

# THE SYNTAX AND SEMANTICS OF EVENT STRUCTURE AND ADYGHE CAUSATIVES

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**Abstract:** In this paper we analyze the behaviour of causative forms from the Shapsug dialect of Adyghe (a.k.a. West Circassian, West Caucasian family) and show how it may be accounted for in the framework of First Phase Syntax (Ramchand 2003, 2008). The data concerning the aspectual behaviour of morphological causatives formed from different verb classes and the interpretation of these forms in the scope of negation and temporal adverbials suggest that the causative morpheme projects an aspectual projection (vP) in some important respects different from the vP encoded in the lexical meaning of the verb. The head *v* introduced by causative morphology seems to be in a way ‘defective’ as compared to the ordinary *v*, in that only the former is ‘transparent’ for scope-taking operators such as negation and temporal adverbials, and does not project its own aspectual structure. The data we discuss suggest that a theory of event structure should be sensitive to the distinction between lexical vs. morphological encoding of aspectual heads.

**Keywords** Adyghe · Causative · Morphology · Syntax · Event structure · Scope

## 1 Introduction<sup>1</sup>

Recent work on argument structure, event structure, and causative formation (e.g. Levin, Rappaport Hovav 1998; Pykkänen 2000, 2008; Travis 2000; Ramchand 2003; Butt & Ramchand 2005), ultimately stemming from the seminal monograph Dowty 1979 and earlier work on Generative Semantics, as well as a lot of typological literature on similar topics (cf. Nedjalkov, Silnitsky 1973 for an initial proposal, and Shibatani (ed.) 2002 for a recent discussion), argue that the basic function of causative (be it lexical, morphological, or periphrastic) is to augment the situation denoted by the base verb ( $S_0$ ), i.e. to introduce a new situation ( $S_1$ ) such that a causal relation exists between  $S_1$  and  $S_0$ :  $S_1 \rightarrow S_0$ . It has been noted as early as in Shibatani (ed.) 1976 that if  $S_0$  is an agentless situation (e.g. *break* in *The window broke*), the causative of such verb (the *direct* causative) usually behaves with respect to different syntactic tests as an ordinary transitive verb, and exhibits semantic properties similar to those of non-derived transitives (i.e. direct causatives prototypically denote a physical activity of a controlling Agent effecting an observable change of state in a usually inanimate Patient). However, in case  $S_0$  already contains an agentive participant (and a subevent related to this participant’s activity), the causative (in those languages where causative formation with agentive bases is at all possible) often shows special behaviour, different from that of the non-derived transitive verbs, which suggests that a morphologically coherent unit is not elementary from the syntactic and semantic points of view. Such formations are called *indirect* causatives<sup>2</sup>.

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<sup>2</sup> We would like to conjecture that in this paper the use of terms *direct* resp. *indirect* causative is purely technical and does not directly correspond to a semantic distinction between physical or manipulative resp. verbal or

A good illustration of this point is provided by Japanese (Miyagawa 1989, Shibatani & Chung 2001), where (i) non-agentive predicates usually form morphologically irregular direct causatives, cf. *ak-u* ‘open (itr)’ vs. *ak-er-u* ‘open (tr)’, *och-ir-u* ‘fall’ vs. *ot-os-u* ‘drop’, while agentive (inter alia, transitive) verbs form regular and productive indirect causatives, cf. *hashir-u* ‘run’ vs. *hashir-ase-ru* ‘make run’, *yom-u* ‘read’ vs. *yom-ase-ru* ‘make read’, and (ii) direct causatives are in a sense ‘opaque’ with respect to any kind of syntactic or semantic operators, while indirect causatives, by contrast, behave as if they were complex syntactic structures with two predicative heads. This is illustrated in ex. (1)–(3) taken from Shibatani 1990: 312–313. In (1) it is shown that the former subject of the base verb (*Hanako* in both cases) is able to bind the subject-oriented anaphor *jibun* in causative constructions with agentive  $S_0$  but not with non-agentive  $S_0$  (*mise-ru* ‘show’ is a lexical direct causative from *mi-ru* ‘see’). In (2), a similar pattern is shown with binding of the PRO subject of an adverbial clause; in (3b) a temporal adverbial may modify both the causing event ( $S_1$ ) and the caused event ( $S_0$ ) with the indirect causative, but with the direct causative (3a) it takes scope only over the whole situation.

- (1) a. Taroo<sub>i</sub> wa Hanako<sub>j</sub> ni jibun<sub>i/\*j</sub> no shashin o mi.se-ta.  
 Taroo TOP Hanako DAT self GEN photo ACC show-PST  
 ‘Taroo showed Hanako a photograph of himself / \*herself.’  
 b. Taroo<sub>i</sub> wa Hanako<sub>j</sub> ni jibun<sub>i/j</sub> no shashin o mi.sase-ta.  
 Taroo TOP Hanako DAT self GEN photo ACC see-CAUS-PST  
 ‘Taroo made Hanako look at a photograph of himself/herself.’
- (2) a. Taroo<sub>i</sub> wa Hanako<sub>j</sub> o [PRO<sub>i/\*j</sub> warai]-nagara mukae-ta.  
 Taroo TOP Hanako ACC smile-CNV welcome-PST  
 ‘Taroo welcomed Hanako while smiling.’ → ‘Taroo / \*Hanako smiled.’  
 b. Taroo<sub>i</sub> wa Hanako<sub>j</sub> ni [PRO<sub>i/j</sub> warai]-nagara aisatsus-ase-ta.  
 Taroo TOP Hanako DAT smile-CNV greet-CAUS-PST  
 ‘Taroo had Hanako greet someone while smiling.’ → ‘Taroo / Hanako smiled.’
- (3) a. Taroo wa Hanako o rokuji ni ok.oshi-ta.  
 Taroo TOP Hanako ACC six.o’clock DAT wake(TR)-PST  
 ‘Taroo woke Hanako up at six o’clock.’  
 b. Taroo wa Hanako o rokuji ni oki.sase-ta.  
 Taroo TOP Hanako ACC six.o’clock DAT wake(ITR)-CAUS-PST  
 i. ‘At six o’clock, Taroo made Hanako wake up.’  
 ii. ‘Taroo made Hanako wake up at six o’clock (e.g. by setting the alarm clock).’

The patterns exemplified in (1)–(3), and further material from Japanese, Korean, and other languages discussed in recent literature (e.g. Shibatani & Chung 2001; Shibatani & Pardeshi 2002) suggest that the crucial factor affecting the behaviour of causatives cross-linguistically is the degree to which the Caused event is independent (temporally, spatially, and conceptually) from the Causing event, the presence of controlling agent in the former being one of the major prerequisites for the higher degree of such independence. When the Caused event is construed as relatively independent from the Causing event on the semantic level, its morphosyntactic expression also assumes some degree of freedom, e.g. projection of its own

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directive causations (see. Talmy 2001: Ch. 8; Shibatani, Pardeshi 2002 for an extended discussion of the semantic types of causatives). In the preceding passage we have defined direct causative as that formed from a non-agentive base and indirect causative as that formed from an agentive base, and we will adhere to this definition throughout.

subject able to bind anaphors, or ability to allow adverbial operators to modify it independently of the causing event into which it is embedded.

In this paper, we will focus on the properties of the morphological causative in the Shapsug dialect of Adyghe, a language of the West Caucasian family spoken in several villages near the Russian part of the Black Sea coast. Causative formations in this language show features rather unusual from the typological point of view, and pose some problems for a formal analysis. The paper is structured as follows. In section 2 we will give a brief introduction to major features of Adyghe; in section 3 we will outline the framework we are assuming here, i.e. the First Phase Syntax approach (Ramchand 2003, 2008); in section 4 we will present the material of Adyghe causatives; in section 5 we will outline a formal account of this data.

## 2 Grammatical features of Adyghe

Adyghe (West Circassian), which has several dialects, together with its closest relative Kabardian (East Circassian) and more distantly related Abkhaz, Abaza and Ubykh belongs to the West Caucasian language family (see Hewitt (ed.) 1989 for a reference survey of the family). There exist several grammatical descriptions of standard (literary) Adyghe based on the Temirgoy dialect, published mainly in Russian (e.g. Rogava & Kerasheva 1966); a grammatical sketch of Abzakh dialect is published in Hewitt (ed.) 1989 (Paris 1989); a very useful description of Adyghe morphology may be found in Smeets 1984<sup>3</sup>. As to the Shapsug dialect we are dealing with in this paper, the only existing description is Kerasheva 1957, also published in Russian. The data presented here has been collected in village Aguy-Shapsug near the town of Tuapse during the summer field-trip organized by the Russian State University for Humanities in June and July 2007.

For the purposes of this article, it is necessary to introduce several grammatical features of Shapsug (most of them can be extended to standard Adyghe). The most prominent feature which Shapsug dialect shares with all other West Caucasian languages is polysynthesis (understood informally as extremely rich verbal<sup>4</sup> morphology including cross-referencing of arguments by pronominal affixes on the verb). The Adyghe verb may encode three and even more participants by pronominal prefixes on the verb, cf. (4).

- (4)    azamate<sub>i</sub>        fatime<sub>j</sub>        x'əde<sub>k</sub>        Ø<sub>k-ɾj-jəi</sub>-šə-ɸ.  
 Azamat(ERG)    Fatima(ERG)    donkey(ABS)    3SG.ABS-3.SG.IO-3SG.A-sell-PST  
 'Azamat sold a donkey to Fatima.'

The basic word order in Adyghe is SOV, the final position of the predicate being rather strict; the order of the noun phrases is relatively free, guided mainly by pragmatic considerations; the noun phrases may be dropped rather freely<sup>5</sup>.

Another important feature of Adyghe is morphological ergativity in both dependent-marking and head-marking. The subject of intransitive verbs and the direct object of transitive verbs are marked by the Absolutive case-marker *-r* (*-er* or simply *-e* in Shapsug) and are

<sup>3</sup> Smeets 1984 deals actually with a Shapsug idiom spoken in Turkey; however, this idiom is in many important respects different from the one we have studied.

<sup>4</sup> It is necessary to bear in mind that the distinction between nouns and verbs is almost vanishing in Adyghe (see Lander & Testelets 2006 for a discussion); almost any content word may appear in the predicate position and bear TAM morphology as well as occur in the argument position and combine with case markers. So, the very use of the terms 'verb' and 'verbal' with reference to Adyghe data is somewhat misleading, though in this paper we consider such use legitimate.

<sup>5</sup> We, however, do not make any decision as to their syntactic status as arguments or adjuncts (cf. Baker 1996).

cross-referenced on the verb by a set of pronominal affixes characterized by (i) the leftmost position in the verbal complex, and (ii) 3<sup>rd</sup> person always being zero-marked, cf. (5).

- (5) a. sə-šə-t.  
1SG.ABS-LOC-stand  
'I am standing.'
- b. čale-r Ø-šə-t.  
boy-ABS 3SG.ABS-LOC-stand  
'The boy is standing.'

By contrast, the subject of transitive verbs is marked by the Ergative (or Oblique)<sup>6</sup> case-marker *-m* and cross-referenced by another set of pronominal prefixes, (i) located closest to the verb stem, and (ii) containing non-zero 3<sup>rd</sup> person prefixes, cf. (6).

- (6) a. bzəlfəvɛ-m pisme ə-txə-ɤ.  
woman-ERG letter(ABS) 3SG.A-write-PST  
'The woman wrote a letter.'
- b. se pisme qə-p-fe-s-ɤahə-ɤ.  
I(ERG) letter(ABS) DIR-2SG.IO-BEN-1SG.A-send-PST  
'I have sent you a letter.'

With respect to case-marking on nominals, it should be noted that in Adyghe in general personal pronouns, proper names, and nouns marked with possessive prefixes do not take case-markers, and neither do case-markers attach to non-specific NPs; moreover, in Shapsug there is a tendency to drop final consonants of the case-markers altogether, regardless of definiteness. The difference between the 'truncated' Absolutive and Ergative is observed only with nouns ending in schwa *-ə*: in the Absolutive it changes into *-e*, cf. *psə* 'water; water(ERG)' vs. *pse* 'water(ABS)'. Finally, the Ergative functions not only as a marker of transitive subjects, but also marks all types of indirect objects, such as recipients of ditransitive verbs (7), or indirect objects of intransitive two-place verbs such as 'look' or 'read'<sup>7</sup> (8), as well as NP-internal possessors.

- (7) čale-m pšaše-m neqəvɛ r-j-e-tə.  
boy-ERG girl-ERG flower(ABS) 3SG.IO-3SG.A-PRS-give  
'The boy is giving a flower to the girl.'
- (8) çəf-er txələ-m j-e-g'e.  
boy-ABS book-ERG 3SG.IO-PRS-read  
'The boy is reading the book.'

Beside the bound pronominals, Adyghe prefixes may encode spatial relations, cf. the locative preverbs such as *šə-* shown in (5) or the directive preverb *qe-* in (6b), and valency-increasing derivations such as benefactive *fe-* in (6b) or causative *-ɤe-* which will be focused on in section 4, and some other (e.g. the Present tense prefix *-e-*).

A brief outline of the tense-aspect system of Shapsug is also in order (cf. Arkadiev forthc. for a discussion of aspect in standard Adyghe). Aspectual, temporal and modal

<sup>6</sup> In what follows we use the traditional term 'Ergative' for this case marker; however, its wide use for marking indirect objects and possessors (see below) distinguishes it from typical ergative markers found in various languages.

<sup>7</sup> For a discussion of the special morphosyntax of two-argument verbs in the languages of the Caucasus cf. Testelet 1998.

meanings in Adyghe are mostly encoded by suffixes (cf. Korotkova & Lander 2008 for a recent analysis), a notable exception being the Present tense marked by the prefix *-e-* with the so-called ‘dynamic’ verbs<sup>8</sup>. The Present tense in Adyghe is ambiguous between the progressive and the habitual/generic interpretations. The Simple Past tense with a general perfective force is expressed by the suffix *-ɬe* (homonymous with the causative prefix); there is also an Imperfective Past in *-štəɬe*, and a Future tense in *-št*. Negation is expressed either by the suffix *-ep* attaching in the rightmost position or by the prefix *-mə* in a position close to the stem; their distribution is a rather complex matter and roughly depends on the independent vs. subordinate status of the predicate (cf. Smeets 1984 for a discussion).

