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**Typology of derivations of
verbal measure: attenuative
meanings**

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Publications

The following three publications were selected for the defence (for each of them the applicant is the sole author):

1. Makarchuk I. V. Glagol’nyj attenuativ v gornomarijskom jazyke [Verbal attenuative in Hill Mari] // *Acta Linguistica Petropolitana*. Vol. XV. P. 2., 2019. P. 130–162.
2. Makarchuk I. V. K tipologii derivacij glagol’noj mery: semel’faktiv i delimitativ [Towards a typology of derivations of verbal measure: Semelfactive and delimitative] // *Voprosy Jazykoznanija*, No. 6, 2021. P. 40–68
3. Makarchuk I. V. O tipakh “malykh” situacij: diskontinuativy i glagol’nye diminutivy [A typology of “small” evenualities: discontinuatives and verbal diminutives] // *Izvestija Rossijskoj akademii nauk. Serija literatury i jazyka* [Bulletin of the Russian Academy of Sciences: Studies in Literature and Language], Vol. 82, No. 2, 2023. P. 92–103

Conference presentations and public demonstrations of the results

The main results and conclusions of the present study have been presented in 2015–2022 in oral and poster presentations at several conferences, including:

1. 12th Conference on Typology and Grammar for Young Scholars, November 19–21, 2015, Saint-Petersburg, Institute for Linguistic Studies, Russian Academy of Sciences. Talk “K tipologii semel’faktiva: mokshanskaja derivatsija na *-kst*” [“Towards a typology of semelfactive: Moksha derivation in *-kst*”]
2. 3rd Student Conference of the Institute of Linguistic, April 6–7 2017, Moscow, RSUH. Talk “Delimitativno-punktivnaja polisemija v gornomarijskom jazyke” [“Delimitative-punctive polysemy in Hill Mari”]
3. 14th Conference on Typology and Grammar for Young Scholars, November 23–25 2017, Saint-Petersburg, Institute for Linguistic Studies, Russian Academy of Sciences. Talk “Glagol’nyj attenuativ v gornomarijskom jazyke” [“Verbal attenuative in Hill Mari”]
4. 8th Conference “Typology of morphosyntactic parameters”, October 22–24 2018, Moscow, Pushkin State Russian Language Institute. Talk “O tipakh nepolnoty situacii: glagol’nyje attenuativy v gornomarijskom jazyke” [“On types of smaller events: verbal attenuatives in Hill Mari”] (jointly with Stepan Mikhailov)

5. 17th Conference on Typology and Grammar for Young Scholars, November 19–21, 2020, Saint-Petersburg, Institute for Linguistic Studies, Russian Academy of Sciences. Talk “K tipologii derivacij glagol’noj mery: ob invariante semel’faktiva i delimitativa” [“Towards typology of verbal measure derivations: on meaning of semelfactive and delimitative”]
6. 53-rd Annual Meeting of the Societas Linguistica Europaea, August 26—September 1 2020, Romania, University of Budapest. Poster ““Small’ events: A typology of verbal attenuative”
7. 12th Conference “Typology of morphosyntactic parameters”, October 12–13 2022, Moscow, Institute of Linguistics, Russian Academy of Sciences. Talk “O tipakh ‘malykh’ situacij: diskontinuativy i glagol’nyje diminutivy” [“On types of smaller events: discontinuatives and verbal diminutives”]
8. 8th Student Conference of the Institute of Linguistic, October 22–23 2022, Moscow, RSUH. Talk “O tipakh ‘malykh’ situacij: podstupajas’ k tipologii glagol’nykh derivacij” [On types of smaller events: towards a typology of verbal attenuative derivations]

1. Introduction

Languages of the world have different kinds of derivations and constructions that denote some measure of an event or some degree of a parameter of an event. I call this semantic area **verbal measure**. The topic of the thesis is a subset of this area I call **verbal attenuatives**. Verbal attenuatives denote events that are incomplete, deficient or in other way lesser than a normal one. The examples below illustrate such derivations in different languages:

- (1) Finnish (Uralic; Armoškaitė and Koskinen 2008)

Ignas luk-ais-i kirjan. (< lukea ‘to read’)

I. read-AISE-PAST.3SG book.ACC

‘Ignas **read** a/the book **hastily**.’

- (2) Hill Mari (Uralic; my own fieldwork data)

saša maša-m vâč-alal’-â dä kōktâ-n ke-vâ (< vâča ‘to wait’)

S. M.-ACC wait-ATT-AOR.3SG and two-ADV go-AOR.3SG

‘Sasha **waited** Masha **for a while** and then they left together.’

- (3) French (Indo-European; Amiot and Stosic 2014)

*Est-ce qu’il neige toujours? (...) il **neigeote**, chère madame! (...) Quelques vagues flocons dans l’air ! (< neiger ‘to snow’)*

‘Is it still snowing? (...) It’s **snowing lightly**, dear Madam! (...) Some little snowflakes in the air!’

- (4) Mauritian creole (French-base creole; Henri and Winterstein 2010)

*Zan **ronf-ronfle** lor sez. (< ronfle ‘to snore’)*

John snore.SF-SNORE.LF on chair

‘John **snores sporadically** on the chair.’

In all the examples above, the verb in bold denotes a lesser event. But these derivations express this meaning through different means. In (1) the derivation means a minimal, atomic event, such that does not have a duration. In (2) there is a similar meaning of an event the duration of which is less than the normal. In (3) it is the intensity of the event that is lower than the norm. And in (4) the meaning of the derivation is that the event occurs with interruptions.

