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RESULTATIVES GRAMMATICALIZING INTO PASSIVES, PERFECTS AND PAST TENSE FORMS IN UDMURT

Abstract. The paper offers a novel analysis of deverbal, copulaless predicative forms derived with the suffix *-(e)mjn* in Udmurt. These have commonly been referred to as resultative participles in the literature, but have also been analysed as predicates of passive constructions and as perfects. The main question was whether a uniform analysis can be provided. The objective was to investigate whether *-(e)mjn* constructions show the same behaviour in 19th century folklore data and in contemporary corpus data. Results show that while all examples in the old data can be analysed as resultatives, *-(e)mjn* constructions have a heterogeneous use in contemporary Udmurt: the resultative use prevails, but some instances can be analysed as actional passives, others as perfects and still others as past tense forms. I argue that diachronically, the primary function of *-(e)mjn* forms was the expression of resultativity, and the synchronic heterogeneity is the reflection of two ongoing and typologically common grammaticalization processes: *resultative > passive* and *resultative > perfect > past tense*.

Keywords: Udmurt, resultative constructions, passive constructions, perfect, past tense, grammaticalization.

1. Introduction: objectives and claims

The present study proposes a novel analysis of deverbal, copulaless predicative forms derived with the suffix *-(e)mjn* in Udmurt. Such forms are commonly referred to as resultative participles (or “participles describing the result of an action”) in the literature (Перевощиков & Вахрущев & Алатырев & Поздеева & Тараканов 1962; Калинина 2001; Winkler 2001; 2011; Шутов 2011; Szabó 2022), and the predicative constructions they enter have traditionally been analysed as resultative (Leinonen & Vilkuna 2000; Siegl 2004), cf. (1) or as passive (Asztalos 2008; 2011; F. Gulyás & Speshilova 2014), cf. (2) constructions. Some authors, namely, Asztalos (2022) and Saraheimo (2024) also mention that certain instances of *-(e)mjn* forms might be analysed as perfects, cf. (3).

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- (1) *Ukno ušt-(e)mĭn* (Leinonen & Vilkuna 2000 : 505)
 window open-(E)MĬN
 'The window is open'
- (2) *Perepeč śi-emĭn (anaj-en)* (F. Gulyás & Speshilova 2014 : 70)
 perepeč eat-(E)MĬN mother-INS
 'The perepeč [Udmurt national dish] was eaten (by the mother)'
- (3) Context: 'This 50 year old man has never had a rest so far'
Jalan uža-mĭn - bĭžĭ-l-emĭn (Udmurt corpus;¹ Udmurt dunne 30.03.2012)
 always work-(E)MĬN run-FREQ-(E)MĬN
 'He has always been working and running about'

The main question of the research presented here was whether a uniform account of copulaless *-(e)mĭn* constructions can be provided at all. The research thus aimed at investigating whether copulaless *-(e)mĭn* constructions show the same semantic and morphosyntactic behaviour in old texts, i.e., folklore data from the end of the 19th century (Munkácsi 1887; Wichmann 1901 : 52–186), and in contemporary data retrieved from the Udmurt corpus.

The data indicate that while all examples of *-(e)mĭn* constructions in the old text sample can be analysed as resultatives, *-(e)mĭn* constructions in contemporary Udmurt cannot be described in a homogeneous way: while the majority of the examples investigated do show the characteristics of resultatives, some instances of *-(e)mĭn* constructions are rather to be analysed as (actional) passives, others as perfects, and, finally, some sporadic examples show the properties of past tense forms.

I argue that while diachronically, the primary function of *-(e)mĭn* forms was the expression of resultativity (i.e., of a state resulting from a previous action or event), the heterogeneity that *-(e)mĭn* constructions show in their behaviour on a synchronic level is the reflection of two ongoing and typologically common grammaticalization processes, namely, (a) *r e s u l t a t i v e > p a s s i v e* (cf. Nedjalkov & Jaxontov 1988), and (b) *r e s u l t a t i v e > p e r f e c t > p a s t t e n s e* forms (cf. Bybee & Perkins & Pagliuca 1994). A concomitant of the ongoing grammaticalization processes is that the *-(e)mĭn* suffix is on the way to losing its originally compositional nature and is getting to be reinterpreted as a single morpheme.

The paper is structured as follows. Section 2 describes the theoretical background: it defines the categories and the notion of grammaticalization as understood in this study, and presents two grammaticalization paths that resultative constructions crosslinguistically may commonly undergo. Section 3 provides background information about the Udmurt language and its TAME-system and also overviews previous accounts of *-(e)mĭn* constructions. Section 4 presents the linguistic data the research was carried out on and the research methods. Section 5 introduces the results and the analysis of the data, as well as the diachronic implications. Section 6 briefly discusses a typological parallel in one of the contact languages of Udmurt, that is, the evolution of the past tense in Russian. Section 7 summarises the main findings of the research.

¹ For the sake of simplicity, I will refer to Arkhangelskiy & Medvedeva (2014–2025) as Udmurt corpus throughout this paper.

2. Theoretical background

2.1. Defining the notions

2.1.1. Resultatives

Following Nedjalkov & Jaxontov (1988) and Bybee & Perkins & Pagliuca (1994), by *resultative constructions* I refer to constructions that express a state which results from a previous action (Nedjalkov & Jaxontov 1988 : 6; Bybee & Perkins & Pagliuca 1994 : 54, 63, 69). This is illustrated by the English *be* + past participle construction in (4) (where the previous action is that Mary went away, and the resulting state is Mary's absence), and (5) (where the previous action is that the door was locked by someone, and the result is that the door is in a state of being locked):

(4) *Mary is gone* (Bybee & Perkins & Pagliuca 1994 : 96)

(5) *The door is locked* (Bybee & Perkins & Pagliuca 1994 : 63)

Resultatives have a number of subtypes (cf. Nedjalkov & Jaxontov 1988 : 8–15); presenting all of these, however, would go beyond the scope of this paper. For our purposes it is enough to note that in Nedjalkov's and Jaxontov's (1988) system, example (4) illustrates the so-called *subjective resultative* (since the subject of the construction is co-referential with the underlying subject of the base-verb), while (5) instantiates the *objective resultative* subtype of resultatives (since the subject of the sentence is coreferent with the underlying object of the base-verb referring to the previous action) (cf. Nedjalkov & Jaxontov 1988 : 9). Resultative constructions, when formed of transitive verbs, are thus typically voice-changing constructions (involve a change in diathesis), and objective resultatives have traditionally been called *statal passives* (Nedjalkov & Jaxontov 1988 : 45).

2.1.2. Passives

By *passive constructions* in the proper sense of the term I refer, following Nedjalkov & Jaxontov (1988 : 17, 45), to so-called *actional passives* throughout this paper. Actional passives (or, in what follows, simply *passives*), similarly to statal passives (i.e., objective resultatives), are voice-changing constructions: the object of a transitive base-verb is realised as the subject of an actional passive construction. Actional passives, however, differ from statal passives in that they refer to the action itself, and not to the state resulting from the action. This implies that when combined with a temporal adverbial referring to a specific time (like, e.g., *at midnight* or *in 2025*), the passive indicates the time at which the action took/takes place, while the resultative indicates a moment at which the state resulting from the previous action is in existence. Some languages, like, e.g., German, formally distinguish passives from (objective) resultatives (i.e., use formally different constructions for actional and statal passives), while other languages, like e.g. English or Russian, use the same forms for expressing the two meanings (Nedjalkov & Jaxontov 1988 : 47), as the English examples in (6) illustrate:

- (6) *When I came at five, the door **was shut**, [objective resultative/statal passive]
but I don't know when it **was shut** [actional passive]*
(Nedjalkov & Jaxontov 1988 : 47)

2.1.3. Perfects

I use the term *perfect* for predicates that describe actions or events which occurred prior to reference time and are presented as relevant at reference time (most typically the point of speech), cf. Nedjalkov & Jaxontov (1988 : 15); Bybee & Dahl (1989 : 55, 67); Bybee & Perkins & Pagliuca (1994 : 54, 69, 86, 96).² This is illustrated by the English present perfect in example (7):

- (7) *John has gone to Paris (and is there now)* (Bybee & Dahl 1989 : 67)

Crosslinguistically, perfects may develop some typical particular uses. One of these is the experiential use, "in which certain qualities or knowledge are attributable to the agent due to past experiences" (Bybee & Perkins & Pagliuca 1994 : 61), as illustrated by (8):

- (8) *Have you ever been to Paris?* (Bybee & Dahl 1989 : 67)

Another special use indicates a "new situation" or "hot news" (Bybee & Perkins & Pagliuca 1994 : 62):

- (9) *Nixon has resigned!* (Bybee & Perkins & Pagliuca 1994 : 62)

Finally, the "anterior continuing" use signals that a past action continues into present time:

- (10) *I've been waiting for him for an hour* (Bybee & Perkins & Pagliuca 1994 : 62)

A property of perfects is that they do not combine with temporal adverbials that indicate a specific time in the past. This follows from their semantics, i.e., that they do not locate a situation at some definite point in the past, only present the previous situation as relevant to the current moment (Bybee & Perkins & Pagliuca 1994 : 61–62):

- (11) *?I've gone to the bank at nine o'clock this morning* (Bybee & Perkins & Pagliuca 1994 : 62)

Perfects cannot be used for narrating a sequence of events in the past (Bybee & Perkins & Pagliuca 1994 : 54).

2.1.4. Resultatives and perfects compared

Resultatives and perfects, when compared to each other, differ both semantically and syntactically in a number of respects:

1. As mentioned above, while resultatives describe a *s t a t e* resulting from a previous action or event, perfects refer to the past *a c t i o n* or *e v e n t* itself (Nedjalkov & Jaxontov 1988 : 15; Bybee & Perkins & Pagliuca 1994 : 65), presenting it as relevant at reference time.
2. Whereas perfects can in general be formed from any verb (Nedjalkov & Jaxontov 1988 : 15), resultatives "can only be formed from verbs whose

² Bybee & Perkins & Pagliuca (1994) use the term *anterior* for perfects. Nevertheless, I prefer adhering to the term *perfect* throughout this study.

interpretation involves some type of change" (Bybee & Dahl 1989 : 69, also 65–66), thus, they are commonly restricted to telic verbs (Bybee & Dahl 1989 : 69; Bybee & Perkins & Pagliuca 1994 : 54) (*terminative verbs* in Nedjalkov's and Jaxontov's terminology (1988 : 5)).

