

Imperfectives in Mẽbengokre*

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1 Introduction

Mẽbengokre is a northern Jê language spoken by two nations in central Brazil, the Xikrin and the Kayapó. It has currently around 10.000 speakers. The main published sources on Mẽbengokre grammar are Salanova and Reis Silva (2011), and Salanova (2011). Two closely related languages, Apinayé and Timbira, are described by Callow (1962) and Oliveira (2005), and Popjes and Popjes (1986), respectively. The data in this paper come from Salanova's field research, primarily among the Xikrin.

In this paper, we intend to describe the aspectual auxiliaries of Mẽbengokre within a general theory of imperfective meaning that accounts for cross-linguistic microvariation in terms of the nature of the accessibility relations (i.e., modal bases) available to an imperfective operator.

2 Overview of TAM in Mẽbengokre

Mẽbengokre verbs don't inflect for any specifically temporal, modal or aspectual categories. Rather, TAM notions are expressed in the left periphery of the clause by means of particles, whose semantics is often difficult to pin down. Further distinctions, both aspectual and modal, are expressed by means of postverbal elements. The following template synthesizes the different positions occupied by TAM elements in Mẽbengokre independent clauses:

Contrastive topic | ① | Nominative subject | ② | Oblique subject | Adjuncts | Object | Verb | ③

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- ① is the position for four markers that are primarily temporal, but include modal meanings: *nē* (nonfuture), *nām* (present or imminent future), *dja* (future or irrealis), and *gê* (irrealis).
- ② is occupied by a diverse set of particles, which include *rēn* (conditional), *birām* (dubitative), *we* (hearsay evidential), *kam* (temporal sequence), *on* (immediate), *tu* (“just”), *te* (frustrative), *arým* (complete), among several others. Their order is not fixed, and may reflect scope relations among them or between the particle and a participant.
- ③ may be occupied by a heterogeneous class that includes *nē* (result state), *mā* (prospective), *kadjỳ* (purposive), *’ỳr* (imminent), *jabej* (possibility), *kêt* (negation), and a series of operators with progressive-like meanings.

The categories that we analyze in terms of an imperfective operator in this paper belong to the third class. The behavior of such postverbal elements is distinct from the particles in the first and second class, in that they govern a particular form of the verb, the non-finite or nominal form. We assume that postverbal elements are relational, that is, they are complement taking heads. In the cases of interest to this paper, they take as their complement the whole of the non-finite verbal clauses, and may function as main or subordinate predicates, as exemplified in (1) with negation. In Salanova (2007), we contended that negated clauses such as (2) have a similar negative existential structure as the examples in (1).

- (1) a. *ngô kêt*
water NEG
“There is/was no water.”
- b. *i-kêt kam*
1-NEG in
“when I am not/wasn’t around”
- (2) [*ije tep krēn*] *kêt*
1ERG fish eat NEG
“I haven’t eaten fish.” (lit., “there is/was no fish-eating by me”)

Consistent with the fact that the language is strictly head-final, we may call the postverbal elements in the third class *auxiliaries*, while the particles in the left periphery of the clause (classes ① and ② in our chart) should be considered to be a closed class of *adverbs*. Just as we would expect from adverbs, classes ① and ② show a certain degree of freedom with respect to clausal constituents, they display no government relations with other heads in the clause, and they are non-relational, i.e., they cannot take any complements.

The following examples give the range of postverbal auxiliaries in class ③ whose semantics are the topic of this paper:

- (3) a. *Ije mry krēn mā*
1ERG meat eat.N PROSP
“I am/was going to eat meat.”

- b. Ije mry krēn 'ỳr
1ERG meat eat.N IMM
“I am/was almost at the point of eating meat.”
- (4) a. Ba mry krēn o=nhỹ
1NOM meat eat.N O=sit.V
“I am/was eating the meat (sitting down).”
- b. Ba mry krēn o=dja
1NOM meat eat.N O=stand.V
“I am/was eating the meat (standing up).”

