DISCONTINUOUS PAST IS REAL: EVIDENCE FROM NORTHWEST CAUCASIAN

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1. Introduction

"Discontinuous past" or "superpast" (Plungian & van der Auwera 2006: 317):

> a type of verbal markers of the past tense with a meaning roughly characterizable as "past and not present" or "past with no present relevance"

Cf. Dahl (1985: 147–148) on "past temporal frames" as well as Salkie (1989), Squartini (1999) and Sitchinava (2013) on the relation of discontinuous past with pluperfects.

"Superpast" is a cross-linguistically recurring cluster of meanings comprising:

– anteriority of a past event with respect to a past reference point ("past in the past"):

> ENGLISH (Salkie 1989: 2)

(1) *After he **had eaten** his dinner he smoked a cigar.*

– resultative in the past ("perfect in the past"):

> ENGLISH (Salkie 1989: 16)

(2) *John **had** already **left** at ten o'clock.*

– past situation no longer holding at present:

> EAST FUTUNAN (Austronesian > Malayo-Polynesian > Oceanic > Polynesian, Futuna; Plungian & van der Auwera 2006: 323)

(3) ***na** koi   su'a   le   li'ua*
     DP   CONT   flow   SP   river
     'At that time, the river still used to flow.'

– canceled result:

> WOLOF (Atlantic-Congo > North-Central Atlantic, Senegal; Plungian & van der Auwera 2006: 331)

(4) a. *dem   na*
         go   PFV:3SG
         'S/he has gone.'

     b. *dem-**oon** na*
         go-DP   PFV:3SG
         'S/he had gone (but is back again).'

– remote past:

> ITALIAN (Squartini 1999: 58)

(5) *Quel disegno lo **avevo fatto** io il primo giorno che lavoravo all'istituto.*
     (pointing to a drawing) 'I made (lit. had made) this drawing on the first day I worked at the institute.'

– counterfactuality in conditionals and wishes:

> ENGLISH (Declerck & Reed 2001: 183)

(6) *If I **had known** what I know now, I wouldn't have appointed him.*

The temporal uses of discontinuous past grams can be characterized by the following two meaning components:

(7) a.   Topic time before speech time
     b.   Event or its resultant state no longer holding at speech time

While (7a) is definitional for past tense grams (Klein 1994: 124), (7b) is specific for discontinuous past grams.

The big question: does (7b) in fact belong to the semantics of the relevant grams or is merely an implicature arising through interaction of (7a) with semantics of verbs, context and opposition with other tense forms?

In recent work, Cable (2017) and von Prince (2017) have argued for the latter view.

– Cable (2017) argues, drawing upon Altshuler & Schwarzschild (2013) on the "cessation implicature" of English past tense with statives, that the discontinuous past marker in Tlingit (Na-Dene, British Columbia) is semantically a plain past marker, its cessation implicatures being defeasible and arising through pragmatic principles.

Moreover, Cable (2017: 678) makes cross-linguistic claims, i.e. that

(8) a.   discontinuous past interpretation (7b) is only available in languages with optional past markers, "where unmarked verbs can be used to describe either present or past eventualities";
     b.   (7b) is always a cancelable implicature arising due to optionality.

– von Prince (2017) on the basis of the data from Daakaka (Austronesian > Malayo-Polynesian > Oceanic, Vanuatu) argues that (8) should be qualified:

(9) a.   discontinuous past interpretations are available for obligatory past tense grams as well;
     b.   (7b) is still an implicature, but can arise through competition of different TAM grams.

Our goal: We try to show that at least in Northwest Caucasian languages both recent claims about discontinuous past do not hold:

(10) a.   the discontinuous past interpretation is available in tense systems with rich and obligatory tense marking (thus support for von Prince 2017);
     b.   the discontinuous past interpretation in these languages is not defeasible, hence part of semantics rather than implicature (*pace* both Cable 2017 and von Prince 2017).

