

Mixing and Mapping: Motion, Path and Manner in Amondawa

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‘For more than thirty years our linguistic, psychological, and philosophical disciplines have sought to replicate themselves in the mind/brain of the child. The modules that are postulated often have names that evoke suspicion: they are the names of our own academic fields (linguistics, mathematics, physics, biology) or subfields (closed-class morphemes, grammaticizable notions). Could God or evolution have anticipated the academic and intellectual organization of late twentieth-century America?’ (Slobin, 1997: 266).

Chris Sinha writes: Dan Slobin’s work has been an inspiration from my first encounters with psycholinguistics as an undergraduate. I first met him some thirty years ago, when I was a research assistant on the Bristol Language Development Project, which was strongly influenced by Dan’s crosslinguistic language acquisition project at Berkeley in the 1970’s. From then until the present, I have been indebted to him, not just for his remarkable studies, but for the way his work exemplifies three fundamental lessons of method. The first is that if you want to understand the psychology of language, you have to understand language and linguistics. Dan Slobin’s achievement has been to transform the ‘border’ sub-discipline of psycholinguistics into a truly interdisciplinary psychology of language, and in doing so he has contributed enormously to both psychology and linguistics. The second is that to understand language, you have to study languages. The transformation, in the last two decades or so, of the psychology of

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language into a comparative discipline may not have been Dan's work alone, but he has undeniably been its leading proponent. The third is that our science is one with a longer tradition than is often acknowledged by contemporary theorists. There is no researcher with a more encyclopedic knowledge of this tradition than Dan. His awareness of it has informed his healthy skepticism towards claims from various quarters to newly-minted monopolies on truth. There are few researchers who embody the combination of depth and breadth of knowledge of both past and contemporary research, and Dan Slobin is one of them. This article builds, with gratitude and affection, on his recent work on the typology of motion events.

1. Introduction and summary

Amondawa is a Tupi Kawahib language (Tupi—Tupi Guarani—Tupi Kawahib) closely related to the other Kawahib languages (Diahoi, Karipuna, Parintintin, Tenharim, Uru-eu-uau-uau) of Amazonia. Much of the following analysis is therefore also applicable to those languages. The name 'Amondawa', as is the case for many of the indigenous languages of Brazil, is not the original self-designation of the Amondawa people, but it has now been adopted as such. The community consists of some 100 people, all living in one village in Rondônia state, in the North Western Amazonian region of Brazil. The community experienced first official contact in 1984. All community members speak Amondawa, and while most also speak some Portuguese, Amondawa continues to be acquired as the first language, and is the language of instruction in the indigenous school of the community.

The Amondawa language is characterized by a complex system of 4- person / 2- number / 2- gender verbal prefixes. The verbal system is also marked in terms of an accusative-ergative distinction, based on the semantic distinction of control vs. non-control of action by the subject. Grammatical subjects which are semantically conceptualized as having deliberative control of action (animate

human agents) are grammatically Agentive in transitive constructions, while non-control grammatical subjects are Patients in ergative-intransitive constructions. Word order is variable, based on the control /non-control distinction, the semantic distinction between human and non-human agents and patients, and the number of semantic roles specified in the construction. The examples we give below include verb- and subject-initial strings. Phonological and lexical reduplication are frequent in Amondawa, and demonstratives and other elements need not be adjacent to nouns (Sampaio and da Silva, 1998; Sampaio, 1999).

We present an analysis of the organization of motion events in the Amondawa language, in terms of the mapping of the semantic specification of **path** and **manner** to morpho-syntactic expression. We base this analysis on the distinction proposed by Talmy (1983; 1985; 1991) between **verb framed** and **satellite framed** languages, its extension by Slobin (2004) to encompass a third, **equipollent** type, and the complementary typological-discursive analysis proposed by Slobin (2000, 2004, in press) of crosslinguistic differences in **manner salience**. As comparators for Amondawa, we refer to Brazilian Portuguese (BP), as a typical verb framed language; English (E) and Dutch (NL), as typical satellite framed languages; and French (F), as a language claimed by Pourcel and Kopecka (under review) to manifest a high degree of typological mixing between verb and satellite framing.