3. While perfects typically do not change the valence and the voice of the verb (Nedjalkov & Jaxontov 1988 : 15), certain subtypes of resultatives (e.g., objective resultatives), as mentioned in Section 2.1.1, are typically valence-changing, and may make part of the voice system of a language: "the subject in a resultative construction often corresponds to the direct object of a non-resultative sentence" (Bybee & Dahl 1989 : 69), cf. 2.1.1.
4. While resultatives are compatible with an adverb meaning 'still', cf. (12), perfects typically cannot combine with it (13) (Nedjalkov & Jaxontov 1988 : 15; Bybee & Dahl 1989: 69; Bybee & Perkins & Pagliuca 1994 : 54, 65):

(12) *Mary is still gone*

(13) **John has still gone to Paris*

2.1.5. General (simple) past, perfective past and imperfective past

By *general past* or *simple past* I refer to tense forms "which express only the notion that the action or event occurred prior to the moment of speech" (Bybee & Perkins & Pagliuca 1994 : 55, see also pp. 82, 86). This is illustrated by the Hungarian examples in (14)–(15). General past tense forms, according to this definition, can refer both to actions/events with and without temporal boundaries, cf. the two verb forms in (14) – i.e., the same past tense form is used for describing both perfective and imperfective situations. Contrary to perfects, general past tense forms are compatible with temporal adverbials referring to a specific time and can be used for the narration of a sequence of past events (Bybee & Perkins & Pagliuca 1994 : 55, 62, 84, 90, 151), as in (15).

(14) *Amikor meg-érkez-t-em, ő még alud-t* (constructed, personal knowledge)
 when PV-arrive-PST-1SG 3SG still sleep-PST[3SG]
 'When I arrived, he was still sleeping'

(15) 2022 *május ötödik-é-n este haza-men-t-em, meg-etet-t-em*
 2022 May fifth-3SG-SUPERE evening home-go-PST-1SG PV-feed-PST-1SG
a kutyá-t és le-feküd-t-em (constructed, personal knowledge)
 ART.DEF dog-ACC and down-go_to_bed-PST-1SG
 'The evening of the 5th of May 2022, I went home, fed the dog and went to bed'

A *perfective past* tense describes past actions or events which count as completed, presents the past situation "as having temporal boundaries, as being a single, unified, discrete situation" (Bybee & Perkins & Pagliuca 1994 : 83). A perfective past, when present in a language, typically contrasts with an *imperfective past*, which presents a past situation without temporal boundaries (ibid.). Thus, in French, *passé composé*, the perfective past (*je suis arrivé* in (16)), contrasts with *imparfait*, the imperfective past (the form *il dormait*) (the same distinction is found between *passato prossimo* and *imperfetto* in Italian).

- (16) *Quand je suis arriv-é, il dorm-ait encore*
 when 1SG be.1SG arrive-PTCP.PRFX 3SG sleep-PST.IPFV.3SG still
 'When I arrived, he was still sleeping' (constructed, personal knowledge)

General past is thus a semantically more general concept than perfective or imperfective past (Bybee & Perkins & Pagliuca 1994 : 84).

2.1.6. Resultatives, passives, perfects and general past compared

Table 1 summarises the syntactic and semantic properties relevant for the distinction of the four categories, i.e., resultative, passive, perfect and general past tense:

Table 1

**Distinguishing properties of resultatives, passives, perfects,
and general past tense forms**

		resultative	passive	perfect	general past
semantic content		state resulting from a previous action/event	action/event	previous action/event with current relevance	action/event in the past
semantic and morpho-syntactic properties of the verb	restriction to telic Vs	✓	no	no	no
	voice change with transitives	✓	✓	no	no
combination with adverb(ial)s	'still'	✓	(not relevant)	no	(not relevant)
	specific time	✓ (time when the resulting state is in existence)	✓ (time when the action/event took place)	no	✓ (time when the action/event took place)
sequence of events		n/a	✓	no	✓

In Sections 5.1–5.2, I will present that while in an old Udmurt text sample, all instances of *-(e)mjn* constructions could be analysed as resultatives, *-(e)mjn* forms in contemporary Udmurt do not have a homogeneous behaviour and cannot be described in a uniform way. I will propose a four-fold classification, arguing that some instances of the construction instantiate resultatives, others passives, still others perfects, and finally, in some cases, *-(e)mjn* forms can be analysed as past tense forms.

2.2. Grammaticalization

Most commonly, grammaticalization has been defined as a process by which lexical morphemes develop into grammatical ones: e.g., in English, a lexeme meaning 'want', while in French, a lexeme meaning 'go' developed into a future tense marker (van Gelderen 2011 : 5). Following Bybee &

Perkins & Pagliuca (1994) and van Gelderen (2011), however, I use the term *grammaticalization* in a broader sense, interpreting it as a change which may also start out of already grammatical units (Bybee & Perkins & Pagliuca 1994 : 11) which then become more grammatical, i.e., more abstract and more functional. Grammaticalization involves a gradual semantic generalisation (semantic reduction, or bleaching) of the lexical or grammatical material involved: certain specific components of meaning of the original morpheme(s) get gradually lost, and the morpheme(s) start to be used in a wider range of contexts (Bybee & Perkins & Pagliuca 1994 : 6, 86), with less co-occurrence restrictions (Bybee & Perkins & Pagliuca 1994 : 64). Bybee, Perkins and Pagliuca (1994 : 14) point out that crosslinguistically, grammaticalization follows universal paths: "[a]ny grammaticizations that begin with the same or similar source meaning can be expected to follow the same course of change". Bybee, Perkins and Pagliuca (1994: 12) and van Gelderen (2009 : 3; 2011 : 3; 2013 : 233) point out that grammaticalization processes are typically (though, not without exceptions) unidirectional processes.

In what follows, I will present some typologically common grammaticalization processes that resultative constructions may undergo.

2.3. Grammaticalization paths of resultative constructions

Crosslinguistically, resultative constructions may undergo some typical grammaticalization paths. First of all, they may grammaticalize into *passives* (Nedjalkov & Jaxontov 1988 : 49): in other words, stative passive constructions may develop an actional passive use and express the two meanings parallelly by the same form (as is the case of English, cf. ex. (6) in Section 2.1.2), or can serve as bases for the development of new actional passive constructions (as in German, cf. Section 2.1.2). In either case the resultative meaning/construction is historically older (Nedjalkov & Jaxontov 1988 : 49). Thus, (17) is a potential developmental path of resultatives:

(17) resultative > (actional) passive

Bybee & Dahl (1989 : 73–77) and Bybee & Perkins & Pagliuca (1994 : 51–105) show that resultatives may also undergo the grammaticalization paths outlined in (18)–(19):

(18) resultative > perfect > past tense

(19) resultative > perfect > inferential > evidential

The description of the path in (18) can, in fact, be further refined, as the final stage *past tense* may involve three distinct endpoints, depending on the language: general past tense, perfective past, or a past expressing a specific remoteness distinction, e.g., a hodiernal past (i.e., a past describing situations that occurred on the same day as the speech event). Apparently, whether a perfect develops into a general past or a perfective past depends on whether the language already has a past imperfective that a past perfective could contrast with (Bybee & Perkins & Pagliuca 1994 : 85, 91).

On the semantic level, the change from resultatives to perfects, and from perfects to general and to perfective past tense forms are cases of semantic generalisation, i.e., the loss of certain specific components of meaning:

during the first phase of change, the use of the construction becomes available "not just to actions that produce states but to actions that precede other actions" (Bybee & Perkins & Pagliuca 1994 : 69), while during the second phase, the component of "current relevance" of the past action gets lost. Such semantic generalisations, according to Bybee & Perkins & Pagliuca (1994), have pragmatic motivations:

"Such changes occur because of the way language is used. The anterior [perfect] conveys the sense of past or perfective but includes a special flavor of relevance or proximity to the present or current situation. Thus if a speaker wishes to frame his or her contribution AS THOUGH it were highly relevant to current concerns, then the speaker might use the anterior more often than would be strictly necessary for the communication of the propositional content of the message. Such overuse weakens the force of the current relevance component, and eventually the hearer infers only past or perfective action from the anterior and no sense of current relevance." (Bybee & Perkins & Pagliuca 1994 : 86–87)

Resultatives served as sources for perfects in a number of Romance and Germanic languages (Bybee & Dahl 1989 : 68–73; Bybee & Perkins & Pagliuca 1994 : 68). For example, the English present perfect goes back to an Old English resultative construction (Bybee & Dahl 1989: 72; Bybee & Perkins & Pagliuca 1994 : 68). Latin also had a resultative construction, formed of a perfect participle + 'have' or 'be' (depending on the transitive or intransitive nature of the base-verb of the participle), as illustrated in (20):

- (20) *Habeo epistula-m script-a-m* (Salvi 1987 : 226)
 have.1SG letter[F.SG]-ACC write.PTCP.PRF-F.SG-ACC
 'I have a written letter (lit. 'I have a letter as a written one)'

Some Romance dialects (i.e., Calabrian and Sicilian), have preserved the original resultative meaning of the construction, while in some others, e.g. in Spanish, the construction developed into a perfect. Still in other Romance languages, the evolution went further on, giving rise to the perfective past named *passé composé* in French (Bybee & Dahl 1989 : 72, 74, Bybee & Perkins & Pagliuca 1994 : 68–69) (cf. the example (16) in Section 2.1.5), or *passato prossimo* in Italian. The perfect > (perfective) past development has also been attested in some African languages, and in Mandarin Chinese (Bybee & Perkins & Pagliuca 1994 : 81).

In Section 5.3, I will argue that the synchronic heterogeneity of *-(e)mjn* constructions in contemporary Udmurt is the reflection of two ongoing grammaticalization processes, namely, *resultative > passive* and *resultative > perfect > general past*. The grammaticalizations affect an already grammatical unit (Bybee & Perkins & Pagliuca 1994 : 11), the suffix *-(e)mjn*, which, by a gradual semantic generalisation, i.e., the loss of certain specific meaning components and the broadening of contexts in which it can be used, becomes more abstract and more functional.

In what follows, I turn to Udmurt. After providing some basic information about the language (Section 3.1), I outline the TAME system and the past tense system of Udmurt (Section 3.2). I then focus on *-(e)mjn* constructions by describing their morphosyntactic properties (Section 3.3) and summarise the main claims of previous accounts of *-(e)mjn* constructions (Section 3.4).

3. Background on Udmurt

3.1. Genealogical affiliation, sociolinguistic background, and main typological features

Udmurt belongs to the Permian subgroup of the Finno-Ugric branch of the Uralic language family. It is mainly spoken in the Udmurt Republic of Russia as a minority language, and in the neighbouring administrative areas of the Russian Federation. According to the Russian census of 2020–2021, Udmurt is spoken by 255 877 speakers in the territory of Russia, while the number of the ethnic population is 386 465. Although Udmurt, besides Russian, has the status of official language in the Udmurt Republic, its usage is limited in public spheres. Russian has had a strong influence on Udmurt, which manifests itself at all linguistic levels. Nowadays, practically all native speakers of Udmurt are bilingual, as they also speak Russian at a native or near-native level. Udmurt makes part of the Volga-Kama Sprachbund (cf. Bercezki 1984; Wintschalek 1993; Helimski 2003; Agyagási 2012), i.e., it has also been in contact with Turkic languages.

Udmurt is an agglutinative, *pro*-drop language with nominative-accusative alignment, differential object marking and SOV basic word order (although, according to Asztalos & Gugán & Mus 2017 and Asztalos 2021, contemporary Udmurt is undergoing a change towards the SVO type).

