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Contents

Abbreviations

1	First person
2	Second person
3	Third person
AA	animate attributive
ABL	ablative
ABS	absolutive
ACC	accusative
ACT	active
AFF	affective
AGR	agreement
ALL	allative
AOBL	oblique attributive
AOR	aorist
ATTR	attributive
AUX	auxiliary
CNT	count
COM	comitative
COP	copula
CVB	converb
D	determiner
DAT	dative
DEF	definite
DEM	demonstrative
DU	dual
EL	elative
ERG	ergative
F	feminine
FUT	future
GEN	genitive
I	noun class I
II	noun class II
III	noun class III
IN	in
INF	infinitive
INS	instrumental
IPF	imperfective
IRR	irrealis
IV	noun class IV
LOC	locative
M	masculine
N	noun
NDIR	non-directed
NEG	negative
NEUT	neuter
NH	non-human
NOM	nominative
OBL	oblique
P	adposition
PA	active participle
PFV	perfective
PFX	prefix
PL	plural
POSS	possessive
PRED	predicative
PRS	present
PRT	particle

PST	past	TOP	topic
PTCP	participle	TR	transitive
REFL	reflexive	V	verb
SG	singular	VBE	existential verb
SUPESS	superessive	VEXP	experiential verb

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Factivity and unreal contexts: the Russian case

Alexander Letuchiy

The article is focused on marking factive complement clauses in Russian (in particular, in constructions with emotional verbs) in unreal contexts. Contexts like these are especially problematic, since non-reality and factivity by nature constitute a logically strange combination. Factivity is associated with real contexts, and the degree of reality is equal for the matrix factive predicate and the complement event. However, as I will show, the two values are combinable. Importantly, the two ways of marking differ semantically, one of them being a default one, and the other one having de dicto special interpretation in most cases. This de dicto reading is facilitated by a sort of 'agreement' taking place between several components of the utterance: the participant NPs tend to have a non-specific reading, while the complement clause tends to be marked with subjunctive and has a maximally possible degree of non-reality.

12.1 Introduction

12.1.1 The notion of factivity

The notion of factivity and factive verbs has a long history in formal semantics and other semantic and grammatical studies (see P. Kiparsky & C. Kiparsky 1970, Karttunen 1971, Beaver & Geurts 2014).[12] It has been noted that the use

1 I don't consider here the distinction of strong vs. weak factive verbs, elaborated since Hooper 1975.

2 The article was prepared within the framework of the Academic Fund Program at the National Research University Higher School of Economics (HSE) in 2015- 2016 (grant № 15-01-0150) and

of some verbs, such as *znat'* 'know', requires that their complement is true:

(1) Peter knows that his mother is ill.

(2) Peter doesn't know that his mother is ill.

The dependent clause must represent a situation which takes place in reality. If Peter's mother isn't ill, than (1) and (2) are not true or false — they don't make sense. The complement of factive verbs has an important feature of presuppositions — the sentential negation does not influence it. (2) is a negation of (1), but the presupposition is still there: it is true that Peter's mother is ill.

In contrast, verbs like *believe* or *claim* are non-factive. Constructions like *Peter believes that his mother is ill* gives no clue if Peter's opinion is true or false — the sentence reflect nothing but his opinion. Cf. examples from Russian, where verbs of mental states like *dumat'* 'think' or *somnevat'sja* 'doubt' do not require that their complement is true:

(3) Ja dumaj-u, ty neprav-∅.
I.NOM think-PRS.1SG you.NOM wrong-M.SG
'I think that you are wrong.'

In (3), the dependent clause can come to be either true or false in reality.

A number of theoretical accounts have been proposed for the presupposition semantics and similar matters. For instance, van der Sandt (1989, 1992) proposed that presupposition is a type of anaphora. Simons et al. (2010) claim that a number of meaning components, other than a presupposition, behave in the same way (are projected, in authors' terms). Here belong, for instance, non-restrictive relative clauses and comment constructions, such as *Peter Martin, a teacher of linguistics, knows the problem very well.*

12.1.2 Factive verbs in non-real contexts

In this article, I will consider one problem related to factivity: namely, the behavior of factive verbs in 'non-real contexts'. The question is how factive verbs behave in contexts which imply non-reality of the whole situation, including the main and the embedded event.