2. The Northwest Caucasian languages

A language family comprising three branches:
– Abkhaz-Abaza: Abkhaz, Abaza
– Ubykh (extinct)
– Circassian: West Circassian (Adyghe), East Circassian (Kabardian)

(See map on the next page.) The total number of speakers including those in the diaspora in Turkey and Middle East is perhaps more that 1 million. Not endangered, though constantly undergoing pressure from the major languages (Russian, Turkish etc.).

Major typological features (cf. Arkadiev & Lander to appear):

– huge consonantal vs. minimal vowel inventories;
– little distinction between major parts of speech;
– polysynthesis and exuberant head marking;
– ergativity in head and dependent marking;

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– a complex mixture of templatic and layered morphological organization;
– complex tense-aspect systems;
– complex morphological marking of clausal subordination.

We will present data from two languages belonging to the two extant branches of the family: Abaza and Standard Kabardian. The Abaza data has been collected during three field-trips to the village Inzhich-Chukun (Karachay-Cherkes Republic) in 2017–2019; the Standard Kabardian data has been collected from a native speaker in Moscow in 2018. All examples, unless indicated otherwise, are elicited.

3. Tense systems of Kabardian and Abaza
Described in Klyagina (2018), Arkadiev & Lander (to appear, §5.5).
Two intersecting dimensions:
– perfective vs. imperfective;
– simple vs. **retrospectivized**.
Retrospectivized tenses are formed on the basis of the simple ones by means of the so-called **retrospective shift** markers (Plungian & van der Auwera 2006: 344), which shift the interpretation of the verbal form they modify (further) to the past.

3.1. Tense system of Kabardian

simple		retrospectivized	
Present	dynamic prefix + (-*r*)	Imperfect	-*(r)-t*
Aorist	-*a-ŝ*	Pluperfect	-*a-t*
Future I	-*nu-ŝ*	Subjunctive I	-*ne-t*
Future II	-*n-ŝ*	Subjunctive II	*(-n-t)*

– Present:

(11) *se   raskaz-xe-r   s-o-tx̌*
    1SG   story-PL-ABS   1SG.ERG-DYN-write
    'I write stories.'

– Imperfect: progressive or habitual in the past

(12) *zarine   dəʁʷase   səhet-jə-blə-m   televizorə-m   je-pλ-t*
    Zarina   yesterday   hour-LNK-seven-OBL   television-OBL   DAT-watch-IPF
    'Yesterday at seven o'clock Zarina was watching TV.'

– Aorist: completed or temporally bounded events in the past

(13) *ruslan   txəλə-r   jə-tx-a-ŝ*
    Ruslan   book-ABS   3SG.ERG-write-AOR-DCL
    'Ruslan wrote a book.'

(14) *dəʁʷase   kʷed-re   s-je-ǯ̌-a-ŝ*
    yesterday   much-DUR   1SG.ABS-DAT-read-AOR-DCL
    'Yesterday I read for a long time.'

– Pluperfect: precedence to a past reference time

(15) *darjəne   lepsə-r   jə-ŝ-a-t*
    Darina   soup-ABS   3SG.ERG-make-AOR-RS
    '[When Ruslan came home] Darina had already cooked soup.'

– canceled result

(16) *ŝheʁʷəmbže-r   xet   q̇ə-z-ʔʷ-jə-x-a-te-r*
    window-ABS   who   DIR-REL.IO-LOC-DAT-open-AOR-RS-ABS
    'Who had opened the window? [Now it is closed.]'

– remote past

(17) *ze   s-j-ade-m   velosiped-če   q̇e-z-žə.hə-n-u*
    once 3SG.PR-POSS-father-OBL   bicycle-INS   DIR-1SG.ERG-ride-POT-ADV
    sə-r-jə-ʁe.s-a-t
    1SG.ABS-DAT-3SG.ERG-teach-AOR-RS
    'My father once taught me to ride a bicycle.'

The formal opposition between the "regular past" (Aorist) and "superpast" (Pluperfect) is not carried over to the imperfective domain, where the Imperfect is used to express past durative situations both possibly persisting into the present (18) and canceled (19).