### 3 The syntax of event structure

We are casting our analysis in the framework of First Phase Syntax proposed by Gillian Ramchand (2003, 2008; see also Butt & Ramchand 2005). This framework presents a simple and elegant theory of event structure, which, we believe, is able to adequately account for a variety of facts, among which are those we are focusing on in this paper. In this section we will briefly outline the basic assumptions of First Phase Syntax.

Ramchand, following much previous research, assumes that events expressed by different kinds of predicates may be decomposed into elementary events linked by the causal relation (schematically represented by  $\rightarrow$ ). E.g., a transitive event such as *build* is constructed from two subevents  $e_1$  and  $e_2$ , where  $e_1$  is the causing or instigating force and  $e_2$  is the process of eating, cf. a schematic representation in (9) (Ramchand 2003: 20; 2008: 43). Similarly, telic event like *cross the street* may be decomposed into the process of crossing and the result of crossing, cf. (10) (Ramchand 2003: 21; 2008: 43). A single event by definition may maximally consist of three subevents: causing event ( $e_1$ ), caused process ( $e_2$ ) and caused result state ( $e_3$ ), cf. (11) (Ramchand 2003: 21).

(9) ‘build’ (e) where  $e = e_1 \rightarrow e_2$ : [cause-build( $e_1$ ) & process-build( $e_2$ )]

(10) ‘cross the street’(e) where  $e = e_1 \rightarrow e_2$ : [process-cross( $e_1$ ) & result-of-crossing( $e_2$ )]

(11)  $e: e = e_1 \rightarrow (e_2 \rightarrow e_3)$

Ramchand assumes there to be only two primitive types of event, viz. State and Process, and that both the causing and the resulting subevents are states, their interpretation being dependent on their position in the hierarchical structure, cf. the definitions in (12) (Ramchand 2003: 22; 2008: 44).

(12) a.  $[[\exists e_1, e_2 [\text{State}(e_1) \ \& \ \text{Process}(e_2) \ \& \ e_1 \rightarrow e_2]]] \rightarrow_{\text{def}} \text{Causing}(e_1)$   
 b.  $[[\exists e_1, e_2 [\text{State}(e_1) \ \& \ \text{Process}(e_2) \ \& \ e_2 \rightarrow e_1]]] \rightarrow_{\text{def}} \text{Result}(e_1)$

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<sup>8</sup> Dynamic intransitive verbs also insert ‘dummy’ prefix *re-* in non-present tenses when no other prefix is present, i.e. in the 3<sup>rd</sup> person forms; this is a peculiarity of the Shapsug dialect, cf. the form meaning ‘he ran’ in standard Adyghe: *ča-ɬe* vs. its counterpart in Shapsug: *re-ča-ɬe*. ‘Static’ verbs, to which belong verbs of position *-s-* ‘sit’, *-t-* ‘stand’, *-λ-* ‘lie’, and an indefinite number of ‘nominal’ predicates, take neither this prefix nor the Present tense prefix *-e-*.

The participants of the event are treated as subjects of the subevents it consists of; the semantic role of the participant is determined by the subevent it is the subject of, cf. (13) (Ramchand 2003: 22; 2008: 44–45).

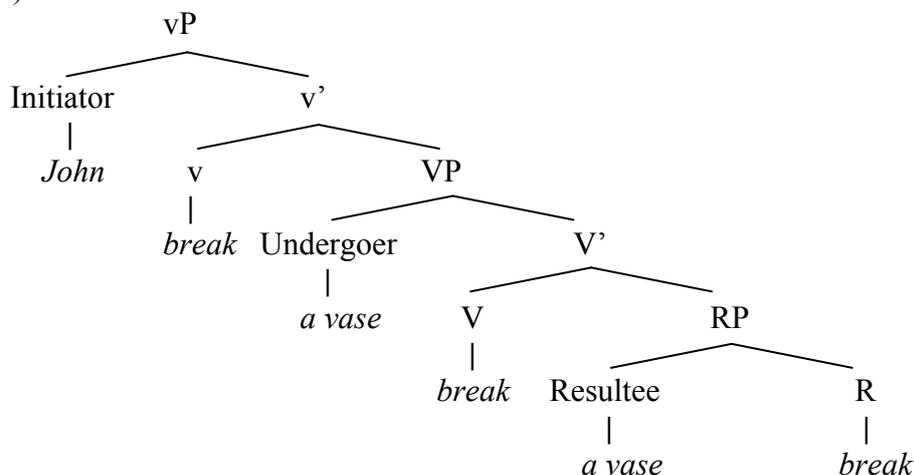
- (13) a. Subject(x, e) & Causing(e)  $\rightarrow_{\text{def}}$  INITIATOR(x,e)  
 b. Subject(x, e) & Process(e)  $\rightarrow_{\text{def}}$  UNDERGOER(x,e)  
 c. Subject(x,e) & Result(e)  $\rightarrow_{\text{def}}$  RESULTEE(x,e)

Finally, Ramchand proposes to represent subevents as projections in syntactic structure, formed by aspectual heads with semantic interpretation linked to them. Basically, there are three such heads corresponding to the three types of event outlined above: *v*, which introduces the Causing subevent and the Initiator argument; *V*, which introduces the Process subevent and the Undergoer argument; and *R*, which introduces the Result state and the Resultee argument, cf. (14) (Ramchand 2003: 22–24; 2008: 45)<sup>9</sup>.

- (14) a.  $\|v\| = \lambda P\lambda x\lambda e\exists e_1, e_2[P(e_2) \& v'(e_1) \& \text{State}(e_1) \& e = e_1 \rightarrow e_2 \& \text{Subject}(x, e_1)]$   
 b.  $\|V\| = \lambda P\lambda x\lambda e[P(e) \& V'(e) \& \text{Process}(e) \& \text{Subject}(x, e)]$  (*V* without an RP complement)  
 c.  $\|V\| = \lambda P\lambda x\lambda e\exists e_1, e_2[P(e_2) \& V'(e_1) \& \text{Process}(e_1) \& e = e_1 \rightarrow e_2 \& \text{Subject}(x, e_1)]$  (*V* with an RP complement)  
 d.  $\|R\| = \lambda P\lambda x\lambda e[P(e) \& R'(e) \& \text{State}(e) \& \text{Subject}(e)]$

The structure of an event consisting of the all three subevents (e.g. *John broke a vase*) may be represented by a tree diagram in (15), cf. Ramchand 2008: 75.

- (15) *John broke a vase.*

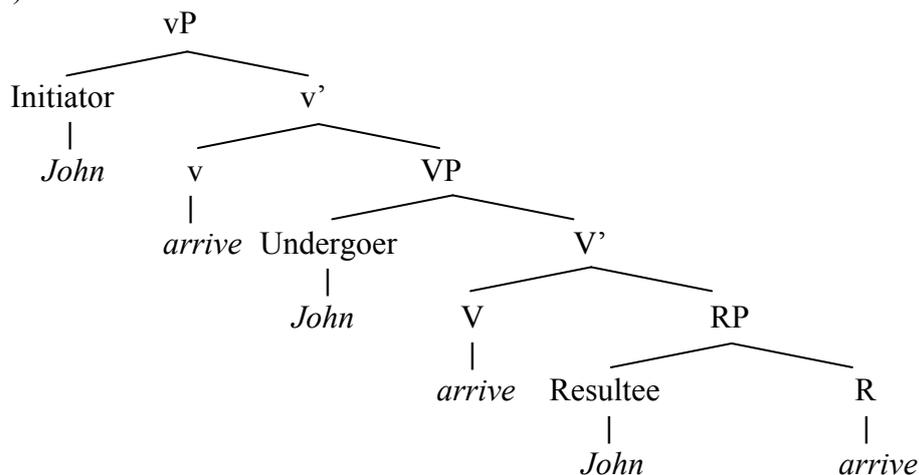


As (15) shows, a verbal lexeme may be linked to several aspectual heads (but to no more than three at once<sup>10</sup>); similarly, a DP may appear as a specifier of several heads, thus fulfilling more than one semantic role (e.g. in (15) *a vase* is the Undergoer and the Resultee at the same time; cf. useful discussion in Ramchand 2008: 52–53, Ch. 4). Actually, a single DP may occupy all three subject positions; this is possible with verbs denoting events where an agentive participant initiates a change of his or her own state, e.g. with such predicates as *arrive*, cf. (16) (Ramchand 2003: 33; 2008: 79).

<sup>9</sup> Here we disregard the notion of Rheme (the participant which is not construed as the subject of a subevent).

<sup>10</sup> The technical nature of multiple linking (e.g. the question whether it is mediated by movement or by some other mechanism) is not relevant here.

(16) *John arrived.*

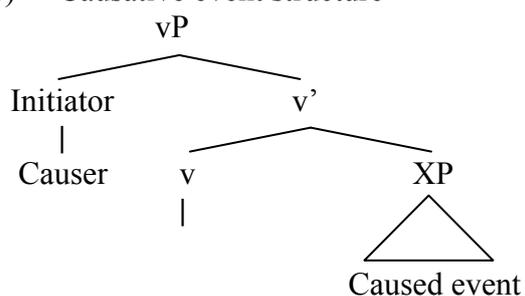


In this system, different classes of predicates (such as ‘manner verbs’, ‘result verbs’, ‘activities’ etc.) may be defined by specifying in the lexical entry of the verb (i) which aspectual heads it may be attached to, and (ii) whether any of these heads have the same subject, which is shown by co-indexation. Thus, Ramchand (2003: 29–35; 2008: Ch. 4, 195) argues for the following verb classes in English (we disregard stative verbs here):

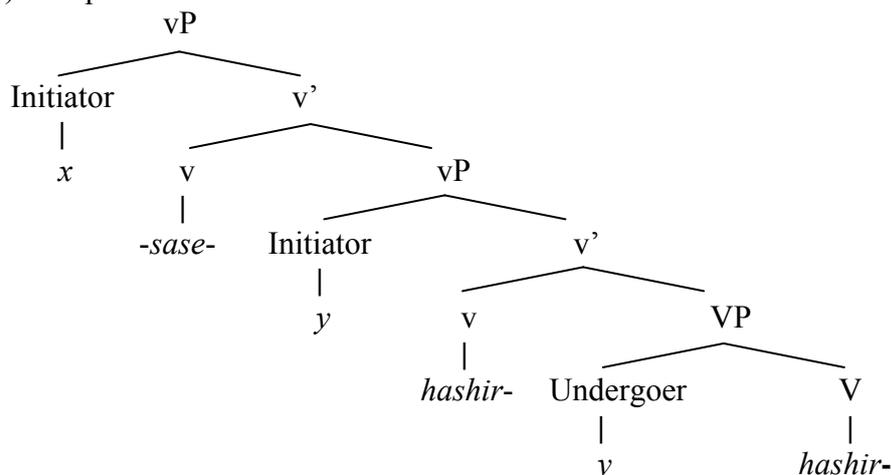
- (17) a. result transitives: [v, V<sub>i</sub>, R<sub>i</sub>] *break, defuse ...*  
 b. process transitives: [v, V] *push, drive, eat ...*  
 c. agentive process intransitives: [v<sub>i</sub>, V<sub>i</sub>] *dance, walk ...*  
 d. patientive process intransitives: [V] *widen, melt, dry ...*  
 e. agentive result intransitives: [v<sub>i</sub>, V<sub>i</sub>, R<sub>i</sub>] *arrive, stand up ...*  
 f. patientive result intransitives: [V<sub>i</sub>, R<sub>i</sub>] *break, fall ...*

Finally, causativization is analyzed by Ramchand as addition of a vP projection to an already existing event structure (Ramchand 2003: 42–46; 2008: 86, Ch. 6). Thus the generalized causative event structure may be represented as in (18):

(18) Causative event structure



What is important about causative in (18) is that in general it imposes no restrictions on the structure of the caused event (XP); more precisely, particular languages may constrain the nature of the XP in different ways. When XP = VP, the resulting event structure is indistinguishable from an event structure of a lexical transitive verb, cf. (17a,b): the causative of a patientive process intransitive is a process transitive, while the causative of a patientive result intransitive is a result transitive. However, when the base verb already has a vP projection in its event structure, causativization yields event structure which is not found with lexical transitive predicates. For instance, Japanese *hashiru* ‘run’ is an agentive process intransitive [v<sub>i</sub>, V<sub>i</sub>]; the event structure of the causative *hashir-ase-ru* [v<sub>j</sub>, v<sub>i</sub>, V<sub>i</sub>] is represented in (19).

(19) Japanese *hashir-ase-ru*

A natural hypothesis concerning the different behaviour direct and indirect causatives show cross-linguistically is based on the assumption (explicitly incorporated into the First Phase Syntax framework) that an event structure containing a vP projection is the *maximal* possible structure of a *simple* event, i.e. an event uniquely located in time and space and expressible by a morphologically simple predicate. When the event structure lacks a vP projection, the event is in a sense incomplete and can be augmented by causativization which results in a (maximal) simple event with a Causing subevent. However, when the event structure already contains a Causing subevent introduced by a v-head, its augmentation (if possible; for instance, in English augmentation of maximal events is not allowed, unless a periphrastic construction is employed) yields a *complex* event with two vPs, two causing subevents and, consequently, two Initiators (in such structures, the subject of the upper vP is called the Causer, the subject of the lower VP the Causee, cf. Shibatani (ed.) 1976). Thus the most important property of indirect causatives is their complex event structure, which entails their special behaviour: the embedded event, being a maximal event by itself, allows different operators to take scope over it with no regard to the upper Causing event; the Causee, being an Initiator by itself, may acquire enough syntactic (and also pragmatic) prominence to be able to bind anaphoric elements, etc. (cf. a First-Phase Syntax based in-depth analysis of event structure and causative formation of Karachay-Balkar, a Turkic language, in Lyutikova et al. 2006).

