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Encoding discontinuativity by Mari retrospectivizing particle constructions

Discontinuativity is a rarely discussed subcategory of event modality. It marks an event whose circumstantial modal base allows it to continue in so-called inertia worlds outside the actual one, but which eventually fails to do so. This paper analyzes the discontinuative functions of constructions based on the retrospectivizing particles *əľe* and *əľə* in Meadow and Hill Mari, respectively. Though the particle constructions primarily express location of an event in a temporal sphere, I shall present how their perspective properties may also encode a modal perspective towards events in different worlds. A corpus study distinguishes two subtypes of discontinuativity based on the TAME interpretation of the lexical verb in the construction: (1) temporal discontinuatives, which indicate a realized interruption in the normal advancement of an event and (2) modal discontinuatives, which indicate that an interruption might follow. In both types, the constructions mark that the modal evaluation world is detached from the actual world and shifted to the unactualized inertia world, which produces an overt comment on the unexpected or unpreferred arrest of an event. This is a semantic reanalysis of the temporal perspective structure of the constructions, which detaches the perspective time from the utterance time.

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1. Introduction

This paper investigates the verbal marking of discontinuativity in the closely related Uralic languages Meadow Mari and Hill Mari (commonly referred to as *Mari*). *Discontinuativity* is a subcategory of *event modality* with a rather short research history, the most notable typological and theoretical studies being Plungian & van der Auwera (2006) and Kagan (2011). Like event modal expressions in general, discontinuatives evaluate the possibilities of an event to actualize based on the circumstances and not on the knowledge or beliefs of a speaker. More specifically, they express that an event does not develop according to its circumstantial potential but faces an arrest during its course.

Event modal meanings are typically not expressed by dedicated linguistic items (morphemes or modal auxiliaries) but share a form with aspectotemporal expressions. This is the case also in Mari where discontinuativity is encoded by temporal constructions with the elements *ə̑l'e* and *ulmaš* in Meadow Mari and *ə̑l'ə̑* and *ə̑lə̑n* in Hill Mari. Morphosemantically, these elements are the 3rd person singular past tense forms of Meadow Mari *ulaš* and Hill Mari *əlaš* 'to be'. Their primary task is to form analytic past tense constructions where they occur after finite verbs in non-past tense, as illustrated in example (1).

(1) Hill Mari
Тӹдӹ мары халыкым пиш когон **ярата ыльы**.
təδə marə̑ χalə̑k-ə̑m piš koγon ***jarat-a ə̑l'ə̑.***
3SG Mari people-ACC very much love-3SG *ə̑l'ə̑*
'He loved the Mari people very much.' (Alhoniemi 1985: 121)

The temporal and aspectual functions of the constructions will be presented in §2. However, the constructions also appear in contexts where they do not modify the interpretation of an utterance in a temporal way but modally. At the current stage of research, the only systematically discussed modal function of the constructions is counterfactuality, which means that a proposition is false in the actual world (e.g. SMYa 1961: 178–180; Alhoniemi 1985: 123–124; Uchaev 1985: 36–39; Savatkova 2002: 195–197). In example (2), the analytic constructions mark that the subject referent did not watch out but stepped on the trap, indicating that he cannot read the tracks.[1]

(2) Meadow Mari

Кышам лудын моштет гын, **шекланет ыле**, капканыш **от тӱкнӧ ыле**.

kǝ̂ša-m	*luδ-ǝ̂n*	*mošt-et*	*γǝ̂n,*	***šeklan-et***	***ǝ̂ľe,***
track-ACC	read-CVB	can-2SG	if	be.careful-2SG	*ǝ̂ľe*

kapkan-ǝ̂š	***o-t***	***tüknö***	***ǝ̂ľe.***
trap-ILL	NEG-2SG	touch.CNG	*ǝ̂ľe*

'If you could read the tracks, you would have watched out and would not have stepped on the trap.' (SMYa 1961: 178)

Nevertheless, besides counterfactuality, the current descriptions also include examples where the constructions mark an event that is not irreal but at least some parts of it have taken place in the actual world. Example (3) below expresses an event that has been started but fails to reach its completion.

(3) Meadow Mari

Пешак **толам ыле**, мӧҥгыштӧ лийын омыл.

peš=ak	***tol-am***	***ǝ̂ľe,***	*möŋγǝ̂-štö*	*lij-ǝ̂n*	*omǝ̂l.*
really=ENC	come-1SG	*ǝ̂ľe*	home-INE	be-PST2	NEG.1SG

'I really wanted to come, but I was not at home.' (Saarinen 2022: 455)

As the translation indicates, some parts of the past event of 'coming' actually occurred in the real world, including the subject referent's intention to visit their friend and possibly some more concrete preparations related to it. What the construction marks as non-actualized is thus only a subpart of the event, namely its culmination. Saarinen (2022: 455) analyzes the

1. In fact, Mari counterfactual clauses with the lexical verb in a non-past tense are temporally ambivalent, and example (2) could also be interpreted in the present tense ('you would watch out' etc.) (Alhoniemi 1985: 124).

example above as a special case of counterfactuality, which comes semantically very close to expressions of volition.

Moreover, the literature also mentions cases where the past-marked element is found in a modal utterance with a non-past temporal reading. An illustrative instance is the occurrence of the elements after imperative forms, as in example (4):

(4) Meadow Mari

Ия **налже ыле** тиде азам!

ija	***nal-že***	***ə̂ľe***	*tiδe*	*aza-m!*
devil	take-IMP.3SG	*ə̂ľe*	this	child-ACC

'Let the devil take this child away!' (Alhoniemi 1985: 130)

What has been lacking in the Mari studies so far is a systematic overview of the actual modal semantics of the constructions. My suggestion is that in examples like (3) we are dealing with event modal expressions of discontinuative type, where the construction marks an unexpected or unpreferred interruption in the development of an event. Furthermore, due to semantic similarities between event modality and imperativity, the discontinuative marking has also been expanded into expressions of commands or wishes, as in example (4).

The aims of this study are twofold. On the one hand, I will present what kind of still insufficiently discussed discontinuative functions the constructions possess and how they can be analyzed semantically. On the other hand, I will explain how the morphologically past-marking constructions have grammaticalized into modal operators evaluating actualization of events in different worlds. As I will argue, these functions are semantic reanalyses of the temporal perspective properties of the constructions.

The structure of the paper is as follows. §2 introduces the Mari tense system and the temporal perspective structure of the analytic past tense constructions. §3 defines modality as a perspective category related to accessing situations in different worlds. §4 classifies discontinuativity as a special type of event modality and defines the modal perspective structure of the Mari retrospectivizing particle constructions. §5 presents the data and methods used in the study. The discussion is conducted in §6 and §7, which classify the data examples into two types of discontinuativity according to the temporal properties of the clause: temporal and modal discontinuativity, respectively. Finally, §8 summarizes the key findings.

2. Background: Mari tenses and their perspective properties

The core of Mari tense systems is formed by three simple tenses with additional aspectual values. Table 1, on the basis of the affirmative forms of the 1st person singular forms of the verbs Meadow Mari *ə̂štaš* and Hill Mari *əštäš* 'to do', presents the inventory as well as the main aspectotemporal functions of the operators according to Spets (2023).

Table 1: Mari simple tenses

Tense name	Meadow Mari	Hill Mari	Aspectotemporal values
Non-past tense	*ə̂štem*	*əštem*	present imperfective, future perfective
Simple past tense I	*ə̂štə̂šə̂m*	*əštəšəm*	past perfective
Simple past tense II	*ə̂štenam*	*əštenäm*	present perfect, past perfect (in narrative genres), past imperfective (with atelic events)

Besides the simple tenses, Mari possesses a set of analytic past tense constructions, which are combinations of a lexical verb conjugated in the simple tenses with a present value (present imperfective or present perfect) along with the aforementioned elements *ə̂l'e* and *ulmaš* as well as *ə̂l'ə̂* and *ə̂lə̂n*. Table 2 presents the affirmative analytic tense constructions in the 1st person singular.