(18) *petja   ŝ-jə-λeʁʷa-m,   a-r   wešxə-m   xe-t-u   q̇a-fe-r-t*
    Petya   TEMP-3SG.ERG-see-OBL   DEM-ABS   rain-OBL   LOC-stand-ADV   DIR-dance-PRS-RS
    'When Petya saw her, she was dancing in the rain.' (She can still be dancing.)

(19) *jape-m   ruslan   twetən   je-fe-r-t,   jəž̌əpst-u   je-fe-ẑ-q̇əm*
    before-OBL   Ruslan   tobacco   DAT-drink-PRS-RS   now-ADV   DAT-drink-RE-NEG
    'Ruslan used to smoke before, but now he does not smoke any more.'

3.2. Tense system of Abaza

	basic		retrospectivized		
	finite	non-finite		finite	non-finite
Stative Pres.	*-ṗ*	*-əw*	Stative Past	**-n**	*-z*
Present	*-əj-ṭ*	*-wa*	Imperfect	*-wa-**n***	*-wa-z*
Aorist	*-ṭ*	∅	Retro-aorist	**-n**	*-z*
Future I	*-wa-š-ṭ*	*-wa-š*	Subjunctive I	*-wa-šə-**n***	*-wa-šə-z*
Future II	*-ṗ*	*-ra*	Subjunctive II	*-rə-**n***	*-rə-z*

– Present:

(20) *a-səbəj*   ***d-ĉəw-əj-ṭ***
     DEF-child   3SG.H.ABS-cry-PRS-DCL
     'The child is crying.'

– Imperfect: progressive and habitual past

(21) *alina*   *d-an-ʕa-j*   *marina*   ***d-a-pχ'-əw-n***
     Alina   3SG.H.ABS-TEMP-DIR-go   Marina   3SG.H.ABS-3SG.N.IO-read-IPF-RS
     'When Alina came, Marina was reading.'

(22) *fatima*   *ansəj–mšə*   *arəpχ'aga*   ***l-ʕ^w-wa-n***
     Fatima   every–day   DEF + book   3SG.F.ERG-write-IPF-RS
     'Fatima wrote the book every day.'

– Aorist: temporally bounded and completed situations in the past

(23) *sara*   *a-qəŝ*   ***ʕa-s-ṭə-ṭ***
     1SG   DEF-window   DIR-1SG.ERG-open(AOR)-DCL
     'I opened the window.'

(24) *sara*   *awəra-ta*   *a-pšça*   *a-pnə*   ***s-q^wmar-ṭ***
     1SG   long-ADV   DEF-yard   3SG.N.IO-at   1SG.ABS-play(AOR)-DCL
     'I played outdoors for a long time.'

Retro-aorist is a double-duty form:
– non-final member in successive event descriptions in narratives:

(25) *awəj*   ***d-ʕa-gələ-n,***   ***čə-j-ĝĝa-n,***   ***d-č'a-n***
     DIST   3SG.H.ABS-DIR-stand(AOR)-RS   RFL.ABS-3SG.M.ERG-wash(AOR)-RS   3SG.H.ABS-eat.ITR(AOR)-RS
     jə.g'əj   *a-nχarta*   ***d-ca-ṭ***
     and   DEF-work   3SG.H.ABS-go(AOR)-DCL
     'He got up, washed, ate and went to work.'

– a discontinuous past tense in isolation: canceled result (26) and precedence to a past event (with the iamitive/perfect marker *-χ'a*) (27)

(26) *səwlṭan*   ***d-ʕa-j-n/*d-ʕa-j-ṭ***
     Sultan   3SG.H.ABS-DIR-go(AOR)-RS/*3SG.H.ABS-DIR-go(AOR)-DCL
     'Sultan came [but didn't wait for you and went away]'.

(27) *rəwslan*   *d-an-ʕa-ĉəχa*
     Ruslan   3SG.H.ABS-TEMP-DIR-wake.up
     darina   *š'arda*   *ç-wa-ta*   *zəmʕ^wa*   ***l-č'pa-χ'a-n***
     Darina   much   pass-IPF-ADV   all   3SG.F.ERG-make-IAM-RS
     'When Ruslan woke up, Darina had already cooked everything.'