We discuss the relationship between the conflation patterns identified by Talmy and the **distributed spatial semantics** patterns identified by Sinha and Kuteva (1995), and critically evaluate the significance of the mapping patterns we identify in Amondawa for motion event typology. We propose that the categorical distinction of verb framed (VF) vs. satellite framed (SF) is most appropriately applied at the level of **construction** (Fillmore and Kay, 1987; Goldberg, 1995;

Croft, 2001), and that languages as whole systems are better characterized in terms of mapping preferences or tendencies in usage.

2. Path and manner: general considerations.

The typology proposed by Talmy (1983, 1985, 1991), which motivates many recent studies of the linguistic organization and expression of **path** and **manner** of motion, is based on conflation patterns in mappings from conceptualization to expression. Specifically, Talmy's typology is based on the observation that in VF languages, **path** is typically conflated into the verb of motion, whereas in SF languages it is typically expressed by a satellite particle, while **manner** is typically conflated into the motion verb (see also Slobin, 2000, 2004, in press).

Conflation is only one of the mapping phenomena characterizing the semantics and morpho-syntax of space and motion. The complementary phenomenon of **distribution** (i.e., one conceptual element mapping to more than one morpheme in a single syntagmatic chain, sometimes through morphemic reduplication) is also ubiquitous in the language of space; its most general characteristic is **distributed spatial semantics**, or many to many mapping from conceptualization to expression (Sinha and Kuteva, 1995; see also Zlatev, 2003).

Before proceeding to a description and analysis of Amondawa, we review and critically discuss the principal issues arising from the motion typology literature.ⁱ

First, we note that the VF-SF distinction, if intended as a strict criterion of classification, applies only to simple Path of Motion constructions in which the Figure, but not the Ground, is expressed and which we call the **basic motion construction**. The distinction is typified by examples 1 (VF pattern) and 2 (SF pattern), all of which can be translated as 2a, uttered in the context of a boy leaving a house.

- 1a. (BP) *o rapaz* ***saiu***
- 1b. (F) *le garçon* ***est sorti***
- 2a. (E) *the boy* ***went out***
- 2b. (NL) *de jongen* ***ging weg***

In 1a and 1b, the respective verbs (boldface) are path-conflating, equivalent to English ‘exit’, while in 2a and 2b, the verbs are simple ‘go’ motion verbs. What is criterial is the use, in the SF constructions, of the path-expressing morpheme as a verbal particle, which is obligatory for the specification of path in SF languages, but only very rarely permissible in the basic motion construction in VF languages. In BP, the basic SF construction does occur in restricted directional contexts, in which the crossing of the boundary of the Ground (Slobin and Hoiting, 1994) is unexpressed, but never in collocation with a path-conflating verb. Note that 3a is a translation equivalent of Dutch 2b, ‘the boy went away’, not involving boundary crossing.

- 3a. (BP) *o rapaz* *foi* *embora*
 the boy went away
- 3b.* (BP) *o rapaz* *foi* *para fora*
 the boy went out
- 3c* (BP) *o rapaz* *saiu* *embora/[para fora]*
 the boy exited away/out

In both VF and SF languages, a motion verb can be combined with an adpositional complement specifying both Path and Ground, in what we call the **fully specified motion construction**:

4a. (BP)	<i>o rapaz</i>	<i>saiu</i>	<i>da</i>	<i>casa</i>
	the boy	exited	from.the	house
4b. (BP)	<i>o rapaz</i>	<i>entrou</i>	<i>na</i>	<i>casa</i>
	the boy	entered	into.the	house
4c. (E)	<i>the boy</i>	<i>went</i>	<i>into</i>	<i>the house</i>
4d. (NL)	<i>de jongen</i>	<i>ging</i>	<i>het huis</i>	<i>uit</i>
	the boy	went	the house	out

In fully specified VF motion constructions, when the boundary of the Ground is crossed, the motion verb is (almost) always path-conflating, and thus the Path may be specified in both the verb and the adposition in an overtly distributed fashion (Sinha and Kuteva, 1995). In fully specified SF motion constructions, boundary crossing is also commonly morpho-syntactically marked. In Dutch, boundary crossing is marked by postposition of the locative particle to specify Path (Sinha and Kuteva, 1995), while in English it is marked by modifying the particle with *of* or *to*. It is the boundary crossing constraint, of which more below, that may also explain the choice in Dutch of the particle *weg* ‘away’ in 2b above, since the postposing of the particle in constructions such as 4d, together with the deictic implicature of the ‘go’ verb, induces a preference against the use of *uit* ‘out’ in constructions such as 2b.

