

# EVENT (DE)COMPOSITION AND FAKE CAUSATIVIZATION

EKATERINA LYUTIKOVA, SERGEI TATEVOSOV  
*Lomonosov Moscow State University*

## 1 Fake causative

In this paper, we examine the phenomenon of *fake causativization*, illustrated in (1) from Tatar<sup>1</sup>:

- (1)        trener marat-nʁ        jeger-t-ter-de.<sup>2</sup>  
          trainer M.-ACC        run-CAUS-CAUS-PST  
          ‘The trainer made Marat run.’

Morphologically, (1) involves *a double causative* of the unergative verb ‘run’, shown in (2).

- (2)        marat jeger-de.  
          M.        run-PST  
          ‘Marat ran.’

Syntactically, (1) is a transitive clause where the causer appears in the nominative, and the causee, the argument of the non-derived verb stem, receives the accusative case marking. What is surprising about (1) is that one of the two occurrences of the causative morpheme (TYR henceforth) makes no visible contribution to the structure and interpretation of the clause. The unergative verb in (2) gets effectively causativized by exactly one instance of TYR, as shown in (3):

- (3)        trener marat-nʁ        jeger-t-te.  
          trainer M.-ACC        run-CAUS-PST  
          ‘The trainer made Marat run.’

---

<sup>1</sup> The study has been supported by Russian Scientific Foundation (PHΦ), project No 14-18-03270 “Word order typology, communicative-syntactic interface and information structure in the world’s languages” and Russian Foundation for Basic Research (grant # 13-06-00884). The data for the study came from the fieldwork on the Mishar dialect of Tatar as spoken in Rybushkino (Nizhegorodskaya oblast, Russia) conducted by the Department of Theoretical and Applied Linguistics, Faculty of Philology, Moscow State University in 2012.

<sup>2</sup> The causative morpheme *tʁr* appears in two variants, *-t-* and *-tʁr-*. Their distribution is conditioned phonologically: the *-t-* allomorph appears after sonorants in multisyllabic stems, *-tʁr-* is used elsewhere.

Further causativization of (3) should lead to a configuration where one more causer argument and one more causing subevent are introduced. In (1), however, this does not happen, and it is in this sense that we call (1) an instance of *fake causativization*.

The next relevant fact is revealed in (4), which shows that double causatives can, but do not have to be fake. The same morphological form as in (1), the one containing two causative morphemes, can occur within a configuration with three DPs, two causers and one runner, and corresponding to three subevents (running, causing of running, and causing of causing of running):

- (4)            trener kerim-dän    marat-nϣ    jeger-t-ter-de.  
           trainer K.-ABL            M.-ACC            run-CAUS-CAUS-PST  
           ‘The trainer made Kerim make Marat run.’

In what follows, we will be calling causatives like (3), (4), and (1) *single causatives*, *double causatives* and *fake causatives*, respectively.

From the empirical point of view, these data are puzzling a variety of ways. If the causative morpheme has to introduce an argument, what happens to one of the two causer arguments in the fake causative configuration? How is the fake causative in (1) different from the double causative in (4), on the one hand, and from the single causative in (3), on the other? Without answering these questions the proper understanding of the phenomenon does not seem to be attainable.

The immediate goal of this paper is thus to offer an analysis of (1) that accounts for the observations in (1)-(4). However, we believe that the significance of fake causativization extends beyond the set of obvious questions (1)-(4) pose. We may want to place it within a broader theoretical context whereby (1) represents one of the possibilities of how complex event descriptions can be constructed. The second objective of this study is, therefore, to show that constraints on causativization in languages like Tatar provide significant evidence for the view of event structure where subevent descriptions (e.g., a description of the causing subevent in (1)) are represented independently from relations between subevents (e.g., the relation of immediate causation).

The rest of the paper is organized as follows. In section 2 we reject analyses that assimilate the fake causative in (1) to the double causative in (4). In section 3 we discuss the meaning of fake causatives and conclude that it is best approximated in terms of sociative causation identified in the typological literature. Section 4 reduces sociative causation to the relation of immediate causation strengthened by incrementality. Section 5 offers our analysis of fake causativization based on Radical Predicate Decomposition, a theory of event structure which assumes that subevents are represented in the syntax independently from their relations to other subevents.

## 2 Fake causative is not a double causative

One way of treating (1) would be to stick to the assumption that morphology is to be taken at its face value. Whenever two causative morphemes enter the derivation, they bring in everything they are supposed to. One thus would be tempted to suggest that (1) and (4) are essentially the same configuration, the intermediate causer argument (the one that appears in the ablative in (4)) being realized by some or other type of phonologically null element. Let us for the moment assume, with Lidz 2004, Harley 2008, Miyagawa 2012 and many others, that the causative morpheme merges as a *v* head, and its argument is projected in the spec, *v*P position. The single causative and double causative constructions in (3) and (4) would then be assigned the structures in (5) and (6), respectively. The fake causative will thus be a double causative with one of the arguments being phonologically silent, (7).

- (5) [<sub>vP</sub> trener -t- [<sub>vP</sub> marat jeger ]]
- (6) [<sub>vP</sub> trener -ter- [<sub>vP</sub> kerimdän -t- [<sub>vP</sub> maratnɤ jeger ]]
- (7) [<sub>vP</sub> trener -ter- [<sub>vP</sub> ??? -t- [<sub>vP</sub> maratnɤ jeger ]]

With (7), one would expect the fake causative in (1) to mean (8), where the exact identity of the causee depends on how the null element in (7) (“???”) is construed<sup>3</sup>.

- (8) The trainer caused some entity to make Marat run.

Another analysis can rely on Pylkkänen’s (2002) idea that a causing subevent and its participant are associated with two distinct pieces of functional structure, call them *v* and Voice. In such a system, the structure of the single and double causatives would look as shown in (9)-(10):

- (9) [<sub>VoiceP</sub> trener [<sub>vP</sub> -t- [<sub>VoiceP</sub> maratnɤ jeger ]]]
- (10) [<sub>VoiceP</sub> trener [<sub>vP</sub> -ter- [<sub>VoiceP</sub> kerimdän [<sub>vP</sub> -t- [<sub>VoiceP</sub> maratnɤ jeger ]]]]]

The fake causative would then be analyzable as (11), where the outer *vP* merges with the lower *vP* instead of VoiceP:

- (11) [<sub>VoiceP</sub> trener [<sub>vP</sub> -ter- [<sub>vP</sub> -t- [<sub>VoiceP</sub> maratnɤ jeger ]]]

In (11), there are two causing subevents, each associated with TYR, but one causer, projected in the spec of the outer VoiceP. Informal paraphrase of the predicted meaning of the fake causative looks like (12):

- (12) The trainer brought about a situation that caused Marat run.

The main problem with both analyses in (7) and (11) is what they predict about the semantic distribution of the fake causative and single causative. On both analyses, see (8) and (12), the causal chain connecting the trainer’s activity and Marat’s running must consist of at least three subevents: the trainer’s activity *e* brings about an event *e*’ (with a phonologically silent argument, (8), or with no argument at all, (12)), and *e*’ makes Marat run. In the representation of the single causative in (3), on the other hand, there would be no *e*’: trainer’s action and Marat’s running are directly connected by the cause relation. The natural expectation would then be as follows: since the fake causative entails a longer causal chain, it would produce the inference that the subject is less directly involved in bringing about a running event than in the case of the single causative.

As a matter of fact, the judgments of native speakers are exactly the opposite. The fake causative implicates more immediate involvement of the subject in bringing about the running. On the scenario in (13) where the causer is directly involved both single and fake causatives are true.

- (13) Scenario 1: The trainer ordered Marat to start running, and kept on giving him advise or encouraging him in the course.  
OK single causative, OK fake causative

<sup>3</sup> For example, if “???” in (7) is identified with PRO, the fake causative configuration starts looking as a control configuration in (i). The predicted mening of (i) would be ‘The trainer made himself make Marat run’.

(i) [<sub>vP</sub> trener<sub>1</sub> -ter- [<sub>vP</sub> PRO<sub>1</sub> -t- [<sub>vP</sub> marat jeger ]]

In contrast, on the scenario in (14), only the single causative is true:

- (14) Scenario 2: The trainer asked Marat's friend to convince him to run at the competition, and the friend's attempt was successful.  
OK: single causative, NOT OK fake causative

If the fake causative is essentially a double causative, one finds oneself in an awkward situation where a longer causal chain results in the increase of directness of causation.

