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Alexander Letuchiy*

On tense and irrealis marking in tricausal constructions (and what distinguishes them from biclausal constructions)

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Abstract: In this article, I consider Russian tricausal constructions (complex sentences including three clauses, one main and two dependent). More specifically, I analyze constructions where C1 (the main clause) embeds C2 (an embedded clause), while C2 in turn embeds C3. In the paper, I mainly concentrate on sentences where C2 is a clause with an unreal meaning, for instance, an argument clause hosted by the verb *xotet* ‘want’, and C3 is an adjunct (temporal) clause.

I pose the following questions:

1. How is tense assignment in C3 organized? Is it fully described by the rules of tense assignment that apply to biclausal structures?

The answer is that tense assignment in C3 varies significantly from one sentence to another: for instance, in C3 the tense can be interpreted with respect to the event in C2, which is atypical for Russian adjunct clauses. Moreover, in many cases all three of the existing variants (tense marking anchored to the moment of speech, to the event in C1, or to the event in C2) can be used.

2. Are there any syntactic phenomena that are typical for tricausal structures? I claim that there is a special phenomenon, which can be called “syntactic doubling” or “copying,” whereby the verb form in C2 influences the form in C3. Importantly, the situation cannot be described in terms of classical form assignment, where the verb in C2 requires a particular form in C3: rather, the syntactic pattern of the verb in C2 allows different forms to be used in C3, the only requirement being that the forms in C3 and C2 are identical. Sometimes a version of doubling is also observed in biclausal structures, but only one of the types of doubling described here (doubling in argument clauses) can be found in biclausal constructions.

*Corresponding author: Alexander Letuchiy, National Research University Higher School of Economics, Myasnitskaya st., 20, Moscow, Russia, E-mail: aletuchiy@hse.ru

Another phenomenon specific to tricausal structures is represented by structures where C3 cannot be definitively assigned a structural position: in such cases it is unclear whether C3 is embedded under C1 or C2.

I conclude that tricausal constructions are not reducible to a combination of two biclausal constructions: C1 + C2 and C2 + C3. For the properties of C3, the properties of both C2 and C1 are relevant.

Keywords: tricausal constructions, complex clauses, syntactic doubling, tense, aspect, future tense, converb, participle, finiteness, subjunctive mood

1 Introduction

Complementation and complex clause constructions in general have met with the attention of linguists since the middle of the twentieth century. Both in descriptive work and in typological research for the main types of biclausal construction, markers used for complementation and other fundamental issues have been analyzed in detail. See, for instance, Aikhenvald and Dixon (2006) or Noonan (2007).

In contrast, syntactic structures containing more than two clauses (referred to below as *tricausal constructions* or *tricausal structures*) have not been the subject of a detailed analysis. This is perhaps because linguists believe that the properties of these constructions can mainly be derived from the properties of biclausal constructions. In other words, it is implicitly claimed that if a construction includes three clauses, which can be represented as [C1 [C2 [C3]]] (i. e., clause 3 is embedded under clause 2 – for instance, as an argument clause – while clause 2 is embedded under clause 1), the properties of the construction are simply the sum of the properties of the biclausal constructions [C1 [C2]] and [C2 [C3]]. For example, if we have an English sentence like [*I know [that Peter came [to see Mary]]*], it is supposed that the properties of two simpler constructions like [*I know [that Peter came]*] and [*Peter came [to see Mary]*] are sufficient to describe the whole construction. The former construction is thought to fully represent the properties of the first part in the tricausal construction (*I know that Peter came*); for instance, it contains the complementizer *that*, hosted by the verb *know*. The latter is built in the same way as the second part containing a purpose clause (*Peter came to see Mary*); for example, it includes the verb *see* with a purpose infinitive.

Sometimes (very rarely) tricausal constructions are considered in linguistic work, but in those cases they are used only to illustrate some general syntactic and semantic principle. For instance, tricausal constructions sometimes serve to

check what the morphosyntactic locus is in a given phrase (see Zwicky 1985: 6–7). Zaliznjak and Padučeva (1975) were the first to propose that the morphosyntactic locus test can be used to distinguish between coordinate and subordinate constructions (see also Kazenin and Testelet 2004: 229). If $C1 + C2$ is a coordinate construction, e. g., *John asks questions and Bill answers them*, both clauses have head features and serve as morphosyntactic loci. Thus, if we embed the whole construction $C1 + C2$ in an external syntactic context, both verbs, in $C1$ and $C2$, can change their marking: cf. *I demand that John ask questions and Bill answer them* (both *ask* and *answer* change their TAM marking). In contrast, if $C1 + C2$ is a subordinate structure (for example, *John answers the questions that Bill asks*), where $C1$ is the main clause, only $C1$ is expected to change its marking when embedded in an external context. This is the case in *I demand that John answer the questions that Bill asks* (*asks* does not change its TAM form with respect to the initial structure).

In this article, I show that the description of triclausal constructions cannot always be reduced to the existing descriptions of other constructions. The fact that the sentence is constructed of three parts sometimes makes it impossible to describe its features as a sum of the features of its components (simple clauses or complex bivalent clauses). Although the morphosyntactic locus criterion tells us that the features of $C1$ can only influence $C2$, this is not the case. Features of triclausal constructions must therefore be described separately from biclausal ones.

I will focus on one subclass of triclausal constructions, namely those sentences in which $C1$ governs $C2$ as an argument clause (more rarely, an adjunct clause) and $C2$ denotes an unreal event (see Cristofaro 2005; Aikhenvald and Dixon 2006; Dobrushina 2012; on the reality vs. irrealis opposition in argument clauses).¹ The relation of $C3$ to $C2$ does not matter; however, in most cases $C3$ is a temporal adjunct clause. The key question is how tense is marked in $C3$. This question merits investigation, because there

¹ A remark is called for on the term “unreal”, which may seem somewhat vague. Without entering into details here, I take unreal argument clauses to be those in which the situation in the argument clause is presented as the content of someone’s emotional attitude (e. g., ‘want’), rather than as having a truth value. Predicates like ‘think’ do not fall under the definition, since they express degree of probability and not an attitude to a particular event. In contrast, ‘hope’ does take an unreal complement, because it primarily expresses the experiencer’s attitude to the events described. Note, however, that throughout this article the reality vs. irrealis opposition is mostly identified in formal rather than semantic terms: thus, in my analysis, I include all constructions with the complementizer *čtoby* or infinitive, irrespective of the semantics of the infinitive or *čtoby* in any given case. This decision is well grounded because infinitives and *čtoby* are almost exclusively used in unreal contexts.

are three theoretically possible anchors for tense marking in C3: the moment of speech, the event in C1 and the event in C2. This article shows that the way the verb is marked in C3 (and, particularly, its tense marking) can vary, and the range of possible forms is not fully predicted by the rules of tense marking in biclausal constructions.

This paper is organized as follows. In Section 2, I briefly outline possible strategies of tense marking in biclausal constructions and formal means of expressing irrealis in dependent clauses. Section 3 is focused on strategies for marking the verb in C3 for tense. I show in this section that there are three possible strategies, and none of them can truly be regarded as the default. In Section 4, I consider non-canonical marking of the verb in C3: here I concentrate on the phenomenon I call “syntactic doubling” – seen in cases where the main part of the tricausal construction (C1) influences the verb form not only in the second part (C2), but also in the third part (C3), which is directly embedded under C2 rather than C1. The form in C3 copies the form in C2. The main part of Section 4.1 is focused on doubling in sentences in which C2 is an argument clause and C3 is a temporal clause. However, for the sake of comparison, in Section 4.2 other types of doubling are briefly described. Finally, Section 5 addresses structures where C3 has a “mixed motivation”, being dependent syntactically on C1 and semantically on C2. This type of structure is also particular to tricausal sentences.

The Russian data is taken from three sources:

- Material from the Russian National Corpus (www.ruscorpora.ru), including both standard written texts (fiction and newspapers) and oral texts. Material from the RNC was primarily used in order to search contexts with syntactic doubling (see below): in this case, each doubling construction was looked at separately, e. g. “*načat*’ + IMPERATIVE + *s togo čto* + IMPERATIVE” ‘begin doing smth.’ (see 4.2), *čtoby* + *kogda* + PAST TENSE (see 4.1), and so on.

The corpus search was also used to look for examples of tense marking strategies, examined in Section 3: in this case, I looked for the complementizer *čtoby* + the adverbial subordinators *kogda* and *poka* within a distance of less than 10 word forms, and I collected examples of each of the three strategies, discussed in Section 3.

- Results of Google searches, which, however, were used sparingly.

Since some of the marking strategies and constructions discussed in my article are ungrammatical according to the norms of the standard language, I only used Google examples if analogous examples were found in the corpus or approved by (at least some) native speakers.

- Results of surveys of native speakers (the judgments were acquired via the website www.vk.com (the social network “VKontakte.ru”) and the service Google Forms).

I carried out several surveys on the social network vk.com. In each of the surveys, I asked native speakers which of several sentences they considered to be (un)grammatical. I only invited answers like “grammatical” and “ungrammatical”; no scale of acceptability was employed. The average number of speakers involved was around 20–30; for some surveys, though, this rose to 50 respondents.

Note that the corpus data and speakers’ judgments do not always agree. For instance, doubling constructions with *čtoby* + *kogda* were rarely accepted by native speakers in the survey, though they are easily generated both in oral and in written speech.

We begin by recalling the mechanisms of marking unreality of an event in an embedded clause in contexts where C1 contains a non-factive verb, such as *xotet* ‘want’, and C2 denotes an event which has not occurred and may not be realized (in other words a non-factive and unreal event).

2 Mechanisms for marking unreality and tense marking in Russian complex clauses

2.1 Mechanisms for marking unreality in argument clauses

As stated above, throughout this paper we mainly address constructions with the complementizer *čtoby* and infinitives as bearing unreal meaning in argument clauses.² The distribution and range of meanings of *čtoby* is described by Dobrushina (2012). Dobrushina (2012) claims that *čtoby* has two uses in argument clauses: in the first one, termed “purpose-like”, it combines with verbs marking intention and purpose, such as *xotet* ‘want’, *trebovat* ‘require, demand’, *prosit* ‘ask’. The important features of embedded clauses of this sort are that (i) “they are all time-reference dependent” (Dobrushina 2012: 128) (they mostly refer to a time subsequent to that of the situation in the matrix clause) and (ii) most of them “lack truth-value status” (Dobrushina 2012: 128) (we know

² I do not consider complex clauses with *esli* ‘if’, which are sometimes also used in argument clauses. Other “minor”, rather infrequent or semantically restricted complementizers such as *kak budto* ‘as if, as though’ are also beyond the scope of the present paper.

only someone's attitude to the situation, and not whether it has taken/will take place in reality).

- (1) *Ja by xote-l-Ø, čtoby naš-i pobedi-l-i.*
 I.NOM IRR want.IPFV-PST-SG.M PURP our-PL.NOM win.PFV-PST-PL
 'I would like our team to win.'