The area of verbal attenuative is underdescribed. Besides an unpublished term paper of Ignatenko (2017) and conference talks by Ignatenko and Volkov (2017) and Tatevosov (2003), the only published paper on typology of verbal attenuative is, to my knowledge, a paper by Audring, Leufkens and van Lier (2021). The paper explores an extensive sample of languages, but the types of derivations

and their semantics are described in quite general strokes. The authors used grammars, and grammars usually contain little information about derivational morphology. Also, in my master thesis (Makarchuk 2020) I explore a smaller sample of 25 languages of different genera: Indo-European, Uralic, Turkic, Tungusic, Afro-Asiatic, creoles, etc.

However, in this very thesis, rather than provide a simple list of languages that have the derivations in question, I tried to present a more in-depth classification of verbal attenuatives. This thesis is different from works of previous researchers in that it strives for a detailed account of aspectual behaviour of the derivation, namely possible meanings of the derivations and its compatibility with different Aktionsart classes. That is why the main source of our data is not grammars, but papers that investigate a particular derivation deeply, and in case of Moksha, Hill Mari and Khanty, my own fieldwork data¹. That enabled me to make a more detailed description of the semantics and morphosyntax. Even though my sample is smaller than that of Audring et al. (2021), I hope that the value of this thesis is in that it provides a more thorough account of different types of verbal attenuatives and their aspectual behaviour than could be provided by a more extensive study. That is what constitutes the **relevance** of this thesis.

Thus, the **goal** of this thesis is to provide a typological survey of verbal attenuatives and their aspectual semantics. To achieve the goal, I had to accomplish the following **tasks**:

- gather a sample of detailed descriptions of verbal attenuatives in different languages of the world.
- describe how different types of verbal diminutives combine with different aspectual classes and how it affects the interpretation of the derivation.
- propose a classification of types of verbal attenuatives in terms of their aspectual behaviour.

The following **theses** are up for defence:

1. The semantic domain of verbal attenuatives is not homogenous. There are at least four types: two “telic” types of semelfactive and delimitative and two “atelic” types of discontinuative and verbal diminutive.
2. Types of verbal attenuatives differ in regard to which aspectual classes they combine with. That difference can be explained by the meaning of the derivation. For example, since derivations of semelfactives and delimitatives modify the event temporally, such derivations are not

¹ The data on Kazym Khanty, Hill Mari and Moksha languages was collected during fieldtrips by School of linguistics, HSE, and Department of Theoretical and Applied Linguistics, MSU, to Kazym village of the Khanty-Mansiysk Autonomous Okrug, Russia, in 2018–2019, to Mikryakovo and Sosnovo villages of the Republic of Mari El, Russia, in 2016–2018, and to Lesnoye Tsybayevo and Lesnoye Ardashevo villages of the Republic of Mordovia, Russia, in 2014–2015 respectively.

compatible with individual-level states, which do not contain any duration information in their semantics.

3. The interpretation of a derivative depends on the aspectual class of the base verb. For example, a discontinuative derived from an achievement denotes an event that happens rarely, but a discontinuative derived from an accomplishment denotes a partially accomplished event. See Table 1 in the conclusion for more.

The following results constitute **the theoretical significance of the research:**

1. An understudied domain of aspect has been described in detail;
2. It was shown how different types of verbal attenuatives can have a different interpretation depending on an aspectual class of a base verb and that this interpretation can be predicted from an aspectual class of a base verb if one correctly defines the meaning of the derivation;
3. A classification of verbal attenuatives was proposed. This classification can serve as a theoretic basis for description of such derivations in languages of the world.

The practical significance is primarily in that it provides a typological model that research of a verbal attenuative in a particular language can be based upon. Also, the results of this thesis can be used as material for courses on general semantics, grammatical semantics, linguistic typology, etc.

The remaining part of this text is devoted to a summary of the papers that are up to defence. Section 2 describes my case study on Hill Mari verbal attenuative (Makarchuk 2019). This study is presented as an example of how one can study a verbal attenuative in a particular language and which parameters it might be useful to investigate to fully describe the derivation. Sections 3 and 4 go over (Makarchuk 2021) and (Makarchuk 2023). These two papers classify the different types of verbal attenuatives, compare them and describe the interaction of the derivations with verbs of different aspectual classes.

A following common convention is used through the summary: I use capitalised terms for language specific grammatical categories and non-capitalised terms for comparative concepts that are applicable to all languages (e. g. *typology of genitive markers* but *Russian Genetive*).

2. Verbal attenuative in Hill Mari

(Makarchuk 2019) provides a description of a verbal attenuative in *-al/-alal/-aldal* in Hill Mari².

-al, *-alal* and *-aldal* markers are in complementary distribution.³ Hill Mari verbs divide into two morphological conjugation classes: compare 3rd singular nonpast forms of the first class verb *pâr-eš* ‘bites’ and that of the second class verb *pâr-a* ‘comes’. There are two parameters that govern the choice of the marker: the number of syllables in the stem and its conjugation class. If the stem is polysyllabic, then the *-al/-äl* marker is used, e. g., *ašked-eš* ‘walks’ > *ašked-äl-eš* ‘will have a brief walk’. If the stem is monosyllabic and belongs to the first conjugation class, then the *-aldal/-äldäl* marker is used (with a variant of *-ändal/-ändäl*), e. g., *lâd-eš* ‘reads’ > *lâd-aldal-eš* ‘will read for a while’. If the stem is monosyllabic and belongs to the second conjugation class, then the *-alal/-äläl* marker is used (with a variant *-altal/-ältäl*), e. g. *šül-ä* ‘breathes’ > *šül-äläl-eš* ‘will breathe for a while’. Thus, the markers above are allomorphs of one marker of Attenuative.

Let us examine different interpretations of Hill Mari Attenuative.