3.2. TAME and past tense system in Udmurt

Udmurt has three tenses (present, future, past), four moods (indicative, conditional, imperative, optative; tense categories exist in the indicative mood only), and an *indirect evidential* vs. *evidentially neutral* opposition in the past tense. The language has two synthetic and several analytical past tenses. The two synthetic past tenses traditionally have been referred to as 1st past and 2nd past. The 1st past tense is an evidentially neutral, general past tense, which can refer both to perfective (21) and imperfective (22) actions/events. The 2nd past tense expresses indirect evidentiality (23).

- (21) *Jevgeńij Petrov (Katajev) pisat'el'-en soos todmatsk-i-zj*
 PN PN PN writer-INS 3PL get_acquainted-PST-3PL
 1923-ti ar-ijn (Udmurt corpus; Udmurt dunne 21.10.2014)
 1923-ORD year-INE
 'They got acquainted with writer Evgenij Petrov in 1923'

- (22) *Jegit dır-ja-m jun éeber val, jirşj-me buja-ll'a-j,*
 young time-ILL-1SG very nice be.PST hair-1SG.ACC dye-FREQ-PST[1SG]
himija leştj-l-i (Udmurt corpus; Idnakar 18.05.2017)
 perm do-FREQ-PST[1SG]
 'When I was young, I was very nice, I dyed my hair, I permed'

- (23) Context: The history of the foundation narrated by a speaker (who himself didn't witness the foundation of the village).
Kema mın-em, mın-em no so žad'-em
 for_long go-EVID.PST[3SG] go-EVID.PST[3SG] and 3SG get_tired-EVID.PST[3SG]
 'He walked and walked for a long time, and then he got tired' (Szabó 2022 : 112)

Furthermore, in the past tense, aspectual distinctions and anteriority (pluperfect) can be expressed by analytical past tense forms. Analytical past tense forms are composed of a finite or a non-finite (participial) form of the lexical verb combined with a tensed form of the *be*-verb (the *be*-verb in Udmurt has a strongly defective paradigm, which means, among others, that in most cases it does not inflect for person and number). Table 2 (which is based on Kubitsch 2022 : 40–41) illustrates the analytical past tense forms and the aspectual or temporal meanings that in most works have been associated with them. Forms with an indirect evidential past tense auxiliary express indirect evidentiality, while the other forms are evidentially neutral (Kubitsch 2022 : 44).

Table 2

Analytical past tense forms in Udmurt (based on Kubitsch 2022 : 40–41)

main verb	auxiliary (<i>be</i> -verb)	example		aspectual/ temporal meaning
present	evidentially neutral past	<i>mjn-e</i> go-PRS.3SG	<i>val</i> be.PST	durative
	indirect evidential past	<i>mjn-e</i> go-PRS.3SG	<i>vilem</i> be.EV.PST[3SG]	
future	evidentially neutral past	<i>mjn-o-z</i> go-FUT-3SG	<i>val</i> be.PST	frequentative
	indirect evidential past	<i>mjn-o-z</i> go-FUT-3SG	<i>vilem</i> be.EV.PST[3SG]	
evidentially neutral past	evidentially neutral past	<i>mjn-i-z</i> go-PST-3SG	<i>val</i> be.PST	anteriority (sort of pluperfects)
indirect evidential past	evidentially neutral past	<i>mjn-em</i> go-PST.EV.3SG	<i>val</i> be.PST	
	indirect evidential past	<i>mjn-em</i> go-PST.EV.3SG	<i>vilem</i> be.EV.PST[3SG]	
perfect participle	present	<i>kjl-em-e</i> hear-PTCP.PRF-1SG	<i>vań</i> be.PRS	experiential past
	evidentially neutral past	<i>kjl-em-e</i> hear-PTCP.PRF-1SG	<i>val</i> be.PST	experiential pluperfect

As the table illustrates, though most of the analytical past tense forms carry aspectual meanings, there is no imperfective—perfective opposition in the past tense system of Udmurt.

In what follows, I turn to *-(e)mjn*-constructions. In Section 3.3, I present their basic morphosyntactic properties, while in Section 3.4 I provide an overview of previous work on the construction.

3.3. Basic morphosyntactic properties of *-(e)mjn*-constructions

-(e)mjn is a suffix that attaches to verbal bases. *-(e)mjn* forms always occur in predicative (i.e., never in attributive) position and can act as predicates in independent clauses. *-(e)mjn* forms are commonly referred to as participles in the literature (cf. Section 3.4). I argue, however, that such a categorisation is erroneous, since *-(e)mjn* forms do not satisfy all the criteria of

participles as formulated by Shagal (2019) in her typological study. The fact that *-(e)mjn* forms cannot occur in attributive (adnominal) position equals to say, in more technical terms, that these forms do not have "the ability to introduce a headed relative clause, while being itself the locus of subordination marking" (cf. Shagal 2019 : 45). Instead of *-(e)mjn participles*, I will thus be using the more neutral term *-(e)mjn forms* throughout this study. A further reason for doing so is that I am proposing that *-(e)mjn* forms are on the way to grammaticalizing into finite verbal predicates (cf. Section 5).

The suffix *-(e)mjn* is diachronically segmentable into two suffixes, *-(e)m* + *-jn*. *-(e)m* is a suffix that forms perfect participles (24) and nominalizations (25). In accordance with Georgieva (2018 : 53–55), I am of the opinion that the *-(e)m* suffix expresses the anteriority of the event described in the non-finite clause with respect to the event in the matrix clause, as in the examples in (24)–(25).³

- (24) *Pet'a-jen tue mertt-em pispu umoj bud-e*
 PN-INS this_year plant-PTCP.PRF tree well grow-3SG
 'The tree planted by Petja this year is growing well' (Georgieva 2018 : 60)
- (25) *Tolon Maša no Pet'a buskel'-zj-leś kućapi bašt-em-zj*
 yesterday Maša and Petja neighbour-3PL-ABL puppy buy-NMLZ-3PL
šariš verašk-i-zj (Georgieva 2018 : 54)
 about talk-PST-3PL
 'Yesterday, Maša and Petja talked about how they had bought a puppy from their neighbour' (Not: 'Yesterday, Maša and Petja talked about buying a puppy from their neighbour')

As for *-jn*, it is formally identical to the inessive case suffix (cf., e.g., *Ižkar-jn* Iževsk-INE 'in Iževsk', *kar-jos-jn* town-PL-INE 'in (the) towns'), and most commonly it has been analysed as the inessive case suffix (cf., e.g., Bartens 2000; Leinonen & Vilkuna 2000; Winkler 2001; 2011; Saraheimo 2024; Dékány & Georgieva 2025), although there is also an alternative view, according to which it goes back to the instrumental case suffix (cf. Fokos-Fuchs 1954 : 139; Серебренников 1963 : 300; A. Kövesi 1965 : 228–229).⁴ I am of the opinion that analysing it as the inessive is more feasible both from a formal and a semantic view. A resultative meaning, i.e., a state resulting from a previous action/event indeed shows some semantic affinity with the inessive meaning (of the kind 'to be in a state caused by a certain action/event'; the same is also proposed by Dékány & Georgieva 2025).

³ Сердобольская & Ильевская & Минор & Митева & Файнвейц & Матвеева (2012 : 30, 68, 69) provide some counterexamples, in which *-(e)m* nominalizations have a simultaneous reading with the event described in the matrix clause. I, however, agree with Georgieva's (2018 : 54–55) arguments for analysing non-finite *-(e)m* forms uniformly as forms expressing anteriority.

⁴ In principle, one could raise the following formal and semantic arguments for the second theory: *-jn* is also formally identical to the plural allomorph of the instrumental case suffix, cf. *purt-en* knife-INS 'with a knife' vs. *purt-jos-jn* knife-PL-INS 'with knives', and analysing it as the instrumental case suffix may be supported by a certain parallelism with Russian, i.e., that in Russian, nouns and adjectives that make part of nominal predicates may be in the instrumental case in non-present tenses, as in (a):

(a) *Ee glaz-a byl-i gružn-ymi* (constructed, personal knowledge)
 3SG.GEN.F eye-PL be.PST-PL sad-INS.PL
 'Her eyes looked (lit. 'were') sad'

Forms in *-(e)mjn* can be derived from zero-argument verbs (26), intransitive (27) and transitive (28) verbs (whether from both unaccusatives and unergatives is discussed in Sections 3.4 and 5.2.1, 5.2.4—5.2.5):

- (26) *Tuljś-ŷśen kutskj-sa, ŷal'-ŷal' zor-emjn 1-ti no 5-ti ijul'-e*
 spring-EGR start-CVB IDEO rain-(E)MjN 1-ORD and 5-ORD July-ILL
gine (Udmurt corpus; Udmurt dunne 17.07.2012)
 only

'Since the spring, it only rained on the 1st and the 5th of July'

- (27) *ŷjt ŷudj-nj potj-nj gine no nokin-en — eŷ-jos gorod-e*
 evening play-INF go_out-INF PTCL ADD nobody-INS friend-PL town-ILL
koŷk-emjn (Udmurt corpus; Udmurt dunne 16.07.2010)
 leave-(E)MjN

'There's no one to go out with in the evening either, my friends have moved to town'

- (28) *Perepeć ŷi-emjn (anaj-en)*
 perepeć[Udmurt national dish] eat-(E)MjN mother-INS

'The perepeć was eaten (by the mother)' (F. Gulyás & Speshilova 2014 : 70)

-(e)mjn forms do not inflect in person and (at least in the standard language) in number either, compare (27) with (28).⁵

With transitive verbs, the patient argument of the verb is realised, in most cases, as the subject of the construction, cf. (28), (29) (though see Sections 3.4, 5.2.4 and 5.2.5 for exceptions). The agent typically remains unexpressed, as in (29), although some speakers accept the expression of the agent by a noun phrase in the instrumental case (28) (cf. Asztalos 2008; 2011; F. Gulyás & Speshilova 2014).

- (29) *Van'-zj-lj privivka pukt-o-m [...], oŷj viŷon al'an vakjt-lj*
 all-3PL-DAT vaccine put-FUT-1PL thus disease spreading period-DAT
ti ut'-emjn lu-o-dj (Udmurt corpus; IA "Udmurtija" 06.10.2017)
 2PL[NOM] protect-(E)MjN be-FUT-2PL

'We will vaccinate everyone (...), thus, you will be protected by the time of the epidemy'

-(e)mjn forms can combine with a copula (*be*-verb) marked for a non-present tense (29), (30) or a non-indicative mood (Udmurt has two *be*-verbs,

⁵ Bartens (2000 : 238) mentions that there are some counterexamples with regards to number agreement, however, she does not provide any example. A reviewer of this paper called my attention to the fact that number agreement exists in some dialects of Udmurt, although it seems to have a rather limited geographical distribution. The Udmurt corpus also yields some results for *-(e)mjn* forms in the plural, see, e.g., (b). My preliminary assumption had been that in standard Udmurt, at least in a subgroup of these cases, *-(e)mjn* forms are to be analysed rather as adjectives than as participles (the plural agreement morpheme used for *-(e)mjn* forms is also the same as the one used for adjectives, i.e., *-(j)eŷ*). The reviewer, however, pointed to the possibility (which I also found plausible), that *uŷt-emjn-eŷ* open-(E)MjN-PL might also be a calque of Russian *откры-тые* open-PTCP.PRFL-PL.