One of the contexts like this is the context of condition. Consider the following situation: Peter wants to visit Jasmin and discusses with his friend,

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Lars, how Jasmin will react. Lars is sure that Jasmin will be glad to see Peter. In this case, he must say (see also Arutyunova 1976):[3]

(4) Jasmin obradu-et, esli ty pried-eš.
Jasmin.SG.ACC rejoice-FUT.3SG if you.SG.NOM come-FUT.2SG
'It will rejoice Jasmin if you come.'

Lars can hardly choose to say (5), with the default complementizer *čto* 'that', which normally marks complements of factive verbs in real contexts (such as 'I know that you are here' or 'He was upset that I was not here').[4]

(5) #Jasmin obradu-et, čto ty priexa-l-∅.
Jasmin.SG.ACC rejoice-FUT.3SG that you.SG.NOM come-PST-SG.M
'It will rejoice Jasmin that you came.'

The same is true if the matrix verb is in the subjunctive form. The variant with *čto* is not fully acceptable if it is not presupposed in the real word that the hearer came. In contrast, *esli* is possible:

(6) #Jasmin by obradova-l-o, čto ty priexa-l-∅.
Jasmin.SG.ACC IRR rejoice-PST-SG.NEUT that you.SG.NOM come-PST-SG.M
'It would rejoice Jasmin that you came.'

(7) Jasmin by obradova-l-o, esli by ty priexa-l-∅.
Jasmin.SG.ACC IRR rejoice-PST-SG.NEUT if IRR you.SG.NOM come-PST-SG.M
'It would rejoice Jasmin if you came.'

Weinreich (1963), Paducheva (1985, 2005), Giannakidou (2002) and others call this class of contexts *suspended assertion contexts* or *non-veridical contexts*. In non-real contexts of this sort (condition, imperative, subjunctive and so on) some factive predicates can become non-factive, because the presupposition is not valid for contexts like this. For instance, the predicate *pomnit'* 'remember' can be used as non-factive: saying 'I don't remember him writing this letter'

3 Let's say a few words on verb form choice in Russian argument clauses. In clauses with *čto*, the tense form is typically interpreted **relatively** to the time of the main event: for instance, the present tense is used to mark simultaneity of the event in the embedded clause to the event in the matrix clause. In argument clauses with *esli*, there are two options, the same as in conditional *esli*-clauses: (i) the subjunctive mood marked with the particle *by* + *l*-form ('past tense form') of the verb (ii) an indicative mood form, which is normally interpreted absolutely (mostly based on the speech act time).

4 Along with *čto*, there is a variant *to, čto* (a combination of the complementizer with the correlative *to*). The distribution of these variants is beyond the scope of my paper (see Knyazev 2012, Letuchiy 2012 for different accounts of this opposition).

can mean 'I don't remember it, because he didn't do it at all'. Thus, the presupposition 'the letter was written' is suspended (not valid) here.

However, the same is impossible for emotional verbs like *obradovat'* 'rejoice' in in examples like (5) and (6). Due to their semantics, emotional verbs like 'be glad' can only be used, if the stimulus situation takes place in reality. Otherwise we will not use the lexeme like English *glad* or Russian *radovat'sja* — we will simply say that a person is in a good humor. It is not possible either to say that the stimulus is a projected, in terms of Simons et al. (2010), not being a presupposition. If the speaker says, as in (5), that Jasmin would be glad, his/her utterance can only have a truth value if in a world where Jasmin is glad, it is presupposed that the addressee has come. Here and below I will use only emotional verbs which normally require a stimulus to be presupposed, at least in some possible world.

Thus, though it may seem that (5) and (6) are awkward in the 'non-real' use due to the fact that it is a non-factive context, this is not the case in reality. Note that the construction with a deverbal noun is possible both in a real contexts of the type (8) and a non-real context, such as (9):

(8) Jasmin obradova-l-∅ tvoj-∅ priezd-∅.
Jasmin.SG.ACC rejoice-PST-M.SG your-M.SG.NOM coming-SG.NOM
'Your arrival rejoiced Jasmin was glad because of your coming.'

(9) Jasmin obradova-l-∅ by tvoj-∅ priezd-∅.
Jasmin.SG.ACC rejoice-PST-M.SG IRR your-M.SG.NOM coming-SG.NOM
'Jasmin would be glad because of the fact that you (would) come.'