Table 2: Mari analytic past tenses

Tense name	Meadow Mari	Hill Mari	Aspectotemporal values
Analytic imperfect I	*ə̂štem ə̂l'e*	*əštem ə̂l'ə̂*	past imperfective
Analytic imperfect II	*ə̂štem ulmaš*	*əštem ə̂lə̂n*	past imperfective
Analytic pluperfect I	*ə̂štenam ə̂l'e*	*əštenäm ə̂l'ə̂*	past perfect
Analytic pluperfect II	*ə̂štenam ulmaš*	*əštenäm ə̂lə̂n*	past perfect

As stated, morphosemantically these elements are the 3rd person singular forms of Meadow Mari *ulaš* and Hill Mari *əlaš* 'to be', respectively, conjugated in past tenses: *ə̂l'e* and *ə̂l'ə̂* are forms of the simple past tense I, while *ulmaš* and *ə̂lə̂n* are forms of the simple past tense II. In typology, these kinds of temporal items are called *retrospective shift markers*, and they take part in a temporal strategy called *retrospective shift* (also called *retrospectivization* in this paper, see §3 for the semantic difference between the two markers) (Plungian & van der Auwera 2006: 344–345). In retrospectivization, past expressions are formed by adding a retrospective shift marker in a finite present expression whose interpretation is thus shifted (or *retrospectivized*) into a past location. Because it attaches to an already finite verb form, the retrospective shift marker is syntactically optional in the structure. This kind of loose connectedness between a function word and its lexical head coincides with the definition of "particles" in Mari studies (see SMYa 1961: 300; Uchaev 1985: 156) and rejects the widespread custom to call the elements "auxiliaries", which are defined by a syntactic dominance over the lexical verb in a non-finite form (e.g. Heine 1993: 61, 75; for a research historical summary, see Spets 2023: 289). I will therefore call the elements *retrospectivizing particles*. Similarly, the analytic structures formed by them will be jointly called *retrospectivizing particle constructions*.

Hence, the Mari retrospectivizing particle constructions are combinations of the retrospectivizing particles and simple tenses with present value. Given their morphosemantics as 3rd person singular past tense forms of verbs 'to be', the lexical meaning of the items is 'was'. Thus, the particles can be understood as reduced copular clauses of type 'it **was** like this' which relocate the aspectual interpretation of the present-marked lexical clause into its actual temporal location past from the speaker. Spets (2023: 289) presents the structure of the retrospectivizing particle constructions as in Figure 1 (where S equals subject, NPT non-past tense, and PST2 the simple past tense II):

Analytic imperfects:

> S ([NPT: is doing X / usually does X] + [it **was** like this])
> 'It was like this (at certain time): S is doing X / usually does X'
> → 'S was doing X / used to do X'

Analytic pluperfects:

> S ([PST2: has done X] + [it **was** like this])
> 'It was like this (at certain time): S has done X'
> → 'S had done X'

Figure 1: Semantic structure of the Mari retrospectivizing particle constructions (Spets 2023: 289)

Importantly, as shown in Tables 1 and 2 above the retrospectivizing particle constructions share some aspectotemporal values with the simple past tense II. These include past imperfectivity (in the case of atelic verbs) and past perfectness. However, as pointed out in Spets (2023), the simple and the retrospectivizing past tenses are not synonymous but differ in their perspective structure. A central concept here is *perspective time* (see Kamp & Reyle 1993: 593–601), a coordinate that marks the moment from where an event is observed. In simple cases, events are observed from the utterance time, and the two coordinates fall together. In Mari, this is the case with the simple past tense II. The retrospectivizing particle constructions, in contrast, detach the perspective time from the utterance time and shift it to the past reference time, which in case of imperfectivity lies inside the course of the event, and in case of perfectness, after its contextually defined relevant limit. The state of affairs is thus observed not just retrospectively from the utterance time, but also synchronically from the time when it still prevailed.

When used in a discourse, the simple past tense II and the retrospectivizing particle constructions cause different organization of the narration. In simple cases, a story line only consists of the simple past tenses which serve either as plot-advancing perfective operators constructing the narrative foreground (the simple past tense I[2]) or as backgrounding elements presenting events as ongoing or being in their result state compared to the narrative foreground (the past imperfective and perfect readings of the simple past tense II) (Spets 2023: 283–288). In contrast, when the retrospectivizing particle constructions are used, the perspective time is shifted to the reference time inside the story line, which enables the speaker to mark more nuanced temporal relations between the backgrounding events and their discourse referents. For example, when the retrospectivizing imperfective construction (the analytic imperfect) is chosen over the simple past tense II, the narrator states that the event is temporally overlapping only with its reference time and not with other intervals, which causes a reading of temporariness (Spets 2023: 303–304). In example (5), the perspective time lies in the interval marked by the adverb *tunam* ‘at that time’, which is the only time the event of ‘studying in second grade’ can be observed.

2. In modern Mari, the simple past tense II is becoming increasingly more prominent in the past perfective function, replacing the simple past tense I (Skribnik & Kehayov 2018: 539). This is visible in some of the examples from my data.

(5) Meadow Mari

Тунам мый кокымшо классыште **тунемам ыле**.

tunam	*mə̂j*	*kok-ə̂mšo*	*klass-ə̂šte*	***tunem-am***	***ə̂ľe.***
then	1SG	two-ORD	class-INE	study-1SG	ə̂ľe

'At that time, I was studying in second grade.' (Spets 2023: 303)

The retrospectivizing pluperfect construction (the analytic pluperfect), in turn, sets the perspective time at the result state of an event and overtly comments on the circumstances where the foregrounded events take place. In example (5), the friend is presented as having an unexpected haste in their actions given that their visit is observed from the result state of September not even having arrived yet (see Spets 2023: 301–303).

(6) Meadow Mari

Ик кечын, але сентябрь **шуын огыл ыле**, йолташем школышко пурыш.

ik	*keč́ə̂-n,*	*aľe*	*senťjabŕ*	***šu-ə̂n***	***oγə̂l***	***ə̂ľe,***
one	day-ADV	still	September	arrive-PST2	NEG.3SG	ə̂ľe

joltaš-em	*škol-ə̂ško*	*purə̂-š.*
friend-POSS.1SG	school-ILL	enter-PST1.3SG

'One day, when September had not even arrived yet, my friend came to the school.' (Spets 2023: 303)

The aspectotemporal perspective structure of the retrospectivizing particle constructions is visually depicted in Figure 2. The point on the right side marks the utterance time. This is the location of the particle-marked speaker or narrator who is looking back in time and recounting past events. The point on the left represents the synchronic observer encoded by the tenses with a present value. The observer is located at the reference time either inside the event (analytic imperfect) or after its relevant limit (analytic pluperfect).

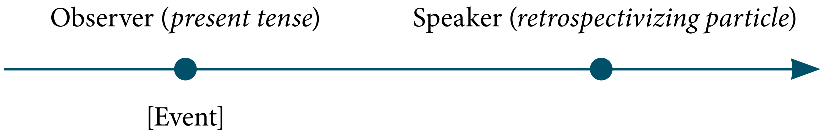

Figure 2: The aspectotemporal perspective structure of the Mari retrospectivizing particle constructions

In essence, the retrospectivizing particle constructions are multiple perspective constructions in the sense of Evans (2005), who defines them as expressions that observe one state of affairs from two different vantage points. The main feature of the Mari retrospectivizing multiple-perspective constructions is the separation of the speaker's location from another vantage point, and the same perspective structure characterizes both the temporal and the non-temporal TAME functions of the constructions. The separation of the perspective time from the utterance time also explains why Mari employs the retrospectivizing particle constructions in counterfactual expressions. The proposition of the 'if'-clause has namely been possible to assume as true only from a past perspective point when the claim of the consequent clause had not yet been revealed as false (see Ippolito 2003; Ferreira & Müller 2019: 1084–1091). In example (2) above, the speaker could still expect the subject referent to manifest an ability to read the tracks and avoid stepping on the trap until he eventually did, which revealed the previous assumption as false. As the next sections will show, the discontinuative readings of the particle constructions derive from a separation between the speaker in an actual world and a modal evaluating point in a possible world.[3]

3. Modality and perspective

This section introduces modality as a perspective category. §3.1 defines the basic concepts of "situation" and "world", while §3.2 demonstrates how comparisons between different worlds lie at the heart of any modal expressions.

3.1. Situation and world

Like TAME categories in general, also modality concerns perspective and access to states of affairs. Despite the notable disagreement on how to conceptually separate modality from tense, aspect, and evidentiality (see e.g. Squartini 2014), certain criteria have been established. If modal, an expression is marked for identification of situations across different worlds. The concepts of "situation" and "world" will be defined next.

