A SYNTACTIC APPROACH TO UDMURT CAUSATIVES

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Abstract: Causative constructions in Udmurt evince crucial syntactic properties, like double-objects or alternation in case-marking pattern. Following Marantz's (1997 and 2001) distributive morphology account and Pylkkänen's (2002 and 2008) complement selecting causatives, I claim that these contradictory syntactic properties derive from the fact that the complex causative predicates are formed in the syntax. The Udmurt causatives, just like the Hungarian ones, are monoclausal but bi-eventive constructions, as revealed by scope tests, e.g. negation or low adverbials.

Keywords: causatives, syntactic analyses, clausality, eventivity, case-pattern

1. Introduction

Causative verbs and constructions seem to be present universally across languages; causativization is referred to in the literature as a valence-changing process (Reinhart and Siloni 2005), a grammatical function changing process (Baker 1985) or an argument-structure-altering phenomenon (Pylkkänen 2002). Research on this topic has focused mainly on whether these constructions are built in the syntax or in the lexicon, i.e. if these processes take place in the lexicon or in the syntax.

According to the lexical analysis of causatives, this process changes the argument structure of the verb in the lexicon by giving one extra argument to the verb's structure, namely the causer. Thus, the lexicon is not just a set of words, but it also contains information on the verb's argument structure. Reinhart and Siloni (2005) argue that the lexicon is an active lexicon, which allows arity operations, and since a syntactic component cannot manipulate the Φ-grids (the lexicon interface guideline) causative operation can apply only in the lexicon. The causative head merged with the base-verb creates a new predicate, and the arity operation adds an Agent role to the Φ-grid of the base-verb.

Syntactic analyses interpret the extra argument, the causer, as the specifier of a CauseP projection attached to the VP or the vP, depending on the root (Pylkkänen 2002 and 2008) and propose that all derivations (such as causation) are executed in the syntax (Marantz 1997and 2001).

In this paper, following Pylkkönen's (2002, 2008) syntactic analysis, I propose an analysis for Udmurt[1] causative constructions. These constructions have apparently contradictory syntactic properties which can be explained only in syntactic terms. Pykönnen (2002, 2008) argues that the only possible account of the different properties of causatives cross-linguistically is the bi-eventive one. Following Marantz's (1997, 2001) morpho-syntactic account, she assumes a CauseP projection, different from VoiceP. Her

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[1] Udmurt is a minority language from the Finno-Ugric family, spoken in the Russian Federation.

account offers an adequate analysis of the lexical and of the productive causatives across languages.

The universal bi-eventive characteristic of the causatives has been proved but the clausality of these constructions is still in question. Periphrastic constructions like those in English are undoubtedly bi-clausal, but the picture of the morphological constructions is messy. Based on tests of Horvath and Siloni (2010) and of Bartos (2011), such as negation, binding and scope of adverbials, I propose that the productive causatives marked by the causative morpheme are monoclausal in Udmurt like in Hungarian and unlike in Japanese.

It is a crosslinguistic fact that the causee is marked by the accusative morpheme if the base verb is intransitive, but languages differ with respect to the marking if the base verb is transitive. Comrie's (1981) hierarchy suggests that the causee is encoded with some oblique case, mainly with the dative or with the instrumental. Accusative case as the marker of the causee is available for the causee in the so-called real double-object languages[2]. Udmurt is not a real double-object language, but crucially the complex causative predicate formed a transitive verb can assign two accusatives to its arguments.

Following Pylkönnen's (2008) idea, I assume here that the different syntactic properties of the Udmurt causatives, e.g. the double-object construction, derive from the length of the CauseP's complement in the v-domain. In Udmurt the complement – root, either VP or vP – is responsible for the case-marking pattern of the causee, and the alternation of the encodings is determined only by syntactic factors.

