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The semantics of the light verb *tək* in Poshkart Chuvash[1]

1. Introduction

➢ (Poshkart dialect of) Chuvash < Turkic < Altaic

➢ Chuvash features complex predicates – constructions consisting of two verbal forms, but denoting a single event, as in (1):

(1) *vaɕə ɕur-za   ka-rʲ-ə*
    V.   sleep-CV_SIM go-PST-3SG
    'Vasya fell asleep.'

➢ A complex predicate consists of the governed verb in the converb form, which is responsible for the lexical content of the event (thus it is called a **lexical verb**) and the main verb which functions as a grammatical modifier (it is called a **light verb**)

➢ In Chuvash, there are many light verbs with different actional, directive and valence-changing functions (see, for instance, [Shluinsky 2006a; Lebedev 2016; Golosov 2020])

➢ My talk is dedicated to the meaning and selective restrictions of the light verb *tək* 'to scatter' in the Poshkart dialect of Chuvash

➢ All the data[2] were collected during the fieldwork in Chuvash village Poshkart (Maloye Karachkino) in the Chuvash Republic in August 2019 and March 2020

➢ The plan of my talk:

    o Introduction
    o Data
        ▪ Semantics and distribution of the light verb *tək*
        ▪ Opposition between event-internal and event-external pluractionals with respect to the light verb *tək*
    o Summary
    o Appendix (Analysis)

All the examples were collected via elicitation method: I either asked consultants to translate a Russian stimulus into Chuvash or asked them whether a stimuli in Chuvash is acceptable and got its translation into Russian in case it was interpretable. I count examples acceptable if at least 3 consultants accept them. If there were some native speakers that reject the example, I made a special note x/y above it: x is a number of consultants who accepted the sentence, and y is a number of asked native speakers.

Other notes: * -- sentence is ungrammatical, ? – sentence is more or less acceptable, but not very natural, ok – sentence is grammatical (used only in the contrast contexts), p – preliminarily acceptable sentence (asked on less than 3 informants).

2. Data

2.1. Semantics and distribution of the light verb *tǝk*

➢ In its lexical usage, this verb means 'pour, scatter':

(2) *vaɕǝ şa   tǝk-rʲ-ǝ*
    V.   water.OBJ pour-PST-3SG
    'Vasya poured the water.'

➢ Light verb *tǝk* is one of the Chuvash telicizing light verbs [Golosov 2020], since it forms punctive complex predicates (in terms of [Tatevosov 2016]), always denoting a culmination point:

(3) a. *vaɕǝ   jɨd-a   pilëk minut-ra   tap-sa   tǝk-rʲ-ǝ*
       V.   dog-OBJ   5   minute-LOC   kick-CV_SIM scatter-PST-3SG
       'Vasya kicked the dog in five minutes.'

   b. **vaɕǝ   jɨd-a   pilëk minut   tap-sa   tǝk-rʲ-ǝ*
       V.   dog-OBJ   5   minute   kick-CV_SIM scatter-PST-3SG
       Intended: 'Vasya kicked the dog for five minutes.'

   c. *vaɕǝ   jɨd-a   pilëk minut-ra   tap-sa   tǝg-at*
       V.   dog-OBJ   5   minute-LOC   kick-CV_SIM scatter-NPST[3SG]
       'Vasya kicked the dog in five minutes'.

   d. **vaɕǝ   jɨd-a   pilëk minut   tap-sa   tǝk-rʲ-ǝ*
       V.   dog-OBJ   5   minute   kick-CV_SIM scatter-PST-3SG
       Intended: 'Vasya is kicking the dog for five minutes.'