In the next sections we will present data from the Shapsug dialect of Adyghe and will show how it can be analyzed under the assumptions of First Phase Syntax; we will also argue for some modifications of this theory which we believe are urged for by our material.

## 4 Morphological causative in Adyghe

### 4.1 General characteristics

As we have mentioned in section 2, in Adyghe morphological causative is formed by attaching the prefix *-be-* to the verbal stem. The Causer argument introduced by the causative morpheme (which becomes the new subject) is cross-referenced by a pronominal prefix immediately preceding the prefix. The former subject is encoded according to the cross-linguistically common (cf. Comrie 1976) pattern, according to which it occupies the highest vacant position in the hierarchy Direct object > Indirect object. Thus, when the base verb is intransitive (either one-argument intransitive (20), or two-argument intransitive (21)) the Causee argument retains Absolutive marking, whereas with transitive base verbs (22) the

Causee is encoded as an Indirect object: it retains the Ergative case and is cross-referenced by the pronominal prefix in the slot preceding that occupied by the prefix referring to the Causer. So, on the surface level, causatives of transitive verbs share morphosyntactic properties with three-place verbs such as ‘sell’, cf. (4) repeated in (23).

- (20) a. *čale škole-m re-ča-κ.*  
 boy(ABS) school-ERG DYN-run-PST  
 ‘The boy ran to school.’  
 b. *jane<sub>i</sub> čale<sub>j</sub> škole-m Ø<sub>j</sub>-jə<sub>i</sub>-κe-ča-κ.*  
 mother(ERG) boy(ABS) school-ERG 3SG.CS<sup>11</sup>-3SG.CR-CAUS-run-PST  
 ‘Mother made the boy run to school.’
- (21) a. *pšaše<sub>i</sub> kinowə-m<sub>j</sub> Ø<sub>i</sub>-je<sub>j</sub>-pλə-κ.*  
 girl(ABS) movie-ERG 3SG.ABS-3SG.IO  
 ‘The girl watched the film.’  
 b. *jane<sub>i</sub> pšaše<sub>j</sub> kinowə-m<sub>k</sub> Ø<sub>j</sub>-r<sub>k</sub>-jə<sub>i</sub>-κe-pλə-κ.*  
 mother(ERG) girl(ABS) movie-ERG 3SG.CS-3SG.IO-3SG.CR-CAUS-watch-PST  
 ‘Mother had the girl watch the film.’
- (22) a. *pšaše<sub>i</sub> pisme<sub>j</sub> Ø<sub>j</sub>-ə<sub>i</sub>-txə-κ.*  
 girl(ERG) letter(ABS) 3SG.ABS-3SG.A-write-PST  
 ‘The girl wrote a letter.’  
 b. *jane<sub>i</sub> pšaše-m<sub>j</sub> pisme<sub>k</sub> Ø<sub>k</sub>-r<sub>j</sub>-jə<sub>i</sub>-κe-txə-κ.*  
 mother(ERG) girl-ERG letter(ABS) 3SG.ABS-3SG.CS-3SG.CR-CAUS-write-PST  
 ‘Mother made the girl write a letter.’
- (23) *azamate<sub>i</sub> fatjəme<sub>j</sub> x’əde<sub>k</sub> Ø<sub>k</sub>-r<sub>j</sub>-jə<sub>i</sub>-ša-κ.*  
 Azamat(ERG) Fatima(ERG) donkey(ABS) 3SG.ABS-3.SG.IO-3SG.A-sell-PST  
 ‘Azamat sold a donkey to Fatima.’

The causativization is one of the most productive derivations in Adyghe; it may be applied to all kinds of predicates, i.e. ‘static’ (24) and ‘dynamic’ (25), patientive intransitives (26) and all kinds of verbs with agentive subjects (20)–(22). Only a small number of ambitransitive or labile verbs (see below) show restrictions on causative formation.

- (24) a. *čal-er šə-tə-κ.*  
 boy-ABS LOC-stand-PST  
 ‘The boy was standing.’  
 b. *jate čal-er š-jə-κe-tə-κ.*  
 father(ERG) boy-ABS LOC-3SG.CR-CAUS-stand-PST  
 ‘Father made the boy stand.’
- (25) a. *čale q-e-teg’ə.*  
 boy(ABS) DIR-PRS-stand.up  
 ‘The boy is standing up.’  
 b. *jate čal-er q-jə-κe-teg’ə-κ.*  
 father(ERG) boy-ABS DIR-3SG.CR-CAUS-stand.up-PST  
 ‘Father made the boy stand up.’

<sup>11</sup> For the sake of clarity, in the causative constructions we gloss the prefix cross-referencing the Causer as .CR, and that cross-referencing the Causee as .CS. Zero prefixes and indices in ex. (20)–(23) are given for expository purposes only, and will be omitted in further examples.

- (26) a. məl-er me-ṭk<sub>w</sub>ə.  
ice-ABS PRS-melt  
'The ice is melting.'
- b. çəfə-m məl-er ə-ke-ṭk<sub>w</sub>ə-κ.  
man-ERG ice-ABS 3SG.CR-CAUS-melt-PST  
'The man melted the ice.'

Finally, causative derivation in Shapsug allows recursion (which is cross-linguistically quite common, cf. Kulikov 1993): it is possible to further causativize a predicate which already contains a causative prefix. However, such 'double' causatives in Shapsug are rather peculiar in that the causative prefix itself is not iterated; the augmentation of the event and argument structures induced by the second application of causativization is usually reflected only in the number of pronominal markers on the verb<sup>12</sup>, cf. (27):

- (27) a. mašine qe-wəc<sub>w</sub>ə-κ.  
car(ABS) DIR-stop-PST  
'The car stopped.' (patientive intransitive)
- b. çale-m<sub>i</sub> mašine q-jə<sub>i</sub>-ke-wəc<sub>w</sub>ə-κ.  
boy-ERG car(ABS) DIR-3SG.CR-CAUS-stop-PST  
'The boy stopped the car.' (first causative)
- c. çelejəg'ə<sub>i</sub> çale<sub>j</sub> mašine qə-r<sub>j</sub>-jə<sub>i</sub>-ke-(<sup>??</sup>ke-)wəc<sub>w</sub>ə-κ.  
teacher(ERG) boy(ERG) car(ABS) DIR-3SG.CS-3SG.CR-CAUS-(CAUS-)stop-PST  
'The teacher had the boy stop the car.' (second causative)

The process of double causativization is quite productive, especially when the base verb belongs to the patientive intransitive class; in this case the first application of causativization creates a direct causative which may be further causativized to yield an indirect causative, similar to causatives of lexical transitives.

The causative prefix *-ke-* is not the only means of augmenting the event structure of a predicate with the Causing subevent in Adyghe. There is a class of verbs comprising several dozens of lexemes which are traditionally termed 'labile' or 'ambitransitive' (cf. Haspelmath 1993); they are similar to English verbs like *break* or *melt* participating in the 'causative alternation', in that they may be used both intransitively and transitively without any overt morphological marking except the relevant pronominal prefixes. Cf. ex. (28) with the labile verb *q<sub>w</sub>əten* 'break':

- (28) a. čaške re-q<sub>w</sub>əta-κ.  
cup(ABS) DYN-break(ITR)-PST  
'The cup broke.'
- b. se čaške s-q<sub>w</sub>əta-κ.  
I(ERG) cup(ABS) 1SG.A-break(TR)-PST  
'I broke the cup.'

The 'causative alternation' in Shapsug exemplified in (28) is much less productive than the similar process in English; it seems that the ability of a particular verb to be used both transitively and intransitively should be explicitly indicated in its lexical entry, since we could not discern any reasonable semantic feature which could predict the alternation (there is a tendency for lability to occur with verbs denoting momentaneous changes of state, but it is by no means absolute). Among the labile verbs found in Shapsug are the following: *q<sub>w</sub>əten*

<sup>12</sup> On analogous phenomena in standard Adyghe cf. Smeets 1984, Letuchiy (in press), and Lander & Letuchiy 2007, where a detailed analysis of factors conditioning the omission of the second causative affix is presented.

‘break’, *qjənen* ‘remain/leave’, *zəpətχ<sub>w</sub>ən* ‘be torn/tear’, *jətəq<sub>w</sub>ən* ‘be spilt/spill’ and some other predicates whose event structure may be represented as [(v), V<sub>i</sub>, R<sub>i</sub>]. However, there is quite a number of patientive result predicates which do not participate in the alternation, e.g. *jebežən* ‘fall’, *qewəc<sub>w</sub>ən* ‘stop’, *q<sub>w</sub>əsen* ‘go out (about fire)’ etc. In order to transitivize these verbs morphological causative must be applied (see Letuchiy 2009).

The lexical nature of lability in Shapsug suggests that, in contrast to morphological causativization, it has to be limited to predicates whose event structure does not contain a Causing event and a vP projection. This hypothesis seems to be true, cf. the list of labile verbs in the preceding paragraph. Further evidence comes from the verb *qjənen* ‘remain/leave’, which may be used both with inanimate patientive subjects (29a) and with animate subjects; in the latter case the predicate may mean ‘remain somewhere by one’s own decision’ thus denoting an agentive situation (29b). In the latter case only explicit morphological causativization is possible (30a), while the unmarked causative is available only with patientive Causees — either inanimate (30b), or nonvolitional, even if animate (30c).

- (29) a. s-jə-txəl                      wəne-m    q-jə-na-ɤ.  
1SG-POSS-book(ABS) home-ERG    DIR-LOC-remain(ITR)-PST  
‘My book remained at home.’ [V<sub>i</sub>, R<sub>i</sub>]
- b. maše                      wəne-m    q-jə-na-ɤ,                      txələ-m    je-g’ə-new  
Mary(ABS) home-ERG    DIR-LOC-remain(ITS)-PST    book-ERG    3SG.IO-read-INF  
feja-ɤe-štjə.  
want-PST-CSL  
‘Mary stayed at home because she wanted to read a book.’ [v<sub>i</sub>, V<sub>i</sub>, R<sub>i</sub>]
- (30) a. čeleχ<sub>w</sub>əçək<sub>w</sub>ə-m jane                      q-ə-ɤe-na-ɤ.  
little.boy-ERG                      (3SG.POSS)mother(ERG)    DIR-3SG.CR-CAUS-remain(TR)-PST  
‘The little boy’s mother had him stay at home.’ [v, v<sub>i</sub>, V<sub>i</sub>, R<sub>i</sub>]
- b. maše                      s-jə-txəl                      wəne-m    qə-r-jə-na-ɤ.  
Mary(ERG)    1SG-POSS-book home-ERG    DIR-LOC-3SG.A-leave(TR)-PST  
‘Mary has left my book at home.’ [v, V<sub>i</sub>, R<sub>i</sub>]
- c. maše                      jane-jate                      wəne-m    qə-r-a-na-ɤ.  
Mary(ERG)    (3SG.POSS)mother-father(ERG)    home-ERG    DIR-LOC-3PL.A-leave(TR)-PST  
‘Mary’s parents have left her at home.’ [v, V<sub>i</sub>, R<sub>i</sub>]

With those labile predicates which do not allow an agentive interpretation of the intransitive variant, morphological causative usually applies to the transitive variant (though there is a number of exceptions, too), thus forming a sort of a ‘double’ causative, cf. the causativized version of *q<sub>w</sub>əten* ‘break’ in (31a); it is impossible to express the meaning of (28b) ‘I broke the cup’ using the morphological causative, cf. the ungrammatical (31b).

- (31) a. se                      č’ale-m                      čaške                      jə-z-ɤe-q<sub>w</sub>əta-ɤ.  
I(ERG)    boy-ERG                      cup(ABS)    3SG.CS-1SG.CR-CAUS-break(TR)-PST  
‘I made the boy break the cup.’
- b. \*se                      čaške                      z-ɤe-q<sub>w</sub>əta-ɤ.  
I(ERG)    cup(ABS) 1SG.CR-CAUS-break(ITR)-PST  
intended meaning ‘I broke the cup.’

In the next subsections we will discuss in more detail the following properties of Shapsug causative constructions: (i) their aspectual interpretation; (ii) their co-occurrence with negation; (iii) their co-occurrence with different types of temporal adverbials.

## 4.2 Aspectual characteristics of Shapsug causatives

Following Lyutikova et al. 2006, Lyutikova & Tatevosov 2007, we assume that the aspectual properties of causatives can be inferred in a compositional fashion from the aspectual characteristics of the base verb and of the Causing event. However, the precise mechanisms by which the combination of two events yields the resulting aspectual interpretation turn out to be rather heterogeneous.

First let us look at the aspectual properties of the direct causatives. It is natural to hypothesize that since the event structure of direct causatives is equal to that of lexical transitive verbs, their aspectual properties should also be similar. This prediction is borne out in Shapsug. To see this, we first need to spell out the aspectual characteristics found with the underived transitive predicates<sup>13</sup>.

The majority of two-argument<sup>14</sup> verbs in Adyghe belong to one of the two actional classes (we use the term following Tatevosov 2002): *strong telic* and *weak telic* (note that both actional classes contain intransitive verbs as well as transitive). These two classes have in common the ability of their Present form to refer to an ongoing activity, cf. (32a) and (33a), and of their Simple Past form to express a change of state, cf. (32b) and (33b); however, they differ in that only weak telic verbs may co-occur with adverbials such as *for an hour* yielding a non-culminating interpretation, cf. (32c) vs. (33c)<sup>15</sup>.