Prima facie, the auxiliaries in (3) and (4) convey meanings that are associated with imperfective categories in better studied languages, as suggested by the comparison with Romance and Slavic in (5–8):

- (5) Mario partiva domani.
Mario left.PST.IMPF tomorrow.
“Mario was leaving tomorrow.” Italian
- (6) Juan conversaba con María
Juan converse.PST.IMPF with María
“Juan was talking with María.” Spanish
- (7) Dnes, po plan, Ivan leteše za Sofia.
today per plan Ivan fly.PST.IMPF to Sofia
“Today, according to plan, Ivan was flying to Sofia.” Bulgarian
- (8) Sobaka perebegala dorogu.
dog PERF.run.PST.IMPF.AGR road
“The dog was crossing the road” (e.g., “... when it was run over”) Russian

Note that the Měbengokre auxiliaries in (4) display a reading considered traditional for imperfectives, which resembles the “ongoing” interpretation in Spanish (cf. (6)). The auxiliaries in (3) display a less traditional reading sometimes called “modal”, which is reminiscent of the one for planned actions in Italian and Bulgarian (cf. (5), (7)). The lexical dichotomy between (3) and (4) will be important for the semantic analysis of auxiliaries we propose in section 5.

3 Imperfectives

Based on the parallelisms between the imperfective morphology readings in Romance and Slavic ((5)–(8)) and those in Měbengokre ((3)–(4)), we propose that postverbal auxiliaries are instantiations of imperfective viewpoint aspect encoded in an imperfective operator, which we dub IMPF. That they encode aspect and not tense can be seen in their independence from temporal reference in (9):

- (9) a. amrěbê ba karinhô jakôr o=nhỹ
long.ago 1NOM tobacco smoke.N O=sit.V
“Long ago I was smoking.” (also, “I’ve been smoking since long ago.”)

- b. jākam ba karinhô jakôr o=nhỹ
 now 1NOM tobacco smoke.N O=sit.V
 “I’m smoking now.”
- c. kryrà̃m dja ba karinhô jakôr o=nhỹ
 in.the.morning FUT 1NOM tobacco smoke.N O=sit.V
 “Tomorrow morning I’ll be smoking.”

In addition, all of these auxiliaries give rise to “imperfective paradox” effects, as in (10):

- (10) a. Maria pry kapêr’yr o=mõ be kute pry kapêr’yr kêt
 Maria path cross PROG but 3ERG path cross NEG
 “Maria was crossing the path but she didn’t cross the path.”
- b. Maria te pry kapêr’yr mã be kute pry kapêr’yr kêt
 Maria ERG path cross PROSP but 3ERG path cross NEG
 “Maria was going to cross the path but she didn’t cross the path.”
- c. Maria te pry kapêr’yr ’yr be kute pry kapêr’yr kêt
 Maria ERG path cross IMM but 3ERG path cross NEG
 “Maria was at the point of crossing the path but she didn’t cross...”

Before we move on to a semantic analysis for the imperfective operator, we wish to examine the syntax of aspectual auxiliaries in Mēbengokre.

4 The syntax of Mēbengokre auxiliaries

The reader may have noticed that there is a morphosyntactic difference between the constructions in (3) and those in (4). While in the former the subject appears in the ergative case, in the latter it is in the nominative.

To understand the significance of this, we need to note the following: ergative-absolutive is the alignment found in clauses headed by nominal (non-finite) forms of verbs, which are normally subordinated clauses, whereas nominative-accusative is the alignment found in independent clauses, which are typically headed by the finite form of a verb (see Salanova 2007, 2008). We established above that all of the auxiliaries subordinated the main verb, something that can be seen in the nominal form that the verb takes in both (3) and (4). Why, then, do we have a nominative subject in (4)?

The answer is that the auxiliaries in these two groups are quite different in their morphological makeup, and the structures that are projected by them are accordingly different. Auxiliaries in (3) are homophonous with directional postpositions. Postpositions are relational elements that take their complements directly, in this case, the clause headed by the nominal form of the semantically main verb. The auxiliaries in (4), on the other hand, consist of a light intransitive verb (a positional verb, such as *to stand*, *to sit*, *to lie*, or a verb of motion) plus the adposition-like applicative element *o*, which is what allows them to take a nominal clausal complement.