For us, this means that the fake causative is not a double causative. Neither (7) nor (11) is to be chosen if we can make an alternative account work. We will turn to developing our account in Section 4, where we argue that the fake causative is essentially a single causative. In the next section, we take a closer look at the meaning of fake causatives and conclude that it looks similar to what is identified in the literature as 'sociative causation'.

### 3 Sociative causation

We have already seen that the single and fake causatives differ as to what they convey about the subject's involvement into a caused event. As (14) indicates, for the fake causative, no intermediate causal events are allowed: causation must be *immediate*. Single causatives do not come with such a requirement. Fake causatives thus give rise to more restricted truth conditions than single causatives. A further examination reveals that immediacy of causation is a necessary but not a sufficient condition:

- (15) Scenario: the trainer ordered Marat to run and went away.  
a. <sup>???</sup> trener marat-nɣ jeger-t-ter-de.  
          trainer M.-ACC run-CAUS-CAUS-PST  
b. <sup>OK</sup> trener marat-nɣ jeger-t-te.  
          trainer M.-ACC run-CAUS-PST  
'The trainer made Marat run'

In (15), the causer's activity is connected to the causee's running directly, with no intervening causes. However, on the described scenario the fake causative is strongly dispreferred, if not ungrammatical. Why? The answer to the question begins to emerge if one observes that the two subevents, the trainer's action and Marat's running, do not temporally overlap in (15), and no part of running involves a temporally coextensive causal input from the trainer. On the scenarios in (16), the fake causative is entirely appropriate:

- (16) a. The trainer follows Marat, telling him how to run.  
      b. The trainer helps Marat run by removing obstacles out of his way in the course of running.  
      c. The trainer supervises Marat's running.

The same effect can be observed in (17), where we are dealing with the fake causative of the unaccusative verb 'melt, intr.' in the progressive:

- (17) Scenario: A sees a pot on the stove-top. A asks B: Why is it here? B answers:  
a. Alsu maj ere-t-ä.  
   A. butter melt-CAUS-IPFV

- b. ??Alsu maj ere-t-ter-ä  
 A. butter melt-CAUS-CAUS-IPFV  
 ‘Alsu is melting the butter; (she will be back in a minute)’

The single causative ‘melt’ in (17), unlike ‘make run’, does not allow for the indirect construal: it must be Alsu herself who put the pot on the stove. However, for (17a) to be true it is sufficient the causing event (Alsu’s action) only overlaps with the initial part of the caused event (the butter getting melted). The developmental stages of the caused event can occur without the causer being there. In contrast, for the fake causative in (17b), it is required that the causer be part of the scene and exercise control over the process (minimally by keeping an eye on the pot). The fake causative of both ‘run’ and ‘melt’ thus pattern together: not only should the subject be an immediate causer of the event, she should also provide a certain causal input to its development. Therefore, there is more to the meaning of the fake causative than the plain causal relation.

What kind of meaning are we dealing with? The range of uses of the fake causative we have characterized so far make it look strikingly similar to the sociative causative, discussed extensively in the typological literature. Shibatani, Pardeshi (2002) cite examples from Marathi that instantiate this type of causation:

- (18) Sociative causative, joint action  
 shaam-ne raam-laa don kilomiTar paL-aw-l-a  
 Sham-ERG Ram-DAT two kilometer run-CAUS-PERF-N  
 ‘Sham made Ram run two kilometers (\*but he did not run with Ram).’

In (18), the causer performs the same action as the causee. This is not the only possible option. In examples like ‘I have Ram clean the room’ or ‘I have Ram write a letter’ in (19)-(20) the causer does not have to clean or write, as Shibatani and Pardeshi indicate:

- (19) Sociative causative; assistive  
 shaam-ne raam-kaDun patra lih-aw-l-a  
 Sham-ERG Ram-by letter.N write-CAUS-PERF-N  
 ‘Sham had Ram write a letter.’
- (20) Sociative causative; supervision  
 mi raam-kaDun kholi saaph kar-aw-l-i  
 I Ram-by room.F clean do-CAUS-PERF-F  
 ‘I had Ram clean the room.’

The causer in (20) is most naturally understood as supervises cleaning. In (19), according to Shibatani and Pardeshi, the causer helps the causee to write, e.g. by dictating the letter. Shibatani and Pardeshi (see also Dixon 2000, Guillaume and Rose 2010) identify interpretations in (18)-(20) as subtypes of sociative causation called ‘joint-action’, ‘assistive’ and ‘supervision’, respectively. What the three have in common and what makes a cover category ‘sociative causation’ empirically real, is that the three share a meaning component: the causer must accompany causee in the execution of the caused event.

We will have to say more about the exact semantic characterization of this type of causation in the next section. For the moment, we want to establish the following descriptive generalization:

- (21) The fake causative in Tatar is Shibatani and Pardeshi’s sociative causative.

The key ingredient of sociative causation ‘the causer must accompany causee in the execution of the caused event’ is exactly what tells the fake causative apart from the single causative in Tatar, as examples in (15)-(17) show. Moreover, the range of scenarios that facilitate the use of the fake causative, (16), matches Shibatani and Pardeshi’s sybtypes of sociative causation, joint action, assistance and supervision. Finally, no semantic characteristics of fake causatives we have been able to identify argue against treating them as sociative causatives. We can conclude, therefore, that (21) could be a reasonable working hypothesis.

However, (21) by itself does not give us much, since it does not look like the phenomenon of sociative causation has been completely understood. Neither Shibatani and Pardeshi, nor other semanticists provide us with an explicit analysis of sociative causation on a par with direct and indirect causation on which testable semantic predictions can be based. All we gain with (21) is the understanding that the two unrecognized pieces of meaning will hopefully reduce to one. All the other puzzles discussed in Section 1 still remain unsolved.

In the next section, we will focus on the sociative meaning and try to give it more content. Specifically, we will need to figure out how ‘sociative causation’ is related to immediate/direct, and indirect causation.

## 4 Causal relations

To find a precise semantic characterization of the sociative causation, let us first spell out our assumptions about direct and indirect causation.

Since the early years of the study of causativization phenomena, causatives have been conceived of as involving two components: a causing subevent and its relation to a subevent being caused. For instance, the theory developed by Liina Pylkkänen (2002 and elsewhere) makes this fully explicit:

$$(22) \quad \|\text{CAUS}\| = \lambda P.\lambda e.\exists e'[P(e') \wedge \text{CAUSE}(e')(e)]$$

According to (22), the causative morpheme, CAUS, applies to a property of events and maps it to another property of events, those that stand in the cause relation to an event from the original extension of the predicate. The clue to an adequate theory of causativization is, therefore, the cause relation.

Proper understanding of characteristics of this relation has generated a lot of debate in philosophy and linguistics, which we are not able to address in any detail here. Semantic analyses of causation in natural language have mostly been based on Lewis’ (1973) notion of counterfactual dependence. Dowty (1979) defines the cause relation as shown in (23), with minor adjustments (specifically, in (23) we replace Dowty’s definition in terms of propositions by the definition in terms of events for the sake of exposition):

$$(23) \quad [e \text{ CAUSE } e'] \text{ is true of a world } w \text{ iff (i) } e \text{ is a causal factor for } e' \text{ in } w, \text{ and (ii) for all other } e'' \text{ such that } e'' \text{ is also a causal factor for } e' \text{ in } w, \text{ some } \neg e''\text{-world is as similar or more similar to } w \text{ than any } \neg e''\text{-world is, where } e \text{ is a causal factor for } e' \text{ iff there is a series of events } e, e_1, e_2, \dots, e_n, e' \text{ (for } n > 0) \text{ such that each member of the series depends causally on the previous member and } e' \text{ depends causally on } e \text{ iff } e' \text{ would not have occurred if } e \text{ had not.}$$

In (23), the (i) clause is a reformulation of the original Lewis’ definition of causation. The (ii) clause specifies the condition under which one event can be picked out as *the* cause of the other,

and it does so by discrediting more “remote” causal factors. “Remoteness” of a causal factor *e*, couched in terms of similarity of a world where *e* does not occur to the evaluation world, captures the following intuition: natural language speakers identify “the cause” as that causal condition whose non-occurrence can be found in worlds more similar to the actual world than worlds where any other causal conditions do not occur (Dowty 1979:108). The two parts of the sentence *Mary's getting married in 1978 caused her to become a widow in 2014* are related by the counterfactual dependence, but, as a causal statement, it sounds extremely odd. This is so because we can normally identify a more immediate cause of a woman becoming a widow (e.g., her husband having a heart attack in 2014), one whose non-occurrence makes a world less different from the actual one than Mary's not getting married in 1978.