- (32) a. pšaše-m halg<sub>wə</sub> j-e-bzə.  
 girl-ERG bread(ABS) 3SG.A-PRS-cut  
 ‘The girl is slicing bread.’
- b. pšaše-m halg<sub>wə</sub> ə-bzə-ɪ.  
 girl-ERG bread(ABS) 3SG.A-cut-PST  
 ‘The girl sliced all of the bread.’
- c. pšaše-m minut-jə-t<sub>wə</sub> halg<sub>wə</sub> ə-bzə-ɪ.  
 girl-ERG minute-LNK-two bread(ABS) 3SG.A-cut-PST  
 ‘The girl sliced bread for two minutes.’
- (33) a. çale-m məje stole šha-m qə-tj-e-xə.  
 boy-ERG apple(ABS) table head-ERG DIR-LOC-PRS-take  
 ‘The boy is taking an apple from the table.’
- b. çale-m məje stole šha-m qə-tj-ə-xə-ɪ.  
 boy-ERG apple(ABS) table head-ERG DIR-LOC-3SG.A-take-PST  
 ‘The boy took an apple from the table.’
- c. \*çale-m məje stole šha-m minut-jə-t<sub>wə</sub> qə-tj-ə-xə-ɪ.  
 boy-ERG apple(ABS) table head-ERG minute-LNK-two DIR-LOC-3SG.A-take-PST  
 intended meaning: ‘The boy for two minutes tried to take an apple from the table.’

The classification of predicates as weak or strong telic, i.e. the availability of a non-culminating interpretation in the scope of *for*-adverbials, is largely semantically driven. There are two types of weak telic predicates: (i) those like *bzən* ‘cut, slice’, *jeg’en* ‘read’, *šxən* ‘eat’, *t<sub>wə</sub>ən* ‘melt’ and a number of others, which are characterized by the presence of an *incremental relation* between the predicate and the Undergoer argument (cf. Krifka 1992,

<sup>13</sup> For an analysis of aspectual structure in standard Adyghe, which is in some intricate respects different from that found in the Shapsug dialect, see Arkadiev forthc.

<sup>14</sup> Both morphosyntactically transitive as *txən* ‘write’ and morphosyntactically intransitive as *jeg’en* ‘read’.

<sup>15</sup> On non-culminating accomplishments see Smollett 2005, Bar-el et al. 2005, Ivanov & Tatevosov forthc.

1998, Filip 1999)<sup>16</sup>; and (ii) those like *zɛpɛtʃwʌn* ‘tear’, *qɛwʌbʌtʌn* ‘pursue’, *qɛʔwʌxʌn* ‘open (tr.)’ and some others, which lack an incremental relation but presuppose a salient durative activity on the part of the Initiator, and it is only the successful accomplishment of this activity which ensures the attainment of the Result state. The strong telic verbs neither denote an incremental relation nor entail any kind of purposeful activity occupying a non-zero interval of time; the majority of these verbs belong to the class of patientive result verbs (*qɛwʌcʌn* ‘stop (itr.)’, *qɛʔwʌkʌn* ‘open (itr.)’, *zɛpɛtʃwʌn* ‘become torn’), while others express situations which may be expressed as ongoing, cf. ‘take’ in (33), but cannot be reasonably construed as having unsuccessfully lasted for some fixed period of time.

The two types of weak telic verbs yield different interpretations when combined with adverbials of duration. With the incremental verbs, the adverbial induces the meaning of ‘partial result’: the process denoted by the verb lasted for the interval of time denoted by the adverbial and, correspondingly, only a certain part of the Undergoer has changed its state. In order to formally capture the fact that some verbs express incremental relations while others do not, we follow the proposal by Lyutikova et al. (2006: 303), who introduce a special incremental version of the aspectual head V, cf. (34), where INCR is defined as in Krifka 1998.

(34)  $\|V_{\text{incr}}\| = \lambda P\lambda x\lambda e[P(e) \ \& \ \text{Process}(e) \ \& \ \text{Undergoer}(x,e) \ \& \ \text{INCR}(\text{Undergoer})]$

Thus, the event structure of such verbs as *tʃkʌn* ‘melt’ may be expressed as  $[V_{\text{incr}}]$ , and that of *tʃxʌn* ‘write’ as  $[v, V_{\text{incr}}]$ . When such an event structure falls in the scope of a *for*-adverbial, the complete events are excluded from the denotation of the resulting complex, and, via INCR, the Undergoer is also interpreted as only partially affected by the resulting state.

The other type of the weak telic verbs, the non-incremental ones, in the presence of durational adverbials yield a ‘failed attempt’ meaning: the activity which, when successful, culminates in the attainment of the resulting state, was terminated beforehand without the result being even partially achieved. In order to formulate the nature of this phenomenon, let us look at the behaviour of the pair of verbs *qɛʔwʌxʌn* ‘open (tr.)’ and *qɛʔwʌkʌn* ‘open (itr.)’, which may be safely considered to differ only in transitivity. The transitive member of this ‘suppletive’ pair belongs to the weak telic class (35a), whereas the intransitive one behaves like a strong telic verb (35b).

- (35) a. *çale*            *ʃhanʔwʌpç-e*    *minut-jə-tʃwe*        *qə-ʔwʌjə-xʻe-ɛ.*  
 boy(ERG)    window-ABS    minute-LNK-two    DIR-LOC-3SG.A-open(TR)-PST  
 ‘The boy tried to open the window for two minutes (but the window stuck and did not open).’  
 b. \**ʃhanʔwʌpç-e*    *minut-jə-tʃwe*        *qə-ʔwʌkʻə-ɛ.*  
 window-ABS    minute-LNK-two    DIR-LOC-open(ITR)-PST

The event structure of *qɛʔwʌkʌn* ‘open (itr.)’ may be represented as  $[V_i, R_i]$ , while that of *qɛʔwʌxʌn* ‘open (tr.)’ as  $[v, V_i, R_i]$ ; it is obvious that it is the nature of the Causing subevent (projected by the head *v*) which licenses the ‘failed attempt’ interpretation of the transitive verb in (35a).

Again following Lyutikova et al. (2006: 306–312), we propose to treat the difference between the ‘failed attempt’ and the ‘successful attempt’ readings as a difference between

<sup>16</sup> It is not very easy to test whether such verbs allow non-culminating interpretations when no adverbial is present, but the object is cumulative, since the case-marking of objects in Shapsug no more corresponds to the definite vs. indefinite distinction; it seems that the Simple Past forms are interpreted as denoting completed events by default.

situations occurring in the actual world and in possible worlds (cf. the intensional treatment of the Progressive in Dowty 1979). When the activity of the Initiator is successful, the Process (V) and the Result (R) take place in the actual world; by contrast, when this activity is not successful, V and R happen in some possible worlds distinct from the actual one, precisely in those possible worlds called *inertia worlds* (Dowty 1979), which would have coincided with the actual one if the activity of the Initiator had not been terminated for some reason. Thus, we introduce a special intensional version of the aspectual head  $v$ , cf. (36), where  $Q$  is a contextual variable denoting the underspecified activity on the part of the Initiator:

$$(36) \quad || v_{\text{inert}} ||^{\text{w.g}} = \lambda P \lambda x \lambda e \exists e_1 [Q(e) \text{ in } w \ \& \ \text{Initiator}(x, e) \text{ in } w \ \& \ \forall w' [w' \text{ is an inertia world with respect to } w \rightarrow [e \rightarrow e_1 \text{ in } w' \ \& \ P(e_1) \text{ in } w']]]$$

In order for this analysis to work, we have to assume that the lexical representation of verbs like *qeʔwəxʔən* ‘open (tr.)’ looks like  $[v / v_{\text{inert}}, V_i, R_i]$ , where  $v_{\text{inert}}$  is selected only under contextual pressure such as presence of a *for*-adverbial<sup>17</sup>.

It should be noted also that, in principle, nothing precludes a transitive process verb like ‘eat’ or ‘write’ to select a  $v_{\text{inert}}$  head instead of an ordinary extensional  $v$ . However, in our material there are no examples which would mean something like ‘X has tried to write a letter for two hours, but did not write a single line’; such a meaning cannot be expressed by sentence in (37), the only interpretation of which is that the woman stopped in the middle of the letter.

$$(37) \quad \text{bzəlfəke-m} \quad \text{səhat-jə-t_wə} \quad \text{pisme} \quad \text{ə-txə-ɛ.}$$

woman-ERG    hour-LNK-two    letter(ABS)    3SG.A-write-PST

‘The woman was writing a letter for two hours (and did not finish it).’

We propose to explain this situation by linking it to the fact that the non-culminating reading of incremental verbs (e.g. ‘was writing a letter for two hours but did not finish it’) is in general easier to obtain from the native speakers of Shapsug than the failed attempt reading of non-incremental verbs (e.g. ‘was trying to open the door for two minutes, but failed’). Thus, when the  $V_{\text{incr}}$  is already built into the lexical representation of the verb,  $v_{\text{inert}}$  is never selected since a natural non-culminating reading is provided by the incremental relation. The intensional head  $v_{\text{inert}}$  is a sort of a ‘last resort’ option which is applied only when no  $V_{\text{incr}}$  is available.

Let us now move on to the aspectual properties of direct causatives. It turns out that direct causatives of Shapsug invariably fall into the weak telic actional class. This is not unexpected since the Causing subevent introduced by the causative morpheme presupposes some sort of activity on the part of the Initiator (of course, this is true only of animate Initiators; inanimate Initiators show rather special behaviour, the discussion of which we postpone to Section 5). When used in the imperfective aspect (38a), the direct causative denotes the process involving both the Initiator and the Undergoer; in the perfective aspect (38b) the whole event is regarded as terminated and the Result state achieved.

$$(38) \text{ a. } \text{t-jane} \quad \text{ps-e} \quad \text{j-e-ke-fabe.}$$

1PL-mother(ERG)    water-ABS    3SG.CR-PRS-CAUS-get.warm

‘Our mother is heating the water.’

<sup>17</sup> Another possibility is to postulate a coercion operation which would change the extensional  $v$  into  $v_{\text{inert}}$  post-lexically; we do not opt for this mechanism, however, since it would go against our main proposal (see Section 4), i.e. that in Shapsug parts of lexical representation do not allow modification by syntactic operations.

- b. t-jane ps-e ə-ke-feba-κ.  
 1PL-mother(ERG) water-ABS 3SG.CR-CAUS-get.warm-PST  
 ‘Our mother has heated the water.’

Causatives formed from patientive processes behave like incremental transitive verbs, which is a natural consequence of the fact that the majority of patientive processes are incremental; the augmentation of event structure does not affect the nature of the processual head  $V$ :  $[V_{incr}] \rightarrow [v, V_{incr}]$ . This pattern is exemplified in (39).

- (39) ɕəfə-m məl-e maf-jə-tfə jə-ke-tk<sub>w</sub>ə-κ,  
 man-ERG ice-ABS day-LNK-five 3SG.CR-CAUS-melt-PST  
 aw məl-er re-tk<sub>w</sub>ə-ka-x-ep.  
 but ice-ABS DYN-melt-PST-TRM-NEG  
 ‘The man was melting a piece of ice for five days, but the piece did not melt completely.’

Causatives formed from patientive result verbs show behaviour characteristic of those transitive result verbs which allow the ‘failed attempt’ reading; thus the derived verb is usually able to combine with durative adverbials, even though the base verb precludes such a possibility, cf. (40); this may be explained by assuming that the causative morpheme may introduce both the extensional head  $v$  and the intensional head  $v_{inert}$ .

- (40) a. \*ɕale səhatə-nəq<sub>w</sub>e qə-wəš’əžə-κ.  
 boy(ABS) hour-half DIR-wake.up-PST  
 Intended meaning: ‘#The boy tried to wake up for half an hour.’  
 b. jane ɕale səhatə-nəq<sub>w</sub>e q-jə-ke-wəš’əžə-κ.  
 mother(ERG) boy(ABS) hour-half DIR-3SG.CR-CAUS-wake.up-PST  
 ‘Mother was trying to wake the boy up for half an hour (but he continued to sleep).’

The behaviour of Shapsug direct causatives with respect to durative adverbials is summarized in Table 1.

Table 1. Interpretations of Shapsug direct causatives with durative adverbials.

Verb class	Interpretation of the combination with durative adverbial
Strong telic	—
Weak telic incremental	Partial result
Weak telic non-incremental	Failed attempt
Causative of strong telic	Failed attempt
Causative of incremental weak telic	Partial result
Causative of non-incremental weak telic	Failed attempt

Similarly to the lexical transitive verbs, direct causatives in Shapsug do not allow event structures of the type  $*[v_{inert}, V_{incr}]$ ; no special assumptions are necessary to account for this.

Let us now turn to the aspectual behaviour of indirect causatives. They differ from direct causatives in that the caused event expressed by the base verb has a high degree of independence; this is reflected, *inter alia*, in the fact that the caused situation  $S_0$  retains its aspectual characteristics being embedded under the Causing event. This may be demonstrated

by the behaviour of *for*- and *in*-adverbials, which are always able to modify the S<sub>0</sub>, provided the base verb itself allows such modification, cf. (41)–(44) where causatives of different verb classes are exemplified: stative (41), atelic (42), weak telic (43) and strong telic (44).