➢ In addition to the actional meaning, *tǝk* functions as a pluractional operator, i.e. it forms complex predicates denoting a series of events:

(4) a. *vaɕǝ   pëdëm   şarig-a   sek-ter-ze   tǝk-rʲ-ǝ*
       V.   all   balloon-OBJ   burst-CAUS-CV_SIM scatter-PST-3SG
       'Vasya burst all the balloons.'

   b. *vaɕǝ   lista-ja   (*ɕorma-la) paj-la-za   tǝk-rʲ-ǝ*
       V.   list-OBJ   half-ATTR   part-VBZ-CV_SIM scatter-PST-3SG
       'Vasya tore the sheet into (*two) parts.'

➢ Light verb *tǝk* has some selective restrictions, since it combines only with transitive processes and (very preliminarily) unergatives, but not with unaccusatives and (at least transitive) states:

(5) a. *vaɕǝ pëdëm   tɕaşkǝ   ɕëmër-ze   tǝk-rʲ-ǝ*
       V.   all   cup   break-CV_SIM scatter-PST-3SG
       'Vasya broke all the cups.'

b. *ᵖ⁒vəl*   *numaj*   *sek-se*   *tək-sa*
   3SG   many   jump-CV_SIM   scatter-CV_SIM
   'He jumped a lot (and probably too much).'

c. **salɕə*   *zoopark-ri* *pëdëm*   *ʨerʥonʲa* *pək-sa*   *tək-rʲ-ə*
   S.   ZOO-LOC   all   animal   watch-CV_SIM   scatter-PST-3SG
   Intended: 'Sasha watched all the animals in the zoo.'

d. **an'a*   *pëdëm*   *joldaʐ-a*   *jorat-sa*   *tək-rʲ-ə*
   A.   all   friend-OBJ   love-CV_SIM   scatter-PST-3SG
   Intended: 'Anya loved all her friends.'

e. **pëdëm* *vərəm-dona* *vil-ze*   *tək-rʲ-ə*
   all   long-leg   die-CV_SIM   scatter-PST-3SG
   Intended: 'All the mosquitoes died.'

➢ The semantics of the light verb is sensitive to the fact whether object undergoes change or not

   o In combination with verbs with patient-like object, light verb *tək* forms complex predicates denoting full coverage (exhaustiveness) of the object with respect to the action:

(6) a. *valɕə*   *pëdëm*   *ʂarig-a*   *sek-ter-ze*   *tək-rʲ-ə*
   V.   all   balloon-OBJ burst-CAUS-CV_SIM   scatter-PST-3SG
   'Vasya burst all the balloons.'

b. *valɕə*   *jɨd-a*   *tap-sa*   *tək-rʲ-ə*
   V.   dog-OBJ   kick-CV_SIM   scatter-PST-3SG
   'Vasya kicked the dog (completely)'.

➢ In combination with the verbs without a patientive object, the light verb *tək* forms complex predicates denoting a large set of events possibly making some effect on the agent (but examples are often non-ideal for speakers)[3]:

(7) a. *valɕə*   *numaj*   *kënege*   *vula-za*   *tək-sa*
   V.   many   book   read-CV_SIM scatter-CV_SIM
   'Vasya read many books.'

b. *ʔvalɕə*   *numaj*   *film* *pək-sa*   *tək-sa*
   V.   many   Film watch-CV_SIM scatter-CV_SIM
   'Vasya watched many films.'

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[3] One of the interesting properties of these contexts is that here, the complex predicates with *tək* cannot get an object with the operator *pëdëm* 'all', in contrast to the sentences in (6). It can be explained either by the fact that it is the subject that gets somehow affected, and thus the object cannot be the main focus of the action, or by the fact that in the contexts with the focus on the verb, the other light verbs are used. I do not discuss this distinction in the talk since I do not have enough time for it.

c. ?*vaɕə*   *numaj*   *səvə*   *vëren-ze*   *tək-rʲ-ə*
   V.   many   poem learn-CV_SIM scatter-PST-3SG
   'Vasya learnt many poems by heart.'

d. *vaɕə*   *numaj*   *duxi*   *ʂərʂla-za*   *tək-sa*
   V.   many   perfume   smell-CV_SIM scatter-CV_SIM
   'Vasya smelled many perfumes (and got confused).'