For Dowty, the same cause relation defined in (23), appears in any configurations involving causation, from lexical accomplishments like *break* (*John broke the window*) to complex sentences based on the verbs *cause* or *make* that take an infinitival complement (as in *John's smoking made her leave*). However, the notion of immediacy/remoteness of causation is already present in Dowty's analysis, even though for the reason that has nothing to do with the semantics of causatives. The significance of this notion was fully appreciated when it had been discovered in late 60s- early 70s that natural language causatives can entail quite distinct causal relations (see e.g. Lakoff 1965, Fodor 1970, McCawley 1971, 1972, Cruse 1972, Shibatani 1973, Yang 1976). Consider examples (24)-(25) from Karachay-Balkar:

- (24)      alim    direktor-nu    öl-dür-dü.  
 Alim    director-ACC    die-CAUS-PST.3SG  
 1. ‘Alim killed the director.’  
 2. \* ‘{Having paid \$10,000 to the killer,} Alim had the director assassinated.’
- (25)      ustaz    alim-ni            erişiü-le-de            cap-tyr-dy.  
 teacher Alim-ACC            competition-PL-LOC            run-CAUS-PST.3SG  
 1. ‘The teacher made Alim run at the competition (e.g., by pushing him on the lane).’  
 2. ‘{Having convinced the coach that Alim is a good runner,} the teacher had Alim run at the competition.’

Intuitively, (24.2) and (25.2) involve a causal chain where the causer's activity and the causee's action can be separated by a number of intermediate events. In (24.1) and (25.1) the chain only consists of the causing and caused events themselves; intermediate causes are excluded.

Causatives in (24)-(25) entail, therefore, quite distinct causal relations. In (25) we are dealing with the relation that will be called G(eneral)-CAUSE from now on: it is underspecified as to the “length” of the chain, and it is this causal relation that Dowty's definition aims at capturing. It should be pointed out that many semanticists misleadingly call the relation in (25) indirect causation, also known as indirective (Shibatani 1976), distant, or non-contactive (Xolodovič (ed.) 1969, Saksena 1982), mediated (Kulikov 2001) causation. However, causatives like (25) do not entail that there must be intermediate causes in between a causing and caused subevents. They only suggest that there can be such causes, as the appropriateness of both (25.1) and (25.2) shows. (24) entails the relation of immediate causation, I-CAUSE: causally related events separated by intermediate causes cannot be part of this relation, as (24.2) shows.

How can we capture the difference between I-CAUSE and G-CAUSE in a precise and formal way? In the literature (which we are unable to survey in detail for space reasons), the common intuition is that I-CAUSE is essentially G-CAUSE plus some further condition(s), which may include, for instance, a certain (spatio-)temporal overlap of related events. Kratzer (2005) further argues that the two events should stand in the mereological ‘part-of’ relation, as defined in (26):

- (26)  $\| \text{I-CAUSE}(e')(e) \| = 1$  iff  $e$  is the sum of all the members of a causal chain with the maximal element  $e'$ <sup>4</sup>

For Kratzer, the causing event comprises the whole causal chain that leads to the caused event, including the caused event itself.

If sum formation is made part of the definition of the causal relation, as in (26), G-CAUSE can be naturally defined in a parallel fashion, as in (27):

- (27)  $\| \text{G-CAUSE}(e')(e) \| = 1$  iff  $e$  is a sum of some members of a causal chain with the maximal element  $e'$ , provided that the minimal element in that chain is part of  $e$ , and  $e$  is a convex part of the chain (that is, for every  $e', e''$ , if  $e'$  and  $e''$  are parts of  $e$ , any  $e'''$  located in between  $e'$  and  $e''$  in the chain also is).

A significant property of the definitions in (26)-(27) is that I-CAUSE( $e'$ )( $e$ ) asymmetrically entails G-CAUSE( $e'$ )( $e$ ) for any  $e, e'$ , which seems to be exactly what we need given the range of interpretations in (24)-(25). Assuming that the semantic construal of (25) involves G-CAUSE, but (24) is based on I-CAUSE captures these interpretations in a principled way.

Can we reduce sociative causation to either of the two relations in (26)-(27)? Examples like (15)-(17) suggest that sociative causation cannot be G-CAUSE, since fake causatives do not allow the causing and caused subevents to be separated by intervening causes.

It cannot be I-CAUSE either. For one, there is more to the sociative causation than I-CAUSE, as we have already seen. The temporal construal of a complex event description involving I-CAUSE is less restricted than that of the sociative causation. If two eventualities are related by I-CAUSE, neither the cause nor any of its proper parts can follow the effect, but there are no further restrictions on their temporal construal. In sociative causation, in contrast, the causing activity is required to be temporally coextensive with the caused one, as (15)-(17) show. Therefore, the intuition is: sociative causation is related to I-CAUSE in essentially the same way as I-CAUSE is related to G-CAUSE. It is a stronger relation than I-CAUSE, composed of I-CAUSE plus something else. We need to determine what the “something else” part could be.

Temporal coextensiveness of events in sociative causation bears clear resemblance to the incremental relation on events identified by Rothstein (2004) for a class of lexical accomplishments like ‘read a novel’ or ‘plow a field’. When one plows a field, the field undergoes change, and every part of the change requires an input of plowing activity. Reversely, every relevant part of plowing activity brings about some change.

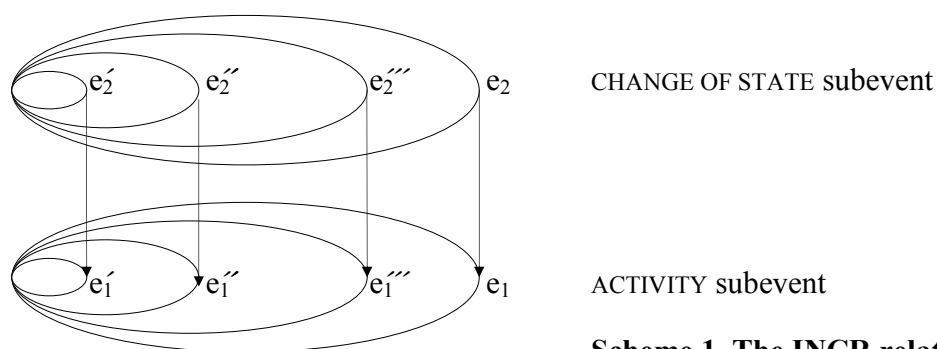
The incremental relation is defined in (28)-(29) and graphically represented in Scheme 1<sup>5</sup>:

- (28) **Incremental relation** (Rothstein 2004)  
 $\text{INCR}(e_1, e_2, C(e_2))$  ( $e_1$  is incrementally related to  $e_2$  with respect to the incremental chain  $C(e_2)$ ) iff there is a contextually available one-one function  $\mu$  from  $C(e_2)$  onto  $\text{PART}(e_1)$  such that  $\forall e \in C(e_2). \tau(e) = \tau(\mu(e))$
- (29) **Incremental chain**  
 $C(e)$  is a set of parts of  $e$  such that (i) the smallest event in  $C(e)$  is the initial bound of  $e$ , (ii) for every  $e_1, e_2$  in  $C(e)$   $e_1 \leq e_2$  or  $e_2 \leq e_1$ , and (iii)  $e$  is in  $C(e)$

<sup>4</sup> Kratzer herself, following Ginet 1990, calls what is referred to as I-CAUSE here the ‘causing-of’ relation.