As in Kabardian, the Imperfect neutralizes the semantic distinctions conveyed by the Aorist vs. Retro-aorist, cf. (28) with (21)–(22) above, which do not imply that the situation does not persist into the present:

(28) *apqa–zaman*   *a-wʕa-k^wa*   *ž'ajʒa*   ***r-f-wə-n/*r-fa-n***
     before–time   DEF-people-PL   raw.meat   3PL.ERG-eat-IPF-RS/*3PL.ERG-eat(AOR)-RS
     'In earlier times, people used to eat raw meat.'

Summary:
– an opposition between basic vs. retrospectivized tenses;
– formally, this is an equipollent opposition (but in fact it is privative non-finite contexts and in some other Northwest Caucasian varieties, see Arkadiev 2017 for more details).
– In both languages the retrospectivized present is a normal imperfective past not implying discontinuity:

Abaza

(29) *awəj j.an.aḳʷə.z.la.ḳ.g'əj   š'arda   d-a-pχ'-əw-n*
     DIST   always   much   3SG.H.ABS-3SG.N.IO-read-IPF-RS
     'He has always read much [and still reads].'

– The semantic opposition between "regular" and "discontinuous" past is relevant for perfective tenses mainly used with telic verbs and implying that the resultant state of the event was canceled. The behaviour of the imperfective tenses (as well as of past tense forms with stative verbs) can well be amenable to the "cessation implicature" analysis of Altshuler & Schwarzschild (2012).

– This contrasts with the Tlingit discontinuous past tense discussed by Cable (2017), which applies to both imperfective (including stative) and perfective verbs.

☞ An explanation crucially drawing on the properties of stative and imperfective contexts cannot work for the Northwest Caucasian discontinuous past tenses.

4. The experiment

In order to test whether the canceled result interpretation of the retrospectivized past forms in Abaza and Kabardian is an implicature or part of encoded meaning, we asked informants to evaluate constructed dialogues containing simple and retrospectivized past forms and subsequent utterances inconsistent with either the canceled result or the persistent result interpretations.

– Design of the experiment:

(i) naturally-sounding dialogues were first constructed in Russian and translated into Kabardian and Abaza by native speakers;

(ii) tense forms in the resulting translations were modified to yield four possible combinations of simple and retrospectivized past forms and subsequent utterances inconsistent with either the canceled result or the persistent result interpretations;

(iii) native speakers were shown the resulting dialogues in written form and asked to read and evaluate them as logically consistent or weird / contradictory.

For Abaza, the experiment was conducted twice with different sets of input dialogues:

Set I: the first speaker utters the sentence with the target past tense form, the second speaker utters the sentence implying either persistence or cancelation of the result.

(30)   A: *I have lost my passport.*
        B1: *Can I help you look for it?* (persistence)
        B2: *Where did you find it?* (cancelation)

– An anonymous reviewer:

"Notice that in paradigm examples of cancelled implicatures, the cancellation effect comes from an additional statement by the speaker which contradicts the implicature."

Actually, two of the seven dialogues from Set I were consistent with this (see below). However, we designed another experiment, which we managed to conduct with the speakers of Abaza in April 2019.

Set II: both the sentence containing the target tense form and the sentence implying either persistence or cancelation of the result are uttered by the same speaker, but are separated by an utterance of the other speaker. (NB this was essential for Abaza, because in a continuous utterance the Retro-aorist form would always be used in the first clause, cf. (25).)

(31)   A: *I have lost my purse.*
    B: *So what?*
    A1: *So I can't buy anything, all my money was there!* (persistence)
    A2: *So I turned all my home upside down before I found it.* (canceled)

Each set included seven dialogues featuring different lexical verbs and different situations. In Set I the first utterance also varied in illocutionary force (assertion or question).

– Participants:

Standard Kabardian: just one native speaker (male, 31, lives in Moscow but actively uses Kabardian). Results preliminary (Set I only), but consistent.