In VF languages, an alternative in some contexts to the fully specified motion construction is a construction in which the Ground is expressed as the direct object of a path-conflating verb. This construction is restricted to directional paths in which boundaries of the Ground are not, or at least not necessarily, crossed, such as ‘descending the stairs’ and ‘crossing the road’. The admissibility of such adposition-free constructions in English is unusual in SF languages, and is

presumably a consequence of English lexical and constructional borrowing from French.

VF and SF languages differ in their mapping patterns for expressing manner of motion. SF languages favor the conflation of manner into the verb of motion, and thus typically have a larger class of manner verbs than VF languages. SF languages routinely employ manner-conflating verbs as main verbs in both basic and fully specified motion constructions, while VF languages cannot do so, except in highly restricted elliptical contexts. The BP examples below are translations equivalents of the preceding English sentences.

5a. (E) *the boy* *ran* *in[to the house]*

5b.* (BP) *o rapaz* *correu* *em/ [na casa]*

5c. (E) *the boy* *ran* *out [of the house]*

5d.? (BP) *o rapaz* *correu para fora {ell. da casa}*

5e.* (BP) *o rapaz* *correu de*

Note that the expanded version of example 5b is acceptable as a construction involving motion-as-activity at a location, as opposed to motion resulting in change of location, but it is arguable that this sense does not count as a fully specified motion construction (see Pourcel and Kopecka, under review). Alternatively, and more conservatively, one could say that such usage is restricted in VF languages to non-boundary crossing cases (see below).ⁱⁱ

Slobin (2004, in press) observes that this typological distinction is correlated not only with a higher type frequency of manner verbs in SF languages, but also with a discursive and stylistic difference in **manner salience**, with texts written in SF languages displaying higher token frequencies of manner-conflating motion verbs.

However, VF languages can specify manner of movement adverbially, using gerundives, in both the basic and the fully specified motion constructions:

6a. (BP) *o rapaz foi/ [saiu da casa] devagar*
 the boy went / [exited from.the house] slowly
 ‘the boy came slowly out of the house’

6b. (BP) *o rapaz foi/ [saiu da casa] correndo*
 the boy went/ [exited from.the house] running
 ‘the boy ran out of the house’

The gerundive use of the manner verb is also possible in SF constructions with generic motion main verbs, but more frequent is the use of the manner-conflating verb as main verb with other modifiers:

6c. (NL) *Het meisje kwam lopend het huis uit*
 the girl came running the house out of
 ‘The girl came running out of the house’

6e. (NL) *Het meisje liep langzaam het huis uit*
 the girl walked slowly the house out of
 ‘The girl walked slowly out of the house’

Slobin and Hoiting (1994; see also Slobin, in press) have noted a boundary crossing constraint in VF languages, such that the use of manner-conflating motion verbs is permissible only in contexts where the boundary of the Ground is not crossed. This can be considered as a generalization or another instance of the same constraint applying to 3a to 3c above, limiting the use of the generic motion verb in basic motion constructions; and is the converse of the obligatory use of a path-conflating verb in fully specified motion constructions in VF languages

when the boundary of the Ground is crossed (see examples 2 to 4 above). The boundary crossing constraint, as noted above, also seems to be related to the contexts of permissibility, in VF languages, of path-conflating verb constructions in which the Ground is the direct object. We note, however, that the boundary crossing constraint on manner-conflating verbs in VF languages is not absolute; all the examples in 7 are acceptable in Brazilian Portuguese, including 7c, which involves boundary crossing.

- 7a. (BP) *A menina correu no parque*
 The girl ran in.the park
 ‘The girl ran in the park’
- 7b. (BP) *A menina correu para o parque*
 The girl ran to the park
- 7c. (BP) *A menina correu para dentro do parque*
 The girl ran to inside of.the park
 ‘The girl ran into the park’

The question of boundary crossing in motion events is clearly complex. It has been analyzed in terms of telicity (Aske, 1989) and of motion activities *vs.* motion events (Pourcel and Kopecka, under review), as well as of the spatial properties of the Ground, and we do not have space to try to resolve it here, although it will be relevant to the analysis of Amondawa. We can, however, note that in 7c above the Path is highly specified and distributed over different morphological elements, whereas the only acceptable reading of the morphologically simpler expression in 7a is of what Pourcel and Kopecka call a ‘motion activity occurring in a location’, rather than a motion event.