The paper is organized as follows: in section 2 I give some short background on Udmurt causative constructions with focus on their special syntactic properties; I discuss the encoding properties of the causee, with their different case marking pattern. In section 3 I present Bartos' (2011) approach to Hungarian causatives, following his argument against Horvath and Siloni's (2010) lexicalist account and I analyze the Udmurt causative constructions starting from Bartos' tests of mono- versus bi-clausality and eventivity. In section 4, following Marantz's syntactic approach and Pylkkänen (2008) complement selection analyses I claim that in Udmurt the causative constructions have VP/vP and CauseP projections independently, and I present the syntactic derivation of these constructions. Section 5 closes my paper with the conclusions.

2. Causatives in Udmurt

Causativization across languages can appear at least in three different ways, in the form of lexical (1a), morphological (1b) or syntactic causatives (1c):

(1) a. Lisa broke the window.
b. Taroo ga yasai o kus-ase-ta.
Taro NOM vegetable ACC rot-CAUS-PAST
'Taro caused the vegetable to rot.'
c. John made Mary sing a song.

[2] Real double-object languages (Baker 1985): non-derived ditransitive verbs have two objects in their argument structure.

If we have a look at the examples in (2a-c), we can see that all of these causatives are found in Udmurt:

(2) a. Saša pitran-ez bergati-z. (lexical)
Sasha-NOM record-ACC rotate.PAST-3SG
'Sasha rotated the record.'
b. Maša Saša-ez kńiga-jez l÷dž÷-ti-z. (morphological)
Masha-NOM Sasha-ACC book-ACC read-CAUS.PAST-3SG
'Masha made Sasha read the book.'
c. Maša Saša-ez kńiga-jez l÷dž÷-n÷ koši-z. (syntactic)
Masha-NOM Sasha-ACC book-ACC to-read order.PAST-3SG

Although, the lexical and the syntactic causations are not part of the discussion here, in the next section I sketch their most characteristic properties, focusing mainly on the argument structures of the constructions.

2.1 Lexical causatives: Transitive-inchoative alternation

The lexicalized causative verbs can be divided into three different groups in Udmurt based on their form:

(i) The alternating verbs do not have any historical or morphological relationship; they are different verbs just like the English *kill-die*.

(3) a. kul÷-n÷
'to die'
b. vu÷-n÷
'to kill'

(ii) The transitive-inchoative alternation verbs; the inchoative verb is anticausative, because it is derived and marked by an -*s*k÷ morpheme.

(4) a. *s*i÷-n÷
'to eat *(something) (transitive)'
b. *s*i÷-sk÷-n÷
'to eat (*something) (intransitive)'

These anticausative verbs are typically unergatives with only the agent argument. The causative morpheme cannot adjoin to these derived unergative verbs (5):

(5) **s*i÷-sk÷-t÷-n÷
eat-UNERG-CAUS-INF
*to feed (intransitive)

(iii) Verbs with a causative suffix; but in these verb forms the suffix is only "historical" and not transparent for the native-speakers.

(6) a. berga-ni
'to roll'
b. berga-t÷-ni
'to rotate'

In the following it will be shown that *-t-* is the productive morphological marker of the causative in Udmurt.

In the remainder of the paper I use the term "lexical causative" for transitive verbs with or without the "historical" *-t-* morpheme, which select a theme and an agent as their arguments (7).

(7) $\text{Sasa}_{\text{agent}}$ $\text{pitranez}_{\text{theme}}$ bergatiz.
Glosses/translation missing

Udmurt does not contain transitive-intransitive alternating verbs like *open* in English.

2.2 Syntactic causative: The influence of Russian[3]

Syntactic causatives in Udmurt can appear with two different verbs (8a-b). The difference between the two types is not entirely clear at the moment, further investigations are needed, but it is sure that the difference is based on their semantics.

(8) a. ko*s*÷n÷ 'to order':

Maša	Saša-ez	kńiga-jez	l÷dž÷n÷	ko*s*iz.
Masha.NOM	Sasha-ACC	book-ACC	to_read	order.PAST.3SG

b. lez÷n÷ 'to let':

Maša	Saša-ez	kńiga-jez	l÷dž÷n÷	leziz.
Masha.NOM	Sasha-ACC	book-ACC	to_read	let.PAST.3SG

'Masha made Sasha read the book.'