Semantically, there is a thematic relation between the subject and the auxiliaries such as those in (4) which doesn’t exist in the case of the subjects and the auxiliaries in (3):

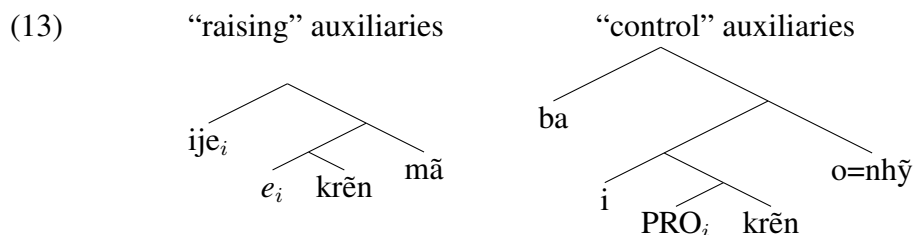
the position that is part of the semantics of the first type of auxiliary is the position in which the subject finds itself to perform the action. The use of auxiliaries in this way seems to be just the limiting case of a construction where the element occurring after *o* is a type of secondary predicate of the subject (cf. (11c)):

- (11) a. ba nẽ ba i-kabẽn o=nhỹ
 1NOM NFUT 1NOM 1-speak O=sit.V
 “I’m speaking (sitting down).”
 b. ba nẽ ba i-kabẽn o=dja
 1NOM NFUT 1NOM 1-speak O=stand.V
 “I’m speaking (standing).”
 c. ba nẽ ba i-kabẽn o=wajêt
 1NOM NFUT 1NOM 1-speak O=hang.V
 “I’m speaking while hanging up here.”

Furthermore, auxiliaries have suppletive forms for the plural, which are obligatorily selected when the subject is plural. This is not a matter of agreement, but rather of semantic compatibility, as the verbal plural is independently interpretable as a plural action even when the participants are singular, as can be seen in (12b):

- (12) a. Mẽbêngôkre nẽ mẽ kabẽn o=ku’ê
 Mẽbengokre NFUT PL speak O=stand.PL
 “The Mẽbêngôkre are speaking.”
 b. akamàt kunikôt nẽ ba i-nhõt o=i-nhikwã
 evening always NFUT 1NOM 1-sleep O=1-lie.PL
 “Every night I’m sleeping (when it happens).”

None of this happens with the “adpositional auxiliaries” in (3). In these cases, we propose that the adposition takes the subordinated nonfinite verbal clause as a unit, without establishing any particular thematic relation with the subject or any other participant. To account primarily for the thematic relations, we propose to analyze the auxiliaries in (3) and (4) as constituents of a raising and a control structure, respectively:¹



These structures are meant to account primarily for the thematic relations. The explanation of why the subject is nominative in the control construction is that nominative is only assigned when there is a finite verb (or auxiliary) around. In the case of raising

¹ For reasons of space, and since what is crucial for us is the contrast between the two constructions, we will not argue here that raising has in fact taken place in the first tree, i.e., as opposed to no raising, with the higher subject position being left unfilled.

auxiliaries, there isn't one, as the auxiliaries are adpositional; in the case of control constructions, the auxiliary functions as the assigner of nominative case.

In section 6, we discuss the relation between the different structures and the aspectual meanings that they instantiate.

5 The semantic analysis of Mēbengokre auxiliaries

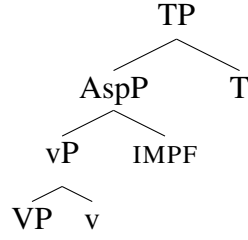
The gist of our semantic proposal is that Mēbengokre auxiliaries are aspectual heads that lexicalize the different interpretations associated with imperfectives in more familiar languages. Our proposal has two theoretical consequences for the cross-linguistic analysis of imperfectivity. On the one hand, it provides additional support for the view that in some languages modal bases may be lexically determined (see Rullmann et al. 2008), as opposed to being contextually provided. On the other hand, it supports a view where fine meaning distinctions often assigned to the pragmatics of IMPF in some languages must be linguistically encoded in such an operator. In simple terms, Mēbengokre formally differentiates between a lexically encoded modal base for events that have already started and a lexically encoded modal base for events that are just in preparation. We adopt a modal analysis of imperfectives inspired by Cipria and Roberts (2000), with lexically-determined modal bases encoded in the syntax. The proposal will be presented within the framework of situations (see Kratzer 1989, 2002, 2009), which we will not outline in any detail here for lack of space. Such a framework is particularly appropriate since it allows us to access a temporal and a modal dimension simultaneously. In a sense, the situations framework collapses temporal and modal categories, and thus provides us with ideal units for the problem at hand.