3. Other modal constructions that contain the particles are past tense forms of desiderative expressions (e.g. Meadow Mari *tolnem əľe* come.DES.1SG + *əľe*

According to Kratzer (1989: 609–614), a “situation” is any state of affairs which is part of a world. Even though seemingly similar to the aspectotemporal notion of “event”, a situation is not the same as the temporal structure and duration of a state of affairs, but rather it must be understood as a stative set including all of its participants and their properties. An event is hence a situation exemplified by a verb phrase (see Chapter 9 of Kratzer 2023).

Different situations can be mereologically connected to other situations, thus forming part–whole unities (Kratzer 1989: 609, 611). For example, if Mary drives a car and Liza drives a car, both are subparts of a wider macro-situation “people drive car”. Although situations are not spatiotemporally defined, different phases of an event can also be counted as subparts of a larger totality. This is crucial for the upcoming discussion on event modality.

“World”, in turn, is a maximal situation that includes micro-situations as part of it but is itself not a subpart of any bigger situation (Kratzer 1989: 610). Different worlds are spatiotemporally isolated from each other, which means that they are neither separated by areal borders, nor can they be reduced to a row along the time axis so that one world begins from where another one ends (Lewis 1986: 2, 69–81). However, several types of worlds can be distinguished based on their relationship to the utterance time.

Firstly, there is *actual world*, which is the world of utterance. This is determined by the location of the speaker and is thus a deictic notion by definition (Lewis 1986: 92–96). An actual world is contrasted by a countless number of *possible worlds*, which in indexical terms are worlds in which the speaker is not located. Thus, the actual world and the possible worlds are alternatives in terms of reality, not opposites (see Lewis 1986: 2–5).

The third type of world relevant for a modal analysis is *evaluation world*, which is an argument of a modal operator. The truth value of every modally marked utterance is interpreted against a certain world and its

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‘I wanted to come’) and past tense clauses with a modal non-finite predicate like the future-necessive participle (e.g. Meadow Mari *mə̑lanna kajə̑šaš ə̑l'e* 1PL.DAT + go.PTCP.FUT.NEC + *ə̑l'e* ‘we had to go’). As opposed to counterfactual and discontinuative constructions, the particle only affects the temporal interpretation of these expressions. The modal interpretation of the utterances does not arise from the perspective properties of the retrospectivizing construction but is morphologically marked on the lexical verb. Hence, this kind of expressions are not discussed in this paper.

properties. The evaluation world is the world that functions as this kind of "modal origo", and in unmarked cases, this status belongs to the actual world (Kratzer 1981). However, like many other TAME dimensions, also modality allows a complex distinction of perspectives, and the evaluation world can be detached from the actual world and become shifted to a possible one. As will be seen, this is exactly what the Mari particle constructions do.

Thus, the modal perspective is related to the division of situations among several worlds. The next subsection will present the concept of modal extension as a bridge between worlds.

3.2. Defining situations across the worlds

Situation is a key notion for the interpretation of the polysemous Mari retrospectivizing particle constructions due to its dual nature as both a temporal and a modal object: a situation occupies a certain temporal interval, and this interval is part of a certain world and not the other ones. Nonetheless, although worlds are isolated from each other, people tend to compare them, which can be seen also from the existence of modal operators in languages. Let us consider example (7), identification of transworld comparison from the field of epistemic modality.

(7) Mary might be at home.

The employment of the modal verb *might* signals that the actuality of Mary being at home is evaluated as a possibility by the speaker. In modal terms, the speaker compares the actual world, which includes their knowledge about Mary probably being at home with a world where Mary indeed is at home. Thus, Mary being at home is a possible world *extension* of the probabilities in an actual world (Arregui et al. 2014: 312). Modal extensions are of multiple types. If the speaker frames a situation's transworld extension as obligatory or advisable, we are dealing with deontic modality. The topic of this paper, event modal extensions, will be discussed in the next section.

The type of an extension one can expect for a situation depends on circumstances in the actual world. To account for these kinds of transworld relations, Kratzer (1981: 46–51) utilizes the notion of *modal base*, which includes the facts that are relevant for the actuality of the possible extension. For the utterance in (7) to hold true, the modal base of the utterance must consist of propositions like 'her workday has ended', which enables the situation. If the speaker does not have access to this kind of knowledge, the epistemic proposition is judged false.

Nevertheless, the modal base alone does not determine the actualization of the extension. It is very possible that Mary is not at home and the speaker is wrong. This mismatch between expectations and reality is solved by *ordering source*, another ingredient of modal expressions. Ordering source recognizes both the uncertain nature of the world and the probabilities established by the modal base. It sets up a hierarchy of preferences where the worlds favored by the modal base are ranked higher than other kind of worlds. (See Kratzer 1981: 46–51.) In the natural interpretation of (7), the epistemic ordering source fulfills the modal statement with propositions like 'if her work shifts have not suddenly changed'.

The transworld approach to situations is able to connect the TAME dimensions of times and worlds (see Arregui et al. 2014: 312). Thus, it is extremely suitable for capturing the semantics of the event modal functions of the Mari retrospectivizing particle constructions. This topic is elaborated on in the next section.

4. Event modality, discontinuativity, and inertia worlds

This section discusses the concept of event modality. §4.1 defines the notion of inertia potential as a key for event modal extensions. §4.2 classifies discontinuativity as a subcategory of event modality and presents the discontinuative perspective structure of the Mari retrospectivizing particle constructions.

4.1. The essence of event modality

Besides operators like epistemics that express the speaker's stance towards the actualization of situations, some modal statements make these kinds of judgements based solely on the circumstances of the evaluation world. Consider example (8) with a progressive operator:

(8) Mary is walking home.

The example describes a situation that is already in progress in the actual world. However, the employment of the imperfective operator indicates that it is incomplete, and its culmination phase is located in a yet unactualized world (Portner 1998; Ferreira 2016). The culmination is thus the modal extension of the situation in a possible world. In order to judge the sentence in (8) as true, there has to be a reason to expect that it is possible for Mary to reach her home. Thus, the sentence must possess a modal base that includes facts like 'Mary is in good condition' and 'the way home is not impossibly long'. The imperfective framing of the situation is justified if these criteria are met. However, as the usage of the progressive form does not claim that Mary will necessarily arrive at her destination, the ordering source of the utterance fulfills the statement by disclaimers like 'if Mary does not break her leg'.

The internal force of a situation to proceed in certain circumstances is called its *inertia potential* (Dowty 1979). *Inertia world*, in turn, is the type of possible world, which is compatible with the modal base and ranked high in the ordering source (Kagan 2011: 68). If the circumstances favor it, the inertia potential of the situation normally leads to culmination of the event. In contrast, if Mary is known to suffer, for example, from extreme dementia and could realistically never find her way home, the inertia potential of the situation does not include reaching such a goal, and the truth value of a progressive sentence is false.

Studies on "inertia-based" modality represent a rich research tradition. Nonetheless, no consensus exists about how to call the dimension. The term "root modality" is used by e.g. Kratzer (1981: 51–56), and it points to the fact that inertia-based modals typically do not scope over the whole proposition but occur near to the verb stem ("the root") in syntactic hierarchies. Bybee et al. (1994: 177, 179) employ the term "agent-oriented modality" for expressions evaluating "internal and external conditions on an agent with respect to the completion of the action" and contrast it with "speaker-oriented" and "epistemic modalities", which "do not report the existence of conditions on the agent but rather allow the speaker to impose such conditions on the addressee" or "indicate the extent to which the speaker is committed to the truth of the proposition". Finally, Palmer (2001: 24, 70) makes a division into "event modality" and "propositional modality", where the former refers to internal and external factors that affect the actualization of a situation, while the latter accommodates epistemic expressions that scope over the whole proposition.

In this study I will speak about "event modality". This term captures well the overlaps between times and worlds, as the inertia potential concerns the development of a situation in a temporal sphere. As will be seen, the retrospectivizing particle constructions mark a temporal interval where the actual world breaks away from the inertia world and develops in an unexpected or unfavorable direction. For these reasons, I will also label the VP-denoted objects as "events" in the upcoming discussion.