Periphrastic causatives in Udmurt behave just like the ones in English: they are predicates selecting a clause as their complement.

Among the different causatives (e.g. lexical or syntactic) the morphological causatives present the most interesting properties. The rest of this paper will concentrate on these properties.

[3] These periphrastic constructions probably appeared in the language because of the influence of Russian. Russian has only periphrastic constructions to express causativity, except of course for lexical causative-anticausative pairs like *pity-poity*.

2.3 Morphological causatives: Special syntactic properties

In Udmurt, complex causative predicates are marked by a causative morpheme *-t-*. This morpheme can be attached both to intransitive (9a) and transitive verbs (9b) (GSUJ 1962, Kozmács 1994):

(9) a. Maša Saša-jez uža-t-iz.
Masha-NOM Sasha-ACC work-CAUS-PAST.3SG
'Masha made Sasha work.'

b. Maša Saša-jez kńiga-jez l÷d½÷-t-iz.
Masha-NOM Sasha-ACC book-ACC read-CAUS-PAST.3SG
'Sasha made Sasha read the book.'

As can be seen, in both cases the complex predicate involves an additional argument, the causer of the base event, and this is a non-core argument. In the case of (9a), the base intransitive verb became a transitive one, and the original argument – the agent – is marked as a direct object with the ACC, following the syntactic encoding rule of the direct object in Udmurt. This is a universal property of the causative form of an intransitive verb.

The transitive base morphological causatives have some special properties, which do not characterize the lexical or the syntactic causatives, not even the intransitive base productive causatives; among these properties the case marking of the causee plays the main role.

2.3.1 Double-object constructions: Only for causatives

Cross-linguistically, in the argument structure of a transitive base causative the causee is encoded with an oblique (henceforth: OBL) case (Comrie 1981) – mainly with DAT or INST – as, for instance, in Hungarian:

(10) Péter fel-olvas-tat-ta a könyv-et Mari-val.
Peter.NOM up-read-CAUS-PAST.3SG.DEF the book-ACC Mary-INST
'Peter made Mary read the book.'

This is consistent with Comrie's (1981) hierarchy: Subject (S) > Direct Object (DO) > Indirect Object (IO) > Oblique Object (OBL). According to his hierarchy, we could assume that the new argument in the structure takes the most prominent, empty syntactic position, which is in the case of a transitive verb the IO and as an IO it is assigned DAT case. But, contrary to Comrie's hierarchy, in Udmurt transitive based causatives yield a double-object argument structure:

(11) Maša Saša-jez kńiga-jez l÷dž÷-t-iz.
Masha-NOM Sasha-ACC book-ACC read-CAUS-PAST.3SG
'Masha made Sasha read the book.'

According to Baker (1985), in true double accusative languages ditransitive verbs can assign structural case to more than one NP which they govern, and both NPs have object-like behavior. Since in these languages non-derived verbs can assign two ACC, it is not surprising that in a transitive based causative they can do the same. But Udmurt is not a true double accusative language, since this double-object structure is not well-formed in the case of a non-derived predicate, even though it is a ditransitive verb, e.g. *šot÷n÷* 'give', as in (12):

(12) Saša Maša-l÷ / *Maša-jez kńiga-jez šot-iz.
Sasha-NOM Masha-DAT / Masha-ACC book-ACC give-PAST.3SG
'Sasha gave Masha the book.'

However, there are two sentence types for which descriptive grammars assume two objects in one clause. Kondratjeva (2002 and 2010) and Salminen (2006) mention in their works that double-object constructions can appear in Udmurt with verbs like *bašt÷n÷* 'take' in (13):

(13) Saša Maša-jez k÷šno bašt-iz.
Sasha-NOM Masha-ACC wife-NOM take-PAST.3SG
'Sasha married Masha.'

Following Baker's (1985) analysis, I would call this unmarked object, which always occurs directly on the left side of the verb, noun incorporation in these sentences rather than a true double accusative.

Transitive sentences are the other sentence type where we can find double-object constructions with predicates like e.g. *šu÷n÷* 'call, say', etc., as in (14):

(14) Al'i ta shur-ez tuganaj shuo. (Salminen 2006:10)
now this river-ACC tuganaj-NOM say.PRES.3PL
'Now this river is called Tuganaj.'