2.2. Opposition between event-internal and event-external pluractionality with respect to the light verb *tək*

➢ In the typological studies of pluractionality, there is an opposition between **event-internal** and **event-external** pluractionals (see, for instance, [Khrakovsky 1989; Shluinsky 2006b; Henderson 2012])

➢ In [Henderson 2012], Henderson discusses six oppositions between event-internal and event-external pluractionals:

1) **Compatibility with verbs of different actional classes.** Event internal pluractionals mostly combine with achievements, while event external pluractionals can combine with wider range of actional classes.

2) **The number of occasions.** Events described by event internal pluractionals must take place in a single occasion, while event external pluractionality does not have such a restriction.

3) **The number of subevents.** Event internal pluractionals require a large number of subevents, while event external pluractionals allow any non-singular quantity of them.

4) **The duration of a break between events.** Event internal pluractionals require very short break between events pluralized, while event external pluractionals allow longer breaks.

5) **Shared telos or theme.** Event internal pluractionals describe a set of events that share the same telos or theme, while event external pluractionals can describe a set of independent events.

6) **Entailment of the base predicate.** Event internal pluractionals form predicates that do not entail base predicates, while event external pluractionals necessarily entail base predicates.

➢ Let us apply each test to the light verb *tək*:

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1) **Compatibility with verbs of different actional classes.** Event internal pluractionals mostly combine with achievements, while event external pluractionals can combine with wider range of actional classes.

- o Light verb *tək* behaves as an **event-external** pluractional here, since it combines not only with achievements, but also with verbs of different actional classes:

(8) a. *vaɕə   pëdëm   ʂarig-a   sek-ter-ze   tək-rʲ-ə*
    V.   all   balloon-OBJ   burst-CAUS-CV_SIM scatter-PST-3SG
   'Vasya burst all the balloons.'

    b.$^{3/4}$*vaɕə   pëdëm   omla-ja   tibët-se   tək-rʲ-ə*
        V.   all   apple-OBJ   dry-CV_SIM   scatter-PST-3SG
     'Vasya dried all the apples.'

    c. $^{3/4}$*vaɕə   por   këbe-je=de   ɕu-za   tə-k-rʲ-ə*
      V.   all   shirt-OBJ=ADD   wash-CV_SIM scatter-PST-3SG
    'Vasya washed all the shirts.'

    d. *jebë   pëdëm   vërenegen-e varɕ-sa   tək-r-əm*
      1SG   all   pupil-OBJ   conflict-CV_SIM   scatter-PST-1SG
    'I scolded all the pupils.'

    e. *vaɕə   jɨd-a   tap-sa   tək-rʲ-ə*
      V.   dog-OBJ   kick-CV_SIM   scatter-PST-3SG
    'I kicked the dog completely.'

2) **The number of occasions.** Events described by event internal pluractionals must take place in a single occasion, while event external pluractionality does not have such a restriction

➢ According to this test, *tək* preliminarily behaves as an **event-internal** operator, since it denotes a single occasion, which leads to a single telos

➢ Henderson shows that event-external pluractionals can form habitual predicates, denoting a set of independent events

➢ Judging by preliminary data, complex predicates with *tək* can occur in habitual contexts, but in this case the habitual operator works on the whole event described by the complex predicate, implying the regular repetition of exhaustiveness effect on the patient, not just the regular repetition of the event described by the lexical verb

3) **The number of subevents.** Event internal pluractionals require a large number of subevents, while event external pluractionals allow any non-singular quantity of them.

   o The light verb *tək* behaves as an **event-internal** operator here, since it requires a number of subevents to be large:

(9) a. *vaɕə   *igë*   *vərəm-dona-ja*   *vëler-ze*   *tək-rʲ-ə*
      V.   2   long-leg-OBJ   kill-CV_SIM   scatter-PST-3SG
      Intended: 'Vasya killed two mosquitoes.'

     b. ^{ok}*vaɕə*   *vonə*   *vərəm-dona-ja*   *vëler-ze*   *tək-r-ʲə*
      V.   10   long-leg-OBJ   kill-CV_SIM   scatter-PST-3SG
      'Vasya killed ten mosquitoes.'