Situations are parts of possible worlds. Intuitively, we can think of a situation in the actual world as a 'piece' of such a world, a part of what is going on (that 'part of' relation is represented with \leq). An example from Kratzer (1989) is helpful to understand the part-of relation in the situations framework: suppose Paula has painted a still life with apples. There is something in the actual world that makes it true that Paula painted a still life. This is the situation of Paula painting the apples. It will have parts, like the situation of Paula painting an apple stalk. And it will be part of bigger situations, like the situation of Paula painting a still life with apples and making dinner. The possibility of talking about parts of what is going on is an important feature of the situations framework, and one that will be important in our proposal.

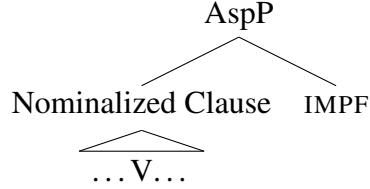
Let us now formalize our general proposal on imperfectives, including Mēbengokre auxiliaries. We adopt a standard view where Viewpoint Aspect projects above vP and below TP, as in (14). Abstracting from Tense, the crucial point with respect to Viewpoint Aspect in Mēbengokre is that it projects above the nominalized (or non-finite) clausal complement containing the lexical verb, as in (15). The semantics of the shared IMPF operator are given in (16).²

² The denotation in (16) does not impose a temporal constraint on the relation between event and reference situation. That is, there is no temporal claim in (16) regarding the relation between the event situation and the reference situation. Note that the accounts that do place emphasis on the temporal relations corresponding to imperfectivity are not able to handle the modal dimension (i.e., readings for future plans shared by Romance imperfectives and some of the auxiliaries of Mēbengokre).

(14)



(15)



- (16) $\llbracket \text{IMPF} \rrbracket = \lambda P_{\langle l, \langle s, t \rangle \rangle} . \lambda s_s . \forall s'_s : \text{MB}_\alpha(s)(s') = 1, \exists e : P(e)(s') = 1$
 (Rivero and Arregui 2010, in press, Arregui et al. forthcoming, inspired by Cipria and Roberts 2000)

Where:

- a. P is a property of events; this argument is saturated by the denotation of the nominalized clause.
- b. MB_α is a modal base (following Kratzer), understood as an *accessibility relation* (function from situations, to situations to truth values, $\langle s, \langle s, t \rangle \rangle$)

In (14)–(15), IMPF combines with a property of events P , and results in a property of situations true of s iff in all situations s' accessible to s given the contextually salient modal base, there exists a P -event (for events in a situations framework, see Kratzer 2009).

Different choices of MB result in different domains of quantification, and thus flavors for IMPF. MBs for IMPF inspired by Cipria and Roberts (2000) (see Rivero and Arregui 2010) include (17a) and (17b). The first is exemplified in Spanish in (6), and in the Mēbengokre examples in (4). (17b) is for so-called generic readings, not exemplified in this paper.

- (17) a. $\text{MB}_{\text{ongoing}} = \lambda s . \lambda s' . s' < s$
 (access to subparts of s results in an *ongoing* interpretation)
- b. $\text{MB}_{\text{generic}} = \lambda s . \lambda s' . s'$ is a characteristic situation in s
 (access to typical parts of s results in a *generic* interpretation)

Cipria and Roberts (2000) assume that the choice of modal bases, including those in (17), is contextually provided for Spanish imperfectives. However, this is clearly not the case in Mēbengokre, where aspectual auxiliaries are highly specialized in their reading. Thus, we propose that in this language we can capture the specific reading that each marker encodes keeping to the general framework depicted above, but making a distinction in terms of the modal bases specifically associated with each marker. To repeat, in Mēbengokre, specific modal bases are associated with particular lexical heads/auxiliaries, as opposed to being determined by context.