The standard account of the VF-SF distinction focuses on the conflation of semantic material into the verb. As we have noted, conflation is only one aspect of the **distributed semantics** and morpho-syntax of space and motion (Sinha and Kuteva, 1995), in which distribution or reduplication also figures strongly. Sinha and Kuteva (1995) proposed that languages may vary along the dimension of *overt vs. covert* distributed semantics. In brief, overt distribution involves the multiple morphological realization of a semantic aspect (e.g., Path) in the same syntagmatic chain, as in ‘the plane circled around’; whereas covert distribution involves its morphological reduction, as in ‘the horse jumped the fence’ (as opposed to ‘the horse jumped over the fence’).

There appears to be no clear correlation between overt/covert distributed semantics and satellite/verb framing of path of motion. The examples of languages favoring overtly distributed spatial semantics cited by Sinha and Kuteva included Bulgarian (a Slavic, SF language) and Japanese (a VF language obeying the boundary crossing constraint). Pourcel and Kopecka (under review) however suggest that SF languages display a more overt distribution of manner information than VF languages. The former, for example, can and do use default manner verbs in motion constructions (eg ‘walk up the stairs’), whereas the latter neither use such default main verbs, nor employ them redundantly as gerundives. Rather, in VF languages, gerundive forms, as Pourcel and Kopecka (under review) point out, are used to foreground non-default information. In summary, although the distributed spatial semantics approach suggests that a typology based on conflation alone may not be sufficient to capture all the data reviewed, it does not necessarily contradict the SF -VF distinction.

Other data, however, have been claimed to directly challenge Talmy’s typology, at least in term of its absoluteness and exhaustiveness. Ameka and Essegbey (in press), Slobin (in press) and Zlatev and Yangklang (in press) have

suggested that serial verb languages exemplify a third type (termed by Slobin ‘equipollently framed’). Serializing languages (such as Thai) typically have high type frequencies of both path- and manner-conflating verbs of motion, along with verbs that conflate both path and manner. These languages also do not obey the boundary crossing constraint, and can treat all verbs as main verbs in serial verb constructions (SVC’s), without employing a gerundive form for manner verbs, as would be typical for VF languages. In terms of the basic motion construction, Thai, at least, does not employ satellites to express path, always conflating path into a verb. Serial verb languages thus seem to display properties of both satellite and verb framing, even though, in terms of the basic motion construction, they are arguably closer to the VF paradigm. Doubt has also been cast on the classification of languages generally assumed to belong unambiguously to one or other category. Pourcel and Kopecka (under review), for example, characterize French (a Romance language usually classified as VF) as exhibiting a mixed or hybrid system, with verb framing dominating (see also Pourcel, 2004; Kopecka, in press).

Our brief critical review has established a number of issues that will guide our description and analysis of the linguistic organization of motion events in Amondawa. First, there are a number of clustered phenomena, in different construction types, that point to the pervasiveness of the VF- SF distinction. Second, however, with the exception of the mapping patterns in the basic motion construction, none of these differences can be said to be strictly criterial. Differences appear as tendencies rather than absolutes, along with exceptions, the motivations of which are difficult to establish unambiguously. Third, conflation patterns alone are unlikely to provide the entire explanation for the patterns observed, which also depend on distributed mappings of space, motion and manner elements to diverse, multiple form classes. Fourth, there is doubt about

the exhaustiveness and absoluteness of the VF -SF typological distinction, and whether exceptions represent anomalies, further typological groups, or typologically mixed patterns.

3. Motion, Path and Manner in Amondawa

Path is expressed by three form classes in Amondawa.

A. **Path-conflating motion verbs** include the following (NB the verb stem is obligatorily prefixed for person and number):

<i>-ho</i>	go/exit
<i>-hem</i>	exit
<i>-xi</i>	enter
<i>-jupin</i>	ascend/climb
<i>-jym</i>	descend

This closed class, which (although we do not claim to have provided an exhaustive list) is small, is supplemented by verbs co-conflating manner, path and/or causality similar to English ‘pull’ and ‘jump’.