4) **The duration of a break between events.** Event internal pluractionals require very short break between events pluralized, while event external pluractionals allow longer breaks.

   o The light verb *tək* behaves here as an **event-external** pluractional, since it allows longer breaks between subevents:

(10) a. *jep ɕoldalək*   *xoʂ-in-dʑe*   *ëne-zen-e*   *sot-sa*   *tək-r-əm*
       1SG year   period-P_3-LOC   cow-PL-OBJ   sell-CV_SIM   scatter-PST-1SG
       'I sold the cows in a year'.

     b. ^{3/4}*vaɕə aləg-a*   *ɕoldalək xoʂ-in-dʑe*   *ɕëmër-ze*   *tək-rʲ-ə*
       V.   door-OBJ   year   period-P_3-LOC   break-CV_SIM scatter-PST-3SG
       'Vasya broke the door completely in the year'.

5) **Shared telos or theme.** Event internal pluractionals describe a set of events that share the same telos or theme, while event external pluractionals can describe a set of independent events.

➤ In this respect, the light verb *tək* behaves as an **event-internal** operator, since, as I have already mentioned, it forms telic complex predicates denoting entering the state of exhaustiveness of one of the participants

6) **Entailment of the base predicate.** Event internal pluractionals form predicates that do not entail base predicates, while event external pluractionals necessarily entail base predicates.

➤ In this respect, the light verb *tək* is an **event-external** operator, since complex predicates with *tək* necessarily entail basic lexical verbs, see, for instance, (11):

(11) *tapsa tək* 'kick (exhaustively)' => *tap* 'kick'

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➢ Thus, the light verb *tək* demonstrates **ambiguous** behavior with respect to the opposition between **event-external** and **event-internal** pluractionals, which is summarized in the Table 1:

Diagnostics	Ev-Int/Ev-Ext
Compatibility with verbs of different actional classes	Event-external
Number of occasions	Event-internal (preliminarily)
Number of subevents	Event-internal
Duration of a break between events	Event-external
Shared telos or theme	Event-internal
Entailment of the base predicate	Event-external

➢ Although the light verb *tək* shares some properties of event-external pluractionals, it is impossible to give an analysis with no appeal to the entire structure of the event:

  o The light verb *tək* denotes a change of state of one of the arguments, and the choice of the argument depends on the entire structure of the lexical verb in a specific way

  o There is a formal approach that can solve this problem, dealing with the other properties[4] of the light verb *tək* -- it is called the first phase syntax [Ramchand 2008a]

    ▪ Due to the time restrictions, I will not introduce an analysis in the 10-minute talk, but I place it in the appendix part, looking forward presenting and discussing it during the discussion part

3. Summary

➢ The verb *tək*, which means 'to scatter', grammaticalized in the actional operator forming telic complex predicates with pluractionality inference

➢ This verb combines with verbs with an external argument and denotes the exhaustiveness of one of the participants (actually, the Undergoer of the event)