Abaza: five native speakers in 2018 (Set I) and four native speakers in 2019 (Set II), both male and female, 25–70 years old. Experiment conducted in Inzhich-Chukun, hence more native speakers.

– Results:

KABARDIAN, Set I: statement + question

(32) Aorist, persistent result: OK

A: *s-jə-pasportə-r*   **s-ʁe.ḳʷed-a-ŝ**
      1SG.IO-POSS-passport-ABS   1SG.ERG-lose-AOR-DCL
      'I have lost my passport.'

B: ᴼᴷ* q̇e-s-λəχʷ*   *sə-p-de.ʔepəq̇ʷə-n?*
      DIR-1SG.ERG-search   1SG.ABS-2SG.IO-help-POT
      'Can I help you look for it?'

(33) Aorist, canceled result: weird

A: *s-jə-pasportə-r*   **s-ʁe.ḳʷed-a-ŝ**
      1SG.IO-POSS-passport-ABS   1SG.ERG-lose-AOR-DCL
      'I have lost my passport.'

B: #*dene   a-r   q̇ə-z-de-b-ʁʷetə-ž-a-r?*
      where   DEM-ABS   DIR-REL.IO-LOC-2SG.ERG-find-RE-AOR-ABS
      'Where did you find it?' (Speaker's comment: "A says he has lost his passport, so it is strange to ask where he found it.")

(34) Pluperfect, persistent result: ill-formed

A: *s-jə-pasportə-r*   **s-ʁe.ḳʷed-a-t**
      1SG.IO-POSS-passport-ABS   1SG.ERG-lose-AOR-RS
      'I lost my passport.'

B: #*q̇e-s-λəχʷ*   *sə-p-de.ʔepəq̇ʷə-n?*
      DIR-1SG.ERG-search   1SG.ABS-2SG.IO-help-POT
      'Can I help you look for it?' (Speaker's comment: "A implies that he already found his passport.")

(35) Pluperfect, canceled result: OK

A: *s-jə-pasportə-r*   **s-ʁe.ḳʷed-a-t**
      1SG.IO-POSS-passport-ABS   1SG.ERG-lose-AOR-RS
      'I lost my passport.'

B: ᴼᴷ*dene   a-r   q̇ə-z-de-b-ʁʷetə-ž-a-r?*
      where   DEM-ABS   DIR-REL.IO-LOC-2SG.ERG-find-RE-AOR-ABS
      'Where did you find it?'

KABARDIAN, Set I: question + follow-up

(36) Aorist, persistent result: OK

    A: *xet   ŝheʁʷəmbže-r   q̇ə-ʔʷə-zə-x-a-r?*
        who   window-ABS   DIR-LOC-REL.ERG-open-AOR-ABS
        'Who opened the window?'

    B: *ruslan.*
        'Ruslan.'

    A: ^OK*ruslan,*   *zə-xʷe-ŝ*   *ŝheʁʷəmbže-r.*
        Ruslan   REC.IO-BEN-do(IMP)   window-ABS
        'Ruslan, close the window.'

(37) Aorist, canceled result: ill-formed

    A: *xet   ŝheʁʷəmbže-r   q̇ə-ʔʷə-zə-x-a-r?*
        who   window-ABS   DIR-LOC-REL.ERG-open-AOR-ABS
        'Who opened the window?'

    B: *ruslan.*
        'Ruslan.'

    A: #*ruslan,*   *jəžə.rjə za*   *qə-ʔʷə-x.*
        Ruslan   again   PTCL   DIR-LOC-open(IMP)
        'Ruslan, open the window again.' (Speaker's comment: "Illogical, since at the time of the conversation the window is still open.")

(38) Pluperfect, persistent result: ill-formed

    A: *xet   ŝheʁʷəmbže-r   q̇ə-ʔʷə-zə-x-a-tə-r?*
        who   window-ABS   DIR-LOC-REL.ERG-open-AOR-RS-ABS
        'Who opened the window?'

    B: *ruslan.*
        'Ruslan.'