- (b) *No njlpi-os so njlpi-os in: muso-jeŷ, voŷdaŷkiŷ-eŷ, ŷin-jos-sj no*
 but child-PL DEM.DIST child-PL already kind-PL shy-PL eye-PL-3PL ADD
ŷulem-jos-sj — ċjlkjt-eŷ, uŷt-emjn-eŷ (Udmurt corpus; Idnakar 20.02.2016)
 heart-PL-3PL clean-PL open-(E)MjN-PL

'But children are just children: they are kind and shy, their eyes and heart are pure and open'

lujnĭ 'to be, to become', cf. (29), and a strongly defective verb with a stem in *va-* ~ *vi-*, cf. (30)).^{6,7} The copula thus changes the tense or the mood of the predicate.

- (30) *Nĭlmurt śinmaśk-emĭn*
 girl fall_in_love-(E)MĬN
val l'eshĭk-lĭ (Udmurt corpus; Udmurt dunne, 21.10.2013)
 be.PST forester-DAT
 'The girl had fallen in love / was in love with the forester'

When the present tense form of the copula *lujnĭ* 'to be, to become' combines with an *-(e)mĭn* form, the complex expresses a habitual present, as in (31):

- (31) *So ponna końdon el'kun bjušet-in kot'kud ar čakla-mĭn*
 DEM.DIST for money republic budget-INE every year plan-(E)MĬN
lu-e (Udmurt corpus; IA "Udmurtija" 14.03.2016)
 be-3SG
 'Every year some money is earmarked for that'

The examples in (29) and (31) also illustrate that *lujnĭ* 'to be, to become' agrees in person and in number with the subject of the construction.⁸

The negation of *-(e)mĭn* forms can happen in two ways: either by the synthetic negation of the *-(e)mĭn* form itself, as in (32a),⁹ or by the negation of the copula. In the present indicative, the latter way involves the appearance of the negator *evĕl* in the clause (which I analyse as the present indicative negative form of the copula), cf. (32b).

- (32) a. *Śures tupatĭ-mte* (Шутов 2011 : 271)
 road repair-(E)MĬN.NEG

⁶ Both *be*-verbs function as copulas as well. *lujnĭ* 'to be, to become' has a full paradigm, while the *va-* ~ *vi-* stemmed *be*-verb is strongly defective (it has sometimes also been referred to as a particle, cf., e.g., Winkler 2001 : 65). The *va-* ~ *vi-* stemmed *be*-verb is used in the evidential past tense (*va-* stem) and in the indirect evidential past (*vi-* stem) (cf. also Table 2 in Section 3.2) (the present indicative form *vań* is invariable and is exclusively used in existential clauses).

⁷ Whether the *be*-verbs combining with *-(e)mĭn* forms are better to be analysed as copulas (i.e., as verbs that combine with nominal predicates) or as auxiliaries (i.e., as parts of analytical verb forms) depends on the nature of *-(e)mĭn* forms and is a matter of further debate. For the sake of simplicity, I will refer to them as copulas here.

⁸ Adopting an analysis according to which forms in *-(e)mĭn* are participles implies that these forms are to be analysed as nominal (i.e., non-verbal) predicates and as such, they show the same behaviour as other non-verbal predicates with regard to the appearance of the copula: no copula in the present indicative (c), while the *be*-verb is present as a copula in other tenses and moods (d), cf. (d) with the examples in (29)–(30).

(c) *Soos kvińnazĭ no viźmo-jeś* [...] (Udmurt corpus; Udmurt duńńe 12.12.2013)
 3PL three_of_them ADD clever-PL
 'All three of them are clever'

(d) *Oźĭjen, koncert-jos-sĭ eśšo no*
 thus concert-PL-3PL yet ADD
pajmĭmon-eś no uzĭr-eś lu-o-zĭ (Udmurt corpus; Udmurt duńńe 22.11.2011)
 wonderful-PL and rich-PL be-FUT-3PL

'Thus, their concerts will be even more wonderful and rich'

⁹ Synthetically negated forms like the one in (32a), *tupatĭmte*, are actually homonymous with the negative form of the perfect participle with attributive function (cf. *tupatĭmte śures* 'an unrepaired road'), and with the negative form of 3rd person singular form of the evidential past tense of the related verb (i.e., 's/he allegedly did not repair').

- (32) b. *Šures tupať-emĭn ėvel* (constructed, personal knowledge)
 road repair-(E)MĬN be.NEG
 'The road has not been repaired'

The present study aims at describing the semantic content and the syntactic behaviour exclusively of simple (i.e., copulaless) occurrences of *-(e)mĭn* forms. Although the semantic content of complex forms seems to be in many cases compositional, i.e., the *be*-verb often bears purely inflectional information (non-present tense or non-indicative mood; person and number of the subject in future tense and in non-indicative moods; indirect evidentiality; aspect), this is not always the case, as the past tense forms *val* and *vĭlem* have also developed some modal and pragmatic (discourse-interactional) functions and can in some cases be analysed as modal (Kubitsch 2020) or discourse particles (Saraheimo & Kubitsch 2023). The analysis of *-(e)mĭn* forms combined with a *be*-verb thus goes beyond the limits of this paper (on *-(e)mĭn* forms with a past tense copula/auxiliary, see Saraheimo 2024).

3.4. *-(e)mĭn*-constructions in previous studies

A unified account of *-(e)mĭn* forms/constructions has not been provided yet in the literature. Most commonly, *-(e)mĭn* forms/constructions have been referred to as resultatives or as passives, but some authors propose that *-(e)mĭn* forms (at least in some cases) might also be analysed as perfects. There is no consensus as to whether among intransitive verbs, both unaccusatives and unergatives and, more generally, whether both telic and atelic verbs can enter the construction. Furthermore, some authors note that transitive verbs may behave in two ways, i.e., they may or may not undergo a voice change in the construction (which poses problems to a uniform analysis of *-(e)mĭn* constructions as passives), but no explanation has been provided so far for the variation.

For Bartens (2000 : 238–240), *-(e)mĭn* forms are predicative participles which describe completed actions (*päättyneen tekemisen partisiiippi predikaatiiviasemassa*). More often, *-(e)mĭn* forms are regarded as participles describing the result of an action (cf. Перевощиков & Вахрушев & Алатырев & Поздеева & Тараканов 1962 : 268; Калинина 2001 : 112; Winkler 2001 : 58; 2011 : 115; Шyтов 2011 : 270–272; Szabó 2022 : 124–127), and some authors directly refer to *-(e)mĭn* constructions as resultative constructions (Leinonen & Vilkuna 2000 : 503–507; Siegl 2004 : 141–142). Dékány and Georgieva (2025) analyse *-(e)mĭn* forms as predicative PP-s (more exactly, as adpositional phrases having a nominalised verb phrase as their complement), and treat them as a semantically uniform class carrying the overall meaning "the surface-subject is in a state".

Many of the above authors notice that with transitive verbs, the patient argument is (most typically) realised as the subject of the construction (cf. examples (28)–(29), (31)). Such instances are referred to as predicative passive participles by Bartens (2000 : 239–240) and as passive constructions by Šutov (Шyтов 2011 : 271), while in Leinonen's and Vilkuna's phrasing (2000 : 505), the construction "takes on a prototypical passive meaning" in such cases.

Asztalos (2008; 2011) and F. Gulyás and Speshilova (2014) analyse *-(e)mĭn* constructions as passives without referring to the potential resultative char-

acter of the construction. They all treat $-(e)m\dot{m}in$ constructions formed from transitive verbs as canonical passives since these satisfy Siewierska's (2013) criteria: 1) they contrast with an active construction, 2) the subject of the active corresponds to a non-obligatory oblique phrase of the passive (cf. example (28)) or it is not overtly expressed (cf. (29), (31)), 3) the subject of the passive corresponds to the direct object of the active, 4) the construction is pragmatically restricted compared to the active, and 5) the construction displays some special morphological marking on the verb (Asztalos 2008; 2011 : 55–56; F. Gulyás & Speshilova 2014 : 66). Asztalos (2008; 2011 : 56) adds that $-(e)m\dot{m}in$ forms, when combined with certain forms of the *be*-verb, can also express a dynamic, i.e., not only a static meaning, by which she means that $-(e)m\dot{m}in$ forms can also have an actional passive use.

Asztalos (2008; 2011) and F. Gulyás & Speshilova (2014) analyse $-(e)m\dot{m}in$ constructions based on intransitive verbs as intransitive passives, their accounts, however, differ. Asztalos (2008; 2011) claims that only unaccusatives are licensed in the construction, giving rise to so-called patient-promoting intransitive passives, as in the example (27). F. Gulyás and Speshilova (2014), however, report an example with an unergative verb and a demoted agent, cf. (33), and argue that $-(e)m\dot{m}in$ constructions based on intransitives are impersonal passives:

- (33) *Tatın ekt-emın* (F. Gulyás & Speshilova 2014 : 69)
 here dance-(E) $\dot{M}\dot{I}N$
 'There was dancing here'

However, an impersonal reading is not always present with $-(e)m\dot{m}in$ constructions since the construction is extensively used with intransitive verbs and non-demoted subjects, cf. examples (27), (30) and see also Шытов (2011); Asztalos (2008; 2011).

Coming back to the classification of $-(e)m\dot{m}in$ constructions, a uniform categorization either as resultatives or as passives seems to be problematic as one can easily find examples in the literature that do not satisfy all criteria of resultatives or passives. Resultative constructions, as mentioned in Sections 2.1.4 and 2.1.6, are commonly lexically restricted to telic (typically, but not exclusively, to change-of-state) verbs. However, while unaccusatives are telic, unergative verbs are typically atelic, cf. (33). Kalinina (Калинина 2001) and Asztalos (2022) also report some examples with unergative verbs, noting that examples like (34) are atelic:

- (34) *Mi ved' oginın kema uža-mın* (Калинина 2001 : 115)
 1PL you_know together for_a_longtime work-(E) $\dot{M}\dot{I}N$
 'We worked together for a longtime, you know.'

Leinonen and Vilkuņa, who refer to $-(e)m\dot{m}in$ constructions as resultatives, state that the construction "requires that a change of state or affectedness can somehow be attributed to the subject of the construction" (Leinonen & Vilkuņa 2000 : 505). However, some of their examples involve verbs which are neither of change-of-state nor telic (35), therefore, an analysis of the construction as a resultative would pose a problem in such cases:

- (35) *Mon dišetsk-emın ~ iz-emın ni* (Leinonen & Vilkuņa 2000 : 505)
 1SG study-(E) $\dot{M}\dot{I}N$ sleep-(E) $\dot{M}\dot{I}N$ already
 'I have already slept ~ studied (enough)'

A uniform classification of $-(e)mjn$ constructions as passives would also pose problems. As Kalinina (Калинина 2001: 113), Asztalos (2008; 2011) and Šutov (Шутов 2011 : 270–272) note, transitive verbs occasionally do not undergo a voice change in $-(e)mjn$ constructions, cf. (36)–(37). Asztalos (2008) suggests that such examples instantiate a different type of construction (i.e., not a passive); however, she does not provide a syntactic analysis of them. In a later work she raises the possibility that there might be two different kinds of $-(e)mjn$ constructions: one taking the internal and another one taking the external argument of the verb as its subject (Asztalos 2022).