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[4] Note that the three "event-external" properties of the light verb do not contradict its possible event-internal analysis: the longer breaks between subevents, compatibility with verbs of different actional classes and the entailment of the base predicate are not something which obligatorily makes an analysis of the pluractional event-external.
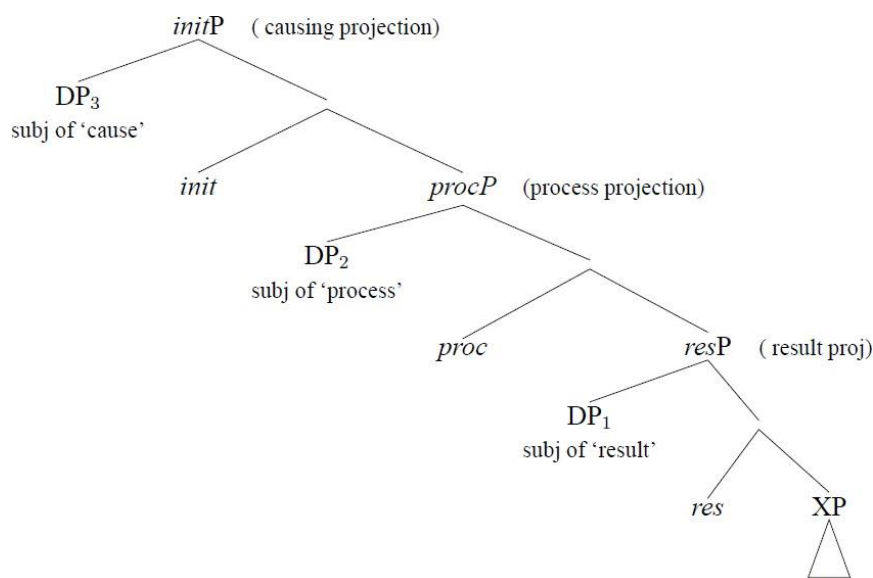
➢ It has some properties of event-internal pluractionals and some properties of event-external pluractionals, thus going against the typology and analysis formulated in [Henderson 2012]

➢ However, all event-external properties of *tǝk* do not in principle contradict its possible event-internal analysis, while its sensitivity to the thematic roles of the verb forces to offer an event-internal analysis

➢ The properties of the light verb *tǝk* and the proposed event structure correspond to its lexical counterpart: a lexical verb *tǝk* 'to scatter' also contains external argument and denotes a pluractional change of state of the patient

➢ The grammaticalization of the light verb *tǝk* in Chuvash into telicizing pluractional operator is not a unique event, there is at least one similar grammaticalization history:

   o In Hill Mari, the near-synonymous verb *kǝ̃ škäš* 'throw, pour, scatter', denoting a series of throws, is grammaticalized in a pluractional telicizing operator, see [Kashkin 2018] for more details

4. Appendix: Analysis

4.1. The first phase syntax

➢ I will provide analysis in the framework of the first phase syntax [Ramchand 2008a]

➢ It is a formal theory of actional decomposition, according to which the structure of event is represented via some combination of three subeventual heads:

   o ***init*** introduces an initiation (causative) subevent and the source of the causative activity – Initiator

   o ***proc*** introduces a subevent of process or change of state and the core participant involved in the process – Undergoer

   o ***res*** introduces a resultant state of the event and the holder of that state – Resultee

➢ The maximal projection of the first phase syntax is illustrated below [Ramchand 2008a: 46]:

*init*P   (causing projection)

DP$_3$
subj of 'cause'

init   *proc*P   (process projection)

DP$_2$
subj of 'process'

proc   *res*P   (result proj)

DP$_1$
subj of 'result'

res   XP
...

➢ The first phase syntax helps to deal with event structure derivations staying

Figure 1. The first phase syntax

on the border between syntax and morphology, such as causatives, aspectual preverbs and, crucially, **complex predicates** [Ramchand 2008a; Ramchand 2008b; Ozarkar&Ramchand 2018; Kashkin&Dyachkov 2018; Golosov 2019a; Golosov 2019b; Golosov 2020]

➢ In the first phase syntax, the light verb is such a verb that has lost its lexical component of the meaning, but preserved the event structure, and this structure is responsible for the event structure of the whole complex predicate

➢ Simplifying, one can say (in terms of [Levin&Rappaport-Hovav 1998]) that in the complex predicate, the light verb is responsible for the event template, while the lexical verb is responsible for the lexical constant

➢ The event structure of the light verb should predict both its actional meaning and its selective restrictions

4.2. Analysis of the complex predicates with *tək*

➢ Light verb *tək* combines with transitives and possibly with unergatives, but does not combine with unaccusatives, hence it should contain external argument and *init* head in its event structure

➢ Since *tək* forms telic complex predicates denoting a change of state of a participant, it should contain *proc* and *res* and Undergoer and Resultee correspondingly

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> The question is: which head is responsible for pluractionality?