One common interpretation is that of a **short duration** of an event:

(5) {Context: One should work a six-hour shift.}

a. *vas’a kok cäs vele rovojaj-al-ân*
 Vasya two hour only work-ATT-PRF.3SG

‘Vasya **has** only **worked** for two hours.’

b. **a pet’a kändäkš cäš väk rovojaj-al-ân*
 but Petya eight hour even work-ATT-PRF.3SG

Excepted: ‘But Petya **has worked** for whopping eight hours!’

However, even if the duration is less than the normal like in (6), it is impossible to use the Attenuative for an event that reaches its natural end. In general, such a derivation is not felicitous with *in* adverbials like *in five minutes* (7).

(6) **a pet’a ikänä-štä roman-xälä lâd-aldal-ân*
 but Petya one-go-IN novel-entire read-ATT-PRF.3SG

Expected: ‘Petya has read the novel in one go / promptly.’

(7) **tädä vəc minut-äštä svezä vozdux dono šül-äläl-ä*
 that five minute-IN fresh air with breathe-ATT-AOR.3SG

² The data that this paper bases upon was collected during fieldtrip by Department of Theoretical and Applied Linguistics, MSU, and School of Linguistics, HSE, to Mikryakovo and Sosnovo villages of the Gornomariysky district of the Republic of Mari El in 2016–2018.

³ The distribution data was collected on a sample of 45 verbs with different stem endings and length.

Expected: ‘He breathed some fresh air for a while and finished it in five minutes.’

Another interpretation of Attenuative is entry into temporary state, i. e. entry into such a result state which lasts for a short time and is cancelled afterwards:

- (8) *ätä-m kečäväl paštek tokâ-na pâr-alal’-â*
 father-POSS.1SG midday after home-POSS.1PL come-ATT-AOR.3SG
 ‘The father **stopped by** (= came for a brief while) at home in the afternoon.’

- (9) *i vara ma-m molebenâj dom-âm*
 and then what-ACC that_of_worship house-ACC
âšt-äläl-än-ät âl’â ma-štâ — separatârnâj punktâ-štâ
 make-ATT-PRF-3PL RETR1 what-IN skimming station-IN
 {The church has burnt in a fire.} ‘Then, um, a house of worship was **temporarily arranged** (until the new church building was built) at the, um, skimming station (the building for separating cream from milk).’
 (From the fieldtrip corpus)

That result state cannot be cancelled (10) or be longer than that of a normal duration (11):

- (10) *män’ täng-em-län ručk-âm / *podark-âm pu-alal’-äm*
 I friend-POSS.1SG-DAT pen-ACC gift-ACC give-ATT-AOR.1SG
 ‘I **lent** (= gave temporarily) you a pen / *a gift.’
- (11) *män’ vâc minut-eš / *vâc ärnâ-eš pâr-alal’-âm*
 I five minute-LAT five week-LAT come-ATT-AOR.1SG
 ‘I **stopped by** for five minutes / *for five weeks.’

The other two interpretations are entry into a state of a lower degree (12) and partial accomplishment (13).

- (12) *tälät šokšâ? —*
 you.DAT.POSS.2SG warm
agâl män’ uže kâlm-äläl’-äm
 NEG.3SG I already get_cold-ATT-AOR.1SG
 ‘Are you warm? — No, I already **got a bit cold**.’
- (13) *stöl vâl-nâ kol sânz-ä*
 table on-IN fish sit-NPST.3SG
 ‘There is fish on the table.’

a. *kačk-aldal'-əm* *dä jäl-län kod-äšəm*
 eat-ATT-AOR.1SG and people-DAT leave-AOR.1SG

‘I ate a bit [of the fish] and left the rest to the others.’

б. **kačk-aldal'-əm* *dä šə-m kodə*
 eat-ATT-AOR.1SG and NEG.AOR-1SG leave.CN

Expected: ‘I ate a bit [of the fish] but haven’t left anything for others.’

Interpretations exemplified by (12) and (13) can be explained as entailment of a meaning of short duration. They are available only for verbs with an incremental theme. In the event structure of such verbs, duration and degree of state are in a one-to-one correspondence: if the duration of such an event is small, then a low level of a state is achieved, and the longer such an event continues, the more of its effect is accumulated and the higher degree of a state is achieved. In (12), the longer you are subjected to cold weather, the colder you become, and if you stayed in the cold for a shorter duration of time, then you probably feel less cold than if you stayed for longer. The same is true for (13): the longer you eat, the more food you consume, so if you were eating for a short duration of time, then you probably have eaten a smaller amount of food.

However, if Attenuative is used with a state verb, it cannot have a meaning of a lower degree of a state (14). Attenuative can be used with states and atelic processes in meaning of lower intensity only in a pluractional context as iterative in (15) or habitual in (16). I analyse it as a combination of Attenuative with a covert iterative operator.

(14) **mən' šəžgä-n vele äšəndär-äl-əm*
 I faint-ADV only remember-ATT-NPST.1SG

Expected: {— Do you remember what was written there?} ‘— I can **re-member** it **only vaguely**, {cannot tell you the details}.’

(15) *izinolen kamaka-štə pu-vlä jəl-alal-ət*
 slowly furnace-IN wood-PL burn-ATT-NPST.3PL

‘The wood in the furnace is **burning with interruptions**.’

(16) *tədə kənam-tənəm lədəš-əm sir-äläl-eš*
 that when-then poem-ACC write-ATT-NPST.3SG

‘He **scribbles** poems **from time to time**.’