    A: #*ruslan,*   *zə-xʷe-ŝ*   *ŝheʁʷəmbže-r.*
        Ruslan   REC.IO-BEN-do(IMP)   window-ABS
        'Ruslan, close the window.' (Speaker's comment: "The window must already be closed at the time of the conversation.")

(39) Pluperfect, canceled result: OK

    A: *xet   ŝheʁʷəmbže-r   q̇ə-ʔʷə-zə-x-a-tə-r?*
        who   window-ABS   DIR-LOC-REL.ERG-open-AOR-RS-ABS
        'Who opened the window?'

    B: *ruslan.*
        'Ruslan.'

    A: ^OK*ruslan,*   *jəžə.rjə za*   *qə-ʔʷə-x.*
        Ruslan   again   PTCL   DIR-LOC-open(IMP)
        'Ruslan, open the window again.'

Summary for Kabardian Set I:

	persistent result	canceled result
Aorist	+	−
Pluperfect	−	+

☞ Neither the canceled result entailment of the retrospectivized past, nor the persistent result entailment of the simple past are defeasible.

ABAZA, Set I

(40) Aorist, persistent result: OK

A: *sara   s-pasport   s-rə.ʒ-ṭ*
1SG   1SG.IO-passport   1SG.ERG-lose(AOR)-DCL
'I have lost my passport.'

B: ^{OK}*sə-w-c-qraʕa-r-ma*   *j-ʕa-w-aw-χ-nəs?*
1SG.ABS-2SG.M.IO-COM-help-FUT.NFIN-Q   3SG.N.ABS-DIR-2SG.M.ERG-find-RE-PURP
'Should I help you find it?'

(41) Aorist, canceled result: ill-formed

A: *sara   s-pasport   s-rə.ʒ-ṭ*
1SG   1SG.IO-passport   1SG.ERG-lose(AOR)-DCL
'I have lost my passport.'

B: #*j-a-ba-ʕa-w-aw-χ*   *awəj?*
3SG.N.ABS-REL.LOC-QADV-DIR-2SG.M.ERG-find-RE   DIST
'Where did you find it?'

(42) Retro-aorist, persistent result: ill-formed

A: *sara   s-pasport   s-rə.ʒə-n*
1SG   1SG.IO-passport   1SG.ERG-lose(AOR)-RS
'I lost my passport.'

B: #*sə-w-c-qraʕa-r-ma*   *j-ʕa-w-aw-χ-nəs?*
1SG.ABS-2SG.M.IO-COM-help-FUT.NFIN-Q   3SG.N.ABS-DIR-2SG.M.ERG-find-RE-PURP
'Should I help you find it?'

(43) Retro-aorist, canceled result: OK

A: *sara   s-pasport   s-rə.ʒə-n*
1SG   1SG.IO-passport   1SG.ERG-lose(AOR)-RS
'I lost my passport.'

B: ^{OK}*j-a-ba-ʕa-w-aw-χ*   *awəj?*
3SG.N.ABS-REL.LOC-QADV-DIR-2SG.M.ERG-find-RE   DIST
'Where did you find it?'

Problem:

– In fact, most speakers tended to allow both Aorist and Retro-aorist in dialogues implying persistent result, which suggests that the canceled result interpretation is indeed a cancelable implicature:

(44) A: *rəwslan   d-ǯəl- c̣-ṭ / d-ǯəl-c̣ə-n*
Ruslan   3SG.H.ABS-LOC-pass(AOR)-DCL/RS
'Ruslan went outside.'

B: *awəj   d-ʕa-j-χ-ma?*
DIST   3SG.H.ABS-DIR-go-RE-Q
'Has he come back?'

A: *mamaw,   wəẑ.g'əj   də-g'-ʕa-mə-j-s-ṭ*
no   still   3SG.H.ABS-NEG-DIR-NEG-go-NONDUM-DCL
'No, he has not come back yet.'

However, the same speakers were consistent in not allowing the Aorist in canceled result contexts:

(45) A: *j-ǯəl-c̣ə-z-da? / #j-ǯəl-c̣ə-da?*
REL.ABS-LOC-pass-RE(AOR)-RS.NFIN-QH / REL.ABS-LOC-pass-RE(AOR)-QH
'Who [of those present] had gone out of the room?'