<sup>5</sup> Rothstein’s incrementality, a relation on events, is not to be confused with Krifka’s (1989, 1992, 1998) incrementality, which is a property of relations between individuals and events. Not every incremental predicate *a là* Rothstein implies an incremental theme predicate *a là* Krifka. For example, *He pushed the cart into the garage* entails the incremental relation between the pushing activity and change of location of the cart. The cart, however, is not an incremental theme: it is not the case that the more one pushes the cart, the bigger part of the cart has been pushed.





**Scheme 1. The INCR relation**

Given (28)-(29) and the observations from (15)-(17), we are in the position of formulating the central hypothesis of this section: the “something else” part of the sociative causation is incrementality:

(30) Sociative causation is an incremental causal relation on events.

Relying on the I-CAUSE relation in (26), we define the INCR relation in the following way. Events  $e$  and  $e'$  are INCR-related iff  $e$  i-causes  $e'$  and the I-CAUSE relation satisfies two additional conditions we call Mapping to subordinate subevents with temporal coincidence (MSbSE) and Mapping to superordinate subevents with temporal coincidence (MSoSE):

(31) The relation  $R$  on events is a mapping to subordinate subevents with temporal coincidence, MSbSE( $R$ ), iff  
 $\forall e \forall e' \forall e'' [R(e')(e) \wedge e'' < e \rightarrow \exists e''' [e''' < e' \wedge R(e''')(e'') \wedge \tau(e''') = \tau(e'')]]$

(32) The relation  $R$  on events is a mapping to superordinate subevents with temporal coincidence, MSoSE( $R$ ), iff  
 $\forall e \forall e' \forall e'' [R(e')(e) \wedge e'' < e \rightarrow \exists e''' [e''' < e \wedge R(e''')(e''') \wedge \tau(e''') = \tau(e'')]]$

What we get is a special type of immediate causation whereby two eventualities are causally related down to their proper parts and temporally co-extensive: by (31), any part of the causing eventuality has to bring about some temporally co-extensive part of the caused eventuality, and by (32), any part of the caused eventuality is to be brought about by some temporally co-extensive part of the causing eventuality. With (31)-(32), INCR is defined as in (33):

(33)  $\| \text{INCR}(e')(e) \| = 1$  iff  $\text{I-CAUSE}(e')(e) \wedge \text{MSbSE}(\text{I-CAUSE}) \wedge \text{MSoSE}(\text{I-CAUSE})$

Therefore, if we are right that the fake causative is based on the sociative causation and the sociative causation is an immediate causation strengthened by incrementality, we end up with identifying the meaning of the fake causative with INCR.

Additional, even though indirect support, for this conclusion can be based on implicatures associated with the fake causative. In the literature, these implicatures are sometimes described in terms of “intensive” causation, whereby the caused event is “brought about with special effort” (Kulikov 1999). Kulikov cites examples like (34) from Turkish (via Zimmer 1976: 411f.):

(34) Müdür-e                    mektub-u                    aç-tir-t-ti-m.  
 director-DAT                letter-ACC                open-CAUS-CAUS-PST-1SG  
 ‘I made the director open the letter [forcefully] (perhaps against his wish).’

Implicatures of the same type are also detectable in Tatar, as (36) illustrates:

- (35) marat kerim-ni aša-t-tɣ.  
 M. K.-ACC eat-CAUS-PST  
 ‘Marat fed Kerim.’
- (36) marat kerim-ni aša-t-tɣr-dɣ.  
 M. K.-ACC eat-CAUS-CAUS-PST  
 ‘Marat fed Kerim.’  
 → ‘Marat fed Kerim by force, against his will.’

In the neutral context, the causative event described by the fake causative in (36) stands out in some way or other as compared to the single causative in (35). The regular reaction of native speakers to (36) would be to say that the causer put a lot of effort in feeding the causee and/or that the causee resisted being fed<sup>6</sup>. We believe that if the fake causative entails the incremental relation, implicatures of this type is exactly what we would expect. By choosing (36) (or (34)), the speaker indicates that every part of causee’s action has occurred due to a certain causal input from the causer. By the usual Gricean reasoning, the interlocutor is in the position to infer that the causee would not have done any part of his action without the causer’s continuous effort; otherwise the speaker would not have a reason to use the fake causative. The ‘forcefulness and unwillingness’ import of (34) and (36) follows. We argue, more generally, that the flavor of intensive causation is a side effect of incremental causation: ‘choosing the fake causative against the single causative’ → ‘indication that bringing about the causee’s action requires a constant effort’ → ‘the effort exceeds the ordinary’<sup>7</sup>. We do not provide a formal elaboration of how the implicature is generated; informal reasoning would suffice for our purposes.

Before closing this section we cannot but address one issue surrounding the debate on the sociative causation. We depart from the view proposed in Shibatani and Pardeshi (2002) and further literature that suggests that sociative causation is “an intermediate category between direct and indirect causation”. Rather, sociative causation, conceived of as INCR, is the strongest relation among the three.

We agree with Shibatani and Pardeshi that sociative causatives are unlike indirect causatives in that the causer’s action cannot be spatio-temporally separated from the causee’s action or change of state it undergoes. At the same time, we believe that they are wrong in assuming that sociative causatives are not direct causatives. Shibatani and Pardeshi motivate their claim by indicating that, unlike for direct causatives, for sociative causatives (at least on the ‘supervision reading’, see above) the causer need not be “physically involved in the caused event”.

Is the “physical involvement” of the causer a necessary condition for there being immediate causation? On the definition of I-CAUSE we have assumed in (26), following Kratzer, this is not the case. (26) requires that the causing event comprise the whole causal chain, but does not say anything about the properties of the causer and the nature of its involvement in bringing about the caused event.

To the extent that sentences like *John broke the window* entail that the agent is physically involved, this involvement cannot be directly read from the properties of the I-CAUSE relation itself. It is to be treated as derivative, presumably from (26) and independent properties of the agent thematic relation.

<sup>6</sup> Being an implicature, the ‘by force’ component of (49) is cancelable: explicit indication that causee eats volitionally (‘... and Kerim ate with pleasure’ or the like) does not yield a contradiction.

<sup>7</sup> Not surprisingly, the ‘by force’ implicature does not appear with non-agentive causees like the one in (30): even though the causer makes incremental contribution to heating of the water, the water cannot resist being heated, hence performing the action in the forceful way cannot be the reason for choosing the fake causative.

On the other hand, Neeleman and van de Koot (2012) have recently discussed data that cast serious doubt on the assumption that the ‘physical involvement’ generalization is correct in the first place. In the examples they discuss, not only is the agent not involved physically, she can even be spatio-temporally separated from the caused event, provided that she can be identified as a crucial contributing factor of the change of state the theme undergoes. Discussing Katz’s (1970) sheriff and gunsmith example, they indicate that (37) is felicitously utterable by a gunsmith who had faultily repaired the sheriff’s six-shooter, which resulted in the weapon having jammed at a critical moment and the sheriff having been gunned down.

(37) I killed the sheriff!

For Neelman and van de Koot, this is an argument for dismissing an analysis of *kill* in terms of direct causation. We suggest that this conclusion may be premature. Consider an event predicate in (38), which can be taken to be a denotation of the constituent that includes all subevental content of a predicate but lacks an external argument:

(38)  $\| [\nu' \nu + \text{kill} [\nu\text{P } \text{kill the sheriff}]] \| = \lambda e. \exists e' [i\text{-cause}(e')(e) \wedge \text{die}(\text{sheriff})(e')]$

(38) is a property of events that *i-cause* an event of sheriff’s dying. The definition of *i-cause* says that such events are the sum of all events in the causal chain leading to sheriff’s death. On the scenario provided, we get (39):

(39) For every  $e$  from the extension the predicate in (38),  
 $e = e_1 \oplus e_2 \oplus e_3 \oplus e_4$   
 where  $e_1$  = a gunsmith who faultily repairs the sheriff’s six-shooter  
 $e_2$  = the six-shooter jams  
 $e_3$  = the enemy shoots the sheriff down  
 $e_4$  = the sheriff dies  
 other (irrelevant) causes being disregarded.