In the second use, termed "epistemic" by Dobrushina (2012), *čtoby* occurs with verbs like *somnevat'sja* 'doubt'. This use of embedded complement clauses with *čtoby* (i) is time-reference independent and (ii) imparts a truth value: constructions of this sort "entail the explicit < ... > or implicit negation of the probability of the situation" (Dobrushina 2012: 129). For instance, the verb *pomnit* 'remember' can only host a *čtoby*-clause when negated, i. e., when the speaker claims implicitly that the situation did not take place (2). Otherwise, the default "real" complementizer *čto* should be used instead (3):

- (2) *Ja ne pomnj-u, čtoby on opazdyva-l-Ø.*
 I.NOM NEG remember.IPFV-PRS.1SG PURP he.NOM be.late.IPFV-PST-SG.M
 'I don't remember him (ever) being late.'
- (3) *Ja pomnj-u, čto/ *čtoby on opazdyva-l-Ø.*
 I.NOM remember.IPFV-PRS.1SG COMP PURP he.NOM be.late.IPFV-PST-SG.M
 'I remember that he has (sometimes) been late.'

Another form that is in use in unreal argument clauses is the infinitive (see (4)):

- (4) *Ja nadej-u-s' priexa-t'.*
 I.NOM hope.IPFV-PRS.1SG-REFL come.PFV-INF
 'I hope to come.'

In Russian, as in many languages, there exist classes of subject control verbs (*xotet* 'want'), object control verbs (*prosit* 'ask'), indirect object control verbs (*velet* 'order'), as well as some more complicated cases (see, for instance, Culicover 1997; Culicover and Jackendoff 2005; Testelefs 2001; Stiebels 2007; Knjazev 2009 for the outline of types of control observed in argument clauses). The class of control verbs includes a special type of predicates, formed by verbs like *načat* 'begin', which only occur in control constructions where the subjects of C1 and C2 are referential. This class of verbs forms a subclass of 'unique control' verbs in the

terms of Culicover (1997) and Culicover and Jackendoff (2005), and is called by Stiebels (2007: 39–40) “strong inherent control”.

Most verbs which are compatible with *čtoby* and belong to the “purpose-like” class in Dobrushina’s (2012) terms allow the infinitive in contexts of coreference (see above on the possible control types), and vice versa. However, some exceptions exist: for instance, the verb *nadejat’sja* ‘hope’ is not found with *čtoby* – only the complementizer *čto* is possible, as in (5). Yet, in same-subject contexts, the infinitive can be used (cf. (4) above):

- (5) *Nadej-u-s’, čto / *čtoby Petj-a prid-et.*
 hope.IPFV-PRS.1SG-REFL COMP PURP Petja-SG.NOM come.PFV-PRS.3SG
 ‘I hope that Petja will come.’

The marker *čtoby* is also used to form adjunct clauses: namely, purpose clauses (this is possibly the main use of this marker). I will use examples for purpose clauses to a restricted extent, mostly in Section 3 (where it is found that there are no systematic differences between argument and adjunct clauses) and in Section 5. In the glosses, *čtoby* is marked “PURP” (as opposed to the default complementizer *čto*, marked as “COMP”). See Section 5 on the use of the infinitive and the *l*-form in purpose clauses.

Let us now outline the ways of marking another grammatical category, namely, grammatical tense in complex sentences.

2.2 Marking tense in tricausal constructions

First, I explore tense marking in biclausal constructions. The main variants existing in Russian are as follows:

- Absolute tense marking: the tense form in the embedded clause denotes the temporal localization of the embedded event with respect to the moment of speech.³

- (6) *Ja priexa-l-Ø, potomu_čto xote-l-Ø kupi-t’*
 I.NOM come.PFV-PST-SG.M because want.IPFV-PST-SG.M buy-INF
mašin-u.
 car-SG.ACC
 ‘I came because I wanted to buy a car.’

³ Sometimes a reference point other than the moment of speech is used. However, these cases are beyond the scope of this paper.

The verb in the embedded clause (*xotel* ‘wanted’) is marked for past tense, because the event precedes the moment of speech.

- Relative tense marking: the tense form in the embedded clause denotes the temporal localization of the embedded event with respect to the event denoted in the main clause.

- (7) *Ja zna-l-Ø, čto on živ-et rjadam.*
 I.NOM know.IPFV-PST-SG.M COMP he.NOM live.IPFV-PRS.3SG near
 ‘I knew that he lived next to me.’ (possible even if he does not live there any longer).

The verb in the embedded clause (*živet* ‘lives’) is marked for present tense, because the event is simultaneous with the main event *znal* ‘knew’ or includes it.

As Barentsen (1995) shows, there is a clear tendency, though not a strict rule, regarding the use of absolute vs. relative tense marking in Russian. The former is mainly used in adjunct clauses,⁴ while the latter is characteristic of argument clauses (see 3.4.1 below for an exception, taken from Barentsen 1995: 22). As mentioned above, the tense form of *xotel* ‘wanted’ in (6) is anchored to the moment of speech: the past tense means that the subordinate clause occurred before the moment of speech. If present tense were used in (6), the meaning would be ‘I want to buy a car right now’ (thus the interpretation of present tense would be also anchored to the moment of speech). In (7), the tense marking in the argument clause is anchored to the time of the event depicted in C1.

At the same time, in many cases absolute tense marking is possible in argument clauses (see Barentsen 1995 for details). What is more important, however, is that relative tense marking is almost impossible for adjunct clauses.

- A special strategy is employed in clauses with the marker *poka ne* ‘until’ (see Padučeva (2014) for details). The past tense is always possible in the embedded clause, as in (8), irrespective of the tense form used in the matrix clause:

⁴ I use the traditional tripartite classification of dependent clauses (see, for instance, Shopen (ed.) 2007), distinguishing argument (complement) clauses (*I know that you will be late*), which fill a valency slot of the matrix predicate, from sentential adjuncts (*When I came, everyone was eating*) and sentential attributes, also known as “relative clauses” (*The man I saw yesterday*), which are not obligatory and do not fill a valency slot. The latter two types of dependent clauses differ in that sentential adjuncts are typically hosted by verbs, while relative clauses modify nouns.

- (8) *Bud-em zdes', poka ničego ne sluči-l-o-s'.*
 be-FUT.1PL here until nothing.GEN NEG happen.PFV-PST-SG.N-REFL
 'We will be here until something happens
 (lit. 'We will be here until nothing happens/happened.'

See Padučeva (2014) for an explanation of this exceptional behavior of *poka ne*.

Let us now turn to tricausal constructions. Of course, the number of theoretically possible variants increases here. While we do not expect to find any special type of tense marking in the matrix clause (C1) or the clause embedded immediately underneath it (C2), the verb form in C3, the most deeply embedded clause, is of special interest. There are several variants which are theoretically possible for C3. Assume that C3 is an adjunct clause embedded under C2. Recall that adjunct clauses in Russian are usually marked for absolute tense.

- a. Tense form anchored to the moment of speech.

In variant 1, the moment of speech serves as an anchor for tense marking in C3. For instance, if C3 took place before the moment of speech it is marked for past tense, and if it is to take place after this time it is marked for future tense. In this case the choice of tense forms is not sensitive to the tense marking in C1 and C2. Variant 1 presupposes that the moment of speech is available as a reference point for tense marking in adjunct clauses irrespective of how deeply they are embedded.

- b. Tense form anchored to the time when the situation in C1 takes place.

In variant 2, the time of the event in C1 serves as an anchor for tense marking in the adjunct clause C3, while the moment of speech is irrelevant to the verb form in C3. For instance, if C3 took place before C1, it is marked for past and, if it is to take place after C1, it is marked for future.

Note that this type of tense marking in C3 lacks an obvious linguistic label: it cannot be termed "absolute tense marking," since the interpretation of the tense form is anchored to the event in C1, not the moment of speech.

- c. Relative tense anchored to the time when the situation in C2 takes place.

Finally, in variant 3, the time of the event in C2 serves as an anchor for tense marking in the adjunct clause C3. For instance, if C3 took place before C2, it is marked for past and, if it is to take place after C2, it is marked for future.

It should be noted that under variants 2 and 3, C3 in a tricausal construction violates the general tendency for adjunct clauses to contain a tense form which is interpreted absolutely. Under variant 2, the tense form in C3 is anchored to C1, and under variant 3, it is anchored to C2.

All three cases occur in actual use when C2 is a finite clause. Variant 1 is described in (3.1), and variant 2 is discussed in (3.2); finally, variant 3, the most “exotic” of the three, is considered in (3.3). Besides this, there is a phenomenon that makes tense marking in C3 more opaque, namely “syntactic doubling”, where the formal properties of C2 are doubled/copied on to C3. In this strategy, the verb in C2 does not require a particular TAM form F in C3, but there is a requirement of form identity between C2 and C3.

Below, I divide the attested marking strategies into doubling strategies and strategies without doubling. Strategies 2 and 3 above do not employ doubling. As will be seen, strategy 1 can perhaps be considered intermediate between doubling and non-doubling. Finally, in Section 4 I will describe strategies which should clearly be described in terms of “form doubling”. However, before starting the discussion of all tense marking strategies, I would like to touch upon the topic of tense marking in unreal clauses with *čtoby*, the complementizer used in C2 in our examples.

2.3 The *l*-form in constructions with *čtoby*

Let me briefly describe the nature of *l*-forms in *čtoby*-constructions. Historically, the complementizer *čtoby* is a combination of the default complementizer *čto* and the subjunctive particle *by*. This means that the *l*-form in examples like *čtoby on uvidel* [COMP he.NOM see.PST.SG.M] ‘So that he see’ illustrates the same use of the *l*-form as in subjunctive forms:

- (9) *Ty by emu pozvoni-l-a.*
 you.NOM IRR he.DAT call-PST-SG.F
 ‘You had better call him.’ (lit. ‘You would call him’).
 (Julia Shilova. *Propadi vse propadom*. <https://books.google.fr/books?isbn=5457168409>)

Synchronically, however, most scholars (as, for instance, Brecht 1977) regard the tense form in (1), (2) and similar examples as a special use of the *l*-form with *čtoby*. This seems well-founded since, in the modern language, *by* in *čtoby* shows none of the characteristics of a separate particle – and, thus, we cannot speak of a subjunctive form in cases like (1). For example, in constructions with *čtoby*, the particle *by* cannot be separated from *čto*. At the same time, we cannot regard the use of the *l*-form with *čtoby* as the canonical past tense due to the difference in meaning and contexts of use.

3 Strategies without doubling

We will firstly consider strategies which do not make use of doubling. In the cases discussed in this section, there is no reason to claim that C2 influences the form in C3 in any direct way. Meanwhile, Variant 1 below shows that the choice of the verb form in C2 can be relevant for C3.

Let us firstly describe the three possible strategies where the tense in C3 is chosen (1) anchored to the moment of speech; (2) anchored to C1; (3) anchored to C2. In all the examples analyzed below, C2 denotes an unreal event. In Sections 3.1 through 3.3 this clause is finite, introduced by the subordinator *čtoby*, and contains either a form homonymous to the past tense form (e. g., *uvidel* ‘saw’) or the infinitive (e. g. *uvidet* ‘(to) see’). I call this form the “*l*-form” rather than the past tense form because in fact it is a component of subjunctive mood marking (the other component, namely the particle *by*, is morphologically integrated into the marker *čtoby*).