- (41) a. *jate*            *čal-er*    *səhatə-nəq<sub>w</sub>e(\*-g'e)*    *š-jə-ke-tə-κ*.  
 father(ERG) boy-ABS hour-half(\*-INS)            LOC-3SG.CR-CAUS-stand-PST  
 ‘Father made the boy stand for half an hour / \*in half an hour.’  
 b. *čal-er*    *səhatə-nəq<sub>w</sub>e(\*-g'e)*    *šə-tə-κ*.  
 boy-ABS hour-half(\*-INS)            LOC-stand-PST  
 ‘The boy stood for half an hour / \*in half an hour.’
- (42) a. *jane*            *čele-čəq<sub>w</sub>ə-x-er*    *səhatə-nəq<sub>w</sub>e*    *ə-ke-g'eg<sub>w</sub>ə-ke-x*.  
 mother(ERG) boy-little-PL-ABS hour-half            3SG.CR-CAUS-play-PST-PL  
 ‘Mother let the children play for half an hour.’  
 b. *čele-čəq<sub>w</sub>ə-x-er*    *səhatə-nəq<sub>w</sub>e*    *re-g'eg<sub>w</sub>ə-ke-x*.  
 boy-little-PL-ABS hour-half            DYN-play-PST-PL  
 ‘The children played for half an hour.’
- (43) a. *čelejeḡag'e*    *čale*    *txəl*            *səhat-jə-t<sub>w</sub>e(-g'e)*    *r-jə-ke-g'a-κ*.  
 teacher(ERG) boy(ABS) book(ERG) hour-LNK-two(-INS)    3SG.IO-3SG.CR-CAUS-read-PST  
 ‘The teacher made the boy read the book for two hours // read the whole book in two hours.’  
 b. *čal-er*    *səhat-jə-t<sub>w</sub>e(-g'e)*    *txələ-m*    *je-ga-κ*.  
 boy-ABS hour-LNK-two(-INS) book-ERG    3SG.IO-read-PST  
 ‘The boy read the book for two hours // read the whole book in two hours.’
- (44) a. \**jane*            *čale-m*    *məje*            *minut-jə-t<sub>w</sub>e*    *qə-tə-r-jə-ke-hə-κ*.  
 mother(ERG) boy-ERG apple(ABS) minute-LNK-two DIR-LOC-3SG.CS-3SG.CR-CAUS-take-PST  
 Intended meaning: ‘Mother let the boy try to take an apple for two minutes.’  
 b. \**čale-m*    *məje*            *stole*    *šha-m*            *minut-jə-t<sub>w</sub>e*    *qə-tj-ə-xə-κ*.  
 boy-ERG apple(ABS) table head-ERG minute-LNK-two DIR-LOC-3SG.A-take-PST  
 Intended meaning: ‘The boy tried to take an apple from the table for two minutes.’

As (41)–(44) show, the ability of the indirect causative to co-occur with *for*- and *in*-adverbials quite strictly correlates with that of the base verb — provided that we are looking at the narrow scope interpretation of the adverbial, when it does not modify the causing event (see section 4.4). This is not unexpected under current assumptions, since a complete event structure (vP) should not change its properties when embedded under another vP.

Let us consider now the aspectual properties of the upper vP itself, i.e. that of the Causing event. When used in the perfective aspect, the whole complex causative situation is construed as completed: the Causing event reached its goal, which means that the Causer has successfully persuaded or forced the Causee to perform the Caused situation. This is reflected in the impossibility (with minor exceptions) to ‘cancel’ the completed interpretation by appending to the Simple Past form of the causative a clause negating the Caused situation, cf. (45):

- (45) *čelejeḡag'e-m*    *čal-er*    *ə-ke-təsə-κ*                            *(\*aw re-təsə-κ-ep)*.  
 teacher-ERG boy-ABS 3SG.CR-CAUS-sit.down-PST but DYN-sit.down-PST-NEG  
 ‘The teacher made the boy sit down (\*but the boy did not).’

This ‘implicative’ (Karttunen 1971) property is quite common to causative constructions cross-linguistically. However, if we look at the behaviour of Shapsug indirect causatives in

the Imperfective aspect, we encounter a much more complicated situation. Consider ex. (46), where the adverbial clause induces the progressive reading of the Imperfective Past tense.

- (46) sade-m    sə-zə-xaxe-m,                    jate            čeleχ<sub>w</sub>e-m  
 garden-ERG 1SG.ABS-SBD-come-ERG    father(ERG) boy-ERG  
 χ<sub>w</sub>əž            qə-r-jə-ke-šepə-štəχ.  
 pear(ABS)    DIR-3SG.CS-3SG.CR-CAUS-gather-IPF  
 Lit. ‘When I came to the garden, the father was forcing the boy to gather pears.’

The neutral interpretation of (46) implies that the Caused situation ‘the boy gathering pears’ takes place at the moment of the speaker’s entrance into the garden; however, the precise temporal location of the Causing event ‘Father makes the boy gather pears’ is not specified; our Shapsug consultants say that (46) may either mean that the process of gathering pears is performed under the direct supervision of the father (thus, the Caused and the Causing event being simultaneous), or that the Causing event took place before the speaker came to garden, i.e. (46) may be translated ‘When I came to the garden, the boy was gathering pears, because his father had made him do it’. Finally, the interpretation which construes only the Causing situation as simultaneous to the reference point, i.e. ‘When I came to the garden, the boy’s father was trying to persuade him to gather pears’, is the least preferred reading of (46), which may naturally arise only when the direct contradiction is appended, cf. (47).

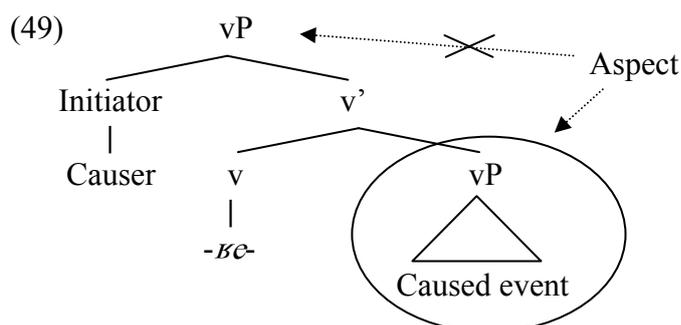
- (47) jate            azamate            j-e-ka-če,                    aw a-r            re-če-r-ep.  
 father(ERG) Azamat(ABS) 3SG.CR-PRS-CAUS-run    but    he-ABS    DYN-run-DYN-NEG  
 ‘Azamat’s father is trying to force him to run, but Azamat doesn’t run.’

Thus, the ‘default’ interpretation of Shapsug causative constructions combined with the progressive meaning of the Present tense is the one where the Progressive operator takes scope either over the complex event as a whole or just over the Caused event.

Further, when indirect causative is combined with the habitual interpretation of the Present tense, as in (48), we see that it is again the Caused situation which falls in the scope of the habitual operator introduced by the adverbial phrase ‘every morning’; the Causing event may be out of the scope of habituality, since, as our consultants indicate, (48) does not entail that Azamat’s father every morning persuades Azamat to run.

- (48) azamate            jate                    pčedəže qesjə            j-e-ka-če.  
 Azamat(ERG) (3SG)father(ERG) morning each            3SG.CR-PRS-CAUS-run  
 Lit. ‘Azamat’s father makes him run every morning.’

These facts point towards a conclusion that in Shapsug indirect causatives the Causing event is in a sense ‘transparent’ with respect to aspectual operators, which, as it were, are almost insensitive to its presence in the event structure of the predicate. The interaction between the event structure of indirect causatives and aspectual operators in Shapsug may be schematized as in (49).



We believe that the scope relation in (49) is relevant not only for the imperfective aspectual viewpoint as shown in (46) and (48), but may also be extended to the perfective Simple Past in (41)–(45). The fact that in the latter the Causing event is invariably understood as being also in the scope of perfective may well be attributed not to the wider scope of perfective aspect, but to general semantic and pragmatic reasoning: if an event is regarded as completed and it is simultaneously overtly indicated that it is caused by another event, then the latter must also be completed. Another relevant factor might be the tendency for the Causing event to constitute a semantic presupposition: the use of the morphological causative strongly implies that the causing event has taken place regardless of particular tense/aspect value. Even in the context of the Future tense the Causing event may be understood as having occurred before the moment of speech, cf. (50)<sup>18</sup>:

- (50) *šha-m ruslanə məj-er newəš qə-r-jə-ɣe-šəpə-š't.*  
 master-ERG Ruslan(ERG) apple-ABS tomorrow DIR-3SG.CS-3SG.CR-CAUS-gather-FUT  
 i. ‘Ruslan will tomorrow gather the apples, because the master has already asked him to do it.’  
 ii. ‘The master will make Ruslan tomorrow gather the apples.’

In (50), the Causing event, i.e. the master’s order to gather the apples, is most naturally understood as an already established fact, cf. reading (i); as our consultants indicate, a reading of (50) where both events are going to happen tomorrow is also possible, cf. reading (ii), but it is not any more natural than (i).

We do not propose here any particular formal mechanism to implement the scope relation indicated in (49); that could be either a syntactic (e.g. movement of the inner vP to a higher aspectual head), or perhaps a semantic (e.g. a special language-particular interface rule) operation.

Further observations concerning the aspectual structure of indirect causatives will be made in subsection 4.4.

### 4.3 Shapsug causative and negation

Having assumed that verbs have a hierarchically organized and syntactically represented event structure, it is legitimate to ask whether various operators can take scope over different parts of these event structures, or must apply to them as a whole (cf. Dowty 1979). In the previous subsection it was shown that the complex event structure of the indirect causative in Shapsug allows and indeed favours the situation when aspectual operators only take scope over the lower vP projection. Negation is a standard example of an operator with varying scope; in this subsection we will survey its behaviour with non-derived verbs, direct and indirect causatives.

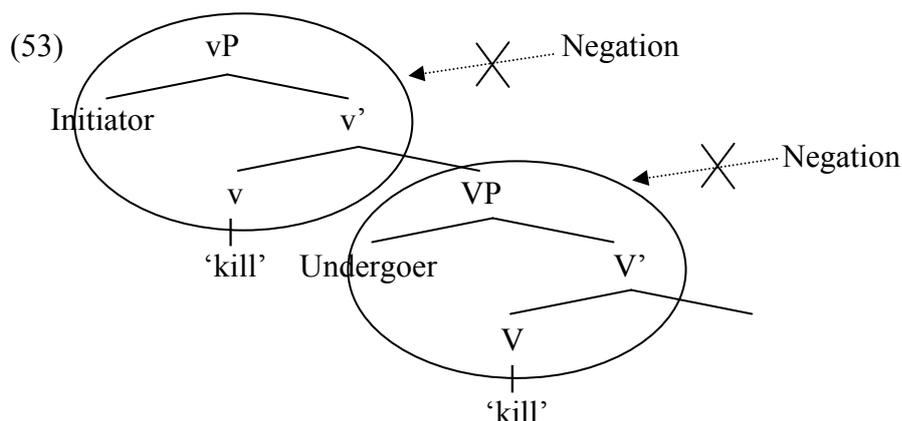
The lexical two-argument predicates in Shapsug allow the negative suffix *-ep* to take only the widest scope, which includes all components of their event structure, cf. ex. (51) with a process verb and ex. (52) with a result verb.

- (51) *aslane ruslane jə-wəpsə-ɣ-ep.*  
 Aslan(ERG) Ruslan(ABS) 3SG.A-shave-PST-NEG  
 ‘Aslan did not shave Ruslan’ → i. ‘Aslan did not even start the process of shaving;’ //  
 ii. \*‘Aslan had started shaving but did not finish;’ // iii. \*‘Ruslan shaved himself, without Aslan’s help.’

<sup>18</sup> See Letuchiy 2007a and 2007b for a discussion of similar behaviour of causatives in standard Adyghe.

- (52)  $\check{c}ele\chi_w\text{ə-m } j\text{ə-pəj}$   $j\text{ə-wək'ə-}\mathfrak{B}\text{-ep.}$   
 boy-ERG 3SG.POSS-enemy(ABS) 3SG.A-kill-PST-NEG  
 ‘The boy did not kill his enemy’ → i. ‘There was no attempt at killing;’ // ii. \*‘The boy tried to kill the enemy but failed;’ // iii. \*‘The boy’s enemy died without the boy killing him.’

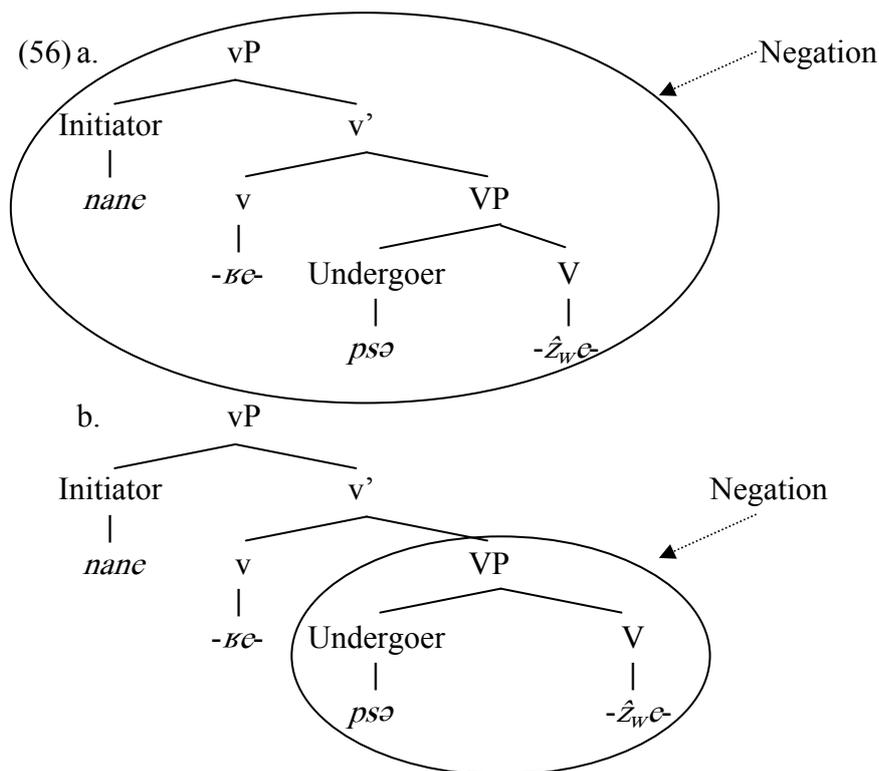
The negation of a predicate encoding both the causing activity of the Initiator and the Process affecting the Undergoer and eventually leading to the Result state may in principle take scope over the whole event structure (reading (i) in (51)–(52)), just over the Process and, if present, the Result state (reading (ii)), or just over the Initiator’s activity (reading (iii)). In Shapsug, with lexical two-argument predicates only reading (i) is possible, any type of partial scope being ruled out, which is schematically represented in diagram (53):



When we turn to direct causatives, we find a different picture. At least some direct causatives allow reading of the type (52ii), i.e. that where the Causing subevent is not in the scope of negation, cf. (54) and (55), whose ambiguity is confirmed by several of our consultants.