4.2. Discontinuativity and its perspective structure in Mari

Even though all event modal expressions indicate an extension of a situation in an inertia world, they can be divided into subtypes based on the position of the evaluation world. In the case of simple imperfectives, as in example (8), the utterance signals the existence of corresponding inertia worlds but still evaluates the situation from the actual one, leaving the possible actualization of the inertia worlds thus open (Kagan 2011: 83). In contrast, the Mari retrospectivizing particle constructions evaluate the situation from the inertia world, which causes an overt comment towards the (un)expectedness of the actual world.

The modal perspective structure of the Mari retrospectivizing particle constructions turns out to be a semantic reanalysis of the aspectotemporal ones: the simultaneous perspective towards an event from two different temporal strata is reinterpreted as simultaneous perspective towards a situation from two different worlds. As stated, the modal evaluation world typically coincides with the actual world. However, in parallel with the detachment of the perspective time from the utterance time, the particle construction detaches the evaluation world from the actual world and locates it within the inertia world. The tenses with a non-past temporal value describe a situation that is not yet concluded, and a part of the situation lies thus in an inertia world. These tenses accommodate a perspective point, which in temporal readings represents a synchronic observer, and in modal readings a modal evaluator. The non-past tense thus sets the evaluator perspective in the inertia world, while the retrospectivizing particle marks the speaker's location in the actual world.

When things change, a possible world may actualize, and the evaluator is already in the inertia world anticipating this actualization. However, as with the temporal interpretations of the particle constructions, the scope of the utterance covers only those events or parts thereof that have taken place before the particle-marked perspective time. In example (3), repeated here as (9), the particle marks that only those subparts of 'coming' took place, which the subject referent performed before the barrier expressed by the second clause appeared and prevented the culmination.

(9) Meadow Mari
Пешак **толам ыле**, мӧҥгыштӧ лийын омыл.

peš=ak	***tol-am***	***əľe,***	*möŋγə-štö*	*lij-ən*	*oməl.*
really=ENC	come-1SG	*əľe*	home-INE	be-PST2	NEG.1SG

'I really wanted to come, but I was not at home.' (Saarinen 2022: 455)

Thus, the unactualized extension of the event falls outside the scope of the utterance, which causes a reading of interruption. In other words, the world that did actualize is one that is ranked low in the ordering source, as the event-external barrier is not part of its modal base. In terms of grammaticalization, the semantic change from temporal to modal has taken place through metonymic inference (e.g. Hopper & Traugott 2003: 87–92), as the meanings of interruption are covertly present already in the temporal readings of the retrospectivizing particle constructions. The above-mentioned function of temporariness related to the analytic imperfect construction indeed means that there was an arrest in the continuation of the event. Similarly, the analytic pluperfect overtly highlights the circumstances where a foregrounded event takes place. As will be seen, on a conversational level this kind of marking is justifiable if the upcoming events develop somehow unexpectedly compared to these circumstances.

Figure 3 shows the structure of the event modal particle constructions:

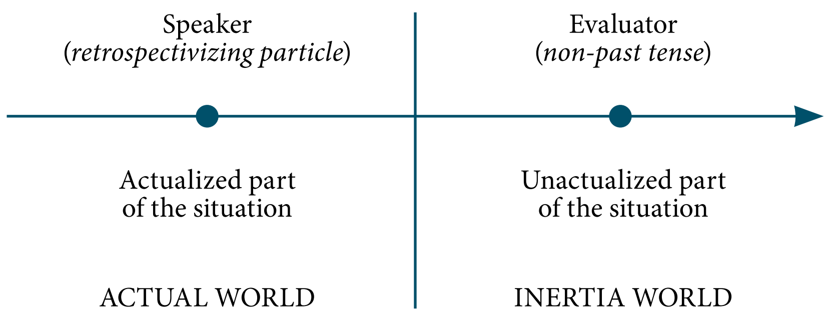

Figure 3: The event modal perspective structure of the Mari retrospectivizing particle constructions

This kind of event modal category is called "discontinuative", since it expresses the lack of expected continuation of an event.[4] Discontinuativity is most prominently discussed in Plungian & van der Auwera (2006), who define it as a special kind of past tense category that marks an interrupted past event. Indeed, most of the constructions of discontinuative semantics carry a past value (e.g. the Russian *bylo*-construction discussed by Kagan 2011) and are thus contrasted to simple past tense markers, which do not specify this kind of information.[5]

However, the Mari retrospectivizing particle constructions show that discontinuative meanings do not necessarily need to be fused with past tense. As exemplified in the introduction, there are two types of particle constructions with discontinuative meanings: those like in example (9), where the construction still indicates a past location of the described event, and those where it does not, as in the imperative example (3). These represent two stages of grammaticalization. In the first type, the retrospectivizing particle construction is contrasted with a simple past tense. In the second case, the construction has undergone semantic generalization and the temporal component of pastness has been lost. Thus, the particle-marked discontinuative constructions alternate with non-past expressions without the particle. The modal perspective structure, however, is similar independently from the temporality of a clause. Examples of both types will be provided in the upcoming discussion.

With the discontinuative perspective structure of the Mari retrospectivizing particle constructions having now been defined, §6 and §7 will show how they can be classified into formal and functional subtypes based on the TAME interpretation of the lexical verb. Before that, the data and methods used in the study are presented in §5.

4. In Uralic and Slavic studies, the same meaning is also called "future counterfactual" (Goeringer 1995; Saraheimo 2022: 184–192) and "antiresultative" (Kashkin et al. 2023: 341).
5. In fact, Plungian & van der Auwera (2006: 344–345) construe retrospective shift markers and discontinuative markers as synonyms. However, although discontinuativity is a natural function of constructions based on these markers, it is by no means the only one. As the example of the Mari languages shows, the retrospectivizing particle constructions operate not just in field of event modality but also in narrative focalization (Spets 2023) and epistemic perspective (Spets 2025), which can hardly be understood as functions deriving from discontinuativity.

5. Data and methods

The main data of this study originates from written corpora. For Meadow Mari, I have collected the data from the 2008 volume of the cultural magazine *Ончыко* (Onchyko). In additional, searches have been carried out in the social-media corpus forming part of the Corpora of Uralic Volga–Kama languages (see Arkhangelskiy 2019). The Hill Mari data originates from five novels and short-story collections. There are altogether 170 corpus examples, of which 135 are in Meadow Mari and 35 in Hill Mari. Further, some grammar examples are also discussed in the analysis sections.

The retrospectivizing particle constructions have been collected by using search tools. I have only collected and analyzed analytic past tenses based on the particle *ə̂l'e*/*ə̂l'ə̂* and omitted those including *ulmaš*/*ə̂lə̂n*. Aspectotemporally, the constructions based on the two particles are similar, but there is an evidential difference: *ulmaš*/*ə̂lə̂n* marks information that is based on inference of hearsay, while *ə̂l'e*/*ə̂l'ə̂* lacks this kind of reading (Skribnik & Kehayov 2018: 536–539; Spets 2025). Even though it is grammatically possible (see examples in Kashkin et al. 2023: 341), the evidentially marked *ulmaš*/*ə̂lə̂n* is nonexistent in the event modal constructions in my data.

The data includes all *ə̂l'e*/*ə̂l'ə̂*-based particle constructions with a meaning of interruption or unachieved result of a dynamic attempt. In contrast, semantic expansions of counterfactual expressions that do not refer to the inertia potential of an event have been excluded from the study. These include different kinds of assumptions and imaginations (see examples in Uchaev 1985: 38).

Moreover, I have consulted one native informant regarding the interpretation of the Hill Mari examples. My informant was born in 2000 in the village of Alə̂ktər (in Russian, Sarateevo) located in the Hill Mari district of the Republic of Mari El, but he is currently based in Yoshkar-Ola, the capital of the republic. He is bilingual in Russian with additional proficiency in Meadow Mari and English. The consultation was conducted during summer 2024 and spring 2025 via social media. I asked him for interpretations of both corpus examples as well as made-up minimal pairs with the simple tense and retrospectivizing particle constructions. Some of these examples are discussed in the present paper.

The analysis of the data is fully qualitative and does not contain comparison between Meadow and Hill Mari. There are two reasons for this.

Firstly, the aim is to explain the general morphosemantic structure of the retrospectivizing particle constructions and the functional links between temporal and modal expressions. Secondly, due to the limited amount of Hill Mari data and the relatively low number of examples within it, relatable statistical attempts concerning the frequency of different meanings in the two languages are not possible within the framework of this study.