Following Matushansky (2012) I assume that these kinds of constructions are small clauses, not true double accusatives, and in these small clauses the predicate assigns nominative case to the NP.

2.3.2 The order of the arguments

Besides the case-marking of the arguments in causative constructions, there is another interesting property, namely the order of the two accusatives. If the thematic roles of the arguments are clear the order is variable (Kozmács 1994), just like in the following example, where the patient is [+animate] and the theme is [–animate], as in (15):

(15) Saša kńiga-jez$_{[theme]}$ Maša-jez$_{[patient]}$ l÷dž÷-t-iz.
Sasha-NOM book-ACC Masha-ACC read-CAUS-PAST.3SG
'Sasha made Masha read the book.'

The thematic roles are still clear even when we change the order of the arguments (16):

(16) Saša Maša-jez$_{[patient]}$ kńiga-jez$_{[theme]}$ l÷dž÷-t-iz.
Sasha Masha-ACC book-ACC read-CAUS-PAST.3SG
'Sasha made Masha read the book.'

This derives from semantics and pragmatics, because the [+/−animate] value of the arguments make the situation clear, the [+animate] will be the patient and the – animate the theme. But unlike in the case of arguments valued differently, their order cannot be changed if we have two [+animate] roles in the sentence (17a-b).

(17) a. Saša Maša-jez$_{[patient]}$ Ivan-ez$_{[theme]}$ žug÷-t-iz.
Sasha-NOM Masha-ACC Ivan-ACC hit-CAUS-PAST.3SG
'Sasha made Masha hit Ivan.'
b. *Saša Ivan-ez$_{[theme]}$ Maša-jez$_{[patient]}$ žug÷-t-iz.

Since the semantics of the arguments does not help us to specify the thematic roles of the arguments, the order of arguments is probably the only option to determine the proper roles: the furthest from the verb is always the patient and the theme is next to the verb.

2.3.3 Neutralization of the case-marked/non-case-marked object alternation

The third syntactic property which occurs only with causatives of transitive verbs is the neutralization of the case-marking alternation on the object which has the causee function in the construction (Kozmács 1994).

In Udmurt, non-specific objects are morphologically unmarked (18a) and specific ones are marked by the accusative morpheme *-ez/jez* (Kondratjeva 2002 and 2010):

(18) a. Saša kńiga l÷dž-iz.
Sasha-NOM book-NOM read-PAST.3SG
'Sasha read a book.'
b. Saša kńiga-jez l÷dž-iz.
Sasha-NOM book-ACC read-PAST.3SG
'Sasha read the book.'

But, as mentioned above, in double-object causative constructions this characteristic of Udmurt does not appear. The original subject of the base predicate is always case-marked, even if it is non-specific, regardless of the embedded verb being intransitive (19a) or transitive (19b):

(19) a. Saša *pinal / pinal-ez uža-t-iz.
Sasha-NOM child-NOM/child-ACC work-CAUS-PAST.3SG
'Sasha made a/the kid work.'

b. Saša *pi / pi-jez kńiga-jez l÷dž÷-t-iz.
Sasha-NOM boy-NOM/boy-ACC book-ACC read-CAUS-PAST.3SG
'Sasha made a/the boy read the book.'

However, the unmarked vs. marked alternation still holds for the internal argument of the base predicate. Of course, in the case of transitive verbs (20a-b) and as with non-derived predicates, the alternation is based on the specificity of the embedded object:

(20) a. Saša pi-jez kńiga l÷dž÷-t-iz.
Sasha-NOM boy-ACC book-NOM read-CAUS-PAST.3SG
'Sasha made the/a boy read a book.'
b. Saša pi-jez kńiga-jez l÷dž÷-t-iz.
Sasha-NOM boy-ACC book-ACC read-CAUS-PAST.3SG
'Sasha made the/a boy read the book.'