- (54)  $nane$   $ps\text{-er}$   $\text{ə-}\mathfrak{B}\text{e-}\hat{z}_w\text{a-}\mathfrak{B}\text{-ep.}$   
 mother(ERG) water-ABS 3SG.CR-CAUS-boil-PST-NEG  
 i. ‘Mother did not boil the water’; ii. ‘Mother did not finish boiling the water.’
- (55)  $\check{c}ele\chi_w\text{ə-m } ma\hat{s}_w\text{-er}$   $\text{ə-}\mathfrak{B}\text{e-}q_w\text{esa-}\mathfrak{B}\text{-ep.}$   
 boy-ERG fire-ABS 3SG.CR-CAUS-go.out-PST-NEG  
 i. ‘The boy did not extinguish the fire’; ii. ‘The boy tried to extinguish the fire, but failed.’

In (54), which shows the causative of a patientive process verb, and (55) where the base predicate is a patientive result verb, the negation may take both the widest scope (over vP) and the narrow scope (over VP only); the third possibility, where only the vP, but not the VP is negated, is again excluded: neither of the sentences may imply that the processes denoted by the base predicates took place spontaneously, without the help of the Initiator. The schematic representations of (54i) and (54ii) are shown in (56a) and (56b), respectively.



Thus, though the event structure of direct causatives is similar to that of lexical transitive verbs, which is reflected in their aspectual properties and in adverbial modification (see subsection 4.4), the data concerning the scope of negation suggest that even when the overall event structure is identical, the difference between a lexically encoded *v* and the morphologically expressed one may be relevant, since only the latter and not the former is ‘transparent’ with respect to negation. We will turn to this distinction in section 5.

The indirect causative also displays ‘transparency’ for negation, but of a different kind. Above we have seen that the default reading of the indirect causative in Shapsug is the ‘coercive’ one: it implies that the Initiator somehow forced the Causee to perform the action denoted by the base verb. However, when the indirect causative is combined with negation, a meaning shift is observed: instead of a ‘coercive’ causative in the scope of negation we find a ‘permissive’ causative, cf. (57) and (58).

- (57) jane                      č’ale-m pče                      qə-?wə-r-jə-ke-x’ə-ɸ-ep.  
 mother(ERG)    boy-ERG door(ABS)    DIR-LOC-3SG.CR-CAUS-open-PST-NEG  
 ‘Mother did not let the boy open the door’ → i. ‘she did not give him permission;’ ii.  
 \*‘she tried to persuade him but he did not submit.’

- (58) čale-m                      pšaše                      q-ə-ke-ḵ<sub>w</sub>a-ɸ-ep,                      aw jež                      re-ḵ<sub>w</sub>a-ɸ.  
 boy-ERG                      girl(ABS)                      DIR-3SG.CR-CAUS-go-PST-NEG                      but                      self                      DYN-go-PST  
 ‘The boy didn’t let the girl come, but she came.’

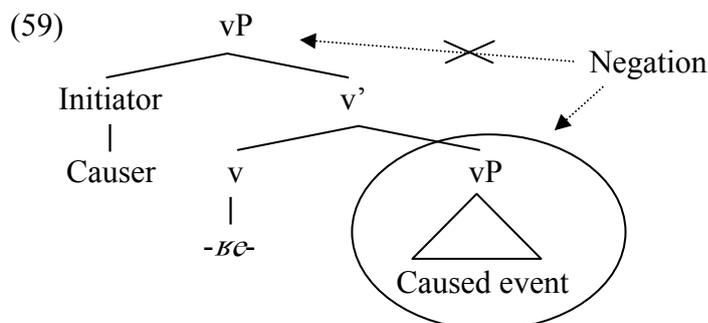
Our consultants quite consistently interpret sentences similar to (57) and (58) as implying not unsuccessful causation, but rather the Causer’s refusal to give the Causee permission to perform the action<sup>19</sup>.

We propose to explain this rather unexpected behaviour of negated indirect causatives in the same vein as their strange aspectual characteristics, i.e. by assuming that the correct semantic representation for sentences like (57)–(58) is not [x NOT [PERMIT [y V]]], where

<sup>19</sup> In fact, the unsuccessful causation interpretation is sometimes possible, but is clearly marginal.

the appearance of PERMIT instead of CAUSE could be only stipulated, but rather as  $[x \text{ CAUSE } [\text{NOT } [y \text{ V}]]]$ , i.e. by postulating that indirect causatives require the negation to take narrow scope with respect to the upper vP, similarly to aspectual operators (see subsection 4.2) and to adverbial modifiers (see subsection 4.4).

Again, we do not adhere to any particular formal implementation of our proposal, though examples like (57)–(58) could in principle be handled by postulating that a NEGation functional head directly intervenes between the upper and the lower vPs. The schematic representation of negated indirect causative is shown in (59).



To conclude this section, we hypothesize that the three-way behaviour of negation with respect to lexical transitives, direct causatives, and indirect causatives may be largely attributed to two factors: the distinction between a lexically and a morphologically encoded v, and the special properties of the syntactic configuration of the shape  $[_{vP} \text{ v } [_{vP} \text{ v } ]]$ .

#### 4.4. Shapsug indirect causatives and adverbial modification

In section 4.2 we have already exemplified the modification of direct and indirect causatives by temporal adverbials of duration, which was necessary for the discussion of their aspectual characteristics. We have seen that indirect causatives always allow the adverbials of temporal duration (e.g. *səhatənəqwe* ‘for an hour’) and temporal localization (e.g. *njepe* ‘today’) to modify the ‘inner’ Caused situation. In this section we will more systematically investigate the properties of the combinations of indirect causatives with different types of temporal adverbials: adverbials of duration, of temporal localization, and of temporal quantification. Our goal is to investigate which components of a complex event structure may be modified by adverbials of different types. Since the direct causatives as well as lexical two-argument verbs show uniform behaviour with respect to all types of adverbials, which can only modify the situation as a whole, we will not discuss them here.

First let us consider the adverbials of temporal localization. With the indirect causatives, they show a strong tendency to modify only the Caused event, cf. (60):

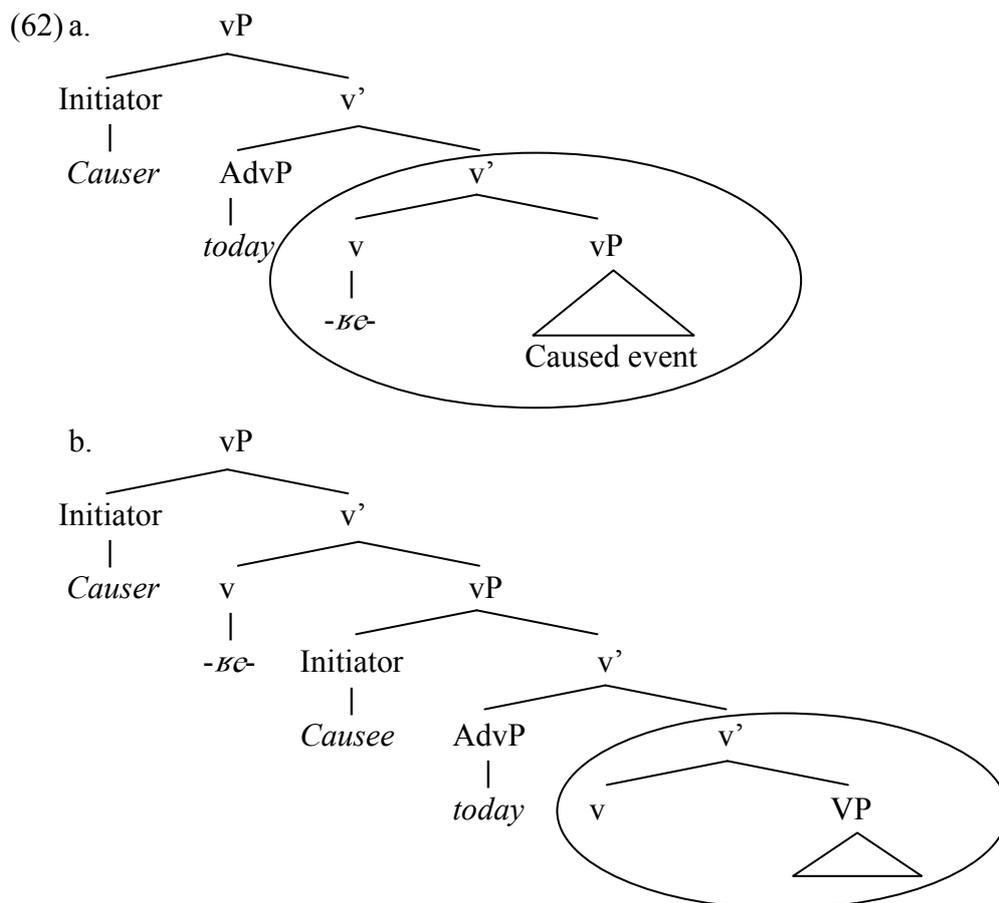
- (60) s-jate      məje-xe      njepe      qə-s-j-e-ʁe-šəpə.  
 1SG-father    apple-PL      today      DIR-1SG.CS-3SG.CR-PRS-CAUS-gather  
 Lit. ‘Father makes me gather apples today.’

Sentence (60) allows for two different interpretations, both of which imply that the Caused event (‘my gathering pears’) is happening today; perhaps the most natural reading of (60) is the one (i) where the Causer is supervising the action of the Causee, thus the two events being simultaneous; however, another reading (ii), where the Causing event is located outside of the interval denoted by the adverbial, is also possible. A third interpretation, when only the Causing event is located today, i.e. ‘Today father is trying to persuade me to gather apples’, is consistently ruled out. Thus, adverbials of temporal location obligatorily take scope over the

Caused event, and may optionally extend their scope so as to cover also the Causing event, but cannot modify just the Causing event. Similar pattern arises from the example (50), repeated here as (61).

- (61) *šha-m ruslanə məj-er newəš qə-r-jə-ke-šəpə-š't.*  
 master-ERG Ruslan(ERG) apple-ABS tomorrow DIR-3SG.CS-3SG.CR-CAUS-gather-FUT  
 i. ‘Ruslan will tomorrow gather the apples for the master.’  
 ii. ‘The master will make Ruslan tomorrow gather the apples.’  
 iii. \*‘The master will tomorrow arrange it in such a way that Ruslan will gather the apples on some other day.’

If we assume that adverbial modification is simple adjunction to a position where the adverbial c-commands the part of the structure it takes scope over, we may account for the semantics of (i) and (ii) readings of (60) and (61) by allowing adverbials such as *njepe* ‘today’ or *newəš* ‘tomorrow’ to adjoin both to the lower and to the upper vP; in the latter case, the adverbial must necessarily extend its scope to the whole event structure below it. The schematic structures of the two readings are shown in (62); the circles indicate the scope of the adverbial.



Let us now turn to the two types of adverbials of temporal duration, i.e. *for*-adverbials and *in*-adverbials. As has been already shown in section 4.2, both types of durational adverbials may modify the Caused situation, cf. (41)–(44) and some further examples in (63)–(65).

- (63) jane            čale            məje            minut-jə-še            r-jə-ke-šxə-κ.  
 mother(ERG) boy(ERG) apple(ABS) minute-LNK-three 3SG.CS-3SG.CR-CAUS-eat-PST  
 i. ‘Mother made the boy eat the apple in three minutes’; ii. ‘Mother for three minutes tried to force the boy to eat the apple.’
- (64) pšaše            čale            minut-jə-še            zə-r-jə-ke-bewə-κ.  
 girl(ERG) boy(ABS) minute-LNK-three RFL-LNK-3SG.CR-CAUS-kiss-PST  
 i. ‘The girl let the boy kiss her for three minutes’; ii. ‘The girl for three minutes tried to persuade the boy to kiss her.’
- (65) čelejeag’e            čale            txəl            səhat-jə-t<sub>w</sub>e-g’e            r-jə-ke-g’a-κ.  
 teacher(ERG) boy(ABS) book(ERG) hour-LNK-two-INS 3SG.IO-3SG.CR-CAUS-read-PST  
 i. ‘The teacher made the boy read the whole book in two hours’; ii. ‘The teacher in two hours persuaded the boy to read the book.’

As (63)–(65) show, the indirect causatives do not show a completely uniform behaviour with respect to adverbials of duration: the causatives of *šxən* ‘eat’ and *jeg’en* ‘read’ allow the adverbial to take scope just over the Causing event, while the causative of *jebewən* ‘kiss’ does not. We must admit that we do not yet have a coherent explanation for this difference<sup>20</sup>; what is important, however, is that again the most common ‘default’ interpretation of the durational adverbial is the one where it has narrow scope with respect to the causative.