As I show in the paper, the interpretation of the final derivative depends on actionality properties of the base verb⁴. If the base verb can only have a durative interpretation of a state or a process, then an Attenuative derived from it can only have meaning of short duration:

- (17) *mən' šič-əm iziš krovat-əštə*
 I wake_up-AOR.1SG a_little bed-IN
ki-äläl'-əm dä kən'al'-əm
 lie_down-ATT-AOR.1SG and get_up-AOR.1SG
 'I woke up, **lied down for a while**, and then got up.'

- (18) **mən' iziš-eš vele ki-äläl'-əm*
 I a_little-LAT only lie_down-ATT-AOR.1SG
 Excepted: {— Why are you laying around? } '— I **laid down only for a short while.**'

If the base verb has only a momentaneous interpretation of an achievement, then an Attenuative derived from it can only have meaning of entry into a brief state:

- (19) **pet'a ik minut keles-äl'-ə a vara tumaj-əš*
 Petya one minute say-ATT-AOR.3SG and then think-AOR.3SG
 Excepted: 'Petya **was talking** for a minute, and then stopped and started thinking about something.'

- (20) *pet'a kok šamakâ-m vele keles-äl'-ə*
 Petya two word-ACC only say-ATT-AOR.3SG
a šamak-šâ tolk-eš tol-ân
 and word-POSS.3SG making_sense-LAT come-PRF.3SG
 'Petya has only **dropped** a couple of words, but they were straight on point.'

If the base verb can have both a durative and a momentaneous interpretation, then the derivative can have both meanings available for an Attenuative: event of a short duration and entry into a brief state:

- (21) *tädä tokâ-žâ ke-ndäl'-ə no äš šo*
 that home-POSS.3SG go-ATT-AOR.3SG but NEG.AOR.3 arrive.SG
 'He **walked towards** the home **for a while** but haven't arrived there.'

⁴ To determine aspectual class of a verb I consulted the database collected during the aforementioned fieldtrips (using a procedure described in (Tatevosov 2010)). The aspectual distribution was tested on a sample of 20 verbs of different aspectual classes; for each aspectual class at least 3 verbs were collected.

- (22) *ätä-m* *obed veremä-m tokê-na* *ke-ndäl'-ä*
 father-POSS.1SG lunch time-ACC home-POSS.1PL go-ATT-AOR.3SG
 ‘Father **went** home **for a while** during lunch break (and then shortly came back).’

In (Makarchuk 2019) I propose the following semantics for Attenuative: Attenuative denotes **an event the duration of which is less than some norm and at the end of which its participant does not enter any result state**. In other words, an Attenuative event is a partial event, an event which is interrupted “halfway”. If the base verb denotes a state or an atelic process, then the derivative has a meaning of a shorter bounded event after which the participant returns to a rest state. If the base verb is a telic process, then that telic process is interrupted, but since some incremental effect had been accumulating during the event, this effect stays after the Attenuative event finishes, creating a meaning of a “partially” accomplished event. If the base verb denotes an achievement, that it is the result state that is interrupted “halfway”, and the final interpretation of the derivative is entry into a brief result state. That intuition about the semantics of Hill Mari Attenuative is being developed in the paper summarised in next section.

3. Semelfactives and delimitatives

(Makarchuk 2021) is about two bounded types of verbal attenuatives: semelfactives and delimitatives.

3.1. Semelfactives

Semelfactives are usually analysed as verbal number (see, for example (Khrakovsky 1998)). In such analyses semelfactive is defined as a “quantum” of a multiplicative process, i. e. a process which consists of a series of said “quanta”, such subevents which repeat with one and the same set of participants. An example of a semelfactive in that understanding could be pair of Russian *kašljanut'* ‘to cough once’ and *kašlat'* ‘to cough (several times)’. The verb *kašljat'* denotes a multiplicative process which is a repetition of an event denoted by the semelfactive verb *kašljanut'*.

However, in many languages there a semelfactive derivatives from non-multiplicative processes, like Russian colloquial *kurnut'* ‘to smoke a little bit’, *gul'nut'* ‘to go for a short walk’ and *čitnut'* ‘to read a little bit’. Base verbs *kurit'* ‘to smoke’, *gul'at'* ‘to go for a walk’, *čitat'* ‘to read’ denote processes which do not consist of repeating subevents, but still allow semelfactive derivatives.

I propose to develop the idea of semelfactives as “quanta” using Rothstein’s (2008) terms of **atoms** and **atomicity**.

Atom is an indivisible part of an entity, some minimal, or perceived as minimal, unit of it. Atomicity is the property that distinguishes count nouns from mass nouns: count nouns have atoms by which they count, while mass nouns do not have such. However, how Rothstein shows, there are two types of count nouns, such as *dog* vs. such as *bunch*. Atoms of the count nouns of the former type are identified by the lexical semantics of the predicate: you count dogs in dogs. For the latter type, the atom is created in context. For example, if you divide a bunch of flowers in half, one can say that these are two halves of a bunch of flowers, or that these are two smaller bunches of flowers. On the other hand, if you divide a dog, you cannot get a dog out of parts of the former one. Rothstein calls nouns like *dog* naturally atomic, and nouns like *bunch* are, therefore, not naturally atomic.

Then Rothstein uses the notions of atom and natural atomicity with verbal semantics. Atomicity is quantisation or boundedness of an event. Events like *arrive* are naturally atomic and can describe a quantised event on its own (23). On the contrary, processes like *run* in (24) are not naturally atomic, and in order to be felicitous in a quantised context, there has to be an explicit measurement unit like a mile. However, there are also naturally atomic processes multiplicative processes like *jump* in (25) which can be used in a quantised context on its own since its atom is defined by its lexical semantics.