2.3.4 Case-marking patterns: A new observation

Crucially, the ACC is not the only case with which the causee can be encoded in the argument structure of transitive base causatives. The causee of the complex predicate displays an ACCUSATIVE–OBLIQUE case-alternation, where the OBL is the *-en*, instrumental morpheme (21a-b):

(21) a. Saša Maša-jez / *Maša-en pinal-ez
Sasha-NOM Masha-ACC / *Masha-INST baby-ACC
bab÷t÷-t-iz.
rock to sleep-CAUS-PAST.3SG
'Sasha had Masha rock the baby sleep.'
b. Saša *kirÌan-ez / kirÌan-en pinal-ez
Sasha-NOM *song-ACC song-INST baby-ACC
bab÷t÷-t-iz.
rock to sleep-CAUS-PAST-3SG
'Sasha made the baby rock to sleep with a song.'

This case-pattern is available for non-derived causative verbs as well, e.g. *kvast÷n÷* 'dry', as in (22a-b):

(22) a. Saša$_x$ Maša-jez / *Maša-en j÷rsi-jez$_x$ kvast-iz[4].
Sasha-NOM Masha-ACC / *Masha-INST hair-ACC dry-PAST.3SG
'Sasha made Masha dry his hair.'
b. Saša$_x$ *šund÷-jez / šund÷-en j÷rsi-jez$_x$ kvast-iz.
Sasha-NOM *sun-ACC / sun-INST hair-ACC dry-PAST.3SG
'Sasha let the sun dry his hair.'

[4] The index "x" has the only function of making the situation clear, i.e. the hair is Sasha's and not Masha's.

The alternation depends on the argument of the embedded predicate of the causatives. It follows that the different encoding of the causee comes from the manipulation effect of the causer (Alsina 1992; Ackerman and Moore 1999):

(23) Affectedness hypothesis: when a causee argument exhibits a semantic alternation, then an alternant with a more affected interpretation will be realized as a grammatical relation that is higher on the Relational Hierarchy (DO > IO > OBL) than the relational encoding of the non-affected alternant; the more affected argument of the base predicate is encoded by ACC and the less one by INST.

In (21a) the causee is manipulated and affected by the causer, the argument is encoded with ACC case, unlike in (21b) where the causer cannot manipulate the cause; rather, the causer lets the causee do something, as we can see from the English translation. According to the Affectedness hypothesis it must be encoded with OBL case. The causee encoded with the ACC is more in the domain of the complex predicate than the causee encoded with the INST (Alsina 1992, Ackermann and Moore 1999). These grammatical alternations are cross-linguistically well-known from the literature and most of the times they are based on transitivity (Ackermann and Moore 1999):

(24) Transitivity Hypothesis:
(i) intransitive base predicate → direct object causee
(ii) transitive base predicate → indirect object or oblique object

As we have already seen, Udmurt does not seem to entirely conform to the Transitivity Hypothesis, because the alternation is based on the transitive predicate, but the alternation is not between the indirect object and the oblique object, but between the direct object and the oblique object.

3. Morphological causatives: Domains and events

Periphrastic and lexical causations clearly differ from productive causations if we have a look at the domains and the events which they contain. Lexical causatives are typically bi-eventive and monoclausal, and syntactic causatives are not problematic – they are bi-eventive and bi-clausal. The bi-clausality is clear in the latter case, since the construction contains two different lexemes, one is for the cause event and one is for the base event. But the answers to these clausality and eventivity questions are not so easy if we are talking about productive causatives. The typological classification of morphologically marked causatives is based on whether they are mono- or biclausal, and whether they involve two events or just a single one.

There are different types of tests which one can use to analyse the clausality and the eventivity of these structures. In what follows, I will present these tests following Horvath and Siloni (2010) and Bartos (2011).

3.1 Tests for mono- vs. bi-clausality

Horvath and Siloni (2010) use several diagnostics to show the clausal difference between morphologically marked causatives, like those in Japanese, where they have bi-clausal properties, and those in Hungarian, which seems to have mono-clausal productive causatives.

In the next section, I show two of their tests – negation and condition B, and I apply their analyses to Udmurt, which seems to be closer to Hungarian than to Japanese.