When the base verb is ambiguous between an agentive and a patientive reading, and thus can form both a direct and an indirect causative, it is usually only the former which allows the wide scope of the adverbial, cf. a characteristic pair of examples in (66):

- (66) a. pilotə-m            samoljot-er            krasnodare            səhat-jə-t<sub>w</sub>e            ə-ke-bəbə-κ.  
 pilot-ERG airplane-ABS Krasnodar(ERG) hour-LNK-two 3SG.CR-CAUS-fly-PST  
 ‘The pilot flew the plane to Krasnodar for two hours.’ (direct causative)
- b. aslan            thareq<sub>w</sub>-er            səhatə-nəq<sub>w</sub>e            ə-ke-bəbə-κ.  
 Aslan(ERG) pigeon-ABS hour-half 3SG.CR-CAUS-fly-PST  
 ‘Aslan let the pigeon fly freely for half an hour.’ (indirect causative)

There are also quite a lot of cases where the indirect causative formed from a strong telic verb inherits its inability to combine with *for*-adverbials, cf. (44a), repeated here as (67):

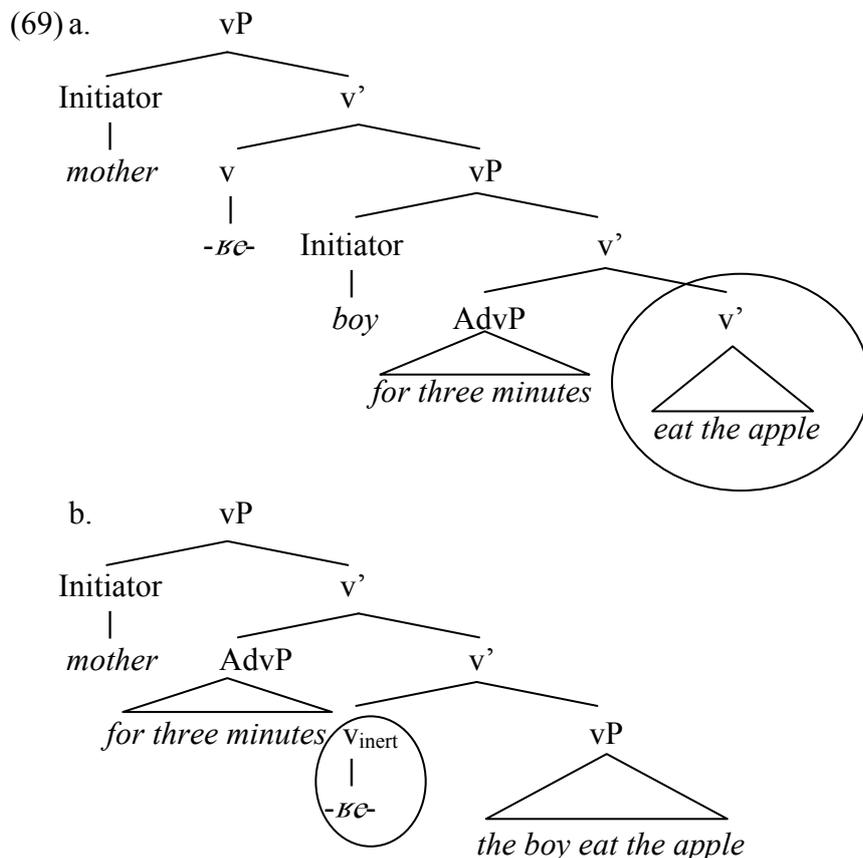
- (67) \*jane            čale-m            məje            minut-jə-t<sub>w</sub>e            qə-tə-r-jə-ke-hə-κ.  
 mother(ERG) boy-ERG apple(ABS) minute-LNK-two DIR-LOC-3SG.CS-3SG.CR-CAUS-take-PST  
 Intended meanings: i. \*‘Mother let the boy try to take an apple for two minutes.’  
 ii. \*‘Mother for two minutes tried to persuade the boy to take an apple.’

Similarly, indirect causatives formed from atelic verbs which do not combine with *in*-adverbials inherit this restriction, cf. (68):

- (68) \*jate            čal-er            səhatə-nəq<sub>w</sub>e-g’e            š-jə-ke-tə-κ.  
 father(ERG) boy-ABS hour-half-INS LOC-3SG.CR-CAUS-stand-PST  
 Intended meaning: \*‘Father in half an hour made the boy stand.’

<sup>20</sup> Definitely, it is not motivated by the morphosyntactic type of the base verb: the transitive *šxən* ‘eat’ and the two-argument intransitive *jeg’en* ‘read’ pattern similarly, whereas the two-argument intransitive *jebewən* ‘kiss’ is different.

The pattern which emerges from these examples suggests that the ability of the durational adverbial to take scope just over the Causing event comes as a sort of ‘bonus’ when the base verb allows the adverbial to take narrow scope. The ‘shifted’ scope with *for*-adverbials coerces the ordinary extensional v-head to the intensional  $v_{inert}$ , just as in direct causatives and lexical transitives, cf. the schematic representation of (63i) in diagram (69a) and of (63ii) in diagram (69b).



The precise mechanism of this shift in scope possibilities is rather obscure and certainly requires further study. Here we would like only to stress that Shapsug indirect causatives again tend to ‘foreground’ the Caused situation and to adduce it a higher degree of semantic and syntactic prominence in comparison to the Causing situation.

Finally, let us consider the behaviour of quantificational adverbials. We have already seen in section 4.2 that adverbial expressions such as *pčedəže qesjə* ‘every morning’ normally quantify over the Caused event, cf. (48), repeated here as (70):

- (70) azamate jate pčedəže qesjə j-e-ka-če.  
 Azamat(ERG) (3SG)father(ERG) morning each 3SG.CR-PRS-CAUS-run  
 i. ‘Azamat’s father makes him run every morning’; ii. ??‘Azamat’s father every morning persuades him to run.’

Adverbials such as  $t_w e$  ‘twice’, however, may quantify over the Causing event, as well as over the Caused event, cf. (71):

- (71) fatjəme azamate pč-er  $t_w e$  qə-ʔwə-r-jə-ke-xʔə-ʔ.  
 Fatima(ERG) Azamat(ERG) door-ABS twice DIR-LOC-3SG.CS-3SG.CR-CAUS-open-PST  
 i. ‘Fatima asked Azamat to open the door twice’; ii. ‘Fatima has twice asked Azamat to open the door.’

We have, however, no examples where the narrow scope of an adverbial would be ruled out provided that the Caused event may be quantified at all.

To summarize, it is evident that different types of adverbial expressions discussed in this section do not pattern uniformly with respect to the components of the complex event structure of the indirect causatives. Adverbials of temporal localization are most consistent in always taking scope over the Caused event, with optional extension to the Caused event possible only when the two events are taking place simultaneously. Adverbials of temporal duration mostly behave similarly in that they preferentially modify the Caused event, but they also may exceptionally take scope just over the Causing event — an option so far impossible with adverbials of temporal localization. Finally, some quantificational adverbials, which we did not study in full detail, may scope over the Causing event quite freely. However, despite all these differences, Shapsug temporal adverbials all show not only ability but also preference for narrow scope: all other things being equal, it is the Caused event which is modified by adverbials ‘by default’. This is important in the light of the fact that cross-linguistically, as far as we know, the ‘default’ interpretation of adverbials with indirect causatives is wide rather than narrow scope (cf. Japanese and Balkar); the very possibility of adverbial modification of the Caused event is an indication of the ‘exceptional’ behaviour of the indirect causatives with respect to general patterns. In Shapsug, by contrast, narrow adverbial scope with indirect causatives is the norm.

We believe that this typologically unusual behaviour of combinations of temporal adverbials with indirect causatives in Shapsug should be attributed to the special properties of the latter, precisely, to their event structure. This hypothesis is supported by the evidence we have presented in sections 4.2 and 4.3, viz. by the behaviour of aspectual operators and negation, which, too, tend to have narrow scope with indirect causatives. In the next section we will outline a unified account of the special properties of morphological causative in Shapsug.

## 5. The proposal

In section 4 we have discussed the behaviour of Shapsug lexical two-argument predicates, direct causatives, and indirect causatives with respect to various scope-taking operators, i.e. tense-aspect, negation, and temporal adverbials. Our findings are summarized in Table 2; “>” means “is more preferable than”.

*Table 2. Shapsug transitive predicates and operator scope (first version)*

	lexical two-argument predicates	direct causatives	indirect causatives
scope of tense-aspect	wide	wide	narrow > wide
scope of negation	wide	wide, narrow	narrow
scope of temporal adverbials	wide	wide	narrow > wide

The generalizations to be drawn from the pattern shown in Table 2 can be formulated in the following principles, which we assume to play an important role in Shapsug morphosyntax:

- (72) a. If an event structure corresponds to a stem contained in the Lexicon, no morphosyntactic operator can apply to any proper part of this event structure.

- b. If a part of an event structure corresponds to a morphological item (affix), this part may be transparent with respect to (some) morphosyntactic operators.

Principles (72a) and (72b) jointly account for the difference between the non-derived transitive verbs and transitive uses of labile verbs, on the one hand, and direct causatives, on the other, which, though sharing similar event structures, exhibit different behaviour with respect to negation. However, (72b) predicts that the direct causatives should allow aspectual operators and temporal adverbials to modify the Caused subevent, which was shown in sections 4.2 and 4.4 apparently not to hold.

The fact that the ‘transparency’ of the causative head *v* reveals itself only in the scope of negation, may be explained, we believe, in semantic terms. We hypothesize that *all* types of operators discussed here may eventually take scope both over the morphologically introduced *v* and below it. However, a clear semantic difference between the two scopes may be observed only with negation, since in this case different components of the event structure become focused or presupposed, cf. (55), repeated here as (73):

- (73) čel<sub>w</sub>ə-m maš<sub>w</sub>-er ə-ke-q<sub>w</sub>esa-ɤ-ep.  
 boy-ERG fire-ABS 3SG.CR-CAUS-go.out-PST-NEG  
 i. ‘The boy did not extinguish the fire.’ (NEG > [v, V, R])  
 ii. ‘The boy tried to extinguish the fire, but failed.’ ([v, NEG > V, R])

If we consider the aspectual operators, the difference in meaning between the ‘wide’ and the ‘narrow’ scope of either of them (Perfective or Imperfective) is minimal if at all existent. With respect to Perfective, as we have already noticed, this follows from the general principles of semantics: if the speaker construes some event as completed and simultaneously states that it is caused by another event, then the latter must also be completed (at least in those cases where the Causing event is performed by some external Initiator).

With the Imperfective the situation is somewhat more intricate. Consider again (38a), repeated here as (74).

- (74) t-jane ps-e j-e-ke-fabe.  
 1PL-mother(ERG) water-ABS 3SG.CR-PRS-CAUS-get.warm  
 ‘Our mother is heating the water.’

With the narrow scope of the Progressive operator (74) may be interpreted as (i) ‘the water is getting warmer because of some prior action of the mother, e.g. because she had placed it on the stove’. Such interpretation is obviously a possible reading of (74), indeed the preferable one. The wide scope of the Progressive can be formulated as follows: (ii) ‘the water is getting warmer because mother is performing some action’; however, the real world knowledge suggests that it is highly improbable that mother’s activity could be something beyond staying in the kitchen and supervising the process of water-heating.

Two natural questions arise here: the one is whether lexical transitive verbs in Shapsug allow interpretations similar to (i); the answer is most probably in the negative, since lexical two-argument verbs mostly encode events where it is difficult or impossible to detach the causing activity of the Initiator from the process in the Undergoer. The other question is whether direct causatives of Shapsug systematically allow for such subtle ambiguities as is exhibited in (74). The answer is in the positive, since among the direct causatives there is quite a lot of those which are most naturally interpreted as involving no Causer’s activity beyond that of initiating the process, e.g. causatives from *ɤ<sub>w</sub>əʂən* ‘get dry’, *wəʂəʔen* ‘chill’, *ʃk<sub>w</sub>ən* ‘melt’, *ʂebən* ‘sink’. However, it is not obvious whether such an interpretation arises due to structural principles or through encyclopedic knowledge.

Turning to temporal adverbials, let us review the facts presented in subsection 4.2. We have seen that causatives formed from incremental patientive processes behave like transitive incremental verbs, cf. (39), repeated with modification here as (75). This example is naturally interpreted as implying a partial result, which means that the adverbial of duration applies primarily to the  $V_{\text{incr}}$  head built into the lexical representation of the base verb. We have no conclusive evidence concerning the (un)availability of another reading for (75), i.e. the failed attempt reading, which would imply that no change in the piece of ice happened for five days. However, the availability of such a reading is irrelevant for our purposes, since if it were possible, that would only be a further piece of evidence for the principle (72b), but if it were ruled out that could again follow from the general tendency for ‘failed attempt’ interpretations to be rather marked in Shapsug — let us recall from section 4.2 that lexical incremental transitive verbs tend not to allow the ‘failed attempt’ interpretations since a more natural non-culminating reading is available.

- (75)  $\text{çəfə-m}$      $\text{məl-e}$      $\text{maf-jə-tfə}$      $\text{jə-ɤe-tk_wə-ɤ}$ .  
 man-ERG    ice-ABS    day-LNK-five    3SG.CR-CAUS-melt-PST  
 ‘The man was melting a piece of ice for five days.’

However, the fact that direct causatives formed from non-incremental patientive result predicates do not inherit from the base verbs their inability to combine with *for*-adverbials, cf. (40b), repeated as (76), which is a well-established and quite systematic phenomenon, indicates that though the morphologically introduced *v* may let the adverbial attach to the lower aspectual head, it may host the adverbial itself, too.

- (76)  $\text{jane}$              $\text{çale}$              $\text{səhatə-nəq_wə}$      $\text{q-jə-ɤe-wəʃ'əžə-ɤ}$ .  
 mother(ERG)    boy(ABS)    hour-half            DIR-3SG.CR-CAUS-wake.up-PST  
 ‘Mother was trying to wake the boy up for half an hour (but he continued to sleep).’