What is involved in the Mēbengokre examples in (4), partly repeated in (18) for convenience, is the modal base called *event-inertia*, given in (22) below. We propose to include it in the denotation of the auxiliary. In (19), we provide the denotation of the IMPF operator in *o=dja* responsible for the interpretation that obtains. The reasons for calling the modal base it contains *event inertia* will become clear next.³

- (18) Ba mry krēn o=dja
 1NOM meat eat.N O=stand.v
 “I am/was eating the meat (standing up).”

(19) $\llbracket o=dja_{\text{IMPF}} \rrbracket = \lambda P_{\langle l, \langle s, t \rangle \rangle} . \lambda s_s . \forall s'_s : \text{MB}_{\text{event-inertia}}(s)(s') = 1, \exists e : P(e)(s') = 1$

In addition to auxiliaries that specialize in depicting ongoing events such as the one in (18), we already illustrated some Mēbengokre auxiliaries that specialize for plans or for future events, such as the prospective marker in (3), repeated partially in (20). The reading in (20) is reminiscent of the one in the Romance and Slavic examples in (5) and (7), where imperfectives allude to future plans, and supports the need to lexicalize in the Mēbengokre prospective marker a modal base we call *preparatory inertia* for events that have not yet begun, which is thus independent from the modal base attached to the “ongoing” auxiliary in (18). The denotation of the prospective marker in (20) is given in (21):

- (20) Ije mry krēn mā
 1ERG meat eat.N PROSP
 “I am/was going to eat meat.”

(21) $\llbracket mā_{\text{IMPF}} \rrbracket = \lambda P_{\langle l, \langle s, t \rangle \rangle} . \lambda s_s . \forall s'_s : \text{MB}_{\text{prep-inertia}}(s)(s') = 1, \exists e : P(e)(s') = 1$

Cipria and Roberts (2000) propose that the intentional reading of Spanish imperfectives, similar to the Italian imperfective example in (5), depends on a purely pragmatic mechanism that coerces a modal base that captures event inertia to include the preparatory phase of events. In this proposal, purely intentional readings arise from the same mechanisms that lead to imperfective paradox interpretations. However, this solution is not viable in Mēbengokre, since one auxiliary holds the event-in-progress reading and a different one holds the intentional/prospective reading. Thus, our proposal is that two different modal bases, given in (22) and (23), are lexically encoded in two different auxiliaries in Mēbengokre.⁴

(22) **Event inertia:**

$\text{MB}_{\text{event-inertia}} = \lambda s . \lambda s' . s'$ is an E-inertia situation for s (where s' is an E-inertia situation for s iff all the events that have actually started in s continue in s' in the way they would if there were no interruptions).

³ Example (18) may give rise to the imperfective paradox, given that Mēbengokre noun phrases do not have an obligatory specification for definiteness, something which would allow both a telic and an atelic interpretation in this case.

⁴ In our proposal we have ignored well-known problems related to the difficulty of identifying inertia worlds/situations. These problems seem to be largely independent of the choice of inertia, and we will not be able to address them in this paper. See Portner (1998).

(23) **Preparatory inertia:**

$MB_{\text{preparatory-inertia}} = \lambda s. \lambda s'. s'$ is a P-inertia situation for s (where s' is a P-inertia situation for s iff all the events that are in preparatory stages in s continue in s' in the way they would if there were no interruptions).

In sum, Mēbengokre has different imperfective auxiliaries for events that are partially ongoing, and events that are planned or contemplated for some future time, which makes such auxiliaries interesting for linguistic theory for at least two reasons. One, they show that modal bases may be lexically encoded and not simply contextually defined. Two, they also suggest that the traditional notion of “inertia” is not sufficiently fine-grained.

6 A closer look at control auxiliaries

In this section, we wish to examine the “control” construction in greater detail, as a first step to establishing a relationship between its particular syntax and the interpretation that it gets.

