this type of evidence for the MOTION-PRIOR-TO-ACTION subtype of AM remains questionable, and will have to be examined further.

4.4. *Foregrounded actions vs. backgrounded motion*

Some descriptions of AM emphasize the backgrounding of the motion event, while the action encoded in the verb describing the main event is foregrounded. For instance, Wilkins (1991: 251) pointed out that AM forms are not intended to elaborate information about the motion event, but “to locate events within the flow of space”, and “help to foreground, identify and characterize the event of the verb stem by making it a *figure* whose disposition in this space-flow is characterized with respect to a particular motion event acting as *ground*” (see also Guillaume 2006: 424, 432, Vuillermet 2013, and Rose 2015).

This fits quite well with the discourse functions of the DO&GO, DO&COME, and DO&RETURN subtypes of AM in Japanese. The following examples, (19a) and (19b), illustrate respectively the DO&COME and DO&GO types of AM. They are taken from *A Handbook of Japanese Grammar patterns* (Jamassy 1998/2015), which mentions that although (19a) is correct without the AM marker *te-kuru*, it is more natural with *te-kuru*, whose discourse function is to link what happened in another place to where the conversation is taking place (Jamassy 1998/2015: 250). The same reference book comments with regard to the sequential use of *-te-iku* – labeled “successive events” – that it means “a certain action done with the assumption of going somewhere, but the action has more weight than the subsequent act of going”. Example (19b) is typically spoken to colleagues leaving the workplace at the end of the day, to explain why the speaker is staying longer, and nicely illustrates what may be a “backgrounded” and presupposed motion.

(19) Japanese

- a. *Kasa=wa doo shi-ta no?*
umbrella=TOP how do-PST Q

(Question:) ‘What happened to your umbrella?’

Wasure-te-ki-chat-ta.

forget-CVB-DO&COME-COMPL-PST

(Answer:) ‘Oh, dear. I’ve left it [on the train].’ (Jamassy 1998/2015: 250)

- b. *Ato sukoshi dakara kono shigoto=o*
after a.little because this work=OBJ

sumase-te-iki-mas-u.

finish-CVB-DO&GO-POL-NPST

‘There’s just a little more left to do, so I’ll finish this job before I go.’ (Jamassy 1998/2015: 241)

Thus far we have not found this type of data with respect to the MOTION-PRIOR-TO-ACTION subtype of AM in the languages discussed here.

5. To conclude: some perspectives for further research

This chapter confirms the findings of recent studies showing that Associated Motion is probably a widespread phenomenon: apart from Australian languages and South-Western Amazonian languages, it is also documented in Africa (see Voisin (2013) on Atlantic languages such as Wolof and Pular, but also Bourdin (2005, 2006) on Somali, Alamin et al. (2012) on Tima, Belkadi (2015) on Berber, and Creissels and Bassène (2021) on Jóola Fóoñi, another Atlantic language) as well as in East Asia (see Jacques (2013) on Japhug Rgyalrong, Alonso de la Fuente and Jacques (2018) on Manchu, Jacques, Lahaussais and Zhang (2021) on Gyalrongic and Kiranti languages,

Pakendorf and Stoyanova (2021) on Tungusic languages, together with the data on Burmese, Northern Mandarin and Japanese introduced here).

Data from the languages under study here – Burmese, Japanese, Northern Mandarin, and Sereer – show a recurrent relation of AM markers with deictic verbs or deictic directionals, and point to morphemes expressing dynamic deixis as being one important source for Associated Motion markers. Further research on the grammaticalization paths followed by AM markers in individual languages will probably contribute to the ongoing debate on this issue. Comparative studies between complex systems and deixis-based simple systems may also help us reconsider the role of deixis in AM systems, and shed light on markers encoding complex motions such as “roundtrip” motion and motion “back to home base”. The data presented here may also help us take into account the role played by the speaker’s viewpoint in the development of Associated Motion as secondary event associated with non-spatial main events.

The distribution of AM meaning and directional meaning in languages where both functions are fulfilled by the same forms requires further research to investigate to what extent cross-linguistic generalizations can be made. Our preliminary investigation indeed confirms the tendency for non-motion predicates to trigger an AM interpretation (see Belkadi 2015, Voisin 2013: 142–143, and Bourdin in this volume).

As pointed out by Guillaume (2006: 433–434, 2016: 90), AM systems fall outside Talmy’s motion event typology, which only takes into consideration situations where the motion component is expressed by a lexical verb root. Voisin (2013: 138) observes that AM markers are not just adding information about the path of a motion event expressed by the verb, as typical path directionals do; they add a process of motion to the main process expressed by the verbal morpheme of the clause, i.e. a distinct event from the main event expressed by the verb. Thus, Talmy’s classification of motion events expressed by motion verbs cannot apply to AM devices

(Vittrant 2015: 595–596). This raises the question of the place of AM in a typology of motion events, and calls for a reconsideration of the concept of co-event put forward by Talmy (2000, chapter 1 on Lexicalization patterns).

Abbreviations used in the glosses

ADVI: advisative final particle, COME&DO, GO&DO: MOTION-PRIOR-TO-ACTION subtypes of AM of the centripetal and centrifugal types, COMPL: completive, CTP: centripetal (towards deictic center), CVB: linker *-te-* between a converb and the deictic verbs (or AM markers) in Japanese, CRS: current relevant state (Mandarin sentence-final particle *le*, may also mark completion of a change of state), DEF: definite, DEM.anaph: anaphoric demonstrative, DIR: directional (path may be specified, ex. DIR_{DOWN}), DIR_{CTF}: deictic directional, centrifugal (away from deictic center or from another focal participant, DIR_{CTP}: deictic directional, centripetal (towards deictic center), DO&COME: MOTION-SUBSEQUENT-TO-ACTION subtype of AM of the centripetal type, DO&GO: MOTION-SUBSEQUENT-TO-ACTION subtype of AM of the centrifugal type, FOC: focalization, LOC: localization, IMP: imperative, IPFV: imperfective, NPST: non past tense, NP: noun phrase, OBJ: object, PST: past tense, POL: politeness, PROX: closeness, REAL: realis modality, Q: question marker, RLV: sentence-final particle indicating relevance, S: subject, SE: subject emphasis, SG: singular, SVC: serial verb construction, TOP: topic marker, VE: verbal emphasis, VEN: ventive, VP: verb phrase, 1/2/3 SG/PL: 1st, 2nd, 3rd person, singular / plural

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