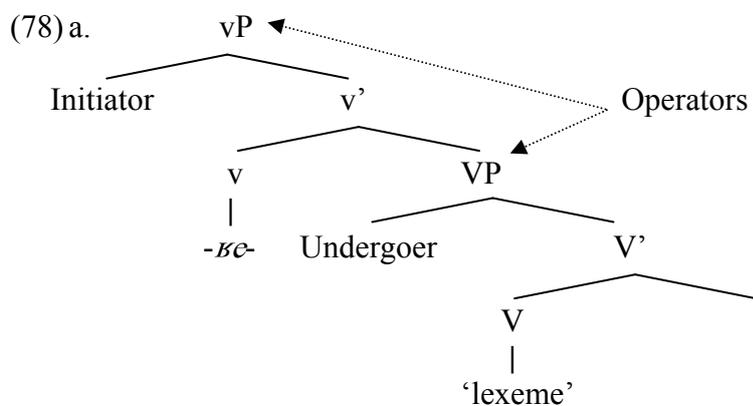
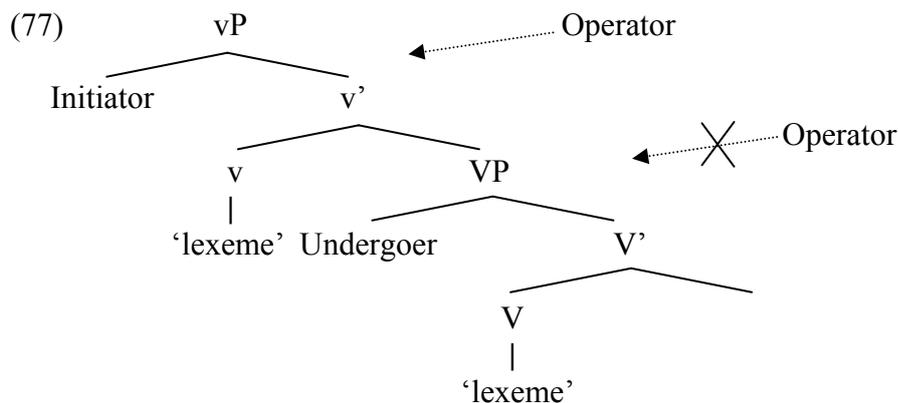
If we consider other types of temporal adverbials, e.g. adverbials of temporal localization, the situation turns out to be similar to that with aspectual operators: even if we consider that the adverbial can modify just the Caused subevent of the direct causative, the very semantic nature of direct causative makes it almost inevitable that the Causing subevent also falls into the scope of such an adverbial. The temporal contingency of situations involving processes and changes of states in inanimate participants and controlled events which cause such processes and changes of states follows from the most general properties of world-knowledge.

Thus, we think it is legitimate to conclude that direct causatives allow dual scope for all types of operators discussed in this paper, with the qualification that this duality almost never results in real ambiguity — either because only one of the interpretations is allowed for structural reasons, or because the two readings are virtually equivalent. See Table 3 where “/” and “~” denote lack (resp. presence) of a semantic opposition between the two scope possibilities.

Table 3. *Shapsug transitive predicates and operator scope (second version)*

	lexical two-argument predicates	direct causatives	indirect causatives
scope of tense-aspect	wide	wide/narrow	narrow (~ wide)
scope of negation	wide	wide ~ narrow	narrow
scope of temporal adverbials	wide	wide/narrow	narrow (~ wide)

Structurally, the difference between lexical transitives and direct causatives with respect to different operators may be represented as in the diagrams (77) and (78).



Let us turn to the indirect causatives, which, as we have seen, are characterized by a high degree of syntactic and semantic prominence of the Caused event in comparison to the Causing event. The question here is twofold: first, we need to explain why the Caused event may be independently modified by different operators; this property follows from the principle (72b) and is not problematic. Second, we must account for the fact that the Caused event introduced by the upper vP is somehow ‘defective’, in that it tends to let the operators ‘percolate’ to the lower vP. The last question is why different types of operators do not show uniform behaviour with respect to the upper vP: some, like adverbials of temporal localization, tend to ‘ignore’ it altogether, while others, like adverbials of temporal quantification, may take it in their scope; however, we do not have enough data to present even a speculative account of this problem, and prefer to leave it for future research.

We propose the following tentative answer to the second question: the causative morpheme in Shapsug introduces an aspectual head *v* which is devoid of any semantic content except the very general logical notion of causation. This impoverished *v* is normally

‘invisible’ to various operators, which tend to attach to the semantically more contentful inner event structure.

Some further evidence for such a conception of Shapsug causative comes from constructions with inanimate Causees. Consider examples (79) and (80).

- (79) azamat wəxeçə-m jə-ke-ke-ke.  
Azamat(ABS) grief-ERG 3SG.CR-CAUS-weep-PST  
‘Azamat wept from grief.’
- (80) pšaše s-jə-g<sub>w</sub>əx’a?e-me a-ke-g<sub>w</sub>əš<sub>w</sub>a-ke.  
girl(ABS) 1SG-POSS-word-PL.ERG 3PL.CR-CAUS-laugh-PST  
‘The girl laughed from my words.’

The literal translation of (79) and (80) would be ‘grief made Azamat weep’ and ‘my words made the girl laugh’; however, our consultants tend to interpret such sentences as focusing on the state of the Causee, which is treated as the most prominent participant (note that the animate Causee usually occupies the sentence-initial position usually reserved for thematic participants). The Causing event and the Causer are construed as peripheral participants — at least on the level of information structure. Such constructions as (79)–(80) are possible with both agentive and patientive base verbs, cf. (81), where the inanimate participant in the syntactic position of the Causer is tied to the Caused event much more loosely than in ‘canonical’ cases with animate Causers acting on inanimate Causees.

- (81) ruslane jə-tetež žəke-m jə-ke-λa-ke.  
Ruslan(ERG) 3SG.POSS-grandfather old.age-ERG 3SG.CR-CAUS-die-PST  
‘Ruslan’s grandfather died of old age’, lit. ‘Old age caused Ruslan’s grandfather to die.’

Finally, causative constructions may even introduce subordinate clauses with causal meaning, cf. (82), where the nominalized clause ‘that Azamat has lost the money’ is marked as the Causer licensed by the causative prefix on the main predicate:

- (82) nenež jə-pχ<sub>w</sub>əreλfe-xe qə-zere-mə-k<sub>w</sub>a-ke-xe-m  
grandmother(ABS) 3SG.POSS-grandchild-PL(ERG) DIR-SBD-NEG-go-PST-PL-ERG  
ə-ke-g<sub>w</sub>əbžə-ke.  
3SG.CR-CAUS-angry-PST  
‘Grandmother got angry because her grandchildren had not come to visit her.’

The fact that morphological causative in Shapsug can appear in the aforementioned contexts strongly suggests that it is devoid of rich semantic content such as ‘causing activity’ or ‘volitional instigation’ and denotes the most abstract causal relation. We believe that this independently established characteristic of morphologically encoded *v* in Shapsug can account for its peculiar ‘transparency’ with respect to various operators — a purely logical relation can hardly be attributed independent temporal localization and duration, and, being pragmatically backgrounded, it tends to resist negation. This property of morphological causative in Shapsug (and, more broadly, in Adyghe in general) is quite unusual from the typological point of view: cross-linguistically (cf. the literature cited above), causatives usually denote volitional activity directed at the Causee, which is construed as a less salient participant with at least partial loss of control over the Caused event.

The last question we must answer pertains to the difference between the direct and the indirect causatives: since the causative derivation introduces an ‘impoverished’ *v*, why does not it usually behave in a defective way when attached to patientive event structures? This

leads us back to the nature of the cross-linguistically observed fundamental difference between direct and indirect causatives. We believe that the answer again lies in the domain of event structure: in direct causatives, vP merges with an incomplete event structure (VP), while in indirect causatives it combines with an already complete event structure (vP). This distinction accounts for the semantic and syntactic differences between the two types of causatives. When the causative vP (especially the one with an animate Initiator) embeds a VP, the causal relation is interpreted as an activity instigated by the Causer and directly affecting the Undergoer. This interpretation is induced by the encyclopedic knowledge, which suggests that in order to achieve a desired change of state in an entity, it is necessary to manipulate it in certain way, and to control the process it undergoes. Through such an interpretation, the head v and the subevent it denotes become tightly integrated with the other components of event structure and acquire aspectual properties which allow it to be located in time and modified by adverbials.

On the other hand, when the causative v is merged with a complete event structure already containing its own vP with an agentive Initiator, the causal relation introduced by the causative morphology may have a whole range of interpretations (cf. Kulikov 2001; Talmy 2001: Ch. 8; Shibatani 2002), among which are such as coercive causation (the Causer forces the Causee to perform the action), directive causation (the Causee verbally persuades the Causee to perform the action), permissive causation (the Causer lets the Causee to perform an action, for instance, by granting his or her permission to do so, or by not hindering the action), sociative causation (joint action of the Causer and the Causee, or Causee's acting under direct supervision from the Causee) etc. In some languages, different semantic types of causation are expressed by different means, but in Adyghe they are all subsumed under the single morpheme *-ke-*, whose function is just to indicate that the event expressed by the base verb did not occur spontaneously but has an external cause of some kind, the precise nature of this cause being supplied by the denotation of the Causer NP and by the context (cf. the examples above). On the other hand, the semantic features of the Caused event, in particular its aspectual structure, are not so relevant for the interpretation of the Causing event in indirect causatives, so no integration of the two events takes place, which is, we believe, the reason why the upper vP remains semantically 'poor' and syntactically 'transparent'<sup>21</sup>.

## 6 Conclusion

In this paper we have presented a range of data on causative constructions of the Shapsug dialect of Adyghe, which heretofore has never been subject of a theoretically and typologically informed linguistic analysis. First of all we would like to briefly summarize our empirical findings.

1. In Shapsug, non-derived transitive predicates show robust 'opacity' with respect to various kinds of morphosyntactic operators, such as tense-aspect, negation, and temporal adverbials. All types of lexical verbs in Shapsug admit only wide scope of operators, not allowing them to modify any proper part of the predicate's event structure. This is true also of the so called 'labile' verbs which have both an intransitive and a transitive use.

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<sup>21</sup> Of course, a purely structural account prohibiting 'percolation' of semantic features up from the lower vP to the upper vP is also possible; we, however, believe that the specific syntactic properties of the configuration [<sub>VP</sub> V ... [<sub>VP</sub> V ]] are tightly interwoven with its semantic properties, if not directly motivated by them. Also, we might consider a possibility that the scope properties of the Caused situation may be implemented via movement of the lower vP to some higher syntactic projection; again, the very possibility for the lower vP to raise leaving the upper vP behind may only be attributed to the special properties of the initial configuration.

2. By contrast, morphological causatives formed by prefix *-ɬe-* from all types of verbs allow morphosyntactic operators to ‘percolate’ to the lower level of event-structure and modify just the Caused event. This is true both for the direct causatives formed from patientive intransitive verbs, and for the indirect causatives formed from agentive verbs. In section 4.3 we have presented *prima facie* evidence that both types of causatives allow the narrow scope of negation, and in section 5 we have argued that direct causatives behave in a similar way with respect to other kinds of operators as well, although this is not evident at first sight due to semantic and encyclopedic factors.

3. In Shapsug, direct and indirect causatives mainly differ in that the former, just as ordinary transitive verbs, freely allow different operators to modify the whole causative event, while the latter, by contrast, prefer or even require that they take narrow scope, modifying just the Caused situation. That with Shapsug indirect causatives the Causing event is somehow ‘impoverished’ or ‘defective’ in comparison to the Caused event is, perhaps, the most typologically unusual fact about them.

4. In section 5 we have also demonstrated that the function of the causative morpheme *-ɬe-* in Shapsug is to construe the eventuality expressed by the base verb as caused by some external force; this force, however, is not specified in any way by the inherent content of the causative morpheme, and is provided by the context. Thus, causative constructions in Shapsug are used to denote many different kinds of causative situations, among them those with inanimate and even propositional Causers. We hypothesize that this semantic underspecification of Shapsug causative formation is one of the factors determining its rather peculiar syntactic and semantic properties.

We have cast our analysis of the Shapsug data in the framework of First-Phase Syntax approach to event structure (Ramchand 2003, 2008). We have argued that the following principles are responsible for the properties of Shapsug morphological causatives (cf. (72) in section 5):

- (83) a. If an event structure corresponds to a stem contained in the Lexicon, no morphosyntactic operator can apply to any proper part of this event structure.  
 b. If a part of an event structure corresponds to a morphological item (affix), this part may be transparent with respect to (some) morphosyntactic operators.

It is important to note that Shapsug data and principle (83a) suggest that the conception of external arguments as introduced in syntax and not in the lexicon (cf. Kratzer 1996) is not universal: the Causing subevent and its Initiator are definitely specified in the lexical representation of Shapsug transitive verbs; moreover, the fact that Shapsug ‘labile’ verbs differ from overtly marked causatives in that only the latter but not the former admit narrow scope of operators, points towards a conclusion that even verbs participating in the transitivity alternation must be lexically specified as projecting on optional vP.

Finally, we have presented an account of the dichotomy between the direct and indirect causatives, based on the difference in their event structures. We argued that when the causative head *v* merges with an incomplete event structure (VP), the two subevents become syntactically and semantically integrated, which enriches the semantic content of the Causing event. However, when the causative vP attaches to an event structure already containing its own vP, such integration usually does not happen, and the upper vP remains semantically underspecified and syntactically inert.

Certainly, we have discussed only a small subset of data on the semantic and syntactic properties of lexical and derived predicates in Shapsug. Much remains to be researched, and many facts still demand an explanation. However, we hope that the data we have presented

and analyzed in this paper will contribute to the cross-linguistic study of event structure and causative formation.

**Abbreviations:** A – agent of a transitive verb, ABS – absolutive, ACC – accusative, BEN – benefactive, CAUS – causative, CNV – converb, CR – causer, CS – causee, CSL – causal marker, DAT – dative, DIR – directive preverb, DYN – ‘dynamic’ prefix, ERG – ergative, FUT – future, GEN – genitive, INF – infinitive, INS – instrumental, IO – indirect object, IPF – imperfective, ITR – intransitive, LNK – linking morpheme, LOC – locative preverb, NEG – negation, NOM – nominative, PL – plural, POSS – possessive, PRS – present, PST – past, RFL – reflexive, SBD – subordinator, SG – singular, TOP – topic, TR – transitive, TRM – terminative

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