Cases where we find an infinitive in C2 are considered separately in 3.4. I show that when the infinitive is used, tricausal constructions are sometimes not possible at all. The form found in C3 will be the focus of our analysis.

3.1 Variant 1. Marking tense in C3 with respect to the moment of speech

Variant 1, where the moment of speech serves as an anchor for the tense marking in C3, is represented by Examples (10) and (11). This pattern can be observed both when C2 is a sentential adjunct, as in (10), and when it is an argument clause, as in (11):

- (10) *Čtoby Irin-a ne skuča-l-a, kogda ja*
 PURP Irina-SG.NOM NEG get.bored.IPFV-PST-SG.F when I.NOM
byva-l-Ø na nočn-yx dežurstv-ax, ja
 be.IPFV.HABIT-PST-SG.M on night-PL.LOC duty-PL.LOC I.NOM
kupi-l-Ø ej xoroš-ij priemnik-Ø.
 buy.PFV-PST-SG.M she.DAT good-M.SG.ACC listener-SG.ACC
 ‘I bought Irina a decent radio, so that she wouldn’t get bored when I was on nights.’ (Vladimir Goljakhovsky. *Russkij doctor v Amerike*. 1984–2001)

- (11) *On ljubī-l-Ø čtoby ego perexvatyva-l-i*
 he.NOM love-IPFV-PST-SG.M PURP he.ACC catch.IPFV-PST-PL
kogda otpravlja-l-Ø-sja on na oxot-u.
 whe go.PFV-PST-SG.M he.NOM on hunting-SG.ACC
 'He liked it if someone "caught" him when he went hunting.'
 (Yury German. *Dorogoy moy chelovek*. 1961)

In (10), the past tense in C3 (*byval*) is used because the situation in C3 precedes the speech act, i. e., the tense form is used absolutely. On other grounds there would be no need for a past tense form: the event in C3 follows the one in C1 (*kupil* 'bought') and is simultaneous to the event in C2 (*skučala* 'got bored'). The same is true for (11), where the past tense form of C3 (*otpravljalsja* 'went') is anchored to the moment of speech (C3 is simultaneous to C2 and C1, but precedes the moment of speech).

3.1.1 Grammatical restrictions on Variant 1

Variant 1 has a peculiar property: it is only used if the verb in C2 is in the **l-form**.

Variant 1 is impossible with the verb *nadejat'sja* 'hope': this verb takes argument clauses with *čto* rather than *čtoby*,⁵ and the argument clause can contain any tense marking, depending on semantics, unlike C2 of the construction with *xotet'*, which can only contain an *l-form*. With the verb *xotet'*, the past is allowed in temporal clauses, as in C3 with *poka* (cf. past tense form *byl* in (12) and *sidel* in (13)).

⁵ The contrast in the choice of complementizers seems to result from the possibility of a retrospective reading of *nadejat'sja*. Sentences like (i) below, where the state of affairs hoped for is situated in the past, are not paralleled by any construction with *xotet'* – hence the impossibility of retrospective meaning in (ii):

- (i) *Nadej-u-s', čto Petj-a uspe-l-Ø na poezd-Ø.*
 hope-PRS.1SG-REFL COMP Petja-SG.NOM be.on.time.PFV-PST-SG.M on train-SG.ACC
 'I hope that Petja caught his train.'
- (ii) *Ja xoč-u, čtoby Petj-a*
 I.NOM want-PRS.1SG PURP Petja-SG.NOM
uspe-l-Ø na poezd-Ø.
 be.on.time.PFV-PST-SG.M on train-SG.ACC
 'I want Petja to catch his train.' (in the future).

- (12) *Ja očen' xote-l-a, čtoby korešk-i*
 I.NOM very want.IPFV-PST-SG.F PURP root-PL.NOM
nača-l-i obrazovyva-t'-sja, poka
 begin.PFV-PST-PL be.formed.IPFV-INF-REFL while
čerenok-Ø by-l-Ø ešče na mam-e.
 graft-SG.NOM be-PST-SG.M yet on mother-SG.LOC
 'I wanted very much for the roots to begin to form while the graft was still
 on the older plant.'
 (flower.wcb.ru)
- (13) *Ja xote-l-Ø, čtoby ty emu*
 I.NOM want.IPFV-PST-SG.M PURP you.NOM he.DAT
pozvoni-l-Ø poka side-l-Ø bez del-a na
 call.PFV-PST-SG.M while sit.IPFV-PST-SG.M without work-SG.GEN on
rabot-e.
 job-SG.LOC
 'I wanted you to call him while you had nothing to do at work.' (elicited
 and accepted by 60% of native speakers, 18 of 30)

With *nadejat'sja*, most native speakers (34 of 39, 87 %) judge sentences like (13') ungrammatical.

- (13') *#Ja nadeja-l-Ø-sja, čto ty emu*
 I.NOM hope.IPFV-PST-SG.M-REFL COMP you.NOM he.DAT
pozvoni-š' poka side-l-Ø bez del-a na
 call.PFV-PRS.2SG while sit.IPFV-PST-SG.M without work-SG.GEN on
rabot-e.
 job-SG.LOC
 'I hoped that you would call him while you had nothing to do at work.'

In other words, variant 1, where the tense assignment in C3 is anchored to the localization of the event to the moment of speech, is possible for *xotet'* and impossible for *nadejat'sja*. This difference is motivated by the requirement (or at least tendency) to have formally identical forms in C2 and C3 (as in (12) and (13)) under Variant 1. Both C2 and C3 contain an *l*-form, which is not the case in (13'). This requirement is highly reminiscent of the phenomenon of syntactic doubling, discussed in detail in Section 4. However, the difference is that in Variant 1, the past tense in C3 is semantically motivated (as mentioned above, it denotes the precedence of the event in C3 to the speech act). This is not the case in doubling constructions (see Section 4 below).

3.2 Variant 2. Marking tense in C3 with respect to C1

Variant 2, where the tense in C3 is anchored to C1, occurs in Examples (14) and (15):

- (14) *On xote-l-Ø, čtoby, kogda on*
 he.NOM want.IPFV-PST-SG.M PURP when he.NOM
pojav-it-sja, vs-e zaxlopa-l-i.
 appear.PFV-PRS.3SG-REFL everyone-NOM applaud.PFV-PST-PL
 ‘He wanted everyone to applaud when he appeared [i.e. when he would appear].’
- (15) *Lavuazje poprosi-l-Ø palač-a čtoby tot*
 Lavoisier-SG.NOM ask.PFV-PST-SG.M executioner-SG.ACC PURP that.NOM
kogda podnim-et otseč-enn-uju golov-u
 when lift.PFV-PRS.3SG cut.PFV-PART.PASS.PST-F.SG.NOM head-SG.ACC
zagljanu-l-Ø emu v glaz-a.
 look.PFV-PST-SG.M he.DAT in eye-PL.ACC
 ‘Lavoisier asked the executioner to look into his eyes when he picked up his severed head.’
 (Gennady Nikolaev. Veshchie sny tikhogo psikha. Zvezda, 2002.)

For instance, in (15), the future tense in C3 *podnimet* ‘will pick up’ can only be interpreted with respect to the C1 event: the event in *podnimet* ‘will pick up’ follows the one in C1 *poprosil* ‘asked’. Otherwise the verb would have no reason to take the future tense form: the event ‘will pick up’ precedes both the event in C2 (*zagljanul* ‘look’) and the speech act.

Examples of Variant 2 are numerous with different matrix predicates and different types of events denoted by embedded clauses. This fact is instructive because it sheds some light on the concurrence of two possible anchors of tense marking: namely, the moment of speech and the clause C1. It shows that C1 is a stronger anchor, perhaps because C2 (unreal clause with *čtoby*) is already anchored to C1.

3.2.1 Restrictions on Variant 2

Variant 2 is subject to some restrictions: tense marking of C3 anchored to the time of the event in C1 becomes less acceptable for native speakers if C3 denotes a repeated event and Variant 2 would therefore require an analytic

future form with the auxiliary *bud-et* ‘be-FUT.3SG’. Examples like (16) are often judged to be ungrammatical by native speakers, and are also ungrammatical according to my intuition (unfortunately, for the time being, no statistical figures are available):

- (16) (*)*Čtoby Irin-a ne skuča-l-a, kogda ja*
 PURP Irina-SG.NOM NEG get.bored.IPFV-PST-SG.F when I.NOM
bud-u uezža-t’ v èkspedici-i, ja ej
 be.fut-1SG leave.IPFV-INF in expedition-PL.ACC I.NOM she.DAT
kupi-l-Ø abonement-Ø v kino.
 buy.PFV-PST-SG.M subscription-SG.ACC in cinema.SG.ACC
 ‘I bought Irina a subscription to the cinema so that she wouldn’t get bored when I went on fieldwork trips.’

Note that this means that there is no obvious grammatically correct version of Example (16). Variant 1, as illustrated in (17), is possible for some speakers but rejected by others.

- (17) (*)*Čtoby Irin-a ne skuča-l-a, kogda ja*
 PURP Irina-SG.NOM NEG get.bored.IPFV-PST-SG.F when I.NOM
uezža-l-Ø v èkspedici-i, ja ej
 leave.PST-SG.M in expedition-PL.ACC I.NOM she.DAT
kupi-l-Ø abonement-Ø v kino.
 buy.PFV-PST-SG.M subscription-SG.ACC in cinema.SG.ACC
 ‘I bought Irina a subscription to the cinema so that she wouldn’t get bored when I went on fieldwork trips.’

The same is true for Variant 3 (see below).

3.3 Variant 3. Change to relative tense marking: Marking tense in C3 with respect to C2

Finally, in Variant 3 the tense in C3 is marked relatively, with respect to the event in C2. Examples are given in (18) through (20):

Petja wants to be a singer

- (18) *No on xoč-et, čtoby emu vseгда*
 but he.NOM want.IPFV-PRS.3SG PURP he.DAT always

aplodirova-l-i, kogda on po-et.
 applaud.IPFV-PST-PL when he.NOM sing.IPFV-PRS.3SG
 ‘But he wants people to always applaud him when he sings.’
 (Elicited and judged by native speakers).