3.1.1 Negation

Negation is one of the diagnostics which can show exactly how many clauses the causative construction involves. If the basic event and the causation can be negated separately, we can talk about bi-clausality (Horvath and Siloni 2010, Bartos 2011).

In Japanese, the negation test shows exactly the two clause domains in causatives, as we can see in the following examples (25a-b):

(25) a. Toru wa Yoko o ik-ase-nakat-ta
Toru TOP Yoko ACC go-CAUS-NEG-PAST
'Toru did not make Yoko go.'
b. Toru wa Yoko-o ik-anaku-sase-ta
Toru TOP Yoko-acc GO-NEG-CAUS-PAST
'Toru made Yoko not go.' (examples from Horvath and Siloni 2010)

The order of the morphemes determines which event of the complex predicate is in the domain of negation. In (25a) the order of the affixes (CAUS-NEG) gives the meaning of the construction, because the causation is not in the domain of negation. But if we change the order, as in (25b), the causation comes into the negation domain, and as we can see from the English translation, it is not the base event, but the cause event which is negated.

This is not the case in Hungarian. Unlike in Japanese, where negation is affixal, in Hungarian, negation is formed analytically with the *nem* particle (26a) in causative constructions as well:

(26) a. Nem énekel a gyerek.
not sing.PRES.3SG the child.NOM
'The child does not sing.'
b. Nem énekel-tet-t-em a gyerekek-et.
not sing-CAUS-PAST-1SG the child-PL-ACC
'I didn't make the children sing.', NOT 'I made the children not sing.'
(examples from Horvath and Siloni 2010)

As can be seen from the translation, the only available interpretation of the sentence is where the cause event is in the domain of negation. It is not possible to negate the base event separately. As mentioned by Bartos (2011), this difference may result from the different nature of the negation in the languages and not from the nature of causation.

3.1.2 Condition B

Even though the negation (test) cannot show exactly the clausal difference between Japanese and Hungarian, because of the difference in the type of negation, Condition B can. In monoclausal causation, a pronominal argument of the base verb cannot be bound by the causer (Bartos 2011) and this is exactly what can be found in Hungarian causatives (27a-b):

(27) a. Laci$_x$ ír-t néhány sor-t magáról$_x$ / *ról-a$_x$
Laci write-PAST-3PL a few lines-ACC himself-about / about-3SG
'Laci wrote a few lines about themselves.'

b. Laci$_x$ ír-at-ott a fiúk-kal néhány sor-t magáról$_x$ / *róla$_x$
Laci write-CAUS-PAST the boy-INST a few lines-ACC himself / about-3SG
'Laci had the boys write a few lines about him.' (examples from Bartos 2011)

As the examples in (27) show, the subject of the sentence, *Laci* cannot bind the pronoun *róla* either with a simple predicate (27a) or with a complex predicate (27b), which means that the pronoun and the antecedent are in the same clause domain.

In Japanese, the binding domains are different with non-derived or derived predicates (28).

(28) a. Toru$_i$ wa Kitahara$_j$ ni kare*$_i$ /*$_j$ o syookai si-ta.
Toru TOP Kitahara DAT he / ACC introduction do-PAST
'Toru introduced him to Kitahara.'

b. Toru$_i$ wa Kitahara$_j$ ni kare$_i$ /*$_j$ o syookai s-ase-ta.
Toru TOP Kitahara DAT he ACC introduction do-CAUS-PAST
'Toru made Kitahara introduce him'. (examples from Horvath and Siloni 2010)

In (28a) *kare* cannot be coreferential with either *Toru* (external argument) or *Kitahara* (internal argument), because they are in the same clause, but in (28b) *kare* can be bound by the subject/topic *Toru*, which empirically shows that the pronoun and the topic DP must be in distinct clauses. The explanation for this is to assume that the base event and the causation event are distinct, too (Shibatani 1990, Bartos 2011).

Based on these two diagnostics, negation and Condition B, we can conclude that in Hungarian the productive causation is mono-clausal and in Japanese it is bi-clausal.