The raising auxiliaries of Mēbengokre resemble imperfective categories in better-known languages, in that the latter do not assign a thematic role to their subjects. We need say nothing special about them. However, to account for the positional meaning added by the control auxiliaries of Mēbengokre, we need to modify their semantics somewhat. Consider the following sentence again:

- (24) Ba mry krēn o=nhỹ
1NOM meat eat.N O=stand.v

“I am/was eating the meat (standing up).”

- (25) $\llbracket o=nhỹ \rrbracket = \lambda P. \lambda x_e. \lambda s_s. x$ is sitting down in s and $\forall s'_s : MB_{\text{event-inertia}}(s)(s') = 1, \exists e_l : P(x)(e)(s') = 1$

According to (25), the imperfective auxiliary $o=nhỹ$ in (24) combines with a property of individuals and events (P) and an individual (x). The result is a proposition true of a situation s iff x is sitting down in s and, in all situations s' that are event-inertia situations, there exists a P -event, where event inertia situations s' are those where all the events that have actually started in s continue in s' as they would if there were no interruptions. As an aspect marker with its own logical subject, $o=nhỹ$ imposes restrictions, via control, on the subject of the embedded clause.

Putting things together, we have the following:

- (26) ba [i [PRO _{i} tep krēn] o=] nhỹ
1NOM fish eat.N O sit.v

“I am eating fish (sitting down).”

- (27) a. $\llbracket i \text{ PRO}_i \text{ tep krēn} \rrbracket = \lambda x_e. \lambda e_l. \lambda s_s. e$ is an event of x eating the fish in s
b. $\llbracket ba \rrbracket =$ the speaker
c. $\llbracket ba \ i \text{ PRO}_i \text{ tep krēn } o=nhỹ \rrbracket = \lambda s_s. \text{the speaker is sitting down in } s \text{ and } \forall s'_s : MB_{\text{event-inertia}}(s)(s') = 1, \exists e_l : e \text{ is an event of the speaker eating the fish in } s'$

For reasons of space, we cannot extend ourselves in our exploration of the properties of progressive auxiliaries. A full explanation of why progressives should be control auxiliaries while imperfectives with other modal bases are raising auxiliaries is still forthcoming.⁵

7 Conclusions

In this paper we have claimed that lexically-idiosyncratic aspectual markers such as imminent and prospective in Mëbengokre may fruitfully be considered to be imperfective auxiliaries. Imperfective categories share a core semantics involving universal quantification over worlds/situations. The locus of cross-linguistic variation in the imperfective lies in the different modal bases, where a relation is established between the reference situation and other situations, delimiting the domain of the universal quantifier. Inspired by Cipria and Roberts (2000) on Spanish, we have captured imperfective meanings in Mëbengokre appealing to proposals made in the domain of modality (Kratzer 1991). We have departed from Cipria and Roberts in narrowing down the role of pragmatics, and arguing that the range of modal bases available to imperfectives does not simply depend on context. We propose that Mëbengokre lexically encodes restrictions on the range of modal bases that are available to the imperfective operator (see Rullmann et al. 2008 for the case of modals).

Furthermore, we have argued that to account for the range of imperfective readings

⁵ We have made the assumption that the proclitic *o=* is a semantically vacuous element, and that it is the auxiliary itself that carries the aspectual meaning. The reader might resist an analysis where *o=* is vacuous, given its adpositional origin similar to that of the raising auxiliaries. To support the assumption about the vacuity of *o=*, we briefly examine in this footnote some facts about its distribution. Consider the following sentences:

- (I) a. ba kikre mā i-djār mō
1NOM house 1-enter.N go.PL.V
“I’m entering the house.”
- b. i-nhō krit nē tyk mō
1-POSS pet NFUT die.N go.PL.V
“My pet is dying.”
- (II) a. ba a-mā i-kabēn o=mō
1NOM 2-DAT 1-speak O=go.PL.V
“I’m talking to you (walking slowly).”
- b. ba karinhô jakôr o=mō
1NOM tobacco blow.N O=go.PL.V
“I’m blowing tobacco [=smoking] (walking slowly).”