- (19) *Ja ne xoč-u, čtoby menja uvide-l-i,*
 I.NOM NEG want-PRS.1SG PURP I.ACC see.PFV-PST-PL
kogda ja plač-u nad serial-om.
 when I.NOM cry.IPFV-PRS.1SG over series-SG.INS
 ‘I don’t want anyone to see me when I am crying over a TV series.’
 (elicited)

- (20) *Marin-a skaza-l-a čtoby ja tixo*
 Marina-NOM tell.PFV-PST.3SG PURP I.NOM quietly
stoja-l-Ø u dver-i poka ona.
 stand.IPRF-PST-SG.M near door-SG.GEN while she.NOM
odeva-et-sja
 dress.oneself-PRS.3SG-REFL
 ‘Marina < ... > told me to stand quietly near the door while she got dressed.’
 (Andrei Gelasimov. God obmana)

It is important that (18) can be used even if Petja is not singing at the moment of speech. The situation *poet* ‘sings’ in C3 follows the speech act as well as the event in C1 (*xočet* ‘wants’). Thus the present tense is interpreted relatively under this reading (the situation in C3 is simultaneous to that in C2 *aplodirovali* ‘applaud’). Note that even if we say explicitly that, in (18), Petja is not singing at the time of speech (i. e., the reading is relative), most native speakers (67 %, or 61 out of 91) accept (18) on this reading.

The same is true for (19), where the situation in C3 can be unreal (the speaker is not crying at or around the moment of speech) and for (20), which can be used if Marina is planning to get dressed, and hence the situation in C3 follows the speech act and the situation in C1 and it is simultaneous with the situation in C2. Thus, in Examples (18) through (20), the tense form in C3 is interpreted relatively.

As mentioned above, if C2 in a biclausal construction is an adjunct clause, the tense marking tends to be anchored to the moment of speech (see Section 2 above). In (21) and (22), a present tense in the embedded clause seems awkward, because it would primarily be interpreted in absolute terms. Under this reading,

the whole sentence would have a strange meaning (e. g., ‘People will applaud Petja (in the future) when he sings (now)’).

- (21) ??*Pet-e vseгда bud-ut aplodirova-t', kogda on*
 Petja-DAT always be-FUT.3PL applaud.IPFV-INF when he.NOM
po-et.
 sing-PRS.3SG
 ‘People will always applaud Petja when he sings.’

- (22) ??*On menja uvid-it, kogda*
 he.NOM I.ACC see.PFV-PRS.3SG when
ja plač-u nad serial-om.
 I.NOM cry.IPFV-PRS.1SG over series-SG.INS
 ‘He will see me when I am crying over a TV series.’

With the relative reading fixed, the rate of native speakers who accept (21) is much lower than for the corresponding tricausal construction (18) (37 % or 34 out of 91).

Variant 3 is specific to tricausal constructions. In Section 2.1, I noted that in adjunct clauses of biclausal constructions, absolute tense marking is dominant. It emerges, however, that the third clause in tricausal constructions can display relative tense marking, even if it is an adjunct clause. Thus, Variant 3 shows that tricausal constructions sometimes behave differently from biclausal ones.

In constructions where C2 is a sentential (purpose) adjunct of C1, the relative interpretation is also possible in C3. In (23), the tense in C3 (the temporal clause) is interpreted relatively:

- (23) *Poves-it pljušev-yje štork-i i*
 hang.up.PFV-PRS.3SG plush.ADJ-PL.ACC curtain-PL.ACC and
oboš'-et ix zolot-ymi monetk-ami, čtoby oni
 sew.round-PRS.3SG they.ACC golden-PL.INS coin-PL.INS PURP they.NOM
zvene-l-i, kogda štor-y razdvigaj-ut.
 ring.IPFV-PST-PL when curtain-PL.ACC draw.apart.IPFV-PRS.3PL
 ‘She will hang plush curtains and will sew gold coins into them so that they jingle when the curtains are drawn.’
 (Julia Kapishnikova. Ty nashel filosofskij kamen' !...// «Pjatoe izmerenie». 2002)

The fact that the interpretation can switch from absolute to relative could be due to the fact that anchoring C3 to C2 is more “reliable” for some speakers than

anchoring it to C1 or to the moment of speech if both C2 and C3 do not take place in reality. In the Examples (18)–(20) and (23), all we know about C3 is that it takes place simultaneously with C2, if both occur at all – it could be the case that neither of the events come true. This is why C2 can be chosen as an anchor for tense assignment in C3.

3.4 Tense marking impossible in C3: constructions with infinitives in C2

So far I have shown that tricausal constructions show great variability in their tense marking. All theoretically possible variants of tense assignment in C3 are possible in Russian sentences in which C2 is a finite clause with *čtoby*.

At the same time, none of these can be considered to be the default: for each of the three variants, some contexts exist where one is not preferred over the others. This means that the class of situations where C1 is situated in the past, C2 is unreal, and C3 is also in the past but subsequent to C1 (e. g., '[C1 He wanted [C2 to do it [C3 when he got back]]'), is not systematically served by any variant.

In this section, I will consider constructions where C2 contains an infinitive. While I do not deal systematically with infinitive constructions, I will show that there is a subclass of this class of contexts where it is impossible, or only possible with certain restrictions, to build a tripartite construction – more precisely, where the given combination of C1 and C2 does not admit any tense marking in C3. This problem is observed when the modal predicate in C1 is in the past and C2 contains an infinitive: in the temporal clause C3, neither past nor future can be chosen to express the fact that the event in C3 follows the event in C1 and is simultaneous to that in C2. No problems of this sort are observed in complex clauses with a finite verb in C2. In the examples under analysis, infinitives are introduced by modal predicates such as *byt' dolžnym* 'have to, must' or *sobirat'sja* 'be going to'.

The combination of such predicates with a *kogda*-clause is perfectly possible when C1 is situated in the present and C2 and C3 take place in the future, cf. (24) and (25):

- (24) *Polin-a dolžn-a proda-t' mašin-u, kogda bud-et v*
 Polina must-F.SG sell.PFV-INF car-SG.ACC when be-FUT.3SG in
Moskv-e.
 Moscow-LOC
 'Polina must sell her car when she is in Moscow.' (elicited).

- (25) *Ee ja tože dolžna naj-ti kogda*
 she.ACC I.NOM also must.ATTR-F.SG find.PFV-INF when
bud-u v lager-e.
 be.FUT-PRS.1SG in camp-SG.LOC
 ‘I have to find her too when I am in the camp.’
 (Tatyana Okunevskaya. Tatyatin den’. 1998)

In (24), the speaker means that Polina has not yet traveled to Moscow: she will need to go there in order to sell her car. In (25), the addressee is not yet in the camp, but is supposed to find the woman once she gets there.

Let us now turn to the combination where triclausal constructions are not allowed. This is represented by (some) constructions where the modal predicate *byt’ dolžnym* in C1 is in the past and C3 is a clause with *kogda* ‘when’, as above, but where no tense form is available in C3 to convey the meaning the speaker needs. Imagine the following situation (which can be taken as a version of (24) described retrospectively): the speaker (for instance, a narrator in a literary text) discusses an event existing at a reference point in the past. By this time, he knows that Polina had had to sell her car but Polina’s proposed travel to Russia was still in the future. Consider, for instance, the following context, “Each one of us had a lot to do: I had to visit my friends in Africa, Peter was supposed to participate in a meeting in France, and Polina had to sell her car during her stay in Russia.” In this case, no tripartite construction is acceptable, for the verb in C3 cannot be marked for any tense to convey the intended meaning. The past tense, as in (26), is hardly possible here because it would presuppose that Polina did actually visit Moscow before the moment of speech (which is not necessarily true). Meanwhile, the future tense, chosen in (27), means that Polina will travel to Moscow after the speech act:

- (26) *Polin-a dolžn-a by-l-a proda-t’ mašin-u,*
 Polina must-F.SG be-PST-SG.F sell.PFV-INF car-SG.ACC
kogda by-l-a v Moskv-e.
 when be-PST-SG.M in Moscow-LOC
 ‘Polina had to sell her car when she was in Moscow.’
- (27) *#Polin-a dolžn-a by-l-a proda-t’ mašin-u,*
 Polina must-F.SG be-PST-SG.F sell.PFV-INF car-SG.ACC
kogda bud-et v Moskv-e.
 when be-FUT.3SG in Moscow-LOC
 ‘Polina had to sell her car when she was in Moscow.’

In other words, Variant 2 of tense marking, used in (27) (whereby Polina was supposed to be in Moscow after the event in C1 (the modal state ‘must’) but, perhaps, before the speech act) is sometimes unavailable, if C2 is an infinitive clause: most native speakers (21 out of 29, or 72%) judge this reading as unacceptable. Variant 2 is also impossible in Example (28), the proposed retrospective counterpart of (25).

- (28) #*Ee ja tože dolžna by-l-a naj-ti*
 she.ACC I.NOM also must.ATTR-F.SG be-PST.-SG.F find.PFV-INF
kogda bud-u v lager-e.
 when be.FUT-PRS.1SG in camp-SG.LOC
 ‘I had to find her too when I was in the camp.’

3.4.1 The role of the predicate

Interestingly, modal predicates differ in their (in)ability to form tricausal structures when used in the past with infinitives in C2. For instance, *sobirat’sja* ‘be going to’, unlike *byt’ dolžnym* ‘have to, must’, allows structures of this sort. 20 out of 24 native speakers I asked (83%) judged (29) as acceptable (recall that 21 out of 29 native speakers (72%) considered (27) with *byt’ dolžnym* to be unacceptable):

- (29) *Polin-a sobira-l-a-s’ proda-t’ mašin-u,*
 Polina be.going.to.IPFV-PST-SG.F sell-PFV-INF car-SG.ACC
kogda bud-et v Moskv-e.
 when be-FUT.3SG in MOSCOW-LOC
 ‘Polina was going to sell her car when she was in Moscow.’

It is not entirely clear why the required interpretation is possible with some verbs, such as *sobirat’sja*, and impossible with others, e.g., *byt’ dolžnym*. However, it seems that the intentional interpretation (i.e. the interpretation representing the situation from the subject’s point of view, as a part of his or her mental space) makes this interpretation more plausible: the experiencer’s plans form a reference point to which the interpretation of the verb in C3 is anchored. The contrast between *byt’ dolžnym* ‘must’ vs. *sobirat’sja* ‘be going to’ also shows that the interpretation of the tense in C3 can differ for different predicates. The future interpretation in C3 as anchored to the time of the event in C1, which is possible for *sobirat’sja* in (29), is impossible for *byt’ dolžnym* in the same context (C1 in past, infinitive in C2, temporal clause C3 in future).

For bipartite constructions, oppositions are also observed between individual lexemes based on the interpretation of tense forms. For instance, as noted by Barentsen (1995: 22) and Schlenker (2003: 71), some matrix verbs (e. g., *slučat'sja* 'happen') prefer absolute tense marking in the argument clause (30), while in the standard case, tense in argument clauses is interpreted relatively (see Section 2):

- (30) *Sluča-l-o-s'* *čto učitel'-Ø opazdyva-l-Ø.*
 happen.PFV-PST-SG.N-REFL COMP teacher-SG.NOM be.late-PST-SG.M
 'It happened (sometimes) that the teacher was late.'

Meanwhile, the very situation when it is impossible to make a grammatically acceptable construction with a particular combination of tense interpretations does not seem to be found in biclausal constructions. We analyzed the possible tense combinations in temporal clauses and, at least in this data, no cases of this sort have been found.