6. Inertia worlds are irreal: temporal discontinuativity

This section analyzes so-called temporal discontinuative constructions, which include a lexical verb with a present tense reading and indicate that the inertia world was not reached. §6.1 introduces the semantic profile of temporal discontinuativity, and the other subsections present its aspectual subtypes: §6.2 discusses types where the present-tense lexical verb has an imperfective reading, whereas §6.3 examines discontinuatives based on a perfect viewpoint. The subtypes correspond semantically to the classification of Kagan (2011) on discontinuativity in Russian, which is why I apply the terms for the subcategories used in her study.

6.1. Temporal discontinuativity as a TAME category

As stated above, Plungian & van der Auwera (2006) define discontinuativity as a special kind of past tense category. According to these authors, it encodes the value "past with no present relevance". The notion of "relevance" at the present stratum goes beyond the simple duration of an event and refers to its dynamic inertia potential, which is not restricted to the achievement of the culmination point but characterizes different parts of events more broadly. Based on Moens & Steedman (1988), Landman (1992), and Kagan (2011), an event can be divided into three dynamic phases: a *planning stage*, where the VP-denoted event has not yet started but an intention to perform it exists; a *preparatory process*, which refers to the course of an event before its culmination; and a *result state*, which remains in the world after the event is completed. The phases correspond to some extent to the aspectotemporal notions of *beginning*, *course*, and *end* (see Johanson 2000: 29), but describe more the modal settings around them.

As subparts of an event, every stage has its own inertia potential, which leads to the next stage. Thus, plans may actualize as processes, which, in turn, may culminate and produce a result state, which serves as a platform for follow-up events. A discontinuative operator marks that one of these phases got interrupted and the subsequent ones did not actualize by the utterance time. The next subsections will classify the Mari retrospectivizing particle constructions into semantic subtypes according to the phase where the interruption occurs. Essentially, the phase is determined by the aspect of the lexical verb: if imperfective (the present-imperfective reading of the non-past tense), the arrest takes place at the planning stage or the preparatory process, and when perfect (the simple past tense II), the result stage does not activate properly. This coincides with the phase where the aspect operator sets the reference time. For imperfectives, it is within the course of an event, and for the perfect, after its temporal limit.

In this section I discuss a type of discontinuativity where the interruption has taken place in the actual world. In other words, the retrospectivizing particle construction still locates at least a part of the event at an interval before the utterance time, as its past morphology suggests. Following Plungian & van der Auwera (2006: 336–339), the examples of this section are labeled as "temporal discontinuatives".

6.2. Imperfective-based temporal discontinuatives

The retrospectivizing particle constructions based on the imperfective non-past tense express that the interruption occurs at the planning stage or at the preparatory process. Three semantic subtypes can be distinguished: intentions (§6.2.1), unachieved goals (§6.2.2), and annulled processes (§6.2.3).

6.2.1. Intention

The first discontinuative function of the particle constructions is to mark an intention that does not lead to a concrete action. This is illustrated in the examples (10) and (11) below:

(10) Meadow Mari

Сӱаныш **каем ыле**, да сывынем уке.

süan-əš	***kaj-em***	***əľe,***	*δa*	*səβən-em*	*uke.*
wedding-ILL	go-1SG	*əľe*	but	dress-POSS.1SG	NEG.EXIST

'I was about to go to a wedding party, but I do not have a dress.' (Social media corpus)

(11) Meadow Mari

Пеш **пурем ыле**, нине шучко кашак деч шӱмем йӱкшен.

peš	***pur-em***	***əľe,***	*nine*	*šuč́ko*	*kašak*	*δeč́*
really	enter-1SG	*əľe*	these	horrible	group	from

šüm-em	*jükš-en.*
heart-POSS.1SG	turn.cold-PST2.3SG

'I really wanted to go inside, but my heart turned cold because of that horrible group there.' (Onchyko 9/2008: 117)

The construction marks an event which has not completed by the utterance time, but which existed as a dynamic potential at the level of planning (see Kagan 2011: 77–78). The modal base of the event contains relevant facts that would later on develop into an action, including the subject referent's will to visit the wedding party and enter the house. A similar intention-based inertia potential characterizes also example (9) above. In all of the cases, however, this potential is prevented by the barrier expressed in the second clause.

In expressions of intention, the interruption takes place in the planning stage of an agentive event, and the subsequent process does not get started. This naturally means that the function is available only for telic events that consist of different phases. However, imperfectively seen telic events in Mari are always marked with the retrospectivizing analytic imperfect tense due to the restriction of the simple past tense II to atelic events, as seen in Table 1. A differentiation must thus be made between modal expressions of intention and aspectual expression of ongoingness. Progressive utterances may namely also describe past events that encountered some obstacle during their course. Consider example (12):

(12) Hill Mari

Витäвлä шайыц эртен **кеäт** ганьок **ылЬы**, тЫштЫ пи опташ тЫнгäлЬЫ.

βitä-βlä	*šajə̂-c*	*ert-en*	***ke-ät***	*γańok*	***ə̂ľə̂,***
sty-PL	behind-SEP	pass-CVB	go-3PL	almost	*ə̂ľə̂*

təštə	*pi*	*opt-aš*	*təŋγäľə.*
there	dog	bark-INF	start.PST1.3SG

'They had almost managed to pass by behind the sties, when a dog started barking.' (Petukhov 2003: 68)

The example is translated by the informant, who rejected the intentional interpretation 'they thought about passing behind the sties'. While more data is needed on the topic, one feature that affects the reading of the utterance is the presence of adverbial modifiers within it. The manner adverb *γańok* 'almost' in (12) evaluates the success of the event's culmination. This kind of element blocks the operator from referring to a mental planning stage, which is a stative entity with no internal end point. Similar variation between intentional and aspectual readings of the same operator based on the presence of manner adverbs has been attested also in other languages (e.g. Niva 2021: 46–48 on Finnish).

Nevertheless, my informant also rejected the intentional reading ('we were supposed to carry these') of example (13) below.

(13) Hill Mari

Палшалтай! Кӹтьӹри доно андак **намалына ыльы**, тама тӹдЫжӹ уке доко.

palšalt=aj!	*Kəťəri*	*δono*	*anδak*	***namal-ə̑na***	*ə̑l'ə̑,*
help.IMP.2SG=ENC	Kəťəri	with	before	carry-1PL	ə̑l'ə̑

tama	*təδə-žə*	*uke*	*δoko.*
something	3SG-POSS.3SG	NEG.EXIST	apparently

'Come and help me! We were carrying these with Kəťəri before, but for some reason, she is not here now.' (Petukhov 1984: 11)

Here it is not very clear here why the aspectual interpretation is preferred. The example contains a temporal adverb *anδak* 'before', which could imply that a stative intention existed at some point but was later canceled. Thus, more research is needed on the relationship between the discontinuative and progressive readings of the same construction.

6.2.2. Unachieved goal

The retrospectivizing particle constructions can also mark an action that is performed in order to fulfill a certain purpose, but the purpose is never achieved (see Kagan 2011: 78–79). Example (14) illustrates this:

(14) Meadow Mari

Мый шкежат эре **шонем ыле**: «Уэш изи йоча лиям гын, илышемат вес семын тӱҥалам […] ыле». […] Но мом ыштет, кузе пӱралтын, тугак лиеш.

mə̂j	*ške-ž=at*	*ere*	***šon-em***	***ə̂ľe:***	*"ueš*
1SG	self-POSS.3SG=ADD	always	think-1SG	*ə̂ľe*	again

izi	*joč́a*	*lij-am*	*γə̂n,*	*iləš-em=at*
little	child	become-1SG	if	life-POSS.1SG.ACC=ADD

βes	*semə̂n*	*tüŋal-am*	*ə̂ľe."*	*no*	*mo-m*	*ə̂št-et,*
other	like	begin-1SG	*ə̂ľe*	but	what-ACC	do-2SG

kuze	*püralt-ə̂n,*	*tuγ=ak*	*lij-eš.*
how	be.predetermined-PST2.3SG	SO=ENC	become-3SG

'I have also always thought like this: "If I could be a little child again, I would begin my whole life differently". But what can you do? Everything goes as it has been predetermined.' (Onchyko 9/2008: 179)

In the example, the subject referent has entered the process of thinking about starting his life again in order to ultimately fulfill this wish. The particle construction marks a break between the process of thinking and its contested result where he would actually become a child again. In other words, the event got stuck in the preparatory process and the subsequent phase of a result stage cannot be reached given the facts of the external world. However, if the unfavorable facts are removed (e.g. if the speaker gets a magical chance to become a child again), the inertia potential of the arrested thinking process starts again, and the wish will be fulfilled.