The interpretation of the  $\nu'$  constituent in (38) is therefore completely coherent. It says that a complex event whose content is specified as in (39) immediately causes the sheriff’s death. The problem appears when we introduce the external argument:

(40)  $\| [\nu\text{P } I \nu + \text{kill} [\nu\text{P } \text{kill the sheriff}]] \| = \lambda e. \exists e' [\text{causer}(I)(e) \wedge i\text{-cause}(e')(e) \wedge \text{die}(\text{sheriff})(e')]$

(40) says that the speaker (=the gunsmith) is the causer in the whole  $e$ , but on the scenario we are dealing with, he is not thematically related to every subevent of  $e$ , namely, to  $e_2$ ,  $e_3$ , and  $e_4$ . The gunsmith is only the agent of  $e_1$ . This shows that the locus of the complication is not the I-CAUSE relation in itself, but rather a proper understanding of what it means for an entity to be a causer. We need to admit causers like ‘I’ in (37), ones that are only involved as agents in non-final subevents in a causal chain, and to specify conditions under which such causers are licensed. As soon as this is done and an appropriate definition of the causer thematic relation is provided, either through the notion of a crucial contributing factor suggested by Neeleman and van de Koot or in some other way one may want to propose, the problem dissolves. Therefore, Neeleman and van de Koot’s reasoning does not amount to establishing an argument against immediate causation as part of the meaning of ‘kill’ and similar predicates. Rather, it shows that the notion of causer is more complicated than it may look. What is of significance for our present

discussion is the generalization that the lack of physical involvement of the causer does not say much about whether causation is immediate or not (see also Thomason 2014 for relevant discussion). We conclude, therefore, that the view of ‘sociative causation’ not being an instance of direct causation is based on wrong premises and is to be abandoned.

Let us take stock of what we have seen so far. The fake causative obtains if the relation between the causing and caused subevents is that of sociative causation. We believe to have shown that sociative causation is nothing but the incremental immediate causation, whereby events related by I-CAUSE are temporally co-extensive and there is a one-to-one mapping between part structures of the two. The fake causative in (1) is, in effect, similar to the single causative in (3), not to the double causative in (4). Both single and fake causatives involve two subevents, as shown in (41)-(42). They only differ as to the relation between these subevents, G-CAUSE vs. INCR

- (41) Single causative, (3):  
 $\lambda e. \exists e' [\text{causer}(\text{trainer})(e) \wedge \text{G-CAUSE}(e')(e) \wedge \text{agent}(\text{marat})(e') \wedge \text{run}(e')]$
- (42) Fake causative, (1):  
 $\lambda e. \exists e' [\text{causer}(\text{trainer})(e) \wedge \text{INCR}(e')(e) \wedge \text{agent}(\text{marat})(e') \wedge \text{run}(e')]$

We seem to have made a certain progress, but one major question still remains unanswered: how is the INCR semantics related to the morphosyntax of the fake causative, namely, to the fact that its derivation involves two instances of the causative morphology? The answer to this question is provided in the next section.

## 5 Radical predicate decomposition

Above, we have established that the meaning of the fake causative involves the INCR relation, and its semantic derivation yields the event predicate in (42). But the apparent mismatch between semantics and morphosyntax re-appears. If causative morphology introduces subevents, two pieces of such morphology should create an event structure with three subevents, but in (42) we only have two. How can we account for this mismatch?

### 5.1 Subevents and their relations

The hypothesis we propose is based on the assumption that the two instances of the TYR morpheme are involved in the derivation of the fake causative in different ways:

- (43) **Fake causative hypothesis**  
 In the fake causative, one instance of the TYR morpheme is an exponent of a causing subevent. The other one spells out the INCR relation.

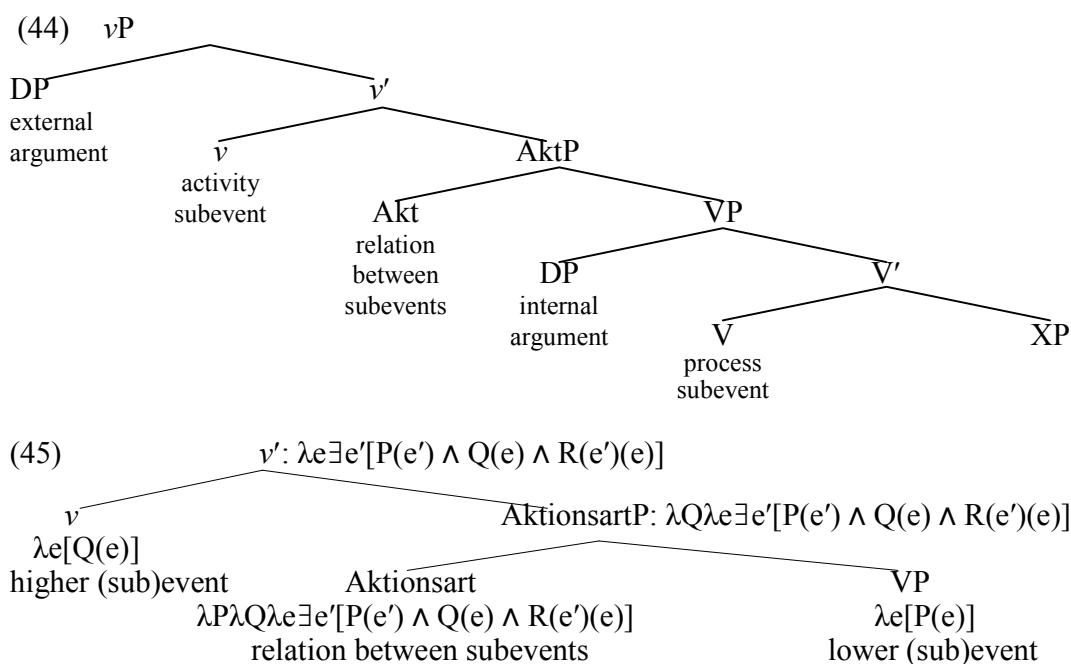
The main theoretical assumption behind (43) is: subevental components of an event description and their relations to other subevents are represented in the grammar independently from each other. This assumption is the main element of Radical Predicate Decomposition (RPD), a theory of syntactically represented event structure advanced in Lyutikova and Tatevosov 2012, 2013, 2014.

RPD shares basic principles of constructionalist approaches established in Pyllkänen 2002, Folli 2002, Borer 2005, Zubizarreta and Oh 2007, Ramchand 2008, Travis 2010, Tubino Blanco

2011, to mention just a few. The theory assumes that event structure is built syntactically and that interpretation of complex event descriptions is determined by the syntactic configuration.

(44) represents the RPD-based structure of  $\nu$ P. In (44),  $\nu$  contributes an activity subevent, V is connected to the change of state subevent, and XP that V takes as its complement specifies a result state ( $\nu$  and V thus correspond to Ramchand's (2008) *init* and *proc*). The main innovation of RPD is: subevental components of an event description are represented independently from relations between them, the latter being introduced by Akt(ionsart) morphemes located in between eventive heads.

Semantic composition of (44) works as represented in (45). Both VP and  $\nu$  supply predicates of events, P and Q, respectively. The denotation of the Akt head is a function that takes P and Q as its arguments and yields an even description which is true of any Q-event  $e$  just in case  $e$  stands in the R relation to some P event. In the literature, R is most commonly identified as some or other variant of the causal relation. At the next stage of derivation, not shown in (45), the event predicate denoted by  $\nu'$  combines with the agent/causer thematic relation (e.g., by Event Identification, Kratzer 1996) and merges with the external argument (see, e.g., Pyllkkänen 2002 for a proposal.)



RPD makes two predictions as to the phonological realization of the event structure. First, since a relation is introduced by a special syntactic head, one can expect to encounter a situation where this head has a designated spell out, different from the spell-out of  $\nu$  and V. Secondly, we expect that variation in the properties of the relation hosted by Aktionsart will have visible consequences for the morphology.