(23) *John arrived in half an hour.* (Rothstein 2008, 48)

(24) a. *#Mary ran in ten minutes.*

b. *Mary ran a mile in ten minutes.* (Rothstein 2008, 59)

(25) a. *Mary jumped for ten minutes.* (our own example)

b. *Mary jumped in 15 seconds.* (Rothstein 2008, 60)

I propose that semelfactive denotes an **atom of an event**, that is a **temporally minimal part of an event**.

If one defines the semantics of semelfactive as such, then one can explain how aspectual meaning of the derivative depends on the aspectual class of the base verb. Let us look at examples of Russian, Finnish and Gawwada (Cushitic).

If the base verb is a multiplicative process, then since it is a naturally atomic event, semelfactive just “presents” that atom defined by lexical semantics:

(26) a. Finnish (Armoškaitė and Koskinen 2008)

hyp-ähtä-ä ‘jump once’ < *hypätä* ‘jump’

b. Gawwada (Tosco 2007)

tul~li ‘cough once’ < *tula* ‘cough’

c. Russian

mignut’ ‘blink once’ < *migmat’* ‘blink’

If the event is a non-multiplicative process, then it is not a naturally atomic event and semelfactive creates an atom out of the event depending on the context:

(27) a. Finnish (Karlsson 1999, 239)

laul-ahta-a ‘sing for a moment’ < *laulaa* ‘sing’

b. Gawwada (Tosco 2007)

ƒuk~ki ‘drink a little bit, sip’ < *ƒuk* ‘drink’

c. Russian

kurnut’ ‘to smoke a little bit’ < *kurit’* ‘to smoke’

At the same time, semelfactives cannot be derived from achievements (28) and individual-level states (29). Achievement are momentaneous events that do not have duration, that is why it is not possible to take a temporally minimal part of such an event. On the other hand, since individual-level states are not tied to any time or duration (one cannot *know something for two hours* and *understand for five minutes*), it is not possible to take any temporal part of it.

(28) a. Finnish (Armoškaitė and Koskinen 2008)

**saav-ahta-a* < *saapua* ‘come’

b. Russian

**nakhodnut’* < *nakhodit’* ‘find’

(29) a. Finnish (Armoškaitė and Koskinen 2008)

**tied-ähtä-ä* < *tietää* ‘know’

b. Russian

**ponimnut’/ponimanut’/ponjanut’* < *ponimat’* ‘understand’

Also, the paper contains a discussion of Moksha derivation *-kst* as an example of a shift from an inchoative meaning (‘to begin doing smth.’) to a semelfactive. This derivation can express both inchoatives like *jalga-kst-* ‘become friends’ < *jal-ga* ‘friend’ and semelfactives like *koz-ksta-* ‘cough once’ < *koz-* ‘cough’ and

s'uc'ə-ksta- ‘scold a little’ < *s'uc'ə-* ‘scold’. This derivation comes from a combination of a translative *-ks* and a causative *-t* (Serebrennikov 1967, 222) and most likely meant inchoative at first. I describe a possible path of grammaticalisation from inchoative to semelfactive. In general, inchoatives refer to a starting phase of an event which is minimal by definition. That is how inchoative and semelfactive are connected which makes a shift from the former to the latter plausible.

3.2. Delimitatives

The second type discussed is **delimitatives**. There are two approaches to delimitatives developed based on Slavic data. One of them is scalar analysis: according to it, delimitative means that the degree on some scale in the event structure is lower than the standard (see, for example, (Piñón 1994; Filip 2000), also see a scalar approach to all Russian verbal prefixes in (Kagan 2015)). The other analysis is that delimitative is purely aspectual: according to it, delimitative is an operator that has “pure” semantics of perfectivity and does not add a result state (Dickey and Hutcheson 2003; Fedotov and Chuikova 2013; Kisseleva and Tatevosov, 2011; Tatevosov 2015).

Both approaches have their weaknesses. Purely scalar analysis cannot explain example likes (30) and (31), where the degree to which the event is realised is not lower than normal or even higher than it.

- (30) *V saune, vdovol' popotev v žarkoj parnoj, <...> finn blagodušno razgovoritsja s vami, sidja v gostinnoj za kružkoj xolodnogo piva.*

‘In the sauna, **after having sweated plentifully** in the hot steam room, <...> a Finnish guy will have a chat with you, sitting in the living room and sipping a glass of cold beer.’

(Text from the internet, cited from (Fedotov and Chuikova 2013, 178))

- (31) *Zarabatyvaja bol'šyje den'gi, on bol'šuju čast' ix rasxodoval na edu, vot i synok vyšel v papašu ne tol'ko licom, no i umen'em xorošo i mnogo poest'.*

‘He earned big money and spent most of it on food. So his son resembled his father not only in his face but in that he knew how **to eat well and much.**’

(Nikolaj Varencov. Slyšannoe. Vidennoe. Peredumannoe. Perežitoe (1930–1935))

Purely aspectual analysis is compatible with examples above, but it is not clear why it is often for delimitatives to mean an incomplete event. Kisseleva and Tatevosov propose the following constraint: the base verb has to denote a process that is internally homogenous, not “directed” to a goal. But this constraint exists

as though separately from the semantics of pure perfective, the link between this constraint and the proposed semantics of delimitative is not clear.

I propose that the semantics of delimitative is a **non-final temporal portion of an event**. Let us look at how semantics of delimitative changes depending on aspectual type of the base verb in Russian, Hill Mari and Chuvash.

If the base verb is a state or a process, then the delimitative means that the state or process had started, had been occurring for some time and then finished.