The utterance in (14) includes an agentive subject with a conscious aim. However, a similar reading of unachieved goal may also characterize events with non-agentive actors, if their transworld subparts are in a clear causative relationship. This is the case in example (15) below, where the natural consequence of a road passing near a gully is that the road will eventually collapse. The settings around the event of 'cause a collapse' are suitable for its culmination, except for the barrier presented in the second clause. Again, if the barrier is taken away (i.e. the poplar is cut), the process will continue, and the road would collapse. Note that the example employs the narrative present tense, so the particle construction does not have a past interpretation. Nevertheless, the interruption itself has been realized by the utterance time.

(15) Hill Mari

Корны карем лишыцок тӹнгäлäлтеш. Тӹдӹм карем шукердок **урыкта ыльы**, но тӹдӹлäн тополь äптӹртен: […] важвлäжӹ […] карем тӹр урмы гӹц кычат.

kornə karem lišə̑-c=ok təŋγäl-ält-eš. təδə-m
road gully near-SEP=ENC begin-REFL-3SG 3SG-ACC

karem šukerδ=ok ***urə̑-kt-a*** ***ə̑lʹə̑,*** *no*
gulley for.a.long.time=ENC collapse-CAUS-3SG ə̑lʹə̑ but

təδə-län topolʹ äptərt-en: βaž-βlä-žə karem
3SG-DAT poplar prevent-PST2.3SG root-PL-POSS.3SG gulley

tər ur-mə̑ γəc kə̑č-at.
edge collapse-VN from hold-3PL

'The road begins near a gully. For a long time, the gully has tried to cause it to collapse, but a poplar has prevented this: its roots prevent the gully's edge from collapsing.' (KSYT: 10)

As seen in the translations of the examples, the particle construction functions aspectually as a perfect operator. Serebrennikov (1960: 175) mentions "the perfect usage of the analytic imperfect" where the combination of the non-past tense and the retrospectivizing particle marks an event that has begun in the past but extends to the utterance time. However, the element responsible for the aspectual interpretation of the utterance is actually the bare non-past tense, which in Mari encodes the aspect value of the so-called "perfect of persistent situation" (see Comrie 1976: 60). Thus, the function of the particle in the construction is not to express the prevalence of the event at the utterance time but, conversely, the lack of it. This is visible in the minimal pair for which I consulted with a native informant. Here the informant indeed felt a difference between utterances with and without the particle. In example (16) with the simple non-past tense, the event of trying to get good grades is still going on, while in the particle-marked case in (17), the event has stopped before the utterance time.

(16) Hill Mari

Мӹнь шукердӹ школышты яжо баллым нäлäш **цацем**.

məń šukerδə škol-ə̑štə̑ jažo ball-ə̑m näl-äš ***cac-em.***
1SG for.a.long.time school-INE good grade-ACC get-INF try-1SG

'I have tried to get good grades in school for a long time [and I still am].' (informant)

(17) Hill Mari

Мӹнь шукердӹ школышты яжо баллым нӓлӓш **цацем ыльы**.

məń	*šukerδə*	*škol-əštə*	*jažo*	*ball-əm*
1SG	for.a.long.time	school-INE	good	grade-ACC

näl-äš	***cac-em***	***əľə*.**
get-INF	try-1SG	*əľə*

'I tried getting good grades in school for a long time [but not anymore].' (informant)

Example (17) contains a single clause, but as demonstrated by the corpus examples, the explicit marking of interruption in the preparatory process makes the particle-marked clauses likely to occur in contexts where they are followed by an adversative clause expressing unfulfillment of the aim.

6.2.3. Annulled process

An annulled process refers to an event that used to recur in the past but not anymore at the utterance time. Example (18) illustrates this.

(18) Hill Mari

Молнам тӹве кӱшнӹ сек коговлӓ секретарьвлӓ **ылыт ыльы**, а кӹзӹт начальник гӹц кого эдем уке.

molnam	*təβe*	*küš-nə*	*sek*	*koɣo-βlä*	*sekretaŕ-βlä*	***əl-ət***
before	you.see	high-LOC	SUP	big-PL	secretary-PL	be-3PL

***əľə*,**	*a*	*kəzət*	*načaľńik*	*ɣəc*	*koɣo*	*eδem*	*uke*
əľə	but	now	director	from	big	person	NEG.EXIST

'You see, earlier the secretaries used to be above everything, but nowadays nobody is greater than the director.' (Valka 2007: 119)

Aspectually, the expression has a past habitual value, but the discontinuative component is visible in the employment of the retrospectivizing particle construction over a simple past tense. In the case of the copular verb, the past conjugation is often conducted by the simple past tense forms of the verb Meadow Mari *ulaš*, Hill Mari *əlaš* 'to be'. Nevertheless, the particle construction is chosen in (18) to overtly express the notional break between the past habit and the present lack of it.

In the example (18), the reading of an annulled process is accompanied by the contrastive adverb pair 'before'–'now'. Nonetheless, the function of limited duration does not arise from the overtly expressed temporal borders but is part of the particle construction, as demonstrated by examples like (19) without explicit adverbs. Again, the example contains an atelic event, which could also take the form of the simple past tense II.

(19) Meadow Mari

Тиде почеламутым наизусть **палем ыле**. Но мондалтын.

tiδe	*počelamut-ə̂m*	*naizusť*	***pal-em***	***ə̂ľe.***	*no*
this	poem-ACC	by.heart	know-1SG	*ə̂ľe*	but

monδ-alt-ə̂n.
forget-REFL-PST2.3SG

'I used to know this poem by heart. But I have forgotten it.' (Social media corpus)

The annulled process demonstrates well the common semantic ingredients of aspectuality and event modal meanings. On the one hand, the reading of temporal limitedness can be explained with the position of the perspective time, which expresses that the event is observable from a certain temporal interval and not the others (see Spets 2023: 303–304). On the other hand, a routine that is maintained through time certainly requires a modal base that enables the continuation. Thus, nothing anticipates the upcoming interruption of the event and the divergence of the actual world from the inertia-based ones.

Concerning the phasal structure of habits, they display some differences when compared to other types of events. Habits are either sets of plural microevents or consist of a monotonous state as in examples (18) and (19). In both cases, the event has no natural end point but could continue at the same pace as long as the modal base allows it. Similarly, a past habit does not have a planning stage, as the modal base of a habit must already include information on earlier occurrences of the event. (See Ferreira 2016: 356–359, 368–371.) Hence, a habitual expression only evaluates the inertia potential of the event's course with no reference to the interphasal development. This highlights the nature of an annulled process as a category that has more to do with differentiation between several temporal strata than with internal structure of events.

Having presented the imperfective-based subtypes of discontinuativity, the next subsection will concentrate on the perfect-based ones.

6.3. Perfect-based temporal discontinuatives

When including a lexical verb in the present perfect operator, the simple past tense II, the retrospectivizing particle construction marks an arrest in the result state of a telic event. The perfect-based discontinuative constructions represent two semantic subtypes: partial realizations (§6.3.1) and annulled results (§6.3.2).

6.3.1. Partial realization

In the case of partial realizations, the event denoted by the verb phrase develops normally until its culmination. The abnormal interruption takes place in the world where the culmination point has been passed, and the result of the action should persist. An example is given in (20) below. The example is a stage direction from the script of a drama representing narrative present tense. Thus, the particle construction indicates that the state of having interrupted the event of 'turning' holds at the utterance time.