3.4.2 The role of subordinator

Note also that subordinators other than *kogda*, such as *srazu kak* [straight.away as] 'right after' or *posle t-ogo kak* [after that-GEN as] 'after', behave in a different way. In the same contexts, the combination of past tense in C1 and future tense in C3 sounds better with these subordinators:

- (31) *Polin-a dolžn-a by-l-a proda-t' mašin-u*
 Polina must-F.SG be-PST-SG.F sell.PFV-INF car-SG.ACC
srazu kak pried-et v Moskv-u.
 straight.away.as come.PFV-FUT.3SG in Moscow-ACC
 'Polina had to sell her car right after she got to Moscow.'⁶

3.4.3 Conclusion of Section 3.4

In this section, I have shown that there are cases in which no appropriate tricausal construction can be built on the basis of two existing biclausal

⁶ An anonymous reviewer notes that the difference in acceptability between (27) and (31) may also result from the use of different verbs (*budet* 'will be' vs. *priedet* 'will come'). However, changing the verb in (27) from *budet* to *priedet* does not improve this example.

constructions. More specifically, representative here are some contexts where C1 contains a modal predicate such as *byt' dolžnym* 'must, have to', C2 is an infinitive clause, and C3 is intended to denote a situation which is going to occur after that expressed in C1.

These data show once more that a tricausal construction cannot always be reduced to a combination of two biclausal constructions. All three components of a hypothetical construction, C1, C2 and C3, must be compatible with each other. Note that, in the data I have found so far, problems with building a tricausal structure occur in constructions where C2 contains an infinitive form. I have found no problematic contexts of this sort in contexts with a finite verb in C2. The reason for this distinction is far from clear, but it seems that the degree of semantic and syntactic unity may be relevant. In the infinitive construction, at least with modal verbs like 'must', the components show a greater degree of unity than is seen when the main clause embeds a finite clause. This is why in some examples, like (27), the matrix (modal) verb of the infinitive construction sometimes (when it is marked for past) cannot serve as a separate anchor for tense marking in temporal clauses. However, this claim about relative unity of constructions with infinitive vs. finite embedded clauses should be tested further on a larger survey of matrix verbs.

3.5 Conclusion of Section 3

We can conclude that all three tense marking strategies are possible in C3. None of them is the main or default variant. Importantly, these variants provide us with some information about the properties of tricausal constructions:

1. Sometimes the tense form in C3 can have a relative interpretation (= uses the time of the event in C2 as an anchor) even if the same type of clause predominantly has an absolute interpretation in biclausal constructions.
2. It is possible for a construction to make use of two "anchors" of tense assignment: in such cases the interpretation of the unreal clause C2 uses the matrix verb in C1 as an anchor, while C3 is interpreted using the moment of speech as an anchor.
3. The set of variants available for the interpretation of tense forms depends on individual lexemes. For instance, the combination *byt' dolžnym* 'must' does not use Variant 2, whereas Variant 2 is available for *sobirat'sja* 'be going to'.

In Section 4 further data are considered. These are cases where usual strategies of tense assignment are further complicated by the phenomenon of syntactic doubling.

4 Syntactic doubling

Let us analyze another piece of evidence for the claim that a tricausal construction can display distinctive characteristics which are not inherited from biclausal ones. This is *syntactic doubling*: I use this term for cases where the verb form found in C2 is doubled/copied to C3, and this copying cannot be formulated in terms of regular form choices imposed by the verb in C1 or C2 (such as ‘the verb in C2 requires the verb in C3 to be in the infinitive form’). In cases of syntactic doubling, the strategy of tense marking in C3 can only be analyzed as a requirement of formal identity with the form in C2.

4.1 Doubling in temporal clauses embedded under *čtoby*-clauses

Some complementizers can influence the verb form in the embedded clause. For instance, as mentioned before (see Sections 2.1 and 3.1, etc.), the Russian marker *čtoby* ‘to, in order to’, which introduces unreal argument clauses, requires the verb to be in the *l*-form, as in (32) (in control configurations, the infinitive without *čtoby* is mainly used).⁷

- (32) *My poprosi-l-i, čtoby nam da-l-i*
 we.NOM ask.PFV-PST-PL PURP we.DAT give.PFV-PST-PL
lučš-ie mest-a.
 best-PL.ACC place-PL.ACC
 ‘We asked to be given the best seats.’

In this section I will show that the requirements of *čtoby* in C2 can also influence tense marking in clause C3, embedded under C2 (see also Letuchiy 2013).

Above I have shown that various strategies can be used to choose tense forms in C3. For instance, in (33), Variant 2 is used where the interpretation of the tense form in C3 is anchored to the event in C3 (*pridu* ‘I will come’) after C1 (*xotel* ‘(I) wanted’).

⁷ In fact, constructions with *čtoby* + infinitive can be found in argument clauses like *on zabotit-sja o tom, čtoby ne opozda-t* [he.NOM carry-PRS.3SG-REFL about that.LOC COMP not be.late-INF]. However, argument infinitive constructions are normally used in combination with a correlative *to* (see Knjazev 2009 on the special properties of correlative constructions). In purpose clauses, the infinitive is always used with *čtoby* in cases of coreference (see Section 5 for details).

- (33) *Ja xote-l-Ø, čtoby, kogda ja prid-u,*
 I.NOM want.IPFV-PST-SG.M COMP.IRR when I.NOM come.PFV-PRS.1SG
užin-Ø by-l-Ø gotov-Ø.
 dinner-SG.NOM be-PST-SG.M ready-SG.M
 ‘I wanted the dinner to be ready when I arrived (home).’

However, there are cases which cannot be explained by any of the three variants considered in Sections 3.1 through 3.3. This situation is typical of temporal clauses, introduced by the subordinator *kogda*. Consider, for instance, the past tense *prixodil* ‘came’ in the temporal clause C3 in (34) and (35) and *byl* ‘was’ in C3 in (36):

- (34) *Ja xoč-u čtoby, kogda ja prixodi-l-Ø*
 I want.IPFV-PRS.1SG PURP when I.NOM come.IPFV-PST-SG.M
k sebe domoj, dver’-Ø otkryva-l-a žen-a.
 to self-DAT home door-SG.ACC open.IPFV-PST-SG.F wife-SG.NOM
 ‘I want my wife to open the door when I come home.’
 (Film “Tišina”. 1963)

- (35) *Leonid-Ø Agutin-Ø trebuet, čtoby, kogda*
 Leonid-SG.NOM Agutin-SG.NOM demand.IPFV-PRS.3SG PURP when
on prixodi-l-Ø v grimerk-u, tam by-l-i ego
 he.NOM come.IPFV-PST-SG.M in cloak.room-SG.ACC there be-PST-PL his
vešč-i.
 thing-PL.NOM
 ‘Leonid Agutin (a Russian pop singer) requires that, when he comes to his cloakroom, his things are already there.’
 (Caca trebuet matraca. Komsomol’skaya pravda. 2004)

- (36) *Sam-oe glavn-oe čtoby kogda ja by-l-Ø*
 most-N.SG.NOM main-N.SG.NOM PURP when I.NOM be-PST-SG.M
doma vs-e svo-e vnimani-e ona
 home all-N.SG.ACC own-N.SG.ACC attention-SG.ACC she.NOM
udelja-l-a mne.
 share.IPFV-PST-SG.F I.DAT
 ‘The main thing is that when she is at home she should pay attention to me only.’ (<http://rozvitok.com/aktualne/9-intervyu/70-aleksandr-nebava>)

Of course, the interpretation based on Variant 1 (the moment of speech as an anchor for tense marking in C3) is unavailable here. The construction *ja xoču*

‘I want’ in (34) denotes that the speaker wants something *now*, at the moment of speech. Thus the event in the temporal clause is situated after the moment of speech, or at least does not precede it – otherwise the use of the verb *xotet’* ‘want’ would be illegitimate.

Variant 2, where C1 is an anchor for tense marking in C3, is also impossible here. The past tense in (34) does not denote that the speaker’s coming home precedes his wish that his wife should open the door – in contrast, the wish (or the requirement, as in (35)) is prospective. The verbs *xotet’* and *trebovat’*, in both indicative and subjunctive forms, imply that the event in the argument clause follows that of the matrix clause or, sometimes, is simultaneous to it (see 3.1 on the fact that *xotet’* does not admit a retrospective interpretation). Thus, the relative order of C1 and C3 is the same here as in (33).

Finally, Variant 3, where the interpretation of tense in C3 is anchored to the event in C2, also proves to be impossible, at least for (36). The situation ‘I am at home’ in C3 takes place simultaneously with ‘She (my girlfriend) pays attention to me’ in C2. The present tense, then, would be expected in (36) under Variant 3.

Thus it cannot be said that the *l*-form used in C3 really denotes any type of past tense (absolute or relative). The only possibility is that this *l*-form is inherited from a higher clause. It may seem that in (34)–(36), as well as in similar examples, the strategy of “syntactic doubling” is used. The verb form in C2 (the *l*-form, homonymous to the past tense form) influences the choice of the form in C3, which is why C3 features the *l*-form.

However, the real explanation is a little more complicated. It is instructive that the construction illustrated by (34)–(36) is mainly found when the clauses are in one particular order: namely, C3 must be situated in the middle of C2 and the subordinator *kogda* must follow the complementizer *čtoby*, as in (34)–(36). This fact is not surprising if we analyze this type of structure as a result of expanding the influence of *čtoby* into the third clause. This process is easier if the verb in C3 is linearly close to *čtoby*. Note that the frequent use of constructions with nesting (insertion of C3 into C2) is characteristic of Russian, cf. (37) and (38), which only differ in that C3 is inserted into C2 in the former example. Constructions in which C3 intervenes between the components of C2 in this way are frequent, belong to different syntactic types, and do not always contain doubling.

- (37) *Ja xote-l-Ø, čtoby, kogda ja prid-u,*
 I.NOM want.IPFV-PST-SG.M COMP.IRR when I.NOM come.PFV-FUT.1SG
mne da-l-i poes-t’.
 I.DAT give.PFV-PST-PL eat.PFV-INF
 ‘I want them to give me something to eat when I arrive.’

- (38) *Ja xote-l-Ø, čtoby mne da-l-i poes-t',*
 I.NOM want.IPFV-PST-SG.M COMP.IRR I.DAT give.PFV-PST-PL eat.PFV-INF
kogda ja prid-u.
 when I.NOM come.PFV-FUT.1SG
 = (37).

In other words, in (34)–(36) and similar examples the choice of past tense in C3 (as well as in C2) is influenced by *čtoby*. Only the formal requirements imposed by this complementizer make the use of the past tense possible, though the main option with the future or present tense in C3 is always possible too.⁸ See (39) and (40), which are variants of (34) and (35) with a present tense form in C3.

- (39) *Ja xoč-u čtoby, kogda ja prixož-u*
 I want.IPFV-PRS.1SG PURP when I.NOM come.IPFV-PRS.1SG
k sebe domoj, dver'-Ø otkryva-l-a žen-a.
 to self-DAT home door-SG.ACC open.IPFV-PST-SG.F wife-SG.NOM
 'I want my wife to open the door when I come home.'
 (elicited).