If the fake causative hypothesis is correct, this is exactly what happens when different types of causatives are built. We have already seen that the single causative and the fake causative only differ as to the relation (G-CAUSE vs. INCR) between the two subevental components. We propose that this variation reduces to the generalization in (46):

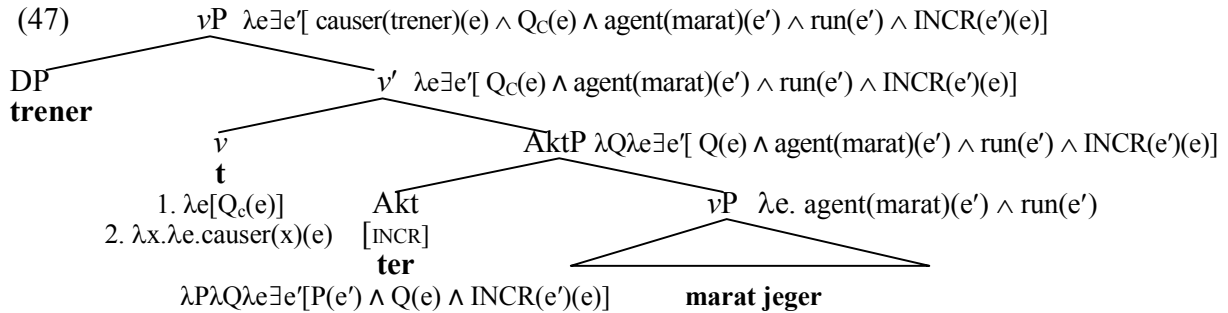
- (46) a. In the fake causative configuration, the Akt head bears the INCR feature and receives a designated spell-out by the TYR morpheme.

- b. In the single causative configuration, the Akt head bears the G-CAUSE feature that does not receive a designated spell-out.

In the next section, we will formulate our analysis of both types of configurations in a more precise way.

## 5.2 Single causative vs. fake causative

(47) is the first approximation of the structure and interpretation we propose for the fake causative (an elaboration will be provided shortly).



We assume, following Harley 2008, Miyagawa 2012 and many others that causativization of an unergative creates a double  $vP$  configuration. The lower  $vP$  is projected by the unergative verb ‘run’ and is interpreted as a predicate of events where Marat runs. The upper  $vP$  and AktP are the product of causativization.

First, the Aktionsart head merges with the lower  $vP$  and introduces a semantic relation between “upper” and “lower” subevents. We suggest that in the fake causative, Akt appears with the feature [INCR] that makes a contribution to both spell-out and interpretation. At the spell-out side, this feature triggers realization of Akt by the TYR morpheme (we will be more specific about the spell-out mechanism we assume in the next section). Interpretationally, [INCR] introduces an incremental relation between subevents specified in (33).

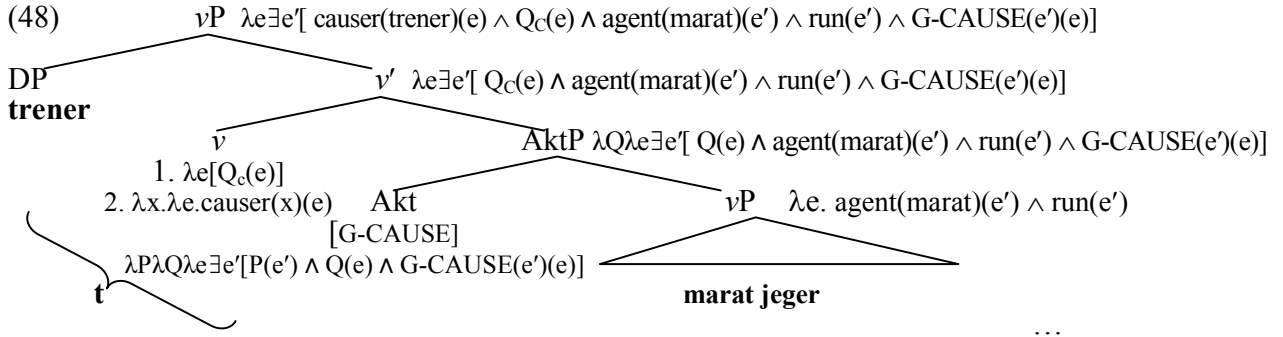
Secondly, AktP merges with  $v$ , which hosts a property of (causing) subevents. We propose, following Lyutikova and Tatevosov 2014 that the semantic representation assigned to this head contains a free variable  $Q_c$  over event predicates interpreted by the assignment function; interpretation of this predicate is thus made context-dependent. This captures the intuition that descriptive properties of a causing subevent are not lexically fixed and can only be recovered from the context (or left underspecified). We assume that Turkic are voice-bundling languages (Pylkkänen 2002). In line with Pylkkänen, interpretation of  $v$  involves two steps. First, || AktP || takes the predicate  $\lambda e [Q_c(e)]$  as an argument. Secondly, the resulting event predicate combines with the causer relation by Event Identification (Kratzer 1996).

Combining all the ingredients yields the semantic representation of the complex  $vP$  where causing and caused subevents are related by INCR, as required.

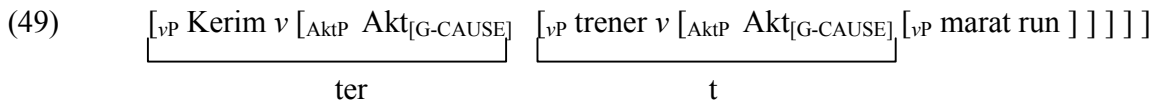
The single causative is shown in (48). (48) is identical to (47) up to the semantic and phonological interpretation of Akt. Semantically, it is associated with G-CAUSE rather than with INCR. Phonologically, there is no string uniquely associated with Akt, and TYR spells out both  $v$  and Akt.<sup>8</sup> Everything else in (47) and (48) is the same. Specifically, both are associated with the

<sup>8</sup> We will be more explicit about the spell-out mechanism in the next section. An obvious alternative to spelling out multiple elements of syntactic structure by the same morphological element would be to assume a zero affix associated with Akt<sub>[G-CAUSE]</sub>. This line of analysis is explored in Lyutikova and Tatevosov 2014.

same subevental content. We believe that this is exactly what we need to account for the difference between the two.



If (47) and (48) are right representations of the single and fake causatives, the analysis of the double causative follows naturally. The double causative is the single causative that undergoes further causativization, creating one more  $v$ -Akt layer on top of (48), as shown in (49) in the flat notation:



It should be pointed out that if the analysis outlined here is correct, the fake causativization data provides a significant argument supporting RPD. We have argued above that the interpretational difference between the single causative and the fake causative reduces to the properties of the relation between subevents, G-CAUSE vs. INCR. We see that this difference has a morphosyntactic manifestation: a designated spell-out of the INCR relation vs. the absence of such for the G-CAUSE relation. If the relation is representationally independent from a subevent description, as RPD suggests, this pattern is expected to obtain. If no element of event structure is uniquely associated with the relation, it remains entirely mysterious why replacing one relation by the other can have such consequences for the morphology.

In the next section we will develop a specific proposal as to how exactly the fake causative ends up with an extra piece of the TYR morphology and why this does not happen in the single and double causative configurations.

### 5.3 Spell-out

We assume a ‘nanosyntactic’ approach to the spell-out that has been recently advanced in Caha 2009, Pantcheva 2010, Taraldsen 2010, among others, where a lexical item can lexicalize a (sub)tree rather than a single syntactic head. Three basic principles of this approach are (50a-c) (Starke 2010:3-5):

- (50) a. *Superset principle*: A lexically stored tree matches a syntactic node iff the lexically stored tree contains the syntactic node.
- b. *The biggest match principle*: The biggest match always overrides the smaller matches.
- c. *Elsewhere principle*: If several lexical items match a syntactic node, the candidate with least unused nodes wins.

In addition, we assume the subset principle for second order features like [INCR] or [G-CAUSE] in (47)-(48):

- (51) *Subset principle for second order features:* If a node *A* in a tree being spelled out and a node *a* in a lexically stored subtree match, the set of second order features on *a* must be a subset of those on *A*.

From the nanosyntactic point of view, a lexical item (LI) is a pairing of phonological representation with a syntactic subtree, the latter determining what syntactic configuration can be spelled out by this item. Lexical items can be in competition for spelling out a (sub)tree. Winning candidates are determined by (50a-c) and (51).

Lexical entries for TYR and for the unergative verbal root ‘run’ are specified in (52a-b).