B. **Postpositions**, which are obligatory when specifying path of motion in relation to a Ground, include:

<i>Pe</i>	at, to
<i>pupe / pype</i>	in, inside, into, to the inside
<i>wi</i>	from, out of
<i>re</i>	up, up in, up on, up into, up onto
<i>katy</i>	towards
<i>aramo</i>	over, above

<i>urumō / urymō</i>	under, below, beneath
<i>pywō</i>	by, with
<i>rupi</i>	along (a path)

The postpositions, when used dynamically, specify path of motion. They are all polysemous, and are also used to describe static scenes, except perhaps *wi*. Stative uses are those in which no verb of motion is employed. Since there is no copular verb in Amondawa, that means that stative uses are those in which either a stative dispositional or relational verb occurs, or in which Ground and Figure nominals are collocated. There are also grammatical (e.g., instrumental) uses that depend upon construction type.

There is no evident reason to suppose that stative meanings of the postpositions are more basic than dynamic meanings, or vice-versa. Unlike the prepositions in Dutch, English, French and Portuguese, there is no morpho-syntactic marking of dynamic meanings in Amondawa. Furthermore, unlike Japanese postpositions, Amondawa postpositions specify path, sometimes encoding multiple path components (i.e. source and goal). Consequently, and given their obligatory use in fully specified motion constructions, the motion verb and the postposition often encode the same information in an overt and redundantly distributed fashion, as in 8 (NB Amondawa verbs are not inflected for tense; the default reading for Tupi verbs is perfective).

8.	<i>kurumin</i>	<i>ga</i>	<i>o-jupin</i>	<i>ga</i>	<i>aiapykaw-a</i>	<i>re</i>
	boy	he	3s-ascend	he	bench-NOM	up onto
	Fig		Motion. Path	Fig	Goal	Path

‘The boy climbed [up] onto the bench’

3s-go dog

‘The dog went out’

11. *O-ho kuñaguera hea*

3s-go woman she

‘The woman went out’

12. *O-xi jawara*

3s-enter dog

‘The dog went in’

13. *O-jupin kurumin ga*

3s-ascend boy he

‘The boy climbed’

Note that it is ungrammatical to add a postposition, without a noun, to such constructions, which is a strong diagnostic for a VF language. In other words, the Amondawa postpositions cannot be used as satellites.

In fully specified motion constructions, that is, when the path of motion is specified relative to a Ground, it is obligatory to express path information both in the motion verb and in the postposition, as in 14. In contrast, the expression of path information in the adverb is optional, as in 9.

14a. *O-xi kuñanguera hea tapyia pe*

3s-enter woman she house POSTP.to

‘The woman went into the house’

14b. *O-jupin kurumin ga ywa re*

3s-ascend boy he tree POSTP.up into

‘The boy climbed [up] the tree’

This type of construction is consistent with a VF pattern, but the fact that the postposition is obligatory is not, since, as we have noted, VF languages also typically have constructions in which the Ground is expressed as the direct object of a path-conflating verb (e.g., ‘he crossed the road’). If the acceptability of constructions such as 15a and 15b is criterial for being a VF language, Amondawa cannot be considered a VF language.

15a. (F) *Il monte l’escalier*
He ascends the stairs
‘He is going upstairs’

15b. (BP) *Ele sobe a escada*
He ascends the stairs
‘He is going upstairs’

As noted in the previous section, VF languages (including Japanese), but not SF languages, typically obey the boundary crossing constraint (Slobin & Hoiting, 1994). That is, path-conflating verbs can, but manner-conflating verbs cannot, be used in situations in which a boundary is crossed. Amondawa does not obey this constraint, as demonstrated in examples 16 and 17:

16. *O-ñan kurumin ga awowo tapyia ura wi*
3s-run boy he ADV.going house ADV.out of POSTP.out of
‘The boy ran out of the house’

17. *O-wewe wyrai`ia awowo ajayra pupe*
3s-fly bird ADV.going nest POSTP.into
‘The bird flew into the nest’

16 and 17 express boundary crossing using manner-conflating verbs. If obeying the boundary crossing constraint serves as a criterion to be classified as a VF language, Amondawa is not verb framed. However, the constraint is not strictly criterial, since it can be violated in VF languages in contexts involving rapid or instantaneous motion (Özçaliskan, under review).