- (40) *Leonid-Ø Agutin-Ø trebuet, čtoby, kogda*
 Leonid-SG.NOM Agutin-SG.NOM demand.IPFV-PRS.3SG PURP when
on prixod-it v grimerk-u, tam by-l-i ego
 he.NOM come.IPFV-PRS.3SG in cloak.room-SG.ACC there be-PST-PL his
vešč-i.
 thing-PL.NOM
 'Leonid Agutin (a Russian pop singer) requires that, when he comes to his
 cloak room, his things are already there.'
 (elicited).

The ordering requirements allow us to revise the description of the phenomenon. In Examples (34) through (36) we do not deal with doubling in the proper sense. The *l*-form in the temporal clause C3 is not just copied from the form in C2 – rather, the requirements of the complementizer are spread from C2 to C3, and then the form in C3 becomes identical to that in C2. This phenomenon could be called “complementizer-driven doubling.” Of course, this

⁸ Note that, if this explanation is plausible, (38) and (39) should not be described as showing the direct doubling of grammatical forms. Rather, we should propose that the formal requirements of the complementizer are expanded to the clause C3.

phenomenon can hardly be interpreted in any obvious way under Zwicky's (1985) account. As mentioned in Section 1, when a subordinate construction is embedded in an external context (C1), only the higher clause (C2) has to undergo formal changes imposed by C1. The lower clause (C3) is (in the canonical case) insensitive to the requirements of C1.

Why is this non-standard type of doubling observed in Russian? Seemingly, it results from the fact that *kogda* has a very broad meaning and can introduce many types of taxis (see Mal'čukov 2001; Xrakovskij 2009; for a typology of taxis meanings possible in the languages of the world). Consequently, all three tenses (past, present, and future) can be used with *kogda* in the embedded clause, depending on the semantics of the main and embedded clauses:

- (41) a. *Kogda ja prid-u, ja emu pozvonj-u.*
 when I.NOM come.PFV-FUT.1SG I.NOM he.DAT call.PFV-FUT.1SG
 'When I come I'll call him.'
- b. *Kogda ja priše-l-Ø, ja emu pozvoni-l-Ø.*
 when I.NOM come.PFV-PST-SG.M I.NOM he.DAT call.PFV-PRS.1SG
 'When I came I called him.'
- c. *Kogda ja prixož-u, ja emu vsegda zvonj-u.*
 when I.NOM come.IPFV-PRS.1SG I.NOM he.DAT always
 call.IPFV-PRS.1SG
 'When I come I always call him.'

In other words, *kogda* imposes no restrictions on the verb form. In contrast, *čtoby* is only compatible with infinitives or *l*-forms (see Sections 2 and 3 above). This is why strong restrictions imposed by *čtoby* can extend to the *kogda*-clause as no conflicting restrictions are valid for the temporal clause.

Although the process of copying the form into the *kogda*-clause may appear to be completely mechanical, this is not the case. Not all verb forms automatically undergo doubling. For instance, Examples (34)–(36) show the doubling of *l*-forms to the temporal clause. No parallel doubling of infinitives from the argument clause C2 to the *kogda*-clause C3 is observed in Russian, meaning that examples like (42) (a revised version of (34), with infinitive in C2) are unacceptable⁹:

⁹ There are in fact examples where *čtoby* is used with infinitives and the infinitive pattern is also expanded to C3. However, this type of construction is very rare indeed and usually judged to be ungrammatical.

- (42) **Ja* *xoč-u*, *kogda* *prixodi-t'* *k* *sebe*
 I want.IPFV-PRS.1SG when come.IPFV-INF to self-DAT
domoj, *prinima-t'* *vann-u*.
 home take.IPFV-INF bath-SG.ACC
 Intended: 'I want to take a bath when I come (lit. 'when (to) come') home.'

Why does it seem that the infinitive (even with *čtoby*) is doubled more rarely than the "past tense"? A priori, there do not seem to be any formal rules blocking infinitive doubling in the language system as a whole.

The factor blocking the copying of the infinitive into a *kogda* clause seems to be its incompatibility with *kogda* outside doubling contexts. Normally, *kogda* is only compatible with finite forms (see (41)); an infinitive is hardly possible with *kogda* and other temporal subordinators outside doubling contexts, irrespective of whether the subject of the embedded clause is the same as or different from the subject of the main clause.¹⁰ A hypothetical doubling construction like (42) would find no parallels outside the doubling domain. This fact shows that doubling is not an automatic process by which a verb form can be copied from clause C2 to C3. Rather, the result of doubling should obey the general rules of clause combining: the verb form which is being copied should be compatible with the target of the doubling construction. *Kogda*-clauses are very often subject to doubling because they do not show any restrictions on the verb form when found outside doubling constructions. Thus, when syntactic doubling changes the verb form in C3 to the *I*-form in constructions like (34)–(36), it creates a structure which is possible in Russian outside doubling contexts.

Above I have shown that the strategy used in examples like (34)–(36) is not an instance of doubling proper. In the following section, I consider some types of doubling proper, just to show that a verb form can be copied for reasons unrelated to the influence of complementizers. Here I go beyond the main scope of the paper (argument clause constructions) in order to show that doubling strategies are in use in various types of structure.

4.2 Other types of doubling

In the previous section I showed that the type of doubling in tricausal structures under analysis is not doubling *sensu stricto*. The identity of verb forms results from the fact that the requirements of the complementizer are expanded from C2 into C3 (hence the proposed term "complementizer-driven doubling").

¹⁰ Note that there are some exceptions: for instance, the temporal subordinator *prežde čem* 'before' can host an infinitive embedded clause in same-subject contexts.

For the sake of comparison, in this section I illustrate more standard instances of doubling. Here the verb form is copied without any influence from a complementizer. Note that not all of these phenomena occur in tricausal constructions; however, they give a sense of the range of possible types of doubling found in the language.

In what follows I go beyond those constructions where C2 is an argument clause and C3 is a temporal clause. I show two types of doubling: (i) doubling in constructions where C2 and C3 form a comparative construction and are embedded under C1, as in [C1 *I can* [C2 *win more often* [C3 *than lose*]]] (4.2.1), and (ii) doubling in argument clauses of phasal verbs (where the phasal verb may be embedded under another verb), as in [C1 *I can* [C2 *begin* [C3 *reading some articles*]]] (4.2.2). I show that in all these cases, the verb form can be copied to the deepest embedded clause from the higher clause. The use of the form in C3 does not result from any subcategorization from a higher clause or predicate.

I describe each type of doubling only briefly due to the fact that they are only indirectly related to the main topic of the paper.

4.2.1 Doubling in constructions with a comparative degree of adverbials

In this section, I discuss doubling in tricausal adverbial constructions of comparison. In Russian, the subordinate clause in comparative constructions like ‘I win more often than lose’ is linked to the main clause by means of the subordinator *čem* ‘than’:

- (43) *Spartak-Ø* *vyigryva-et* *časčee* *čem*
 Spartak-SG.NOM win.IPFV-PRS.3SG often.COMPAR than
 proigryva-et.
 lose.IPFV-PRS.3SG
 ‘Spartak (a football club) wins more often than it loses.’

In biclausal constructions like (43), the TAM form in C2 is mostly the same as in C1.

In the tricausal comparative constructions under analysis, a comparative construction like that in (43) is embedded under a finite clause. If a converb is used in C2, the same form tends to be used in C3 as well. In the same manner, the use of an infinitive in C2 often leads to its use in C3 as well.¹¹

¹¹ Due to the lack of data, we do not consider doubling of other forms, such as participles, which may also be possible.

Converb doubling:

- (44) *Tak vot i roždaj-ut-sja svjat-ye//*
 so PART and be.born.IPFV-PRS.3PL-REFL saint-PL.NOM
Nenavidj-a žarče čem ljubj-a...
 hate.IPFV-CONV.PRS hot.COMPAR than love.IPFV-CONV.PRS
 ‘That’s how saints are born: they hate more ardently than they love’ (lit. ‘hating more ardently than loving’).
 (Varlam Shalamov. Bojarynja Morozova. 1950)

Infinitive doubling:

- (45) *Po predsezonn-ym matč-am my pokaza-l-i, čto*
 by preseason-PL.DAT match-PL.DAT we.NOM show.PFV-PST-PL COMP
mož-em vyigryva-t’ čašče čem proigryva-t’.
 can-PRS.1SG win.IPFV-INF often.COMPAR than lose.IPFV-INF
 ‘With our preseason matches we’ve shown that we can win (INF) more often than lose (INF).’ [i.e., ‘it is possible for us to win more often than lose’]. (www.championat.com/.../news-1620864-jortikka-admiral-pokazal-chto-mo...)

It should be noted that scholars do not treat comparative constructions as clear-cut examples of subordination, pointing out their intermediate status. For instance, Sannikov (2008) points out that these constructions have some typical coordination features: e. g., ellipsis is frequently found in the second part of the clause, which is more characteristic of coordinate constructions.

- (46) *Vasj-a plava-et kak ryb-a.*
 Vasja-SG.NOM swim.IPFV-PRS.3SG like fish-SG.NOM
 ‘Vasja swims like a fish [swims].’
 (elicited).

Of course, if comparative constructions are taken as a subtype of coordination, we should not analyze (44) and (45) as examples of doubling: it is natural for the verb form in two coordinate clauses to change simultaneously when they are embedded under an external head. However, some properties of comparative constructions in Russian serve to group them together with subordination, rather than coordination:

- There is a type of comparative construction in which the requirement imposed by the external context (the main clause C1) is applied to C2 only.

According to Zwicky (1985), this means that C3 is embedded under C2, and C2 is the locus of morphosyntactic marking.

- (47) *Ja xoč-u čtoby muž-Ø ljubi-l-Ø*
 I.NOM want-PRS.1SG PURP husband-SG.NOM love-PST-SG.M
menja sil'nee čem ljub-it svoj-u sestr-u.
 I.ACC strongly.COMPAR than love-PRS.3SG own-F.SG.ACC sister-SG.ACC
 'I want my husband to love me more than he loves his sister.' (elicited).

Here the marker *čtoby* in C1 only requires the verb in C2 to be in the *l*-form. The form in C3 can be in any finite form (in (47) this is the present indicative).

- A comparative clause with *čem* can be coordinated with another clause with *čem*. According to Shirjaev (1986), only subordination markers behave in this way in Russian.

- (48) *Ėt-o bol'se čem Tulin-Ø i čem družb-a.*
 this-NOM more than Tulin-SG.NOM and than friendship-SG.NOM
 'This is more than Tulin and (than) friendship.'
 (Daniil Granin. *Idu na grozu*. 1962)

Thus, the comparative construction has more properties of subordination than of coordination.

I claim that the parallelism of forms in C2 and C3 in (44) and (45) results from syntactic doubling. The reason is that the requirements of the external context (the verb in C1 *roždajutsja* '(they) are born' in (44) and *možem* '(we) can' in (45)) are imposed both on C2 and C3. Since C3 is embedded under C2, and not under C1 directly, the form presumably occurs in C3 as a result of doubling (see Haspelmath and König 1995; for the typology of converbs, and Weiss 1995; for a thorough analysis of Russian converbial constructions).