- (36) *So* [...] *ki-ja-z* *zjr* *kut-emjn* (Калинина 2001 : 13)
3SG[NOM] hand-ILL-3SG lever take-(E)M̐JN

'S/he has taken a lever in his/her hand'

- (37) *Zoot'exnik-mj* *ukjr jegit, tue* *gine djšetskon-ze*
zootechnician-1PL[NOM] too young this_year only study-ACC.2SG
bjdt-emjn (Шутов 2011 : 271)
finish-(E)M̐JN

'Our zootechnician is too young, s/he finished his/her studies this year only'

Asztalos (2022) also raises the possibility that those instances of $-(e)mjn$ constructions which do not show the properties of resultatives might be analysed as perfects.

Saraheimo (2024) focuses on $-(e)mjn$ forms combined with the past tense-forms of the *be*-verb (traditionally known as "past resultatives"). Although, as mentioned in Section 3.3, the present study is concerned with $-(e)mjn$ forms with *no* copula/auxiliary, Saraheimo's (2024) observations and argumentation are relevant for our purposes, since, as also mentioned in Section 3.3, I assume that in many (though not in every) cases, the meaning of an $-(e)mjn$ form combined with a copula/auxiliary is compositional. Saraheimo shows that the meaning of so-called past resultatives cannot always be described as a resultative (2024 : 213–221), since these analytical forms show, in fact, many characteristics typical of *pl u p e r f e c t s*, which raises the possibility that they may be grammaticalizing into a pluperfect:

1. The construction accepts not only unaccusative but also certain unergative verbs (Saraheimo 2024 : 214, 215);
2. The construction does not always permit the presence of the adverb meaning 'still' (Saraheimo 2024: 216), which suggests that it may be grammaticalizing from a pure (past) resultative to a (past) perfect (cf. Lindstedt 2000 : 367);
3. Transitive verbs, as also noted by Asztalos (2008; 2011) and Šutov (Шутов 2011) (cf. (36)–(37)), in some cases enter the construction without a change in their diathesis (Saraheimo 2024 : 216–217). As Comrie (2021 : 6–7) points out, this typically happens in later stages of perfect development (Saraheimo 2024 : 196).

Summing up, providing a uniform categorisation of $-(e)mjn$ constructions either as resultatives, passives or impersonals would pose a number of problems. In what follows, I am going to argue, based on data from the end of the 19th century, that originally, $-(e)mjn$ constructions were resultatives. Contemporary data however suggest that in present-day Udmurt, instances

of *-(e)mjn* forms belong to different types of constructions. The heterogeneity of synchronic data will be interpreted as the reflection of two ongoing (and, as presented in Section 2.3, typologically common) grammaticalization processes, namely, *resultative > passive* and *resultative > perfect > past tense*.

4. Data and methods

The aim of the research was to identify the function(s) of the *-(e)mjn* construction in old and contemporary Udmurt, i.e., to identify the type(s) of construction that *-(e)mjn* forms instantiate. The research was carried out on written texts and by means of consultations with three native speakers of Udmurt. Written texts included old and contemporary data. Old data consisted of the first available texts written in Udmurt, i.e., the folklore collection of Munkácsi (1887) and Wichmann (1901 : 52–186) (including folk-tales, myths, prayers), while contemporary data were retrieved from the Udmurt corpus, the main corpus of the Udmurt corpora.¹⁰ The Udmurt corpus currently contains 9.57 million tokens and consists of texts of contemporary press, blog texts, the Udmurt translation of the New Testament, and some articles of the Udmurt Wikipedia.

-(e)mjn constructions were collected manually from the old texts,¹¹ while from the corpus they were retrieved by running queries for the grammatical tag *ptcp,res* (abbreviation for *resultative participle*, which stands for *-(e)mjn* forms in the corpus), and by searching for the *-(e)mjn* form of some concrete verbs. Unergative verbs (e.g., of *užanj* 'to work', *ižijnj* 'to sleep', *keretijnj* 'to quarrel', *šudijnj* 'to play', *ektijnj* 'to dance', *ulijnj* 'to live', *djšetskijnj* 'to study' etc.) and atelic predicates were of special interest for these purposes. As presented in Section 3.4, the presence of unergatives in the construction is a somewhat debated issue and, since unergatives and atelic predicates typically do not imply the presence of a resulting state, their presence in the construction might call into question the legitimacy of the *overall* categorization of the construction as a resultative.

As anticipated in Sections 1 and 3.3, only copulaless/auxiliaryless occurrences of *-(e)mjn* forms were taken into consideration in this study.

The data were subject to a qualitative and a quantitative analysis. The former included the analysis of the occurrences of *-(e)mjn* forms from the point of view of the syntactic and semantic properties that cross-linguistically reveal to be relevant for distinguishing between resultatives, passives, perfects, and past tense form (cf. Table 2 in Section 2.1.6). It was thus examined whether the instances of the construction satisfy the criteria of

- resultatives (describing a state resulting from a past action/event; telic base-verbs; voice change with transitive verbs; intransitive verbs restricted to unaccusatives; ability to co-occur with the temporal adverb *na* 'still');
- (actional) passives (describing an action or event and not a state resulting from it; voice change with transitive verbs);

¹⁰ The Udmurt corpora are available at <http://udmurt.web-corpora.net/> (last accessed 7 October 2025). Besides the Udmurt corpus, they comprehend a Social media corpus and a Sound-aligned Udmurt corpus.

¹¹ I wish to express my deep gratitude to Ditta Szabó for collecting me the instances of *-(e)mjn* forms from the old folklore texts.

- perfects (emphasising the relevance of a past action/event at utterance time; ability to co-occur both with telic and atelic verbs; lack of voice change with transitive verbs);
- past tense forms (ability to describe past event/actions without referring to their relevance at utterance time; ability to co-occur both with telic and atelic verbs; lack of voice change with transitive verbs; ability to co-occur with temporal adverbials referring to a specific time; ability to describe a sequence of past actions/events).

Each occurrence of *-(e)mjn* form (both in the old and in the contemporary texts) was classified, based on the above criteria, as a resultative/actional passive/perfect/past tense form. The folklore sample contained 18 occurrences of *-(e)mjn* forms, whereas in the corpus data, quantitative analysis was carried out on a sample of 100 occurrences. The percentages of the construction types were then compared.

The analysis of the data collected from written texts was complemented by consultations with three native speakers of Udmurt (all of them female, at the age of 25–40, residing in Hungary), who had to make grammaticality judgements about some Udmurt sentences that were constructed by the author of this paper.

5. Results and analysis of the data

5.1. Quantitative results

Figure 1 illustrates that while in the folklore texts, all occurrences of *-(e)mjn* constructions showed the properties typical of resultative constructions, *-(e)mjn* forms had a more heterogeneous use in the contemporary corpus data. Based on Fisher's exact test, the difference between the *r e s u l t a t i v e* vs. *n o n - r e s u l t a t i v e* use of *-(e)mjn* forms in the old and the contemporary data resulted to be significant with a statistic value of 0,0032 ($p < 0,01$).

The majority (69%) of the examples in the contemporary data sample could be classified as resultative constructions (cf. Section 5.2.1). Other instances,

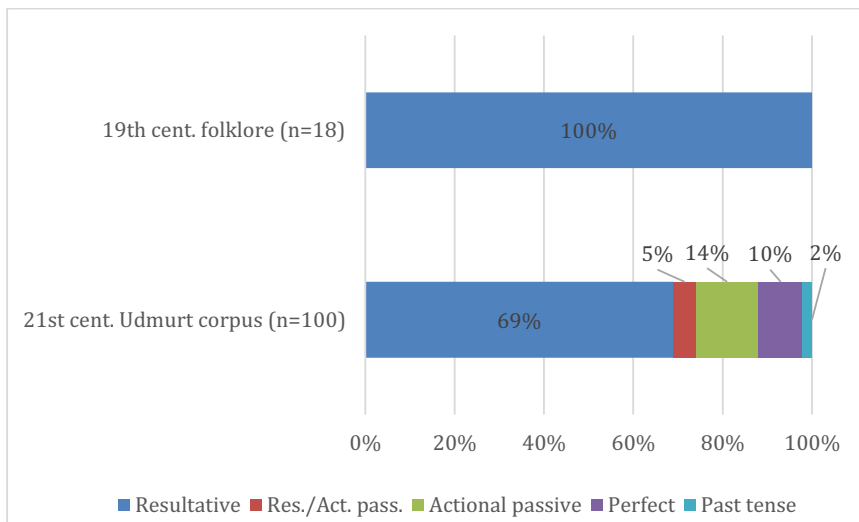


Figure 1. Functions of *-(e)mjn* constructions in the folklore texts and in the contemporary corpus data.

however, showed different properties: 14% of the examples could be categorised as actional passives (cf. Section 5.2.2), 5% were ambiguous between a resultative and an actional passive interpretation (cf. Section 5.2.3), 10% had the semantic and syntactic properties of perfects (cf. Section 5.2.4), and 2% could be analysed as past tense forms (see Section 5.2.5).

I propose that the homogeneity of the old folklore data indicates that the primary function of *-(e)mjn* constructions was the expression of resultativity, while the heterogeneity of contemporary data is the reflection of two ongoing grammaticalization processes in Udmurt (which are otherwise typologically common in the world's languages): 1) *resultative > passive*, and 2) *resultative > perfect > past tense*. I propose that while the *-(e)mjn* suffix was originally decomposable into two morphemes (*-(e)m*, marking the anteriority of an action/event + the inessive case suffix *-jn*, cf. Section 3.3), and had a compositional meaning that reflected the notion of resultativity ('to be in a state resulting from a previous action/ event'), the suffix is losing its compositionality and is getting to be reinterpreted as a single morpheme in present-day Udmurt.

In what follows, I discuss the different subtypes of *-(e)mjn* constructions one by one.

5.2. Types of *-(e)mjn*-constructions

5.2.1. *-(e)mjn*-constructions as resultatives

As illustrated by Figure 1 in Section 5.1, all of the instances of *-(e)mjn*-constructions in the old texts, and 69% of the constructions in the contemporary data sample presented the properties typical of resultatives (cf. Sections 2.1.1 and 2.1.6):

1. They describe a state resulting from a previous action/event (38)–(42);
2. They are formed of telic (often change-of-state) verbs, both from transitives (38), (40)–(41) and intransitive unaccusatives (39), (42);
3. When formed of transitive verbs, the patient (i.e., the internal) argument is realised as the subject of the construction: in other words, voice change takes place, cf. (38), (40)–(41) (this is shown most clearly by the morphology of the internal argument in examples (38) and (41): possessive suffixes and the determinative suffix in Udmurt have distinct allomorphs for subject nouns and object nouns, and in (38) and (41), the nouns take the allomorphs used for subject nouns (i.e., the nouns are in the nominative and not in the accusative));¹²
4. The predicates may be modified by the adverb *na* 'still', cf. (40)–(41).