3.1.3 Mono-clausal Udmurt causatives

I this subsection I show how the Udmurt data can be analyzed on the basis of the diagnostics presented above. First let us have a look at negation.

Negation in Udmurt is not affixal like in Japanese, it is analytic like in Hungarian, but in a different way, because instead of a negative particle Udmurt has an inflected negation verb. I assume that causatives in Udmurt are mono-clausal, as negation cannot scope over the embedded verb of the construction, as in (29):

(29) Mon pinaljos-ti öj kirÌa-t-i.
I-NOM (the) kids-ACC not-PAST.1SG sing-CAUS.PRT
'I didn't make the kid sing.', NOT 'I made the kid not sing.'

Although negation is expressed by the negation verb in almost all tenses, there is one tense in Udmurt, the Perfect, where negation is affixal, like in Japanese, as in (30):

(30) a. užaskem
work.PERF.1SG
'I had worked'
b. užaski-mte-e
work-PERF-NEG-1SG
I had not worked'

This verb form can properly show, just like it was shown in Japanese, the domains of negation in an Udmurt causative form:

(31) Saša pinaljos-ti kirÌa-t÷-mte.
Sasha-NOM kids-ACC sing-CAUS-NEG.3SG
'Sasha had not made the kids sing.', NOT 'Sasha had made the kids not sing.'

As expected, there is no difference regarding the affixal and the analytic constructions, because in both cases the whole predicate is in the domain of negation, and it is not possible to separate them from each other, not even if we change the order of the suffixes, which is not an option in Udmurt (**kirÌa-mte-t÷* *sing-NEG.3SG-CAUS).

The second test, the Condition B, works exactly in the same way as we saw in Hungarian. The personal pronoun argument of the internal predicate cannot be bound by the causer.

(32) D÷šetiš$_x$ pinaljos-ti gožtet gožt÷ -t-iz *co-les$_x$ / as-les$_x$.
teacher-NOM kids-ACC letter-NOM write-CAUS-PAST him-ABL / of-himself
'The teacher had the boys write a few lines about him.'

Based on these tests we can conclude that productive causatives in Udmurt behave exactly like causatives in Hungarian, i.e. they are monoclausal.

3.2 Tests for mono- versus bi-eventivity

The second issue which is always in the focus of the examination of causatives cross-linguistically is whether they are mono- or bi-eventive. Here are two of the diagnoses used by Bartos (2011) for testing Hungarian causatives' eventivity.

3.2.1 Subjects of participials

If the causation contains two subject roles, it means that the clause involves two different events (Bartos 2011), as we can see in Hungarian (33a) and in Japanese (33b):

(33) a. Laci a földön fek-ve énekel-tet-t-e Mari-t.
Laci the ground-on lie-PTC sing-CAUS-PAST-3SG.DEF Mari-ACC
'Laci made Mary sing lying on the ground.' (ambiguous: either Laci or Mary was lying on the ground) (Bartos 2011)

b. Taroo wa arui-te Hanako o ik-ase-ta.
Taro TOP walk-PTC Hanako ACC go-CAUS-PAST
'Taro made Hanako go, walking.' or 'Taro, walking, made Hanako go.' (Horvath and Siloni 2010)

Since both in Hungarian and in Japanese both the causer and the causee can be a controller, the sentence has two different readings, which means that there are two different events with two different potential subjects.

3.2.2 Low adverbial modifiers

Just like in the case of negation, in the clausality tests low adverbials can help as to analyses the eventivity of a productive causative, because if the basic event and the causation event can be modified separately we can talk about a bi-eventive causation (Bartos 2011):

(34) a. A tanár kétszer írat-t-a le Laci-val
the teacher two-times write-CAUS-PAST-3SG.DEF down Laci-INST
a vers-et.
the poem-ACC
'The teacher made Laci write down the poem twice.' (ambiguous: 'twice made/caused' or 'twice wrote')

b. Jon wa muriyari sono ko ni sono kutusita o ooyorokobi de
Jon TOP forcibly that child DAT that sock ACC great joy INST
hak-ase-ta.
put on-CAUS-PAST
'Jon forcibly made the child put on his socks(,) happily.' (ambiguous: Jon or the child was happy)

Based on the ambiguous reading of the low adverbial modifiers (34a-b) and the subject of participials, we can draw the final conclusion. Namely, both in Hungarian and in Japanese the causatives are bi-eventive.