(20) Meadow Mari

Тудат Соня почеш **тарванен ыле**, но пече воктелан чарнен шогалеш [...].

tuδ=at *Sonja* *počeš* ***tarβan-en*** ***əľe,*** *no*
3SG=ADD Sonya after turn-PST2.3SG əľe but

peče *βoktelan* *čarn-en* *šoγal-eš.*
fence next.to stop-CVB stand-3SG

'He also turns around after Sonya but remains standing by the fence.' (Onchyko 7/2008: 123)

The referent of the verb 'to turn around' is the movement of 180 degrees. In the natural interpretation of (20), the subject referent indeed turned all the way around, which means that the preparatory process did not face any interruption. What does not actualize in an expected way, however, is the consequence of the action. Having turned around, the subject referent is most likely to do something in his new position, for example to start walking in that direction. As the second clause makes clear, this does not happen and the whole event is realized only partially.

A similar case is found also in example (21), where the event of 'deciding' includes a result state, where the subject referent would act according to the decision she just made. Nonetheless, the result state did not activate properly, and the expected inertia world did not actualize.

(21) Hill Mari

Анжела пӹтäри Ленан äтя-äвäштӹ докы миэн толаш **решен ыльы**. Но вара ти шанымаш гӹц пäрäнгӹ.

Anžela pətäri Lena-n äť ä-äβä-štə δokə̂
Anzhela first Lena-GEN father-mother-POSS.3PL to

*mi-en tol-aš **reš-en** ə̂l'ə̂. no βara ti*
go-CVB come-INF decide-PST2.3SG ə̂l'ə̂ but then this

šanə̂maš γəc karaŋγə̂.
thought from back.off.PST1.3SG

'First Anzhela decided to visit Lena's parents. But then she gave up the idea.' (Petukhov 2003: 91)

In the example above, the discontinuative function is again accompanied by the adverb pair 'first'–'then'. However, when I consulted the native informant about the first clause on (21) without the adverb *pətäri* 'first', he still felt a semantic difference between the sentences with and without the retrospectivizing particle. Consider (22) and (23):

(22) Hill Mari

Анжела Ленан äтя-äвäштӹ докы миэн толаш **решен**.

Anžela Lena-n äť ä-äβä-štə δokə̂ mi-en
Anzhela Lena-GEN father-mother-POSS.3PL to go-CVB

*tol-aš **reš-en.***
come-INF decide-PST2.3SG

'Anzhela decided to visit Lena's parents [and she most likely did].' (informant)

(23) Hill Mari

Анжела Ленан äтя-äвäштӹ докы миэн толаш **решен ыльы**.

Anžela Lena-n äť ä-äβä-štə δokə̂ mi-en
Anzhela Lena-GEN father-mother-POSS.3PL to go-CVB

*tol-aš **reš-en ə̂l'ə̂.***
come-INF decide-PST2.3SG ə̂l'ə̂

'Anzhela decided to visit Lena's parents [but it is not sure whether she actually did].' (informant)

Sentence (22) without the particle indicates that the event of visiting most likely took place. In contrast, sentence (23) with the particle implies that the event might not have been realized. Thus, the sentence is suitable for contexts where it is followed by an adversative clause expressing an arrest.

Unlike planning stages and preparatory processes, result states are not followed by a subsequent phase of the same event. However, they still possess inertia potential concerning consequent events that follow them. As noted by Kagan (2011: 76), expressions of partial realization do not claim that the result of the canceled event will never actualize. In the examples above the subject referents might well think over and start reaching Sonya or visit the parents of Lena. However, these events will not be consequences of the interrupted result state, but independent ones not related to the inertia potential of the original event.

6.3.2. Annulled result

An annulled result refers to cases where the result state holds for an unusually short period before it is reversed. Example (24) illustrates this:

(24) Meadow Mari

Марлан **каенам ыле**, но вашке ойырленам.

mar-lan	***kaj-en-am***	***əľe,***	*no*	*βaške*	*ojərl-en-am.*
husband-DAT	go-PST2-1SG	*əľe*	but	soon	divorce-PST2-1SG

‘I got married but soon divorced.’ (Onchyko 10/2008: 118)

The event of ‘getting married’ is well conducted into its culmination. However, a normal development of its result state would include the subject referent remaining married for a time that is definitely longer than what is implied in the example. The particle marks that the full inertia potential of the last phase of the event was not realized in the actual world but violated by the sudden revision (see Kagan 2011: 79–81). A similar case is found in the “antiresultative” example (25) discussed by Kashkin et al. (2023: 341):

(25) Hill Mari

Мӹнь тыгырым **тумыштенäм ыльы**, а тӹдӹ эче кышкедäт кен.

məń	*tə̂gə̂r-ə̂m*	***tumə̂št-en-äm***	***ə̂ľə̂,***	*a*	*təδə*
1SG	shirt-ACC	repair-PST2-1SG	*ə̂ľə̂*	but	3SG

eče *kə̑škeδ=ät* *ke-n.*
still burst.CVB=ADD go-PST2.3SG
'I repaired my shirt, but it ripped again.' (Kashkin et al. 2023: 341)

Again, the process of 'repairing' does not face interruptions, but the result state of the shirt being intact does not hold as long as one would assume, which makes the actual world unexpected.

In this section, I have discussed the retrospectivizing particle constructions that express a disruption between the past and the present. The next section presents the other major discontinuative type of the constructions distinguishing between the present and the future.

7. Inertia worlds might be irreal: modal discontinuatives

This section discusses utterances where the lexical verb of the retrospectivizing particle construction has a future-oriented meaning. The utterance thus expresses that an interruption might follow. §7.1 presents this so-called modal discontinuativity as a TAME category. It is followed by examples of its semantic subtypes including discontinuative future in §7.2 as well as discontinuative deontics and imperatives in §7.3.

7.1. Modal discontinuativity as a TAME category

As noted in Plungian & van der Auwera (2006: 339–343), the same morphosemantic devices that serve as retrospective shift markers and temporal discontinuatives are very likely to develop also meanings related to the future actualization of an event. In other words, the "past and not present" separation can also be applied to encode the value "present and (possibly) not future" where the modal evaluator is shifted to the future stratum to wait for the upcoming completion of the event. I call this function "modal discontinuativity". While temporal discontinuatives indicate a realized interruption, in modal discontinuativity the arrest between the actual world and the inertia world is marked as a possibility.

In Mari modal discontinuative utterances, the retrospectivizing particles are attached after a future-orienting expression. These include the future-perfective alloseme of the non-past tense, certain deontic verbs and the imperative mood. Of course, all future events are irreal by default, but as contrasted with simple future expressions, which only locate the event at an interval after the utterance time, the retrospectivizing particle constructions overtly state that the inertia potential of the event might not be fulfilled. As will be seen next, many of the modally interpreted particle constructions in Mari represent non-declarative speech acts, which is expected given that the event will actualize only after somebody has enabled the action in some way.

7.2. Discontinuative future

"Discontinuative future" refers to situations where the retrospectivizing particle follows the future-perfective alloseme of the non-past tense. I will refrain from a detailed pragmatic interpretation of the examples, but in general this kind of construction in my data represents different kinds of polite suggestions, as the possible interruption of an event easily serves as a metaphor for the speaker's downgraded chances to actualize a preferred result (see Plungian & van der Auwera 2006: 339). In other words, the modal base of an event enables its actualization, but with the particle marking the speaker anticipates that the final result might not be ranked very high by their ordering source.

The construction may mark an event whose actualization depends on an external permission given by one's interlocutor. In example (26) below, the proposal in (26a) is rejected by the interlocutor in (26b):

(26) Meadow Mari

a. Лучо эрла **вашлийына ыле**.

luč́o *erla* ***βašlij-ə̂na*** ***ə̂ľe***.
better tomorrow meet-1PL *ə̂ľe*
'Let's rather meet tomorrow.'

b. Уке-е-е, тачысе кумылым эрлалан огыт кодо […].

uke-e-e, *tač́ə̂-se* *kumə̂l-ə̂m* *erla-lan* *oγə̂t* *koδo.*
no today-ADJ mood-ACC tomorrow-DAT NEG.3PL leave.CNG
'No-o-o, today's mood is not to be left for tomorrow.'
(Onchyko 7/2008: 82)

Suggestions do not contain an antecedent 'if'-clause, which is proven false and blocks the access to the state of affairs expressed in the consequent clause. Thus, the event is still considered as a possibility. Further, suggestions differ from counterfactual readings in their dynamic semantics, which refer to the inertia potential of the event, including the subject referent's will to realize it. The translations of (27) and (28) with the 'could'-clauses highlight the meaning.