(32) a. Russian

po-dyšat ‘breathe for a while’ < *dyšat* ‘breathe’

b. Hill Mari (own field work)

šül-äläl’-ä ‘breathed for a while’ < *šül-äš* ‘breathed’

c. Chuvash (Shluinsky 2006)

šivär-sa ilčë ‘slept for a while’ < *šivär-čë* ‘slept’

If the process has an incremental theme, then the derivative has an effect of partial accomplishment like in (13a), repeated as (33) **Ошибка! Источник ссылки не найден.**

(33) *kačk-äldal’-äm* *dä jäl-län* *kod-äšäm*
eat-ATT-AOR.1SG and people-DAT leave-AOR.1SG

‘I ate (a bit) [of fish] and left the rest for others.’

Also, the proposed analysis allows to bring closer the two meanings of Russian prefix *po-*: the delimitative one and the “purely” aspectual one. With some events, a portion of them is already a proper event: for example, such derivatives are *poprosit’* ‘ask for something’ and *poest’* ‘to have a meal’ (cf. usage of *poest’* with *vdovol’* ‘enough, plenty’ in (31) above). The verb *poest’* usually contains an implicature of partiality which can be explained by competition of this verb with the verb *s”est’* ‘to eat up’ (cf. (34a) and (34b)): if the speaker chooses the *po-* form *poel* instead of *s”el*, then according to the quantity maxim (Grice 1975) the stronger assertion of *s”el* that there occurred both the process of eating and its completion into a result state is not true. The only true assertion is the only assertion of *poel* that there occurred a process of eating. However, as shown in (34c), partiality is an implicature that is not always inferred.

(34) a. *Ja poel pirog,* ^{OK} *no on ešče ostalsja* / [?] *i ego bol’še net.*

‘I ate the pie a bit, ^{OK} but there is something left of it / [?] but there is nothing left.’

b. *Ja s"el pirog, ?? no on ešče ostalsja / ^{OK} i ego bol'se net.*

‘I ate the pie, ?? but there is something left of it / ^{OK} but there is nothing left.’

c. *Ty poel? — ^{OK} Ja poel i naelsja.*

‘Have you eaten anything? — I’ve eaten and now I’m full.’

Many aspectual pairs like *gruzit* ‘to be loading’ — *pogruzit* ‘to have loaded’ can also be explained by pragmatic mechanisms. The meaning of *po-* lacks a requirement of a result state, meaning it can derive Perfective verbs out of atelic verbs which do not have a potential result state in the event structure. At the same time, if the speaker chooses a Perfective verb with a meaning of a portion of the event rather than an Imperfective verb, then according to the Gricean quantity maxim an implicature is inferred that the situation has stopped and finished with some result, otherwise a less informative Imperfective verb would have been used. Thus, the result phase is an implicature that has become entrenched into the semantics of the verb form.

Since delimitative selects a portion of the event along the event, it is not compatible with individual-level state and entries into them (compare how Hill Mari Attenuative cannot be used with verb phrase like *give a present* in (10)). As I had mentioned above, individual-level states do not have temporal reference, that is why they cannot be used with a delimitative without being reinterpreted as stage-level state that has a temporal reference:

(35) ?? *Vasja pošepeljavil čas, a potom perestal.*

‘Vasya was a lisper for an hour, and then stopped.’

(36) ? *tädä marân âl-âldal'-â dä vara rušân li-n*
that Mari be-ATT-AOR.3SG and then Russian become-PRF.3SG

‘?He was a Mari for a while and then became Russian.’

As for compatibility with achievements, languages differ in that regard. In languages like Russian delimitatives cannot be derived from achievements (37a), but in languages like Hill Mari and Chuvash delimitatives derived from achievements are available and signify that the result state of the achievement occurred for only a brief period of time (37b-c).

(37) a. Russian

**poprixodit* < *prixodit* ‘come’

b. Hill Mari (my own field data)

pišt-äläl'-â ‘put (something somewhere) for a brief moment’ < *pišt-âš* ‘put’

c. Chuvash (Shluinski 2006)

sün-se ilčě ‘(the candle) went out and the ignited again’ < *sünčě* ‘went out’

4. Discontinuatives and verbal diminutives

(Makarchuk 2023) is about two types of unbounded verbal attenuatives: discontinuatives and verbal diminutives.

4.1. Discontinuatives

First let us look at **discontinuatives**. It is worth noting that is a conditional name since such derivatives can have meanings other than that of a proper discontinuative, that is a process with interruptions. But, as I show below, it is the core meaning of the derivation, that is why such a name has been chosen.

The paper discusses examples from Caribbean creoles, Malayo-Polynesian languages and Hill Mari. Below I will focus on the more illustrative examples of the Attenuative reduplication⁵ from Mauritian creole (Henri and Winterstein 2010, 2014) and *-kala* marker in Chuvash (Tatevosov 2006).

Interestingly, unlike other types of verbal attenuatives, discontinuatives are compatible with all aspectual classes.

If a base verb is an atelic process or a stage-level state, then the derivative has the meaning of discontinuative proper, that is an event happening with interruptions:

(38) a. Mauritian Creole (Henri and Winterstein 2010)

Zan ronf-ronfle lor sez.

John snore.SF-SNORE.LF on chair

‘John **snores sporadically** on the chair.’

b. Chuvash (Tatevosov 2006)

vaš'a uj-a suxala-kala-r-ě

Vasya field-DA plow-KALA-PFV-3:SG

‘Vasya **plowed** the (same) field **taking pauses** (one part of the field after another).’

This meaning can have an effect of low velocity like in Chuvash example below (Tatevosov 2006):

⁵ The authors call it morphological reduplication in opposition to syntactic reduplication, which I discuss below.

- (39) *maš'a koftă-na š'ix-kele-r-ě*
 Masha jacket-DA knit-KALA-PFV-3:SG
 'Masha **knitted** a jacket slowly.'