3.2.3 Udmurt causatives are also bi-eventive

Using Bartos's (2011) diagnostics for testing bi-eventity in causative constructions we find that Udmurt causatives also involve too events – the core event and the causing event. Both events can be modified by low adverbials, like *k÷k pol* 'twice' in (35a), and with participle clauses they result in ambiguity, i.e. the causer and the causee both can be the subject of the participle, like *muzjem v÷l÷n k÷ll÷ca* 'lying on the ground' in (35b):

(35) a. D÷šetiš Saša-jez odig kirÌan-ez k÷k pol kirÌa-t-iz.
teacher-NOM Sasha-ACC one song-ACC twice sing-CAUS-PAST
'The teacher made Sasha sing a song twice.' (ambiguous: 'twice made/caused' or 'sing twice'

b. Saša muzjem v÷l÷n k÷ll÷ca k÷rÌa-t-iz Masa-jez.
Sasha-NOM ground on lying sing-CAUS-PAST Masha-ACC
'Sasha made Masha sing lying on the ground.'

As these examples show, productive causative constructions behave like causatives in Hungarian, i.e. they are mono-clausal but bi-eventive.

4. The syntactic structure of the causative constructions

In the last part of my paper I try to sketch the structure of productive causatives in Udmurt. Following Marantz (1997 and 2001), I assume here that relevant linguistic items are syntactic entities with their own projections in the structure, and in the structure CauseP is the projection of the causation event, which takes the embedded verb/event's position – vP or VP – depending on the transitivity of the verb, as its complement. Both the CausP (causer) and the vP/VP (causee) have their own external arguments[5]. This yields the ambiguity of the constructions with participles.

Based on the data I assume the following structure of the causatives in Udmurt:

(36) [CausP NPcauser [Caus [vP NPcausee [v' v [VP NPintarg […]]]]]]

The negation as a functional projection is on the left periphery, higher than the CausP, which is an affixal projection, and if negation is also affixal, it is lower in the structure than the CauseP. In both cases negation cannot intervene between the CausP and the vP/VP that is the reason why it is not possible to negate the base event separately from

[5] Maranz (1997) and Kratzer (1996) suggest VoiceP instead of vP for introducing an external argument to the structure. In this analysis I follow Chomsky (1995) and assume vP for transitive verbs.

the cause event. The low adverbial modifier can be attached both to the vP/VP and the CausP and it result in ambiguity.

Pylkkänen (2002 and 2008) argues in her analysis that the CauseP can select three different complements, namely root-selecting Cause, Verb-selecting Cause and Phase-selecting Cause. This classification can account for the different properties of the causative. In Udmurt I propose that the double-object constructions are typical Verb-selecting causation and only phase-selecting CauseP can appear with case-alternation.

5. Conclusions

The special properties of Udmurt causative constructions suggest that a syntactic analysis can account for the data better than a lexicalist one. The double-object argument structure, the strict word order of these internal arguments with a [+animate] feature and the ACC case marking neutralization of the causee are properties which cannot belong to the lexicon. Only the case-pattern of the causee, the ACC-INST alternation, is determined by semantic factors, namely the affectedness of the causee by the causer.

This grammatical encoding alternation of the causee contradicts Comrie's (1981) encoding hierarchy, which says that in the INST > DAT > ACC hierarchy the least effected argument is assigned ACC case and the most one with INST. In Udmurt, as we have seen, it is exactly the opposite, because the least effected argument in the construction is marked by the INST.

The analysis of causatives in Udmurt should also address the question why the causee is always marked with the ACC morpheme. Is it a real ACC or does it have a different function? Even though I leave this question open in this paper, I assume that in causative constructions the causee is not marked with a real ACC, but it is assigned some kind of quirky case, just like, for example, the quirky nominative in Icelandic.

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