I analyse these instances as resultative constructions. I propose that the subject of these constructions is always the internal argument of the verb: therefore, among intransitive verbs, only unaccusatives are licenced, cf. (39), (42), while transitive verbs always undergo a voice change when used in the resultative *-(e)mjn*-constructions, cf. (38), (40)–(41).

¹² Object nouns with no possessive or determinative suffix can be either in the nominative or in the accusative case, object marking depends on the specificity and on the definiteness of the object (cf. É. Kiss & Tánčozs 2018 : 738–739, 752– 753).

- (38) Context: 'But you won't be able to go out from the yard!'
Vorota-jez pŭtsa-mŭn no zabor-ez žužit! (Wichmann 1901 : 177)
 gate-DET [NOM] close[tr]-(E)MŪN and fence-DET high
 'The gate is closed and the fence is high!'
- (39) Context: 'People in the hill live in tents instead of houses; they also cook their soup in the tent'
Diš-sŭj vŭl-a-zŭj urod, kešašk-emŭn;
 cloth-3PL[NOM] on-INE-3PL bad tear_apart[INTR]-(E)MŪN
aš-ses šŭd-eš (Wichmann 1901 : 132)
 self-3PL black-PL
 'Their clothes are bad and torn apart, they are dirty'
- (40) *Lavka ušt-emŭn na bere, so-ze no ta-ze*
 shop[NOM] open[tr]-(E)MŪN still as that-DET.ACC and this-DET.ACC
baštŭ-nŭ vu-o-d na (Udmurt corpus; Udmurt dunne 26.03.2013)
 buy-INF arrive-FUT-2SG still
 'As the shop is still open, you will manage to buy some things'
- (41) *Užrad-jos-ŭ, koncert-jos-ŭ uliŭ-jos vetl-o Kureggurt-e,*
 event-PL-ILL concert-PL-ILL inhabitant-PL go-3PL PN-ILL
ugo as gurt-a-zŭj klub-zŭj
 since own village-INE-3PL clubhouse-3PL[NOM]
vorsa-mŭn na (Udmurt corpus; Idnakar 05.12.2013)
 close-(E)MŪN still
 'Inhabitants go to Kureggurt for events and concerts, as the clubhouse (lit. their clubhouse) in their village is still closed'
- (42) *T'elevizor-mŭj, pe,*
 television-1PL[NOM] REP
sgrŭšk-emŭn (Udmurt corpus; Udmurt dunne 19.04.2011)
 break_down-(E)MŪN
 'Our TV is not working (lit. is broken down)'

5.2.2. -(e)mŭn-constructions as passives

As illustrated by Figure 1 in Section 5.1, fourteen percent of the occurrences of -(e)mŭn forms in the contemporary data could clearly be analysed as (actional) passives, cf. (43)–(44):

1. They are formed of transitive verbs, which undergo voice change (this is most clearly shown by the nominative form of the proper noun in (43));¹³
2. They refer to an *a c t i o n* and not to a state resulting from an action;
3. When combined with a temporal adverbial referring to a specific time, they indicate the time at which the *a c t i o n* took place (and not the time when the state resulting from a previous action/event is existence, as it would be the case with resultatives, cf. 2.1.2. and 2.1.6):

- (43) [...] *Georgij Grāzev 2014-ti ar-ŭn pusj-emŭn Rošši-ŭš*
 PN PN[NOM] 2014-ORD year-INE award-(E)MŪN Russia-ELA
Žurnal'ist-jos-len sojuz-zŭj-len [...]
 journalist-PL-GEN association-3PL-GEN

¹³ Proper noun objects are always in the accusative in Udmurt.

znak-en-jz (Udmurt corpus; Udmurt dunne 08.03.2017)
 medal-INS-3PL

'In 2014 Georgij Grjazev was awarded the medal of the Russian Journalists' Association'

- (44) *Ljdpus-jos 12-ti kwartolež-e*
 number-PL[NOM] 12-ORD May-ILL
bašt-emjn (Udmurt corpus; Ošmes 15.05.2014)
 receive-(E)MjN

'The numbers were received on the 12th of May'

5.2.3. Ambiguity between resultatives and passives

Five percent of the occurrences of *-(e)mjn* forms in the contemporary data had an ambiguous reading between a resultative and a passive (i.e., they could be interpreted both as statal and as actional passives), cf. (45)–(46):

- (45) Context: 'Their library is especially enviable and amazing. The new ten-storey building is located in the city centre'

Leštiškon-lj 1,5 mil'liard mañet
 construction-DAT 1,5 milliard rouble

bjdt-emjn (Udmurt corpus; Udmurt dunne 06.04.2012)
 spend-(E)MjN

Resultative: '1,5 milliard of roubles is spent for the construction'

Passive: '1,5 milliard of roubles was spent for the construction'

- (46) *Al'i leštišk-o kjk bažjm-eš pudo vordon gid-jos, soos*
 now be_being_built.3PL two big-PL livestock keeping cowshed-PL 3PL
čakla-mjn 1000 jir skal-li (Udmurt corpus; Udmurt dunne 17.04.2007)
 plan-(E)MjN 1000 head cow-DAT

Resultative: 'Two large cowsheds are now being built, these are planned for 1000 cows'

Passive: 'Two large cowsheds are now being built, these were planned for 1000 cows'

5.2.4. *-(e)mjn*-forms as perfects

Ten percent of *-(e)mjn* forms in the contemporary data sample could be analysed as perfects:

1. The related examples do not describe states resulting from previous actions/events but present past actions/events as relevant at utterance time (47)–(52);
2. Transitive verbs do not undergo any voice change (52);
3. They are not restricted to telic verbs but can also be formed from atelic (47)–(51) verbs, which is also shown by their compatibility with time span adverbials of the *for an hour*-type (which is a common diagnostic of atelicity, cf. Kiefer 2009), cf. (47), (49)–(50). Intransitive verbs are not restricted to unaccusatives: unergative verbs may also enter the construction (47)–(51).

I propose that *-(e)mjn* forms when used as perfects, contrary to when they are used as resultatives and actional passives, can take the external

argument of the verb as their subject: the agent argument of a transitive verb (52) and the subject of an unergative verb (47)–(51).

The past event or action described by the *-(e)mjn* form can be close in time to the moment of utterance and have a direct impact on the situation at utterance time or on the participants of the discourse (47) (see also example (35) in Section 3.4):

- (47) Context: 'I could barely get up today. I'm just sleepy somehow'

4 čas gine iž-emjn, noš para-je odnoze
 4 hour only sleep-(E)Mjn but class-ILL absolutely
mjn-ono (Udmurt corpus; Udmurto4ka 17.10.2014)
 go-PTCP.NEC

'I have only slept four hours, but I absolutely need to go to class'

The past action or event can also be more distant in the past. Very often, *-(e)mjn* forms are used in contexts introducing/describing a person and are formed from (atelic and unergative) verbs denoting life experiences which may have played a substantial role in someone's self-identification or personal history, or which are simply presented as relevant information regarding that specific person, cf., e.g., (48)–(49):¹⁴

- (48) Context: Interviewer saying to interviewee:

Ti tros pertem samol'ot-jos-jn
 2PL many different plane-PL-INS
loba-mjn (Udmurt corpus; Udmurt dunne 04.05.2012)
 fly-(E)Mjn
 'You have flown with many different planes'

- (49) Context: Introducing a 91-year old lady named Marija Fjodorovna Fjodorova:

Ta pešaj 25 ar čože traktor-en uža-mjn. Tuž vižmo, tros
 this grandma 25 year for tractor-INS work-(E)Mjn very clever lot
tod-e (Udmurt corpus; Udmurt dunne 21.10.2010)
 know-3SG

'This old lady worked as a tractorist for 25 years. She's very clever, she knows a lot'

The event or action described by the *-(e)mjn* form can be even more distant in the past. In (50), the *-(e)mjn* form refers to a historical event which ended in the past. I propose that in this case, the use of *-(e)mjn* is motivated by the relevance of the referred historical event in the discourse at utterance time: the fact that Estonians lived under the Germans during their history gets directly connected to the topic of the discourse.

- (50) Context: The author is discussing the origin of an Estonian tradition. Estonians claim it is of German origin. At this point, the author realises:

Zem no, eston-jos keña=ke daur čože nemec-jos uljn
 true ADD Estonian-PL how_many=PTCL century for German-PL under

¹⁴ These cases instantiate thus something similar to the experiential perfect. Udmurt, however, has an experiential perfect on its own, mentioned in Section 3.2 and illustrated in (e) (see also Leinonen & Vilkuna 2000; Saraheimo 2024). The differences between the use of *-(e)mjn* in examples like (48) and the use of the experiential perfect proper (e) have not been studied in detail yet.

(e) *Rim-e vetl-em-e vañ* (constructed, personal knowledge)
 Rome-ILL go-PTCP.PRF-1SG be.PRS
 'I have been to Rome'

ul-emjn uk! (Udmurt corpus; Udmurt dunne 17.06.2008)
live-(E)M_{JN} EMP

'Indeed, Estonians lived under the Germans for some centuries!'

-(*e*)*mjn* forms can also have an "anterior continuing" use, which can be typical of perfects (cf. Section 2.1.3): they can be used for describing actions or events which started in the past and continue to the present, as in (51):

- (51) *Dišetsk-em-e-ja leštiškiś, ta dŋr-ož gorod-jn ul-emjn -*
study-NMLZ-1SG-ADV architect this time-TERM city-INE live-(E)M_{JN}
uža-mjn [...] (Udmurt corpus; Udmurt dunne 20.05.2009)
work-(E)M_{JN}

'I'm an architect by my qualification; so far, I have been living in the city'

So far, the examples in the present Section have all been formed from intransitive verbs. In Section 3.4, I mentioned that some previous works (Asztalos 2008; 2011; 2022; Илйтов 2011; Saraheimo 2024) have also noted that transitive verbs do not in every case undergo a voice change when they take the -(*e*)*mjn* form. I propose that at least in a subpart of such cases the -(*e*)*mjn* form can be analysed as a perfect (52).¹⁵ As Comrie (2021 : 6–7) points out, extending the formation of perfects to transitive verbs without any voice change typically happens in later stages of perfect development (see also Saraheimo 2024).

- (52) *So ulon-a-z tros ma-je*
3SG[NOM] life-INE-3SG lot what-ACC
adž-emjn ni (Udmurt corpus; marjamoll.blogspot.ru 15.02.2015)
see-(E)M_{JN} already

'He has already seen a lot during his life'

To sum up, -(*e*)*mjn* forms used as perfects differ from resultatives and from actional passives with regard to both their semantic and syntactic properties: they do not describe states resulting from previous actions/events but present past actions/events as relevant at utterance time; they can be formed of atelic verbs, and they can have the external argument of a verb as their subject.

5.2.5. Past tense use of -(*e*)*mjn*-forms

Two percent of -(*e*)*mjn* forms in the contemporary data could be analysed as past tense forms:

1. They describe an action/event in the past without necessarily emphasizing its relevance at utterance time (54)–(59);
2. Similarly to perfects, they don't undergo any voice change when formed from transitive verbs (56b);
3. They may be formed of telic and unaccusative verbs (cf., e.g., (53), (58)–(59)), but, similarly to perfects, they are not restricted to them as they can be formed of atelic and unergative verbs as well (cf., e.g., (54a–54b), (55b));
4. They can combine with temporal adverbials referring to a specific time in the past (53)–(55a), (56), (58)–(59);

¹⁵ I suggest that the other subpart of such cases can be analysed as past tense forms, see Section 5.2.5.