B: *rəwslan*
       'Ruslan.'

A: *rəwslan, w-ata-ẑəl-c̣-χ*
       Ruslan   2SG.M.ABS-REP-LOC-pass-RE(IMP)
       'Ruslan, go away again.'

☞ A prima facie counterevidence to Cable (2017: 651)

> "there does not appear to be any language with an obligatory discontinuous past marker; that is, in every language with a putative "discontinuous past", the marker in question does not have to be used in contexts supporting a cessation inference."

Summary for Abaza Set I:

	persistent result	canceled result
Aorist	+	−
Retro-aorist	+/−	+

These data perhaps suggest that the Aorist is a pragmatically weaker alternative to the Retro-aorist and does not occur whenever the latter can be felicitously used (cf. the reasoning in von Prince 2017: 10–11).

However, our second experiment has shown that in Set II utterances the Aorist and Retro-aorist occur in complementary distribution similar to that shown above for Kabardian.

ABAZA, Set II

(46) Aorist, persistent result: OK

A: *wə-ʕʷza   səwlṭan   d-ʕa-j-ṭ*
       2SG.M.IO-friend   Sultan   3SG.H.ABS-DIR-go(AOR)-DCL
       'Your friend Sultan has come.'

B: *š'ta   ac̣əja?*
       so   what
       'So what?'

A: [OK]*ʕʷ-sahat-ḳ   c̣-əj-ṭ-ta   d-wə-z-pš-əj-ṭ*
       two-hour-INDF   pass-PRS-DCL-ADV   3SG.H.ABS-2SG.M.IO-BEN-wait-PRS-DCL
       'He's been waiting for you in the drawing-room for two hours already.'

(47) Aorist, canceled result: ill-formed

A: *wə-ʕʷza   səwlṭan   d-ʕa-j-ṭ*
       2SG.M.IO-friend   Sultan   3SG.H.ABS-DIR-go(AOR)-DCL
       'Your friend Sultan has come.'

B: *š'ta   ac̣əja?*
       so   what
       'So what?'

A: #*d-g'ə-w-zə-m-pšə-χ-ṭ,   w-an-ʕa-j-χ-ra*
       3SG.H.ABS-NEG-2SG.M.IO-BEN-NEG-wait-RE(AOR)-DCL   2SG.N.ABS-TEMP-DIR-go-RE-FUT.NFIN
       wə-j-z-a.sə-rnəs   d-ʕa-wə-hʷa-χ-ṭ.
       2SG.M.ABS-3SG.M.IO-BEN-call-PURP   3SG.H.ABS-DIR-2SG.M.IO-ask-RE(AOR)-DCL
       'He did not wait till you arrive, he asked you to call him when you come back.'

(48) Retro-aorist, persistent result: ill-formed

A: *wə-ʕʷza   səwlṭan   d-ʕa-jə-n*
       2SG.M.IO-friend   Sultan   3SG.H.ABS-DIR-go(AOR)-RS
       'Your friend Sultan came.'

> B: *š'ta   ač̣əja?*
> so   what
> 'So what?'

> A: *#ʕʷ-sahat-ḳ   ç-əj-ṭ-ta   d-wə-z-pš-əj-ṭ*
> two-hour-INDF   pass-PRS-DCL-ADV   3SG.H.ABS-2SG.M.IO-BEN-wait-PRS-DCL
> 'He's been waiting for you in the drawing-room for two hours already.'

(49) Retro-aorist, canceled result: OK

> A: *wə-ʕʷza   səwlṭan   **d-ʕa-jə-n***
> 2SG.M.IO-friend   Sultan   3SG.H.ABS-DIR-go(AOR)-RS
> 'Your friend Sultan came.'

> B: *š'ta   ač̣əja?*
> so   what
> 'So what?'