Another possibility would be to suppose that there are two instances of C1 in (44) and (45), but that one of them is elided. However, the analysis of examples like (44) as instances of ellipsis does not lead to a semantically satisfactory result, cf. (44'):

- (44') *The saints are born hating more ardently than they are born loving.*

In other words, comparative constructions seem to represent an example of canonical doubling, which is not induced by any requirements imposed by the complementizer.

4.2.2 Doubling in argument clause C3: *načat* ‘begin’ and similar verbs

Another type of doubling is represented by a construction involving the verbs *načat* ‘begin’, *dobit’sja* ‘reach, manage to’, *zanjat’sja/zanimat’sja* ‘occupy oneself with’, *dojti do* ‘go as far as’, and so on. Doubling is observed when these verbs host a construction with the correlative *to* (which means ‘that’ when used as a pronoun) and the complementizer *čto*.¹²

- (49) *Ja nača-l-Ø s togo, čto izuč-i-l-Ø*
 I.NOM begin-PST-SG.M with that.GEN COMP analyze-PST-SG.M
dokumentacij-u.
 documentation-SG.ACC
 ‘I began by analyzing the documentation.’
 (elicited)

The form of the matrix verb can be copied into the argument clause. Doubling is possible for infinitive (50)–(51), imperative (52)–(53) and subjunctive (54)–(55) forms of the matrix verb. Infinitive doubling takes place in tricausal constructions in which the phasal verb is in C2 and its form is copied to C3. The imperative variety of doubling takes place in biclausal constructions only. Finally, the subjunctive type is possible both for biclausal and tricausal constructions.

Infinitive doubling:

- (50) *Sledu-et nača-t’ s togo čto rasskaza-t’*
 necessary-PRS.3SG begin.PFV-INF with that.GEN COMP narrate.PFV-INF
komu-nibud’ o svo-ej problem-e...
 someone.DAT about own-F.SG.LOC problem-SG.LOC
 ‘I have to begin by telling you about my problem.’
 (www.segodnya.ua)

¹² For reasons of space, I do not consider here the main pattern observed with phasal verbs (in Russian and cross-linguistically), where the argument clause uses the infinitive, as in *He begins to cry*, and no doubling is observed. (See Engerer 2013; Volkov 2014; and others on the infinitival pattern.) Neither do I consider the variant of the same construction with the unreal complementizer *čtoby*. Without going into details, I should say that the form in the clause introduced by *čtoby* does not necessarily copy the form seen in the higher clause. For instance, the combination “*čtoby* + infinitive” is sometimes found in the presence of a past or future tense form in the higher clause.

- (51) *V èt-o vremj-a naparnik-Ø mož-et*
 in this-N.SG.ACC time-SG.ACC time-SG.NOM can.IPFV-PRS.3SG
zanima-t'-sja tem čto iska-t'
 occupy.oneself.IPFV-INF-REFL that.INS COMP look.for.IPFV-INF
podxod-Ø k vaš-im vešč-am.
 way-SG.ACC to your-PL.DAT thing-PL.DAT
 'Meanwhile, (his) mate can occupy himself with finding a way to (steal)
 your things.'
 (drivers-blog.ru/sovety/barsetochniki-kak-s-nimi-borotsya)

Imperative doubling:

- (52) *Načni-te s togo, čto u kraj-a*
 begin.PFV.IMP-PL with that.GEN COMP at edge-SG.GEN
každ-oj
 every-F.SG.GENMV.SG
zagotovk-i igolk-oj protkni-te po otverstij-u.
 blank-SG.GEN needle-SG.INS pierce.PFV.IMP-PL along hole-SG.DAT
 'Begin by piercing a hole with a needle at the edge of every product.'
 (Znachok, ktorogo ni u kogo net. Ximija i zhizn'. 1966)¹³

- (53) *Zajmi-s' tem, čto najdi*
 occupy.oneself.PFV.IMP.SG-REFL that.INS COMP find.PFV.IMP.SG
sebe ženix-a.
 oneself.DAT bride-SG.ACC
 'Occupy yourself with finding/looking for a bride.'
 (satway.ru)

Subjunctive doubling:

- (54) *On nepremenno nača-l-Ø by s togo čto*
 he.NOM obligatorily begin.PFV-PST-SG.M IRR with that.GEN COMP
popyta-l-Ø-sja by povernu-t' nazad koles-o
 try.PFV-PST-SG.M-REFL IRR turn.PFV-INF back wheel-SG.ACC

¹³ Interestingly, (52) and (53) violate the general prohibition on the use of imperatives in embedded clauses. Of course, this prohibition only applies to use of imperative forms as imperatives proper; the same forms can be embedded in other meanings. For instance, imperatives are widely used in conditional clauses like *bud' ja stroitel-em* [be.IMP I.NOM builder-SG.INS] 'if I were a builder.'

istori-i.

history-SG.GEN

‘He would necessarily begin by trying (lit. ‘with that he would try’) to turn the wheel of history backwards.’

(feb-web.ru/feb/tolstoy/critics/trk/trk-428-.htm)

- (55) *Lično ja zanja-l-Ø-sja by tem što*
 personally I.NOM occupy.oneself.PFV-PST-SG.M-REFL IRR that.INS COMP
ši-l-Ø by obuv’-Ø.
 sew.IPFV-PST-SG.M IRR shoes-SG.ACC
 ‘Personally, I would occupy myself with making shoes.’
 (delphimaster.net/view/14–1130122249)

Imperative and infinitive are prohibited for the embedded clause if the phasal verb is not marked for the same form. This is why (56), where the phasal verb is not marked for the infinitive mood, is ungrammatical with the infinitive in the embedded clause: the future indicative form, as in the main clause, must be used instead.

- (56) *Ja načn-u s togo, što *rasskaza-t’ /*
 I.NOM begin-PRS.1SG with that.GEN COMP narrate.PFV-INF
rasskaž-u vam...
 narrate-PRS.1SG you(PL).DAT
 ‘I want to begin by telling you...’
 (elicited).

Doubling of converbs is prohibited. No construction similar to (57) is possible:

- (57) **On pove-l-Ø sebja vežljivo, nača-v s*
 he.NOM lead-PST-SG.M self.ACC politely begin.PFV-CONV.PST with
togo, što poblagodari-v naučn-ogo rukovoditelj-a.
 that.GEN COMP thank.PFV-CONV.PST scientific-M.SG.ACC advisor-SG.ACC
 Intended: ‘He behaved politely, beginning by thanking his scientific advisor.’
 (elicited).

As shown in Section 4.2.1, the doubling of converbs is allowed in comparative constructions. This difference proves that doubling instances in various constructions are not grammatically identical.

4.3 Doubling and functional register

Since doubling has not been mentioned in grammatical descriptions of Russian, it should be pointed out that the different types of doubling seem to have a different status with respect to the written standard. The variants of doubling observed in temporal clauses, as in 4.1, are widely used in colloquial oral speech, spontaneous Internet texts and interviews. However, they are not found in literary texts and are found only rarely in periodicals (though examples can be found in newspapers). Thus, this type of doubling belongs to the colloquial rather than to the literary language system.

The version of doubling observed in comparative constructions (see 4.2.1) is rather rare because native speakers usually choose other ways of expressing the same meaning.

Finally, doubling constructions in argument clauses (4.2.2) are found in various functional varieties of Russian, though not all constructions and not all verbs of the type under analysis are used with an equal degree of freedom in doubling contexts.

4.4 Conclusion of Section 4

In this section, I have shown that there are instances where the verb form chosen in a given clause C influences the form in the clause C' embedded to C. More precisely, the form in the embedded clause repeats that found in the matrix clause. I call this phenomenon “syntactic doubling”. Doubling is mainly observed in tricausal constructions (the form in C3 repeats the form in C2), though there are also cases where the phenomenon occurs in biclausal (e. g., I have shown that doubling of the imperative can be observed in biclausal constructions with phasal verbs¹⁴).

Doubling can result from factors of two different types. The first factor is *syntactic*, namely, requirements of the complementizer in C2.

Doubling can be observed if the choice of the verb form in C2 is structurally motivated: for instance, in those Russian *čtoby* clauses in which the

14 It might be tempting to regard doubling in argument clauses as a phenomenon similar to serial verb constructions, such as those described in Sebba (1987), Aikhenvald and Dixon (2005). However, this does not seem to be the case. The difference is that one of the elements of serial verb constructions often lacks marking of morphological categories such as mood, tense, person and so on. In contrast, *načat'* in Russian is a fully-fledged verb: mood and tense marking is required on *načat'* itself (for instance, it allows the subjunctive mood) as well as on the embedded predicate.

subordinator requires an *l*-form in C2. If, at the same time, the subordinator in C3 does not impose any strict requirements on the choice of the form, the restriction applying to C2 can be expanded to C3 as well.

The other group of factors is *semantic*, applying more to the types of doubling analyzed in 4.2. There are two types of semantic motivation for doubling: (i) symmetry between the situations/participants in C2 and C3 and (ii) a high degree of affinity between the situations in C2 and C3 and non-autonomous status of the former.

(i) Symmetry

In comparative constructions, the semantics of comparison presuppose that the properties of the two situations are parallel to some degree and that the situations have the same semantic status for the speaker (otherwise it would not make sense to compare them). This is why it is functionally natural for the language to mark the members of the comparative constructions in the same way.

(ii) Non-autonomous status of the verbal event in C2.

In constructions with the phasal verb *načat* ‘begin’ and similar lexemes, the verb in C2 and its complement in C3 are referentially identical or almost identical: the verb ‘begin’ or ‘reach’ in C2 does not designate a separate situation, but simply interprets the event in C3 as the beginning or successful execution of some action.

Semantic factors (i) and (ii) are in a sense opposed to each other. Under (i), the doubling is motivated by the iconicity requirement (“what is similar and has similar status must be coded similarly”). Under (ii), the doubling is motivated by the tendency that “whatever is non-autonomous must inherit marking from its head”.

The following section does not deal with strategies for choosing the verb form in C3. Instead, Section 5 focuses on a general problem for the analysis of tricausal constructions, namely, constructions in which the structural position of C3 is doubtful.

5 Instances where the syntactic position of the third clause is not clear

A final note should be made regarding tricausal constructions. Along with examples where we can be certain that C2 is embedded under C1 and C3 is embedded under C2, there are many cases where it is unclear whether C3 is embedded under C2 (i) or under C1 (ii):

- (i) C1 [C2 [C3]] (clause C2 is embedded under C1, while C3 is embedded under C2)
- (ii) C1 [C2] [C3] (both C2 and C3 are embedded under C1)

This situation is represented by examples like (58)–(60). In those cases, the main predicate is a modal verb like *xotet'* or *xotet'sja* 'want'. C2 is an argument clause, embedded under C1. In turn, C3 is a purpose clause, and its syntactic position is unclear.