> It could not be *init* head alone, otherwise the sentence (12) would be grammatical:

(12) *oxotnik-sam   xir   sɨsn-in-e   vëler-ze   tək-rʲ-əɕ
    hunter-PL   field   pig-P_3-OBJ   kill-CV_SIM   scatter-PST-3PL
    Intended: 'Hunters killed the pig.'

> Alternative explanation: the pluractionality comes as an entailment of plurality of Resultees encoded in *res*

> This does not work also, since the plurality of Resultee is not required:

(13) a. *saltak*   *gitler-a*   *tɕol-ba*   *per-ze*   *tək-rʲ-ə*
    soldier   H.-OBJ   stone-INS   throw-CV_SIM scatter-PST-3SG
    'A soldier pelted Hilter with stones.'

   b. *aməʂ*   *ul-nʲ-a*   *vərɛ-sa*   *tək-rʲ-ə*
    mother   son-P_3-OBJ   conflict-CV_SIM   scatter-PST-3SG
    'Mother scolded her son.'

> Hence, the only possible source of pluractionality is *proc* head (and possibly *init* head in addition)

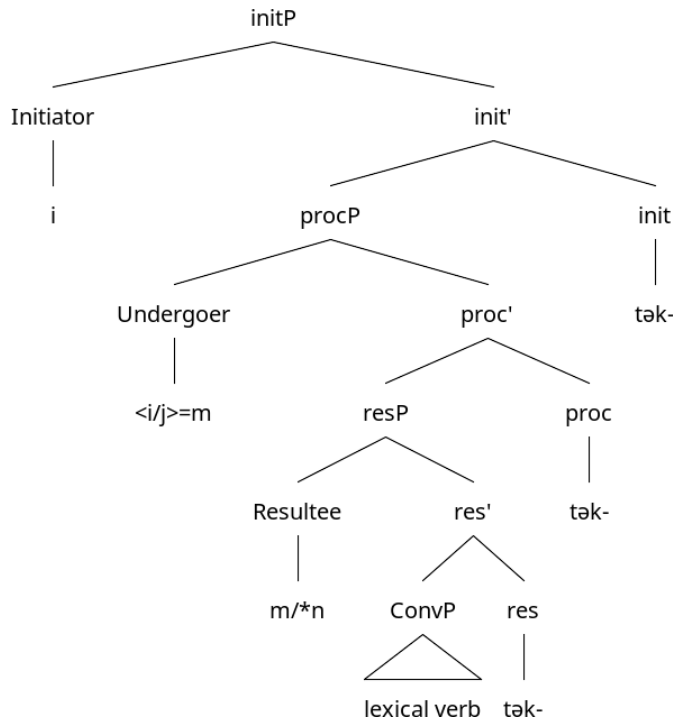> Thus, the structure of the complex predicates with the light verb *tək* is as follows:

Figure 2. Event structure of the light verb *tək* 'to scatter'

- Note that one of the independent advantages of the first phase syntax here is that it predicts which argument will be "the main" entity of the event:

  - In combination with transitives which contain both an agent and a patient, light verb *tək* forms complex predicates denoting a change of state of the object leading to its exhaustiveness

  - In combination with transitives that do not contain a patient object, and preliminarily with unergatives, light verb *tək* forms complex predicates with more focus on some effect on the subject (and these contexts are generally less natural for the speakers)

- The first phase syntax predicts this automatically, claiming that the Undergoer of the lexical verb is a participant that changes its state during the action:

  - Ramchand [2008a] analyses unergatives and transitives without a patientive object as verbs that have coreferential Initiator and Undergoer (in her framework, a single DP can get a series of thematic roles)

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