- (52) a. /jeger/  $\Leftrightarrow$  [<sub>VP</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt [<sub>VP</sub> V ]]]  
 b. TYR  $\Leftrightarrow$  [<sub>AktP</sub> Akt [<sub>VP</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt<sub>CAUSE</sub> ]]]  
 where  $\nu_{EA}$  is the ‘flavor’ of  $\nu$  that introduces the external argument, and CAUSE = {G-CAUSE, I-CAUSE}

The intuition behind (52a) is that a verbal root spells out a  $\nu$  — Akt — V sequence, the traditional verb phrase. TYR in (52b) is suitable for spelling out the structure containing  $\nu$  (which denotes a set of (sub)events) and two Akt’s (which correspond to two relations — to ‘upper’ and ‘lower’ (sub)events). The lower AktP, the one that  $\nu$  takes as a complement, can be associated with G-CAUSE and I-CAUSE, but not INCR. This captures the observation that under normal circumstances, causatives are not interpreted as being based on the INCR relation.

(52a-b) specify maximal chunks of structure the two LIs can be associated with. The structure does not have to be maximal, however. According to (50a), TYR is allowed not to make use of part of its lexical subtree in (52b). Being a piece of causative morphology does not impose an obligation to match an exact sequence of functional projections. Depending on the featural content of the structure and on other lexical items available in the derivation, TYR can find itself spelling out any subtree of (52b):

- (53) [<sub>AktP</sub> Akt [<sub>VP</sub>  $\nu_{EA}$  ]]; [<sub>VP</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt<sub>CAUSE</sub> ]]; [ AktP Akt ]; [<sub>VP</sub>  $\nu_{EA}$  ]; [ AktP Akt<sub>CAUSE</sub> ]

As is clear from (53), an occurrence of TYR can, in general, end up being associated with a set of causing events ( $\nu_{EA}$ ), with a relation between events (Akt with or without [CAUSE] ), or with a combination of the two. Apart from (52b), the range of ‘uses’ of TYR is only constrained by the general requirement that only contiguous heads and their projections can be spelled out by a lexical item.

To see how the system works, consider first the derivation of the single causative (for simplicity, the spell-out of DPs is not shown):

- (54) [<sub>VP</sub> DP<sub>i</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt<sub>[G-CAUSE]</sub> [<sub>VP</sub> DP<sub>j</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt [ VP V ] ] ] ] ] ]  
 └──────────────────┬──────────────────┘  
 t jeger

In (54), the root spells out the lower  $\nu$ P. The TYR morpheme, which is eligible for spelling out the lower  $\nu$ -Akt sequence, loses to the root, which is specified for the VP node and is thus the biggest match. The upper  $\nu$ -Akt sequence matches a part of the lexical tree associated with TYR (namely, its [<sub>VP</sub>  $\nu_{EA}$  [<sub>AktP</sub> Akt<sub>CAUSE</sub> ] ] part). No other competitors are available, and we end up with the causative *jeger-t*, as in (3).



A derivation along similar lines obtains for the double causative. The only difference is that the latter contains an extra  $v$ -Akt layer on top of (54), see (49).

The fake causative is like the single causative *modulo* the crucial difference: Akt bears the [INCR] feature instead of [G-CAUSE]:

$$(55) \quad \begin{array}{c} [{}_{\nu P} DP_i \nu_{EA} [{}_{AktP} Akt_{[INCR]} [{}_{\nu P} DP_j \nu_{EA} [{}_{AktP} Akt [{}_{\nu P} V \ ] ] ] ] ] \\ \hline \begin{array}{ccc} \boxed{\text{ter}} & \boxed{\text{t}} & \boxed{\text{jeger}} \end{array} \end{array}$$

This results in the inability of single TYR morpheme to spell out both  $v$  and  $Akt_{[INCR]}$ , since no part of the lexical subtree in (52b) matches the sequence  $\nu_{EA} — Akt_{[INCR]}$ . Specifically, the  $[{}_{\nu P} \nu_{EA} [{}_{AktP} Akt_{CAUSE} ]]$  part is inappropriate for spelling out this sequence, since by (51), the second order features on a lexical item must be a subset of those on the node being spelled-out, but  $\{[G-CAUSE, I-CAUSE]\} \not\subseteq \{[INCR]\}$ . Therefore, the  $Akt_{[INCR]}$  is spelled out by exactly one part of TYR's lexical tree, namely, by  $[{}_{AktP} Akt]$ , where Akt does not bear any second order features (note that  $\emptyset \subseteq \{[INCR]\}$ ). For the topmost  $\nu P$ , another instance of TYR is invoked.

The analysis successfully captures the above generalizations. Any  $v$  not spelled out by a root (= a lexical verb), is always associated with TYR. Akt can be associated either with the same or with a different instance of TYR. In accordance with the predictions of RPD, the choice is determined by the featural content of Akt, its designated spell-out being triggered by  $[INCR]$ .

One additional piece of evidence for the proposal comes from the prediction it makes:

(56) A causative with a single occurrence of TYR cannot be fake.

Had (56) not hold, Tatar would allow configurations like (57). In (57), TYR has merged with a verb stem, but the resulting verb is argument-structurally identical to the non-derived verb in (2).

(57) \*marat            jeger-t-te.  
M.                    run-CAUS-PST  
'Marat ran.'

Ungrammaticality of (57) follows from our analysis straightforwardly. For (57) to be possible, its subevental content should be identical to that of (2), which is a single  $\nu P$  in (59):

$$(58) \quad [{}_{\nu P} DP_j \nu_{EA} [{}_{AktP} Akt [{}_{\nu P} V \ ] ] ]$$

If (57) were grammatical, that would have meant that part of  $\nu P$  in (58) is spelled out by TYR, as either in (59a) or (59b).

$$(59) \quad \begin{array}{l} \text{a.} \quad \begin{array}{c} [{}_{\nu P} DP_j \nu_{EA} [{}_{AktP} Akt [{}_{\nu P} V \ ] ] ] \\ \hline \boxed{\text{t}} \quad \boxed{\text{jeger}} \end{array} \\ \text{b.} \quad \begin{array}{c} [{}_{\nu P} DP_j \nu_{EA} [{}_{AktP} Akt [{}_{\nu P} V \ ] ] ] \\ \hline \boxed{\text{t}} \quad \boxed{\text{jeger}} \end{array} \end{array}$$

However, *jeger*, specified for the whole  $V — Akt — v$  sequence, (52b), is always the biggest match for this  $\nu P$ , hence the causative morpheme has no chances to take over.

Of critical significance in the context of the present discussion is the following. One may or may not share the basic assumptions of nanosyntactic theory. Any other theory that allows a

lexical item to spell out or to be inserted into more than one terminal node of the tree will do for our purposes equally well. However, RPD appears to be a necessary prerequisite for a proper treatment of the phenomenon we have been examining. We believe to have shown that appearance of the extra instance of TYR in the fake causative is triggered by the properties of a relation between causing and caused subevents. If the relation is represented in the grammar, as RPD suggests, this pattern is expected. If a subevent description and a relation are represented by a single head, it is difficult if not impossible to explain why some combinations (e.g. causing subevents + G-CAUSE) are realized by one piece of morphology, while others (e.g. causing subevents + INCR) require two. For this reason, evidence from fake causativization provides a significant empirical argument for RPD.

## 6. Summary and conclusion

In this paper, we took the following path. We presented the phenomenon of fake causativization where merging two causative morphemes with a verb stem does not create a configuration with two causer arguments. We considered and rejected the analysis that reduces the fake causative to a double causative configuration with two causing subevents, one obligatory causer and one optional causer (where “optional” can have different interpretations). Instead, we have argued that the fake causative is essentially a single causative with exactly one causing subevent and its argument. We have shown that the difference between the fake causative and the single causative has to do with the meaning of sociative causation independently identified in the literature. We have examined sociative causation and suggested that this type of causation is to be defined in terms of the incremental relation on events. We concluded, then, that the locus of the difference between fake causatives and plain single causatives must be a relation between subevents in their event structure. Having said this, we proposed the hypothesis that one instance of the TYR morpheme in the fake causative is an exponent of a causing subevent, while the other one spells out the incremental relation. Relying on Radical Predicate Decomposition, proposed in our earlier work, we developed an analysis of the relevant causative configurations where relations between subevental components of event structure come out as syntactic projections, AktPs, distinct from *v*P and VP (In the emerging system, the role of the latter is limited to introducing subevent descriptions.) AktPs bear features that determine which particular relation, G-CAUSE, I-CAUSE or INCR, an event structure will be based on. If the feature [INCR] surfaces on Akt, this triggers a designated spell-out of Akt by a separate instance of TYR. We implemented this idea using the ‘nanosyntactic’ meta-language, admitting, however, that nothing that we had said necessitates the adoption of nanosyntax as our theoretical framework.