(27) Meadow Mari

От лӱд каяш? **Ужатем ыле**.

o-t	*lüδ*	*kaj-aš?*	***užat-em***	***əľe.***
NEG-2SG	be.afraid.CNG	go-INF	accompany-1SG	*əľe*

'Are you not afraid of going? I could accompany you.'
(Onchyko 10/2008: 125)

(28) Meadow Mari

Пырля **мием ыле**. Ала вучалтет?

pərľa	***mij-em***	***əľe.***	*ala*	*βuč́alt-et?*
together	go-1SG	*əľe*	maybe	wait-2SG

'I could come with you. Will you maybe wait for me?'
(Onchyko 11/2008: 20)

The examples above all include a 1st person subject. A suggestion can also be made concerning a 2nd person subject referent, as in (29):

(29) Meadow Mari

Эрла эрдене **лектат ыле**. Кызытше мо дене кает?

erla	*erδene*	***lekt-at***	***əľe.***	*kəzət-še*
tomorrow	in.the.morning	leave-2SG	*əľe*	now-POSS.3SG

mo	*δene*	*kaj-et?*
what	with	go-2SG

'You could leave tomorrow morning. Why are you going now?'
(Onchyko 1/2008: 48)

Here the speaker points out the possibility of leaving the next day but expresses that it is up to the addressee whether the latter will realize it or not.

7.3. Discontinuative deontics and imperatives

Finally, the retrospectivizing particle is also attested along some deontic verbs as well as in imperative expressions. Even though both deontic modals and imperatives differ from event modality in a sense that their ordering sources rank events according to moral standards or the preferences of the speaker and not just according to probabilities (Wilson & Sperber 1988: 217; Nuyts 2014: 36), a link that connects all these semantic dimensions is the nature of the modal base. Where the modal base of epistemics consists of the knowledge or beliefs of the speaker, that of event modals, deontics, and imperatives includes only the factual circumstances of the world (Wilson & Sperber 1988: 217; Isac 2012: 43–44).

Thus, the modal base of the deontic verbs Meadow Mari *külaš* and Hill Mari *keläš* 'must, be needed' consists of the circumstances in the actual world, including the subject referent's existing need to do something. As with temporal discontinuatives, the particle construction marks that some part of the event is going on at the utterance time, but the achievement of the preferred result is left open. Consider example (30).

(30) Hill Mari

Алло, мӹлäм Клава Иванушкина **келеш ылыы**!

allo,	*məläm*	*Klava*	*Ivanuškina*	***kel-eš***	***ə̑lʼə̑!***
hello,	1SG.DAT	Klava	Ivanushkina	be.needed-3SG	*ə̑lʼə̑*

'Hello, I would need Klava Ivanushkina!' (Egorkina 2012: 33)

Unlike with pure counterfactuals, the non-actuality does not concern the state of needing Klava, as the speaker's need to meet her will not go away even if his requirement is rejected by his interlocutor. Instead, the construction expresses that the speaker will not start pursuing a meeting with her until he is allowed to do so, and the utterance is interpreted as a suggestion.

When an imperative clause is marked by the retrospectivizing particle, it signals that the speaker considers the future actualization of the event as somewhat unrealistic, which leads to a polite tone or meanings that resemble counterfactual expressions (Alhoniemi 1985: 130; Uchaev 1985: 32–33). In modal terms, the modal base of the event includes relevant facts about the necessities and possibilities of the actualization, but the discontinuative particle marking expresses that the pursued inertia world is ranked somewhat low by the imperative ordering source, and the intensity of the speaker's desire and commands does not affect the realization of the event. The discontinuative imperatives represent the most grammaticalized type of the retrospectivizing particle constructions, as the particle marking has been analogically extended to a context which shares the modal semantics, but where the lexical verb is formally different from the indicatives of the temporally interpreted constructions.

The discontinuative particle marking may occur in imperative clauses of any person and polarity value. The polite tone related to the construction characterizes clauses with a 2nd person subject, which in these cases express wishes rather than commands. This is visible in example (31), which is from a prayer. With the particle marking, the speaker indicates that they are not in a position to command God, and the actualization of the event does not depend on the speaker's wish.

(31) Meadow Mari

Ой, Юмыжат, **полшо ыле** вийым муаш.

oj,	*Jumə̂-ž=at,*	***polšo***	***ə̂l'e***	*βij-ə̂m*	*mu-aš.*
oh	God-POSS.3SG=ADD	help.IMP.2SG	*ə̂l'e*	strength-ACC	find-INF

'Oh, Lord, please help me to find the strength.' (Onchyko 7/2008: 126)

The mitigated tone of an imperative clause with a 3rd person subject, in turn, is not so explicitly visible, as such clauses also in unmarked cases do not express direct command but rather wishes. Consider example (32):

(32) Hill Mari

Вот шоляжат эче пытрак коммерциш **пырыжы ыльы** […]. Ато шолян вуйышты кӹзӹт ӓрвӓ шукырак.

vot	*šol'a-ž=at*	*eče*	*pə̂t-rak*
well	little.brother-POSS.3SG=ADD	even	strongly-COMP

kommerci-š	***pə̂rə̂-žə̂***	***ə̂l'ə̂.***	*ato*	*šol'a-n*
commerce-ILL	enter-IMP.3SG	*ə̂l'ə̂*	but	little.brother-GEN

βujə̂-štə̂	*kəzət*	*ärβä*	*šukə̂-rak.*
head-INE	now	straw	a.lot-COMP

'Well, his little brother should push himself into commerce even more strongly. But his brother's head is just full of straw.' (Petukhov 2003: 94)

The particle marking emphasizes the counterfactual nature of the wish: the speaker desires something that they already know they probably cannot achieve, and the utterances have a frustrated tone.

8. Conclusions

In this paper, I have discussed the usage of the Mari retrospectivizing particle constructions in discontinuative modal expressions. These functions can by no means be considered as novel findings in Mari studies as most grammars contain examples of various interruptive and irreal meanings of the constructions. The gaps I have striven to fill in this study are the lack of a systematic description of their functions and an explanatory analysis on how temporally marked elements may encode modal meanings.

Considering the descriptive aim, I have classified the discontinuative usages of the retrospectivizing particle constructions into several semantic types, which are presented in Table 3.

Table 3: Discontinuative types of the Mari retrospectivizing particle constructions

TAME interpretation of the lexical verb	Semantic types
1. Temporal discontinuatives	
Present imperfective (non-past tense)	Intention Unachieved goal Annulled process
Present perfect (simple past tense II)	Partial realization Annulled result
2. Modal discontinuatives	
Future perfective (non-past tense)	Discontinuative future
Deontic (deontic modals)	Discontinuative deonticity
Imperative mood (imperative)	Discontinuative imperativity

The functions correspond to the ones attested for similar morphosemantic devices in other languages as well (e.g. Plungian & van der Auwera 2006; Kagan 2011). However, due to the relatively small data sample and limited access to native consultants, many essential details still await elucidation. These include, for instance, the differentiation between intentional and progressive reading as well as the communicational functions of the modal discontinuative particle constructions.

One of my central claims has been that the meanings of many unclearly depicted particle constructions can be analyzed best if the so-called analytic past tenses are understood as polysemous perspective constructions.

They possess several TAME functions that can be metonymically derived from their temporal perspective structure. Further, the particle marking has also been analogically extended to deontic and imperative contexts. Hence, by its explanatory part, the study is one of the first comprehensive presentations on the overlaps and development of temporal and non-temporal functions of retrospectivizing constructions in a single language. Moreover, the results contribute to a more precise definition of discontinuativity, which cannot be labelled simply as a past tense category but a modal one that may pair with several temporal values.

Abbreviations

ACC	accusative
ADD	additive enclitic
ADJ	adjective derivational suffix
ADV	adverbal derivational suffix
CAUS	causative derivational suffix
CNG	connegative
COMP	comparative
CVB	general converb
DAT	dative
DES	desiderative
ENC	enclitic
EXIST	existential copula
GEN	genitive
ILL	illative
IMP	imperative
INE	inessive
INF	infinitive
LOC	locative
NEG	negation element
ORD	ordinal
PL	plural
POSS	possessive suffix
PST1	simple past tense I
PST2	simple past tense II
PTCP.FUT.NEC	future-necessive participle
REFL	reflexive derivation suffix
SEP	separative
SG	singular
SUP	superlative
VN	verbal noun
1	first person
2	second person
3	third person

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