> A: ᴼᴷ*d-g'ə-w-zə-m-pšə-χ-ṭ,*   *w-an-ʕa-j-χ-ra*
> 3SG.H.ABS-NEG-2SG.M.IO-BEN-NEG-wait-RE(AOR)-DCL   2SG.N.ABS-TEMP-DIR-go-RE-FUT.NFIN
> *wə-j-z-a.sə-rnəs*   *d-ʕa-wə-hʷa-χ-ṭ.*
> 2SG.M.ABS-3SG.M.IO-BEN-call-PURP   3SG.H.ABS-DIR-2SG.M.IO-ask-RE(AOR)-DCL
> 'He did not wait till you arrive, he asked you to call him when you come back.'

Summary for Abaza Set II:

	persistent result	canceled result
Aorist	+	−
Retro-aorist	−	+

☞ The preliminary results of the experiment with Kabardian and the results of the Set II experiment with Abaza show quite robustly that neither the canceled result interpretation of the retrospectivized past nor the persistent result interpretation of the simple perfective past are defeasible in subsequent discourse. This suggests that both interpretations belong to the encoded meaning of the respective grammatical forms.

Problems:

– Why the difference between Set I and Set II?

– The Abaza Retro-aorist with the canceled result meaning does not seem to occur in the short corpus of narratives we have recorded, nor in the Abaza literary texts we have analyzed. Although speakers consistently confirm the interpretations of this form in isolation, they don't often naturally produce it and were not always happy when confronted with experimental utterances containing it.

Still, the speakers consistently rejected the Aorist in canceled result contexts, therefore these contexts became problematic as such due to the apparent unavailability of a suitable verbal form (in contrast to Kabardian, where the retrospectivized past is a familiar and naturally sounding form).

5. Conclusions and prospects

The data of Northwest Caucasian languages shows that:

– The discontinuous past semantics can be grammatically encoded in systems with rich and obligatory tense marking (cf. von Prince 2017 on Daakaka).

– The discontinuous past semantics can be associated with perfective past grams to the exclusion of the imperfective past grams and stative verbs, thus calling into question the basics of the analysis in Cable (2017).

– The discontinuous past semantics can be part of the encoded meaning of tense forms rather than simply a cancelable implicature.

– Further in-depth cross-linguistic work on discontinuous past grams is necessary.

Remaining questions

– Is such experimental methodology suitable for determining the semantics of TAM grams at all?

☞ It should anyway be complemented by an analysis of naturally occurring discourse.

– Can the Abaza and Kabardian tense systems be amenable to a paradigm-induced implicature approach advocated by von Prince (2017) for Daakaka?

☞ Possibly, but first a full formal analysis of the relevant tense systems should be developed.

☞ It remains unclear to what extent taking into consideration modal (e.g. counterfactual) uses of past tenses is fully legitimate for such an analysis (cf. the notorious monosemy vs. polysemy problem, e.g. Dahl 1987), cf. Arkadiev (to appear) on the problems of the analysis of Kabardian counterfactuals.

Abbreviations

ABS — absolutive; ADD — additive; ADV — adverbial; AOR — aorist; BEN — benefactive; COM — comitative; CONT — continuative; COP — copula; DAT — dative preverb; DCL — declarative; DEF — definite; DEM — demonstrative; DIR — directional preverb; DIST — distal demonstrative; DP — discontinuous past; DUR — durative; DYN — dynamic; ERG — ergative; F — feminine; FUT — future; H — human; IAM — iamitive; IMP — imperative; INDF — indefinite; INS — instrumental; IO — indirect object; IPF — imperfective; ITR — intransitive; LNK — linking morpheme; LOC — locative preverb; M — masculine; N — non-human; NEG — negation; NFIN — non-finite; NONDUM — not-yet tense; OBL — oblique; PFV — perfective; PL — plural; POSS — possessive; POT — potential; PR — possessor; PRS — present; PTCL — particle; PURP — purposive; Q — interrogative; QADV — adverbial interrogative; QH — human interrogative; RE — refactive; REAL — realis; REC — reciprocal; REL — relativizer; REP — repetitive; RFL — reflexive; RS — retrospective shift; SG — singular; SP — specific; TEMP — temporal subordinator.

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