If a discontinuative is derived from a telic process, then it has meaning of a partial completion of that process:

- (40) a. Mauritian creole (Henri and Winterstein 2010)

Zan inn ranz-ranz so lakaz.
 John PERF build-build.SF 3SG.POSS house
 'John has **somewhat built** his house.'

- б. Chuvash (Tatevosov 2006)

jivaš'i š'an-kala-r-ě
 tree whither-KALA-PFV-3:SG
 'The tree has **partly withered**.'

As Henri and Winterstein's data shows, Attenuative reduplication is compatible with achievements and even individual-level states. Derivatives from achievements have meaning of rare occurrence (41), and derivatives from individual-level states have meaning of low degree of the state (42).

- (41) *Ariv-ariv aksidan par isi*
 happen-happen.SF accident by here
 'Accidents **happen** over here **once in a while**.'

- (42) *Avan mo bien dekouver so zwe*
 before 1SG.POSS well discover.SF 3SG.POSS game

mo ti pe krwar-krwar li.
 1SG PST PROG believe-believe.SF 3SG

'Before I got to know the real him, I **was somewhat believing** him.'

As for Chuvash, in the corpus by the Chuvash Language Laboratory⁶ there are examples of *-kala* derivatives with the meaning of low degree of a state (43) and rare occurrence (44) like examples from Mauritian creole above:

- (43) *Музыкă-на аста нѣле-т-ѣр-им эсир? — Пѣл-келе-т-ѣн.*
Muzikă-na ašta pělě-t-ěr-im esir — Pěl-kele-t-ěr.
 music-DA master know-NPST-2SG-Q you — know-KALA-NPST-1SG

'Are you savvy in music? — I'm **savvy only a little**.' [Sandrov N. A. Měn tumalla? (1957), translated by V. L. Saday from the corpus by Chuvash Language Laboratory]

⁶ <https://en.corpus.chv.su/>

- (44) Ял-а тăван-сем патне кил-келе-т-ĕп.
Jal-a tăvan-sem patne kil-kele-t-ĕp.
 village-DA relatives-PL to come-KALA-PRES-1SG

‘I **come from time to time** to my relatives in the village.’ [M. Petrova, Šuraš’na xĕr (2019) from the corpus by Chuvash Language Laboratory]

In the paper I also discuss a same example of Hill Mari Frequentative that has the same semantics (Mikhailov 2018a, 2018b), but I will leave it out here for considerations of space.

As I show in the paper, **diachronically discontinuatives come from markers of verbal pluractionality**.

Mauritian creole has two types of reduplications. The first one is morphological reduplication with attenuative meaning examples of which were presented above and are also in (45) below. The second one is syntactic reduplication with the meaning of iterative (46) and augmentative (47) (Henri and Winterstein 2010, 2014). I argue that morphological reduplication is a grammaticalisation of syntactic reduplication.

- (45) *Zan kontan sante-sante.*
 John like.SF sing-sing.LF
 ‘John likes **to hum**.’

- (46) *Li sante (ek) sante (ek) sante.*
 3SG sing.LF (and) sing.LF (and) sing.LF
 ‘He keeps **singing (and) singing (and) singing**.’

- (47) *Zan kontan sante sante.*
 John like.SF sing.LF sing.LF
 ‘John likes **to really sing**.’

The Chuvash marker *-kala*, also found in other Turkic language, apparently comes from a combination of two pluractionality markers *-ya* and *-la* (Tenishev 1988, 439). For example, Levitskaya (1976, 55) cites Sevortyan (1962, 349) who breaks a similar marker in Azerbaijani into “two elements with a frequentative meaning”⁷ *-ka* and *-la*.

Hill Mari discontinuatives also come from pluractionality markers (Galkin 1966, 88–90, 90–92, 95–99) (for more details see my paper).

I suggest the following path of grammaticalisation of such markers. Originally they denoted pluractionality. Then it evolves into discontinuative proper (occurrence with interruptions) and dispersive (event distributed in space). If the speakers uses a verb with a pluractionality marker, then the event expressed by

⁷ «два элемента с учащательным значением» in the original.

such verb is somehow different from the normal. If the event is distributed in time and space, then it has lesser intensity than an event concentrated in a single point of time and space. Then the implicature of low intensity becomes entrenched and the derivation starts to denote proper attenuative meanings like low degree of state.

4.2. Verbal diminutives

The second type discussed in the paper are **verbal diminutives**. I look at the examples of Italian *-a/e/i/u/acchi(are)*, *-a/e/u/uzz(are)*, *-in(are)*, *-ett(are)* (Grandi 2015; Tovina 2011, 2015), German *-el* (Grestenberger and Kallulli 2019; Weidhaas and Schmid 2015; Audring et al. 2017), French *-ot(er)*, *-Vill(er)*, *-on(ner)*, *-Vch(er)*, *-ass(er)* (Amiot and Stosic 2014) and Croatian *-ak*, *-uck*, *-k*, *-kar* (Katunar 2013).