As Zlatev and Yangklang (2004) point out, serializing languages do not obey the boundary-crossing constraint, since a manner verb, together with a path verb, can form part of an expression conceptualizing a boundary crossing event. The counter-example to the boundary constraint provided by Amondawa (if it is nonetheless considered as ‘basically’ verb framed) is even stronger than serializing languages, since Amondawa only employs single main verbs in 16 and 17, which frame the boundary crossing events in essentially the same way as their English translations.

Amondawa also employs serially collocated verb constructions, as well as dual-verb constructions in which both verbs constitute main verbs even if they are not adjacent, as in 18-21:

18. *Jawara o-hem o-ña hua tapyia wi*
 dog 3s-exit 3s-run ADV.coming house POSTP.out of
 ‘The dog ran out of the house’
19. *O-hem hea tapyia wi o-ñan hua*
 3s-exit she house POSTP.out of 3s-run ADV.coming
 ‘She ran out of the house’
20. *O-ñan kunanguera hea awowo o-xi awo tapyia pe*
 3s.run woman she ADV.going3s.enter here house POSTP.into

‘The woman ran into the house here’

21. *O-mbaraka hea o-hem hua tapyia wi*
3s-sing she 3s-exit ADV.coming house POSTP.out of

‘She went singing out of the house’

Note, however, that in the above examples, unlike in true serial verb constructions, path is expressed in a distributed fashion by both the postposition and the path-conflating motion verb.

In VF languages, an alternative but canonical construction for specifying both path and manner in a single construction, using more than one verb, is to employ the gerundive form of the manner-conflating motion verb, as in Brazilian Portuguese examples 6a and 6b above. Amondawa employs analogous constructions, in which the gerundivizing suffix *-wo* (or *-awo*) is attached to the manner verb, whether this is a verb of motion or another verb type.

22. *O-hem hea i-kunda-wo hua tapyia wi*
3s-exit she 3s-limp-GER ADV.coming house POSTP.out of

‘She limped out of the house’

Lit. ‘She came limping out of the house’

23. *O-hem hea o-pyka-wo tapyia wi*
3s-exit she 3s-smile-GER house POSTP.out.of

‘She went out of the house smiling’

However, Amondawa is not typical of VF languages in its employment of gerundive constructions, since it also permits constructions in which the gerund suffix is attached, not to the manner verb, but to a path-conflating verb of motion:

24. *O-mbaraka hea o-xi-awo tapyia pe*
 3s-sing she 3s-enter-GER house POSTP.to
 ‘She went into the house singing’
 Lit. ‘She sang entering the house’

Constructions such as 24 are not permissible in typical VF languages, although they can be in SF languages, such as English.

- 25a.* (BP) *Ela cantó entrando na casa*
 she sang entering into.the house
 ‘She sang going into the house’

- 25b. (BP) *Ela entrou cantando na casa*
 she entered singing into.the house
 ‘She went into the house singing’

Pourcel (2004) has recorded instances in French spontaneous speech similar to the construction in 24, where the main verb is a manner-conflating verb of motion. She calls this a ‘verb framed reverse pattern’ (see also Pourcel and Kopecka, under review, who call it a ‘Path-adjunct framing pattern’):

26. (F) *Il court en traversant la rue*
 He runs in crossing the road
 ‘He is running across the road’
 Lit. ‘He runs crossing the road’

Neither in English, nor in most verb framed languages, such as Brazilian Portuguese, are constructions such as 26 permitted:

- 27.* (BP) *Ele corre atrevasando a rua*

He runs crossing the road

We do not have an example of such a construction in Amondawa, but we have an example that uses a generic motion verb gerund in the same syntagmatic string as a path-conflating main verb.

28.	<i>Jawara</i>	<i>i-hem</i>	<i>u-a</i>	<i>ko</i>	<i>katy</i>
	Jaguar	3s-exit	go-GER	here	POSTP.towards
	Fig	Motion.Path	Motion	Goal	Path

‘The jaguar came out and went this way here’

Lit. ‘The jaguar exited going towards here’ *or* ‘The jaguar went out going towards here’

It is clear that the incidence of combining verbs of motion, including both generic, path-conflating and manner-conflating verbs, in different constructions, such as serial, non-adjacent serial, and main verb plus verb gerund., is frequent in Amondawa; thus, Amondawa can be characterized as both flexible and overt in its distribution of manner and path information.