5. According to some speakers, they can be used for the narration of a sequence of past events (60).

In (53), the relevance of the referred past event (i.e., the death of the soldiers) in the situation at utterance time (which is a scene in the graveyard) is still clear. However, the fact that *-(e)mjn* co-occurs with a temporal adverbial referring to a specific time suggests that the *-(e)mjn* form in (53) is rather to be analysed as a past tense form than as a perfect:

- (53) Context: 'Around 3000 soldiers are buried here'

Vańmiz soos bjr-emjn 1942-ti ar-jn ijul' - nojabr'
all 3PL die-(E)Mjn 1942-ORD year-INE July November
tolež-jos-j (Udmurt corpus; Udmurt dunne 26.08.2013)
month-PL-ILL

'They all died between July and November 1942'

In the examples in (54)–(56), a current relevance of the past action or event is less straightforward (apart from the obvious fact that mentioning past actions/events implies a certain degree of actuality and relevance of those actions/events in the discourse):

- (54) Context: The author of the blogpost makes it clear that she is going to talk about Kuzeбай Gerd (an Udmurt poet, writer, and activist) in her blogpost.

- a. 192 [sic!] - 1929 *ar-jos-j so dišetsk-emjn Musko-jn [...]*
192 1929 year-PL-ILL 3SG study-(E)Mjn Moscow-INE
b. *Brusov-en, Rokovišnikov-en verašk-emjn, soos-len lekci-os-a-zj*
PN PN talk-(E)Mjn 3PL-GEN class-PL-ILL-3PL
vetl-emjn (Udmurt corpus; marjamoll.blogspot.ru 13.11.2013)
go-(E)Mjn

'Between 192 [sic!] and 1929 he studied in Moscow. He talked to Brjusov and Rokovišnikov, attended their classes'

- (55) The preceding context is telling about an event which is going to be dedicated to Vera Bogdanovskaja.

- a. *Ta — Rossi-jš nyrjseti-os-jz pgl-jš nylkjšno ximik,*
this Russia-ELA first-PL-DET among-ELA woman chemist
ul-emjn 1867-ti — 1896-ti ar-jos-j
live-(E)Mjn 1867-ORD 1896-ORD year-PL-ILL
b. *Dišetsk-emjn D. Mendelejev no*
study-(E)Mjn PN PN and
A. Borod'in dorjn (Udmurt corpus; Udmurt dunne 23.04.2014)
PN PN at

'She is one of the first women chemists from Russia, she lived between 1867 and 1896. She was a student of D. Mendeleev and A. Borodin'

- (56) Context: People were asked what they think about the origin of the earlier ethnonym of Udmurts, "Votyak". One of the interviewees relates it to the name of the river Vjatka, and she begins her answer as follows:

- a. *Kuke-soku Vatka šur kotjr-jn finn-ugor kaljk-jos gine*
when-then Vjatka river around Finno-Ugric people-PL only
ul-emjn
live-(E)Mjn

- b. *Žuč-jos, vjldi, likti-sa udmurt-jos-iz adž-emjn no,*
 Russian-PL probably come-CVB Udmurt-PL-ACC see-(E)M̄JN and
soin ik udmurt-jos-tj oži
 that-INS EMP Udmurt-PL-ACC so
ńima-zj (Udmurt corpus; sankobatyrblogspot.ru 2011)
 name-PST.3PL

'Once upon a time only Finno-Ugric people lived along the Vjatka river. Probably when the Russian came and saw the Udmurts, they started calling them like that [i.e., Votyaks]'

Note that in (56b), a transitive verb is used in the *-(e)mjn* form without any voice change. Both in Saraheimo's (2024) and in my data, the absence of voice change was typical of verbs of perception (*adžijnj* 'to see', *kijijnj* 'to hear', *šedijnj* 'to feel'), as in (56b): that is, of transitive verbs that have an EXPERIENCER subject. However, as examples (36)–(37) in Section 3.4 show, the absence of voice change is not restricted to verbs of perception: agentive subjects are also licensed in transitive *-(e)mjn* constructions.

Examples (57)–(58) are taken from Wikipedia articles. In (57), a feature of "current relevance of the past action at utterance time" can hardly be detected:

(57) (Wikipedia article on the Vjatka Governorate)

- a. *Ta muzjem vjl-jn ortće val Šibir trakt —*
 this land on-INE pass_by.3SG be.PST Siberia route
ssjlnoj-jos-tj Šibir-e kelan šures
 exiled-PL-ACC Siberia-ILL sending road
(so vjl-e og 100 pala d'ekabrist-jos ortc-emjn)
 that on-ILL around 100 around Decembrist-PL pass-(E)M̄JN

- b. *Kud-og ssjlnoj-jos Vjatka kar-jn*
 some exiled-PL Vjatka city-INE
ul-emjn (Udmurt corpus; Wikipedia: Votka gubernija 08.03.2013)
 live-(E)M̄JN

'The Siberian Route, the road leading exiled people to Siberia, crossed this land (around 100 Decembrists went along it). Some of the exiled people lived in the town Vjatka'

(58) (Wikipedia article on the Kambarka District)

- Joros kjld-emjn 1939-ti ar-jn*
 district form¹⁶-(E)M̄JN 1939-ORD year-INE
7-ti mart-e (Udmurt corpus; Wikipedia: Kambarka joros 07.03.2013)
 7-ORD March-ILL

'The district was formed on the 7th of March 1939'

In several of the above examples, cf. (53)–(55a), (56), (58), as well as in (59), *-(e)mjn* forms co-occur with temporal adverbials expressing a specific time in the past. The examples also show that *-(e)mjn* can well refer to historical actions/events in the distant (53)–(55), (57)–(59) or even remote (56) past.

(59) Context: About a woman who was expecting her husband to return from the front.

¹⁶ *kjldijnj* 'to form' is an intransitive verb (its transitive counterpart is *kjldijtijnj* 'to form, to found').

1947-*ti* *ar-jñ* *aprel' tolež-e* *gine aj* *šekit* *ivor*
 1947-ORD year-INE April month-ILL only PTCL heavy news
vu-i-z: *Al'ekšejev Jevdokim Al'ekšejevič bjñ-emjñ* 1942-*ti*
 arrive-PST-3SG PN PN PN die-(E)Mjñ 1942-ORD

ar-jñ 20-*ti* *nojabr'-e* *O'rol ulos-ış* *Bobrik*
 year-INE 20-ORD November PN region-ELA PN

gurt *dorjñ* (Udmurt corpus; Udmurt dunne 28.12.2010)
 village at

'The sad news only arrived in April 1947: A. J. A. died on 20th November 1942 near the village Bobrik in the Orjol region'

The constructed sentence in (60), which tells about consecutive events in the past, was considered as grammatical by one of the Udmurt consultants and as "not too bad" by the second speaker. The third consultant rejected the *-(e)mjñ* forms in the sentence and would have changed them into general past tense forms. The judgements thus indicate that at least for some speakers, *-(e)mjñ* forms can be used for narrating a sequence of past events:

(60) % 2000-*eti* *ar-e* *gurt-ış* *fest'ival-len* *njñřšeti* *nunal-a-z*
 2000-ORD year-ILL village-ELA festival-GEN first day-ILL-3SG

Madonna kjřža-mjñ, *kjñ-eti* *nunal-a-z* *Majkl řekson*
 PN sing-(E)Mjñ two-ORD day-ILL-3SG PN PN

ekt-emjñ (constructed, personal knowledge)
 dance-(E)Mjñ

'On the first day of the village festival in 2000, Madonna sang, and on the second day, Michael Jackson danced'

Summing up, I propose that in examples (53)–(60), *-(e)mjñ* forms show the properties typical of past tense forms.

Clearly, the question arises whether past tense means general (simple) past or perfective past (the possibility that it is a past tense expressing some specific remoteness distinction is ruled out by the ability of the forms to refer both to non-historic (60) and historic (53)–(55), (57)–(59) events, and even to the remote past (56)). While in many of the above examples *-(e)mjñ* forms have a clearly perfective reading (e.g., (53), (54a), (55a), (56b), (57a), (58)–(59)), in a few cases an imperfective reading is more feasible (54b), (56a), (57b), which would suggest that *-(e)mjñ* forms are not restricted to completed actions/events, i.e., they can be analysed as general past tense forms. However, the question arises why Udmurt would develop a general past when it already has one (cf. Section 3.2). The question clearly needs further studies, and I leave it open for the purposes of this paper.

A further possibility, suggested by the reviewer of this paper, is that the use of *-(e)mjñ* as a past tense marker would be conditioned by information structural factors — namely, that *-(e)mjñ* forms might be used when they make part of the *background/discourse-old* part/informationally *given* part of a sentence, while some other constituent in the sentence is focused. This hypothesis is in line with the examples in (53), (54a), (55) and (58), as well as with the fact that *-(e)mjñ* forms, as mentioned in Section 5.2.4., are often found in biographical descriptions (see also examples (54)–(55) in this Section). In such contexts, the occurrence of certain verbs referring to some typical life events or stages ('to be born', 'to live', 'to study', 'to work', 'to die' etc.) is expected. The judgements of one of

the native speakers corroborated this assumption, as she accepted the example in (61) but rejected (62). The two other consultants, however, accepted both (61) and (62). The example in (59), with sentence focus, also suggests that the picture is more complicated: here the whole clause that includes the predicate in *-(e)mjn* carries new information.

(61) Context: 'When did s/he die?'

So 1959-eti ar-jn bjr-emjn (constructed, personal knowledge)
 3SG 1959-ORD year-INE die-(E)MJN
 'S/he died in 1959'

(62) Context: 'What happened to him/her in 1959?'

% 1959-eti ar-jn so bjr-emjn (constructed, personal knowledge)
 1959-ORD year-INE 3SG die-(E)MJN
 'In 1959, s/he died'

Identifying a distinctive feature of *-(e)mjn* as a past tense marker thus remains a subject for future investigation.

5.3. Diachronic implications: the presumed ongoing grammaticalization of *-(e)mjn*-forms

In Sections 5.1–5.2 I presented that while in the old Udmurt text sample, all instances of *-(e)mjn* constructions could be analysed as resultatives, in contemporary Udmurt the semantic properties and the syntactic behaviour of *-(e)mjn* forms cannot be described in a uniform way. I thus claimed that *-(e)mjn* forms have multiple uses in contemporary Udmurt and proposed a fourfold classification, arguing that some instances of *-(e)mjn* forms are to be analysed as resultatives, others as (actional) passives, still others as perfects, and finally, in some cases, *-(e)mjn* forms resemble simple past tense forms.

I propose that the synchronically heterogeneous behavior of *-(e)mjn* forms is the reflection of two ongoing (and, as presented in Section 2.3, typologically common) grammaticalization processes, namely, a) *r e s u l t a t i v e* > *p a s s i v e* and b) *r e s u l t a t i v e* > *p e r f e c t* > *p a s t t e n s e*.