Therefore, we believe to minimally have achieved the following two goals. Empirically, we contributed to understanding the phenomenon of fake causativization, hitherto not completely explained. Theoretically, we have built an additional argument for RPD, a theory of syntactically represented event structure that insists on separating the subevental content of an event description from the relations that connect subevents. We have argued that morphosyntactic and semantic construal of causativization in Tatar (and possibly many other languages similar to Tatar) are best accounted for if our analytical toolkit includes RPD. If the reader finds herself convinced, our goal has been successfully accomplished.

## References

- Caha, Pavel. 2009. *The nanosyntax of Case*. Ph. D. dissertation, University of Tromsø.  
 Cruse D. A. 1972. A Note on English Causatives. *Linguistic Inquiry* 3-4: 520-528.

- Dixon, R. M. W. 2000. A typology of causative: form, syntax and meaning. In Dixon, R. M. W. and Aikhenvald, A. Y. (eds.) *Changing valency: Case studies in transitivity*. Cambridge: Cambridge University Press, pp. 31-83
- Dowty, David R. 1979. *Word meaning and Montague grammar*. Dordrecht: Reidel.
- Fodor, Jerry A. 1970. Three Reasons for Not Deriving "Kill" from "Cause to Die". *Linguistic Inquiry* 1: 429-438.
- Folli, Rafaella. 2002. *Constructing telicity in English and Italian*. PhD dissertation, University of Oxford.
- Ginet, Carl. 1990. *On action*. Cambridge: CUP.
- Guillaume, Antoine and Françoise Rose. 2010. Sociative causative markers in South American languages: A possible areal feature. In *Essais de typologie et de linguistique générale. Mélanges offerts à Denis Creissels*, edited by Franck Floricic. Lyon : ENS Éditions, pp. 383-402.
- Harley, Heidi. 2008. On the causative construction. In Shigeru Miyagawa and Mamoru Saito (eds. ), *Oxford Handbook of Japanese Linguistics*. Oxford University Press, 20-53.
- Kistler, Max. 2014. Analysing Causation in Light of Intuitions, Causal Statements, and Science. *Causation in Grammatical Structures*. Edited by Bridget Copley and Fabienne Martin. Oxford: Oxford University Press
- Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In J. Rooryck and L. Zaring (eds. ). *Phrase Structure and the Lexicon*. Dordrecht: Kluwer, 109-137.
- Kratzer, Angelika. 2005. Building resultatives. In C. Maienbaum and A. Wollstein-Leisen (eds. ). *Event arguments in Syntax, Semantics, and Discourse*. Tübingen: Niemeyer, 177-212.
- Krifka, Manfred. 1989. Nominal reference, temporal constitution and quantification in event semantics. In Renate Bartsch, Johan van Benthem and Peter and Emde Boas (eds. ) *Semantics and contextual expression*. Dordrecht: Foris Publications, 75-115.
- Krifka, Manfred. 1992. Thematic relations as links between nominal reference and temporal constitution. In Sag, Ivan A. and Anna Szabolsci (eds. ) *Lexical matters*. Stanford: CSLI Publications, 29-53.
- Krifka, Manfred. 1998. The origins of telicity. In Susan Rothstein (ed. ) *Events and Grammar*. Dordrecht: Kluwer Academic Publishers, 197-235.
- Kulikov, Leonid I. 2001. Causatives. In *Language Typology and Language Universals: an International Handbook*, vol. 2. Martin Haspelmath, Ekkehard König, Wulf Oesterreicher and Wolfgang Raible (eds.). Berlin: Walter de Gruyter, pp. 886-98.
- Kulikov, Leonid. 1999. Remarks on double causatives in Tuvan and other Turkic languages. *Journal de la Societe Finno-Ougrienne* 88: 49-58.
- Lakoff, George. 1965. *On the Nature of Syntactic Irregularity*. Doctoral Dissertation, Indiana University.
- Lewis, David. 1973. Causation. *Journal of Philosophy* 70: 556-567.
- Lidz, Jeffrey. 2004. Causation and Reflexivity in Kannada. In V. Dayal and A. Mahajan (eds. ) *Clause Structure in South Asian Languages*. Dordrecht: Kluwer, 93-130.
- Ljutikova, Ekaterina and Sergei Tatevosov. 2012. A finer look at predicate decomposition: evidence from causativization. In Christopher Piñon (ed. ) *Empirical Issues in Syntax and Semantics 9*.
- Ljutikova, Ekaterina and Sergei Tatevosov. 2013. Decomposing event structure: Evidence from denominal verbs in Tatar. In: Ozge, Umut (ed.) *Proceedings of the 8th Workshop on Altaic Formal Linguistics*. Cambridge: MITWPL, pp. 349-360.
- Ljutikova, Ekaterina and Sergei Tatevosov. 2014. Causativization and event structure. In: *Causation in Grammatical Structures*. Edited by Bridget Copley and Fabienne Martin. Oxford: Oxford University Press, pp. 279-327.
- McCawley, James D. 1971. Pre-lexical Syntax. In Richard J. O'Brien (ed. ) *Linguistics: Developments of the Sixties - Viewpoints for the Seventies*. Washington: Georgetown University Press.
- McCawley, James D. 1972. Syntactic and Logical Arguments for Semantic Structures, Indiana University Linguistics Club, Bloomington, Indiana
- Miyagawa, Shigeru. 2012. Blocking and causatives: Unexpected competition across derivations. *Case, Argument Structure, and Word Order*, Chapter 8. Routledge, 202-223.
- Neeleman, Ad and Hans van de Koot. 2012. The linguistic expression of causation. In *The Theta System: Argument Structure at the Interface*, ed. Martin Everaert, M. Marelj, and T. Siloni, 20-51. Oxford: Oxford University Press.

- Pylkkänen, Liina. 2002. *Introducing arguments*. MIT Thesis.
- Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge: Cambridge University Press.
- Rothstein, Susanne. 2004. *Structuring events: a study in the semantics of lexical aspect*. Malden, MA: Blackwell Publishing.
- Saksena, Anuradha. Contact in causation. *Language* 58-4: 820-831.
- Shibatani, Masayoshi, and Pardeshi, Prashant. 2002. The causative continuum. In Masayoshi Shibatani (ed. ) *The Grammar of Causation and Interpersonal Manipulation* (Typological Studies in Language 48. Amsterdam: John Benjamins, 85–126.
- Shibatani, Masayoshi. 1973. Semantics of Japanese causatives. *Foundations of Language* 9-3: 327-373.
- Shibatani, Masayoshi. 1975. *A Linguistic Study of Causative Constructions*. Bloomington: Indiana University Press.
- Starke, Michal. 2010. Nanosyntax: A short primer to a new approach to language. *Nordlyd* 36. 1. Svenonius, Peter; Gillian Ramchand; Michal Starke; and Knut T. Taraldsen (eds. ). Special issue on Nanosyntax, 1–6.
- Taraldsen, Knut, Tarald. 2010. *Lexicalizing number and gender in Lunigiana*. *Nordlyd* 36. 1. Svenonius, Peter; Gillian Ramchand; Michal Starke; and Knut T. Taraldsen (eds. ). Special issue on Nanosyntax, 113–127.
- Thomason, Richmond. 2014. Formal Semantics for Causal Constructions. In *Causation in Grammatical Structures*. Edited by Bridget Copley and Fabienne Martin. Oxford: Oxford University Press
- Travis, Lisa DeMena. 2010. *Inner aspect: The Articulation of VP*. Dordrecht: Springer.
- Tubino Blanco, Mercedes. 2011. *Causatives in Minimalism*. Amstardam: John Benjamins.
- Zimmer, Karl. 1976. Some constraints on Turkish causativization. In Masayoshi Shibatani (ed.) *Syntax and semantics 6: The grammar of causative constructions*, pp. 399-412. New York: Academic Press.
- Zubizarreta, Maria L. and Eunjeong Oh. 2007. *On the syntactic composition of manner and motion*. Cambridge, MA: MIT Press.