4. Discussion and Conclusions

Amondawa regularly employs path-conflating motion verbs in a wide variety of constructions, and on the basis of the Amondawa basic motion construction, it should be classified as a VF language. By the same criterion, it cannot be an SF language. However, other characteristics of the language are atypical of, and in some respects violate, the paradigm of a VF language. Path-specifying postpositions are obligatory in all but basic motion constructions in Amondawa, so that the fully specified motion construction, including the postposition, is the only way to express motion in relation to a Ground. We have noted in our

fieldwork, also, that the basic motion construction is infrequent, and speakers have a strong preference for expressing Ground as well as Figure.

The employment of gerundives in Amondawa, which allows a high degree of flexibility in the selection of the main verb, is not a typical verb framed pattern. Moreover, the boundary-crossing constraint on the employment of manner-conflating motion verbs in fully specified motion constructions, typical of VF languages, does not apply to Amondawa. There are thus good reasons to resist categorizing Amondawa as a 'typical' VF language.

How then should Amondawa be classified? It displays some characteristics similar to the third, or equipollently framed, category of serial verb languages. It employs serial and multiple verb constructions, and similarly to serial verb languages it also violates the boundary crossing constraint. The flexibility displayed by Amondawa in its multiple verb constructions suggests that it is higher in manner salience than VF languages, but we have yet to establish this. It would, however, be incorrect to classify Amondawa as a serial verb language proper, because of the regularity of non-adjacent dual-verb constructions, relatively free word order, and the obligatory path-specifying postposition. However, if equipollent framing is considered as a general category comprising languages with high manner salience, frequent use of path-conflating verbs and high frequency of path-specifying particles, then perhaps that is where Amondawa belongs. If so, it occupies a place on a continuum, together with other languages with a 'mixed' profile, such as French, as analyzed by Pourcel and Kopecka (under review).

This would be a solution preferable to proposing another discrete category, but carries with it the danger that the equipollent category becomes a kind of 'aporia' class, of diverse languages that fail to fit the original, and still fruitful, VF-SF distinction. There are other possible solutions that we can suggest,

which may not be mutually exclusive. One would be to consider the typology as applying, not to languages, but to **construction types**, and to catalogue such types according to their specific patterns of mapping from linguistic conceptualization to linguistic expression. Languages could then be specified in terms of mapping preferences, tendencies and relative frequencies, rather than strictly exclusive categories. Part of this solution would be to rethink the typology of motion and manner not only in terms of clines and/or adding additional types, but rather in terms of locating of languages in a multi-dimensional space of typological variation, including not just conflation but also distribution.

Another way forward is suggested by Pourcel and Kopecka (under review), who conclude that ‘morphosyntactic criteria alone cannot account for [a language’s] coding strategies ... typological properties should be understood in a broader context of actual language usage rather than in terms of structural factors alone.’ They also emphasize the need for analyzing the interaction between semantics and pragmatics in determining speakers’ choices amongst constructional alternatives. We consider their approach to be consistent with the approach taken by Sinha and Kuteva (1995), who also highlight the importance of speaker situatedness and construal in analyzing the distribution of semantic information in spatial constructions.

Finally, although we recognize the importance of further research into the relations between contemporary Kawahib languages and historic, or Old Tupi, we would suggest that in attempting to typologically analyze languages such as Amondawa, socio-cultural and historical (not just genetic) factors should be taken into account. Amondawa was a purely oral language until the last decade, and it is possible that its apparent constructional freedom is related to the absence of a long history of the kind of standardization that has been undergone by languages more familiar to most linguists and psychologists, in the course of the process of

their orthographization. Although this remains at this stage no more than a hypothesis, we hope to pursue in our future work the elucidation of the relations between text, context, structure and usage that has been the hallmark of the research of our distinguished colleague and mentor, Professor Dan Isaac Slobin.

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ⁱ In the examples, we use the following conventions:

Notational conventions. / denotes alternative, [...] denotes optional addition, / [...]

denotes scope of alternative if more than one morpheme or word, {ell. ... } denotes

unexpressed elliptical content, . (in the second, italicized gloss line) denotes

morphological conflation, or specifies the form class of a morpheme.

Morphological abbreviations. 3s: third singular person prefix; NOM: nominalizer; ADV:

adverb; POSTP: postposition; GER: gerundive form.

ⁱⁱ We prefer the former formulation, while our reviewer favors the latter. Although we discuss the boundary crossing issue here, we do not attempt to do so exhaustively.

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