- (58) *On xote-l-Ø, čtoby vs-e poskoree*
 he.NOM want.PFV-PST-SG.M PURP all-SG.NOM faster
konči-l-o-s', čtoby vzdoxnu-t' poln-oj grud'-ju.
 end.PFV-PST-SG.N-REFL PURP breathe.PFV-INF full-SG.INS breast-SG.INS
 'He wanted everything to be over so that he could breathe freely at last.'
 (elicited)
- (59) *Mne xote-l-o-s', čtoby pobystree nasta-l-o*
 I.DAT want.IPFV-PST-SG.N-REFL PURP fast.COMPAR come.PFV-PST-SG.N
poslezavtra, čtoby opjat' poj-ti v bassejn-Ø.
 after.tomorrow PURP again go.PFV-INF to swimming.pool-SG.ACC
 'I wanted the day after tomorrow to come faster in order to go to the swimming pool again.'
 (wapbox.net/story.xhtml/anonymous/read/5523)
- (60) *Ali ...xote-l-Ø, čtoby Liston*
 Ali.NOM want.IPFV-PST-SG.M PURP Liston.NOM
podnja-l-Ø-sja, čtoby pobi-t' ego ešče
 stand.up.PFV-PST-SG.M-REFL PURP beat.PFV-INF he.ACC even
sil'nee.
 strong.COMPAR
 'Ali wanted Liston to stand up in order to hit him even harder (than before).'
 (ru.wikipedia.org/wiki/Мохаммед_Али_против_Сонни_Листона)

On semantic grounds, in Examples (58) through (60) C3 does not seem to be embedded under C1. The reason to claim this is that *xotet'* 'want' in (58) is a mental predicate denoting an uncontrolled emotion and, thus, rarely controls purpose constructions. C3 is a purpose clause, so the interpretation 'He wanted something in order to rest' (where C3 is embedded under C1) would be peculiar. As Schmidtke-Bode (2009) notes, the interpretation of purpose clauses in the

world's languages tend to require an agentive participant in the verb meaning. The same is even more obvious for *xotet'sja* 'want' in (59). *Xotet'sja*, a reflexive derivative of *xotet*, does not appear in contexts where the agent controls its volition (note that some examples of *xotet* exist where the verb bears the meaning 'express one's volition', rather than 'want', but this is never the case for *xotet'sja*). Example (59) does not presuppose that 'to go to the swimming pool' is the purpose of X's desire.¹⁵

An analysis where C3 semantically depends on C2 is not perfect either. Of course, in (58), the (spontaneous) fact that everything is over is not being depicted as having some inherent purpose. Similarly, in (60), it is hardly possible that Liston would be expected to stand up with the purpose of allowing Ali to hit him. However, the analysis in which C3 depends semantically on C2 becomes more natural if we assume that the purpose clause has a special reading here, which we term "necessary condition." The situation in C2 ('everything is over' in (58)) is necessary for the realization of C3 ('the subject breathes freely').

However, this variant is syntactically peculiar since there is no possible controller in C2 for the infinitive in C3. The possible controllers in Examples (58) through (60) are situated in C1. Recall that, in Russian, as noted in Section 4.1, purpose clauses marked by the subordinator *čtoby* can host infinitives or indicative verb forms. Infinitives are mostly used when the subject of the main verb is coreferential with the subject of the embedded clause, as in (61). Nonetheless, sometimes infinitives in the embedded clause are licensed by coreference of the subject of the embedded clause with an object of the main clause, as in (62) (for details see Avrutin and Babyonyshev 1997; Szucsich 2009; Szucsich 2010):

- (61) *Ja pozvoni-l-Ø roditelj-am, čtoby rasskaza-t' ob*
 I.NOM call.PFV-PST-SG.M parents-PL.DAT PURP tell.PFV-INF about
ët-om.
 this-SG.LOC
 'I called my parents to tell them about this.'

- (62) *Kručkov-Ø ne da-l-Ø Valentin-e mašin-y*
 Kruchkov-NOM NEG give.PFV-PST-SG.M Valentina-SG.DAT car-SG.GEN

¹⁵ Note, though, that in general, predicates with modal semantics like *xotet* 'want', *moč* 'can' and so on have a very specific set of properties resulting from their semantics and their tight connection to the main predicate (see, for instance Hansen 2004; Xolodilova 2013) – even in Slavic, where they do not constitute a special morphosyntactic verb class as they do in English, for example.

čtoby navesti-t' pisatelj-a.

PURP visit.PFV-INF writer-SG.ACC

'Kruchkov didn't give Valentina the car to visit the writer.'(www.litmir.co/br/?b = 3247&p = 88)

In (61), the zero subject (PRO) of the embedded verb *rasskazat'* is coreferential with the subject of the main clause *ja* 'I'. In (62), the zero subject of the embedded verb is coreferential with the indirect object of the main clause *Valentina*.

In examples like (58)–(60) above, however, no coreference is observed between the subject of C3 and an argument of C2. For instance, the verbs *končit'sja* 'be over' in (58) and *nastat'* 'come' in (59) only have one argument, the subject, which obviously is not coreferential with the subject of C3.

The fact that the infinitive form in C3 is nonetheless grammatically correct in both examples results from the coreference relation between C1 and C3. In (58), the subject of C3 is coreferential with the subject of C1, which makes the use of the infinitive possible. In examples like (59), the subject of C3 is coreferential with the indirect object of C1 (*mne* 'to me'). Thus, syntactically, C3 must be embedded under C1 – otherwise, the infinitive would not be licensed by any syntactic head.

We can postulate a special tricausal construction here. Its chief property is that the infinitive form is licensed by the experiencer of the modal state denoted by a modal verb in C1. Alternatively, the infinitive clause depends semantically on the C2 clause. Of course, C3 should not be analyzed here as a canonical purpose construction: a purpose clause cannot be anchored to a clause C2 with no agentive argument. The meaning of the *čtoby*-construction in C3 of Examples (58) through (60) is better described as one of "necessary condition", as stated above: the situation in C2 ('the day after tomorrow comes') is a condition necessary for the realization of C3 ('I go to the swimming pool'). Note that the type of construction where the position of the embedded clause (C3) in the syntactic structure is unclear can only be observed in tripartite constructions where there are two clauses (C1 and C2) above C3. Thus, the phenomenon addressed above is also specific to tricausal structures. Its peculiarity is that C3 depends on C2 in semantic terms, while its formal characteristics are motivated by C1. This phenomenon can be termed "mixed motivation" of C3.

6 Conclusions

I have endeavored to show that tricausal structures, including structures with argument clauses, sometimes manifest themselves as a special type of sentence,

whose properties cannot be explained as resulting from the combination of two independently attested bipartite constructions. This has been shown with a number of arguments exploring the special status of tricausal constructions.

First, our knowledge of the behavior of biclausal constructions is insufficient to predict the range of strategies used to mark the verb in C3 for tense. Of the three possible strategies, two are extremely interesting and specific to tricausal structures: in one of them (Variant 3 in Section 3), the usual absolute interpretation of tense gives way to a relative interpretation in C3 of the tricausal structure; in the other (Variant 2 in Section 3), there are two anchors for modality and tense marking, namely, a moment in the past and the moment of speech. Moreover, we saw that the strategy employed for C3 depends not only on C2, but also on the characteristics of C1. This variety of strategies provides important results for the typology of modality and syntactic typology. For one thing, we have established here that even if the second clause is marked for irrealis it is not necessary for the other clauses to denote unreal situations too. It is also evident that syntactic dependencies and relations can act even across three clauses: in some cases the range of marking strategies for C3 depends on the relationship between C1 and C2.

Second, there is a special syntactic phenomenon that mainly shows up in tricausal structures, called here “syntactic doubling.” The notion of doubling is used for cases when the verb form in the embedded clause repeats that found in the main clause, there being no specific requirement for a particular form in the embedded clause.

For instance, some cases exist in which the verb in C1 controls a complementizer which, in turn, restricts the verb form in C2, and this restriction can be expanded to the verb form in C3 (see Section 4.1). I called this type of doubling “complementizer-driven doubling.” This phenomenon, which strictly speaking should be considered a grammatical mistake, nevertheless calls for a description and shows that the third clause in tricausal structures is not autonomous with respect to C1 and C2. For the sake of comparison, in 4.2 I showed other, more standard types of doubling, which are not induced by the expansion of the complementizer features to C3. They are found in comparative constructions, where the infinitive or converbial form can be copied from C2 to C3 (Section 4.2.1), and in argument clauses hosted by verbs like *načat* ‘begin’ (Section 4.2.2), where infinitive, imperative or subjunctive can be copied. In the latter case, doubling serves as a type of complementation strategy, and this strategy very often manifests itself in tricausal constructions. The difference in the range of forms copied shows that doubling is not just an instance of formal copying, but a grammatical phenomenon with its own set of restrictions.

The doubling strategies investigated here, though syntactically and semantically distinct from each other, all highlight an important property of tricausal constructions: their “transparency.” Though C3 is not directly embedded under C1, the syntactic and semantic properties imposed by C1 often expand to C3, not just C2. Thus the whole construction is in a sense “transparent” for syntactic requirements and operations. The same transparency feature manifests itself in strategies of tense assignment: either the event in C1 or that in C2 can be an anchor for tense assignment in C3.

Finally, in Section 5 a serious problem for the analysis of tricausal structures was considered, in the shape of instances where it is not obvious whether C3 depends on C1 or C2. I showed that, in Russian, constructions with modal verbs are the most problematic from this point of view. In these constructions, infinitives in C3 seem to be licensed by the modal verb/component in C1: the experiencer of the modal verb (syntactically, a subject or an indirect object in C1) is coreferential with the zero subject (PRO) of C3, which makes the use of the infinitive possible. However, we cannot say that C3 modifies C1 semantically; rather, it is semantically related to C2, where C2 denotes a condition making the situation in C3 possible (cf. ‘I want [C1] the summer to begin [C2], (which makes it possible) to collect mushrooms [C3]).

Tricausal structures are rather problematic for Zwicky’s (1985: 6–7) notion of morphosyntactic locus. They show that the deepest embedded clause C3 is often influenced by the formal requirements imposed by the main clause C1. Zwicky does not say that C3 cannot be influenced by C1, but this case has definitely been overlooked in previous studies of subordinate constructions (with some exceptions, such as Kazenin and Testelet (2004).

To conclude, it should be noted that the view that the distinction between simple sentences and complex sentences covers the whole range of syntactic phenomena appears to be too optimistic. Syntactic typology should take structures into account where the number of clauses is more than two, and verify similarities and differences between these and more “usual” biclausal structures.

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Appendix. Abbreviations

1	1st person
2	2nd person
3	3rd person
ACC	accusative
ADJ	adjective
COMP	complementizer
COMPAR	comparative
DAT	dative
F	feminine
FUT	future
GEN	genitive
IMP	imperative
INF	infinitive
INS	instrumental
IPFV	imperfective
IRR	irrealis
LOC	locative
M	masculine
N	neuter
NEG	negation
PL	plural
PRS	present
PFV	perfective
PST	past
PURP	purpose marker/unreal complementizer <i>čtoby</i>
REFL	reflexive
SG	singular

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