The auxiliary *mō*, with is used obligatorily instead of *tē* when the subject is plural, may also take on the sense of “moving slowly or gradually”, even if the subject is singular. As can be seen in the above examples, the proclitic *o=* is not present on the auxiliary if the main verb is an unaccusative, while it is present if the main verb is unergative or transitive. What *o=* seems to do is mark that the subject is an agent or a causer. The progressive meaning, however, is present in all cases. In the examples in (II), the meaning of “moving slowly or gradually” is transferred to the subject. In the examples in (I), it is necessarily transferred to the action. The distribution of *o=mō* vs. *mō* as auxiliaries is reminiscent of the contrast between the two imperfective markers of Korean, *-ko iss* and *-a iss*, the first of which is used only with unergatives and transitives, whereas the latter is used with unaccusatives (see Lee 2008).

in Mëbengokre it is necessary to lexically encode and thus semantically distinguish between a modal base which we call *event inertia* for ongoing events and a modal base which we call *preparatory inertia* for events in preparation: two different notions embodied under the traditional notion of inertia.

References

- Arregui, Ana, María Luisa Rivero, and Andrés Pablo Salanova. forthcoming. Imperfectivity: capturing variation across languages. In *Papers from the Moscow Syntax and Semantics workshop (MOSS)*. Cambridge, USA: MIT Working Papers in Linguistics.
- Callow, John. 1962. The Apinayé language. Doctoral Dissertation, London University.
- Cipria, A., and C. Roberts. 2000. Spanish imperfecto and pretérito: truth conditions and aktionsart effects in a situation semantics. *Natural language semantics* 8:297–347.
- Kratzer, Angelika. 1989. An investigation of lumps of thought. *Linguistics and Philosophy* 12:607–653.
- Kratzer, Angelika. 1991. Modality. In *Semantics: an international handbook of contemporary research*, ed. Arnim von Stechow, 639–650. Walter de Gruyter.
- Kratzer, Angelika. 2002. Facts: particulars of information units? *Linguistics and Philosophy* 25:655–670.
- Kratzer, Angelika. 2009. Situations in natural language semantics. In *Stanford encyclopedia of philosophy*.
- Lee, EunHee. 2008. Argument structure and event structure: the case of Korean imperfective constructions. *Journal of East Asian Linguistics* 17:117–139.
- Oliveira, Christiane Cunha de. 2005. The language of the Apinajé people of Central Brazil. Doctoral Dissertation, University of Oregon.
- Popjes, Jack, and Jo Popjes. 1986. Canela-Krahô. In *Handbook of Amazonian languages*, ed. D. C. Deryshire and G. Pullum, volume 1, 128–199. Berlin: Mouton de Gruyter.
- Portner, Paul. 1998. The progressive in modal semantics. *Language* 74:760–787.
- Rivero, María Luisa, and Ana Arregui. 2010. Aspectual microvariation: the case of Slavic imperfectives. In *Proceedings of the 2010 meeting of the Canadian Linguistics Association*.
- Rivero, María Luisa, and Ana Arregui. in press. Building involuntary states in Slavic. In *Telicity, change, and state: a cross-categorical view of event structure*, ed. Violeta Demonte and Louise McNally. New York: Oxford University Press.
- Rullmann, Hotze, Lisa Matthewson, and Henry Davis. 2008. Modals as distributive indefinites. *Natural Language Semantics* 16:317–357.

- Salanova, Andrés, and Maria Amélia Reis Silva. 2011. Le Mëbengokre. In *Dictionnaire des langues*, ed. E. Bonvini, J. Busuttil, and A. Peyraube. Paris: Presses Universitaires de France.
- Salanova, Andrés Pablo. 2007. Nominalizations and aspect. Doctoral Dissertation, Massachusetts Institute of Technology.
- Salanova, Andrés Pablo. 2008. Uma análise unificada das construções ergativas do Mëbengokre. *Amérindia* 32:109–134.
- Salanova, Andrés Pablo. 2011. Relative clauses in Mëbengokre. In *Subordination in South American languages*, ed. Pieter Muysken, Rik van Gijn, and Katharina Haude. Amsterdam: John Benjamins.