These markers come from nominal diminutives, as shown in the examples below⁸:

- (48) German (Grestenberger and Kallulli 2019)
- a. *köch-el-n* ‘to almost boil, to simmer’ < *koch-en* ‘to boil’
 - b. *Büsch-el* ‘bunch, tuft’ < *Busch* ‘bunch’
- (49) Italian (Tovina 2011)
- a. *mangiu-cchi-are* ‘to be eating at (an apple)’ < *mangi-are* ‘to eat (an apple)’
 - b. *govern-icchi-o* ‘government of little value’ < *govern-o* ‘government’
- (50) French
- a. *neige-ot-er* ‘to snow lightly’ < *neiger* ‘to snow’ (Amiot and Stosic 2014)
 - b. *Pierr-ot* ‘little Pete’ < *Pierre* ‘Peter’
- (51) Croatian
- a. *lup-k-ati* ‘to hit lightly’ < *lupati* ‘to hit’ (Katunar 2013)
 - b. *smieš-k-a* ‘smile’ < *smijeh* ‘laughter’ (Ronelle 2006, 343)

The core meaning of such derivations is low intensity:

- (52) a. German (Grestenberger and Kallulli 2019)
- köch-el-n* ‘to almost boil, to simmer’ < *koch-en* ‘to boil’

⁸ Due to space limitations, only one example was taken for each of the languages, the full set for each language is presented in the paper.

b. Italian (Tovena 2011)

leggi-ucchi-are ‘to read for short time spans and with little attention, small parts of text’ < *legg-ere* ‘to read’

c. French (Amiot and Stosic 2014)

neige-ot-er ‘to snow lightly’ < *neig-er* ‘to snow’

d. Croatian (Katunar 2013)

lup-k-ati ‘to hit lightly’ < *lupati* ‘to hit’

Then a meaning of dispersive and discontinuative is evolved:

(53) a. German (Grestenberger and Kallulli 2019)

dräng-el-n ‘to jostle, to push less intensely/repeatedly’ < *dräng-en* ‘to urge, to push’

b. Italian (Tovena 2011)

tagliuzzare ‘to cut into small pieces’ < *tagliare* ‘to cut’

c. French (Amiot and Stosic 2014)

mord-ill-er ‘to nibble’ < *mord-re* ‘to bite’

d. Croatian (Katunar 2013)

trčkarati ‘to run around’ < *trčati* ‘to run’

To my mind, there are two reasons for such pluractional interpretation. One reason could be that pluractionality can be introduced by the lexical semantics of the base verb like in the example of French *mordiller* ‘to nibble’ derived from an already pluractional *mordre* ‘bite’.

In other cases, diminution of the event can be realised by lower intensity or rare occurrence of subevents. Let us consider German example of *nerveln* ‘to annoy somewhat, to act annoying’ from *nerven* ‘to annoy’. To annoy someone in a degree lesser than normal usually means that situations when one annoys the other happen more rarely than normal, that is where the meaning of pluractionality comes from.

Such pluractionality is not always inferred. For example, when a diminutive verb *köcheln* ‘to simmer’ is derived from *kochen* ‘to boil’, the diminutive denotes only that the temperature of heating is lower, one does not need multiple subevents for that.

To add, verbal diminutives often have a pragmatic flavour of pejorative, which has also been noted for Hill Mari discontinuative (Mikhailov 2018a):

- (54) a. German (Grestenberger and Kallulli 2019)
schreib-erl-n ‘to write badly, inexpertly’ < *schreib-en* ‘to write’ (Viennese German)
- b. French (Amiot and Stosic 2014)
chroniqu-aill-er ‘to write unimportant chronicles once in a while’
 < *chroniqu-er* ‘to write chronicles’
- c. Croatian (Katunar 2013)
piskarati ‘to write poorly’ < *pisati* ‘to write’

According to data by Grandi (2015) on Italian and data by Amiot and Stosic (2014) on French, verbal diminutives usually combine only with processes and stage-level states. However, additional research is needed to clarify compatibility with different aspectual types.

5. Conclusion

This thesis presents a typology of verbal attenuatives, derivations with a meaning of a lesser event.

This domain is understudied. The only published typological survey by Audring et al. (2021) presents a wide sample of languages, but aspectual semantics and compatibility of such derivation was not looked in detail. In this thesis I tried to present a more in-depth description of different types, of their meanings and their compatibility with different aspectual classes.

The paper in (Makarchuk 2019), summarised in section 2, is a case-study of Hill Mari verbal attenuative. I hope that it shows how a verbal attenuative in a particular language can be researched and described, which actionality classes it may be useful to look at, and how actionality of the base verb can affect the interpretation of the final derivative.

In the paper in (Makarchuk 2021), summarised in section 3, and the paper in (Makarchuk 2023), summarised in section 4, I present four types of verbal attenuatives: semelfactives, delimitatives, discontinuatives and verbal diminutives.

I suggest the core meanings of these types. Semelfactive is a temporally minimal event. Delimitative is a non-final temporal portion of an event. The core meaning of discontinuative is interrupted event from which the general meaning of lower intensity is derived. Verbal diminutive is a (durative) event of a lower degree of realisation.

Table 1 is a summary on which types of verbal attenuatives combine with different aspectual classes and how the aspectual class of the base verb affects the meaning of the derivative.

	individual-level state	stage-level state / atelic process	telic process	achievement
semelfactive	—	minimal event	partial, “sloppy” realisation	—
delimitative	—	portion of event	partial realisation	entry into brief state (sometimes)
discontinuative	low degree of state	event with interruptions	partial realisation	rare occurrence
verbal diminutive	—	lesser state / process		—

Table 1. Compatibility of different types of verbal attenuatives with different aspectual classes

To those who have not researched aspectual derivations closely it may at the first glance seem that their final meanings are idiosyncratic and poorly predictable. However, I hope that my thesis shows that if one clearly identifies the meaning of the derivation, then one can predict its compatibility properties and the semantics of the final derivative depending on the aspectual class of the base verb. This thesis touches upon only a part of a rather large and understudied domain of verbal categories which I call **verbal measure**. Verbal measure is any type of meaning which expresses some degree or measure of realisation of the event with regards to some scale. I hope that more researchers are interested in this domain of verbal semantics which would help us deepen our understanding of components of verbal aspect.

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