Based on the homogeneity of the old Udmurt data and the overwhelming majority of resultative *-(e)mjn* in the contemporary data (cf. Sections 5.1 and 5.2.1), I assume that originally, *-(e)mjn* forms were only used as resultatives and they could only be formed of telic verbs. When formed from transitive verbs, they underwent a voice change, i.e., an *o b j e c t - t o - s u b j e c t* promotion. In this stage, the *-(e)mjn* suffix was decomposable into two morphemes: *-(e)m*, marking the anteriority of an action/event + the inessive case suffix *-jn*. The meaning of the *-(e)mjn* suffix was thus compositional and reflected the notion of resultativity ('to be in a state resulting from a previous action/event', cf. also Dékány & Georgieva 2025).

In a later stage, the range of use of *-(e)mjn* forms broadened.

On the one hand, *-(e)mjn* forms that were based on transitive verbs, while still undergoing a voice change, became able to refer not only to a state resulting from a previous action but to the previous action as well, i.e., they took on the function of actional passives besides the statal passive (i.e., resultative) function. Since actional passives do not refer to states, the *-(e)mjn*

suffix at this point lost its semantic compositionality and the suffix got reinterpreted as a single morpheme.

On the other hand, the forms took on, at least in certain syntactic environments, the semantic content of perfect, that is, they became able to refer to past actions and events that have a relevance at utterance time. Meanwhile, the expression of resultativity with *-(e)mjn* forms still remained possible. In this stage, the formation of *-(e)mjn* forms became available for certain atelic verbs and for certain transitive verbs (mainly perception verbs) without involving any diathetic change. Finally, *-(e)mjn* forms became compatible with temporal adverbials referring to a specific time in the past, and they became able to refer to past actions/events which do not necessarily have a direct relevance in the situation at utterance time. Meanwhile, *-(e)mjn* forms have not lost their ability to express, in other morphosyntactic environments, the meaning of resultativity and that of perfect.

6. A typological parallel: the evolution of the past tense in Russian

Bybee and Dahl (1989 : 75) and Kwon (2009 : 160) mention that Russian (which, as mentioned in Section 3.1, is the most relevant contact language of Udmurt), is also a language which underwent the grammaticalization process *resultative > perfect > past tense*.

Contemporary Russian has one general past tense, marked by the affix *-л*. Past tense forms show agreement with the subject in number and (in the singular) in gender as well, but do not bear person agreement markers (63):

- (63) Я жи-л / Она жи-л-а / Они жи-л-и в России
 1SG live-PST.SG.M 3SG.F live-PST-SG.F 3PL live-PST-PL in Russia.OBL

'I/She/They lived in Russia' (constructed, personal knowledge)

Past tense forms go back to a resultative participle in *-л* (Kwon 2009 : 160). This resultative participle, accompanied by the *be*-verb as an auxiliary/copula, formed a periphrastic perfect in Old Russian (Bybee & Dahl 1989 : 75; Kwon 2009 : 160). Later on, with a general copula loss in Old Russian, which extended to all copula constructions in the present tense, the *be*-verb was lost from the perfect construction, and the *-л* participle came to be used independently. Eventually, the *-л* participle was reanalysed as a general past tense (Bybee & Dahl 1989 : 75; Kwon 2009 : 160; Borik 2018). The development presumably happened in the period between the 11th and 14th century (Borik 2018 : 30).

Although the reanalysis of *-л* participles as general past tense forms is not a change that happened recently in the history of Russian, it cannot be excluded that the reanalysis of *-л* participles and the fact that Russian has a past tense which does not inflect for person have played a role in the development of the past tense use of *-(e)mjn* forms in Udmurt. In fact, while past tense forms in Russian (as illustrated above in (63)) are inflected for number and (in the singular) for gender, but not for person, present tense forms are inflected for person and number, but not for gender (64). Past tense forms behave in this respect similarly to adjectives (65), which suggests that they have preserved something of their original participial (i.e., nominal) nature.

- (64) Я жив-у / Она жив-ет / Они жив-ут в России
 1SG live-1SG 3SG.F live-3SG 3PL live-3PL in Russia.OBL
 'I/She/They I live in Russia' (constructed, personal knowledge)
- (65) Я высок-ий / Она высок-ая / Они высок-ие (constructed)
 1SG tall-SG.M 3SG.F tall-SG.F 3PL tall-PL
 'I am/You are/They are tall' (constructed, personal knowledge)

As presented in Sections 3.3–3.4, *-(e)mjn* forms in Udmurt have traditionally been classified as (predicative) participles, i.e., as nominal predicates, and they indeed behave similarly to nominal predicates with regard to the appearance of the copula (cf. Section 3.3 and footnote 8 therein). Further nominal properties of *-(e)mjn* predicates is that, as mentioned in Section 3.3, they lack person agreement morphemes and in those sporadic cases when they show number agreement, they bear the plural agreement morpheme typical of adjectives, *-(j)eś* (see footnote 5 in Section 3.3). My assumption is that the participial/nominal properties of Russian past tense forms might have facilitated the development of the past tense use of an originally nominal predicate in Udmurt. This might eventually lead to the reanalysis of the participial form (i.e., a nominal predicate with zero copula) as a finite, verbal predicate.

7. Conclusions

In this paper, I proposed that copulaless, predicative *-(e)mjn* forms, which traditionally have been referred to as resultative participles in the literature, cannot be analysed in a uniform way in contemporary Udmurt. While folklore data from the end of the 19th century suggest that primarily, *-(e)mjn* forms were predicates of resultative constructions, a morphosyntactic and semantic analysis of *-(e)mjn* forms in contemporary corpus data indicates that in present-day Udmurt, *-(e)mjn* forms have a more heterogeneous use and can make part of different constructions. The majority (69%) of the occurrences in the contemporary text sample could be classified as resultative constructions, 14% as passive constructions, 5% of occurrences had an ambiguous reading between a passive and a resultative, 10% of *-(e)mjn* forms could be analysed as perfects, and 2% of the instances showed the syntactic and semantic properties of past tense forms.

I proposed that the heterogeneous behaviour of *-(e)mjn* forms at the synchronic level is the reflection of two ongoing and typologically common grammaticalization processes, namely, *resultative > passive* (cf. Nedjalkov & Jaxontov 1988) and *resultative > perfect > past tense* (cf. Bybee & Dahl 1989; Bybee & Perkins & Pagliuca 1994). I also suggested that while the *-(e)mjn* suffix was originally decomposable into two morphemes and had a compositional meaning that reflected the notion of resultativity, the suffix is now losing its compositionality and is getting to be reinterpreted as a single morpheme.

Many questions couldn't be addressed in detail in this study and have been left open. The data examined so far are somewhat contradictory as to whether *-(e)mjn* forms are on the way to evolving into a perfective or into a general past tense and, if the latter case holds, the question arises why Udmurt would develop a general past when it already has one. Identifying

a feature that distinguishes *-(e)mjn* in its past tense use from the general past tense of Udmurt thus remains a matter for future research.

The potential role of Russian in the development of the past tense use of an originally nominal predicate in Udmurt is also worth to be more deeply investigated. Last but not foremost, a comprehensive analysis of *-(e)mjn* forms obviously needs a thorough study of analytic *-(e)mjn* forms as well, i.e., those with a copula, focusing in particular to the question to what extent the meaning of *-(e)mjn* forms with a copula is compositional.

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All remaining errors are mine.

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Abbreviations

Glossings: See www.eva.mpg.de/lingua/pdf/Glossing-Rules.pdf, and in addition: ADD — additive particle; ADV — adverbial case; EGR — egressive case; ELA — elative case; **-(E)MIN** — *-(e)mjn* form; EVID — indirect evidential; FREQ — frequentative suffix; IDEO — ideophone; ILL — illative case; INE — inessive case; OBL — oblique case; ORD — ordinal numeral; NEC — neccessive; PN — proper name; PP — adpositional phrase; PTCL — particle; REP — reportative marker; SUPERE — superessive case.

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ЭРИКА АСТАЛОШ (Будапешт)

**ПРОЦЕССЫ ГРАММАТИКАЛИЗАЦИИ
РЕЗУЛЬТАТИВНЫЙ > ПАССИВ
И РЕЗУЛЬТАТИВНЫЙ > ПЕРФЕКТ > ПРОШЕДШЕЕ ВРЕМЯ
В СОВРЕМЕННОМ УДМУРТСКОМ ЯЗЫКЕ**

В статье предлагается анализ отглагольных предикативных форм без глагола-связки, образованных с помощью суффикса *-(ə)мын/-емын* в удмуртском языке. В литературе они обычно называются результативными причастиями, но также рассматриваются и как сказуемые пассивных конструкций, и как перфектные формы. Основной вопрос исследования заключался в том, можно ли дать формам с *-(ə)мын/-емын* единый анализ. Цель исследования состояла в том, чтобы выяснить, демонстрируют ли конструкции с *-(ə)мын/-емын* одинаковое поведение в фольклорных текстах XIX века и в современных корпусных данных. Результаты показывают, что, хотя в более старых данных все примеры можно проанализировать как результативные конструкции, в современном удмуртском языке конструкции с *-(ə)мын/-емын* имеют неоднородное употребление: преобладает результативное использование, но некоторые случаи можно проанализировать как страдательные формы, другие — как перфектные формы, а третьи — как формы прошедшего времени. Я утверждаю, что в диахроническом плане основной функцией форм с *-(ə)мын/-емын* было выражение результативности, а синхронная неоднородность является отражением двух продолжающихся и типологически общих процессов грамматикализации: результатив > пассив и результатив > перфект > прошедшее время.

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**UDMURDI RESULTATIIVSETEST PARTITSIIPIDEST GRAMMATISEERUNUD
PASSIIVI, PERFEKTI JA IMPERFEKTI VORMID**

Artiklis esitatakse udmurdi deverbaalsete *(e)mjn*-tunnuseliste koopulata predikatiivvormide uudne analüüs. Neid on kirjanduses tavaliselt nimetatud resultatiivseteks partitsiipideks, kuid neid on määratletud ka passiivsete konstruktsioonide predikaatideks ja perfekti vormideks. Uurimuse eesmärk oli välja selgitada, kas *(e)mjn*-konstruktsioonidel on XIX sajandi rahvaluules ja tänapäeva korpuseandmetes sama tähendus. Analüüs näitab, et kui rahvaluule kõiki näiteid saab pidada resultatiivseteks partitsiipideks, siis tänapäeva udmurdi keele *(e)mjn*-konstruktsioonid on heterogeensed: resultatiivsed partitsiibid on kõige levinumad, kuid mõni näide on liigitatav passiivi vormiks, mõni perfekti vormiks ja mõni imperfekti vormiks. Diakrooniliselt oli *(e)mjn*-vormide esmane funktsioon resultatiivsuse väljendamine ja nende sünkrooniline heterogeensus osutab, et toimumas on kaks tüpoloogiliselt sagedast grammatiseerumisprotsessi: resultatiivne partitsiip > passiiv ning resultatiivne partitsiip > enneminevik > lihtminevik.