In (8), the speaker knows that the hearer came, thus, a canonical real context is represented here. In (9), the hearer has not yet come (and perhaps won't come at all), but the speaker knows that if the hearer came, the Jasmin would be glad because of it. Thus, in the non-real context, a deverbal noun can also be used. In contrast, in situations where the matrix verb denotes a situation which has already occured, but the presupposition does not hold, the deverbal noun is ungrammatical, just as the sentential argument:

(10) #Jasmin ne zna-et o priezd-e Petr-a.
Jasmin.SG.NOM NEG know-PRS.3SG about coming-SG.LOC Peter-SG.GEN
Ved' Petr-∅ ne priexa-l-∅.
PRT Peter-SG.NOM NEG come-PST-SG.M
'Jasmin does not know about Peter's coming, in fact, Peter did not come.'

(11) #Jasmin ne zna-et, čto Petr-∅. priexa-l-∅. Ved'
Jasmin.SG.NOM NEG know-PRS.3SG that Peter-SG.NOM come-PST-SG.M PRT
Petr-∅ ne priexa-l-∅.
Peter-SG.NOM NEG come-PST-SG.M
'Jasmin does not know that Peter came. In fact, Peter did not come.'

Note that examples (5) through (7) are not non-factive: it is impossible to say something like 'Jasmin would not be glad because of your coming, though / even if you didn't come'. If the stimulus situation does not occur, the whole sentence cannot be assigned a truth value — thus, the stimulus is presupposed in a possible world where Jasmin is glad. We discuss Jasmin's emotional reaction in a world where the stimulus event took place, yet we must mark it explicitly that the stimulus event will not necessary come true (if not, there is no sense to discuss Jasmin's reaction).

Thus, it is impossible that contexts like (5–7) are non-factive. The embedded event is simply non-real. The presupposition is valid only **in one of possible worlds** which will not necessarily come to be true.

Let us interpret (5) in the following way: 'In the possible world where you will come, Jasmin will be glad because you came'. In this way, we see that the predicate *rad* 'glad' does not cease to be factive: the emotion 'be glad' can only emerge if the stimulus event took place. Note that in the world where you came, the component 'you come / came' holds even if the matrix predicate is negated, as in (12), which also points to its presupposition status:

(12) Jasmin ne bud-et rad-a, esli ty pried-eš.
Jasmin.SG.NOM NEG be-FUT.3SG glad-F.SG if you.NOM.SG come-FUT.2SG
'Jasmin won't be glad if you come.'

In (12), as in (6), we discuss the possible world where it is presupposed that the addressee will come. In this case, the negation does not influence the fact that the embedded event is true.

In other words, *rad* is factive in (12), and a non-standard marking of the sentential argument is due to the fact that *čto*-arguments with factive verbs can only restrictedly appear in the real context.

12.2 *Esli* as argument and adjunct marker

Let me now say a few words concerning the conditional and the 'argument' use of *esli* 'if'.

In its main (the most frequent and prominent) use, *esli* marks the antecedent of conditional clauses. It is used in all types of conditional clauses: real (13), unreal (14) and counterfactual (15):

(13) Esli ty pried-eš, my pogovor-im.
if you.SG.NOM come-FUT.2SG we.NOM talk-FUT.1PL
'If you come, we will talk.'

(14) Esli by sejčas vypa-l-∅ sneg-∅ my by poš-l-i
if IRR now fall-PST-SG.M snow-SG.NOM we.NOM IRR go-PST-PL
kata-t'-sja na lyž-ax.
ride-INF-REFL on ski-PL.LOC
'If it snowed now, we would go skiing.'

(15) Esli by ty včera ne opozda-l-∅, mog-∅ by
if IRR you.SG.NOM yesterday NEG be.late-PST-SG.M can.PST-SG.M IRR
pozdravi-t' Petj-u.
congratulate-INF Petja-SG.ACC
'If you had not been late, you would have been able to congratulate Petja.'

The conditional clause marked by *esli* is a canonical case of adjunct clause: it can usually be omitted and does not contribute to the valency of the matrix verb.

The construction with *esli*, analyzed in this paper, can be termed 'argument' *esli*-construction, since it fills a valency slot of the matrix predicate. Constructions of this type with generalized conditional markers are found in many European languages, such as German, English and so on (see Fabricius-Hansen 1980, Schwabe 2013 for details). Here I do not consider the question of syntactic relation between argument and non-argument uses.

The construction under analysis could in principle be claimed to be a subtype of conditional adjunct clauses. Semantically, *esli* in adjunct clauses, such as (13–15) is very close to its argument uses in (4) and (7). In both cases, *esli* introduces a possible world component into the meaning of the utterance.

However, some properties of argument *esli*-clauses make it close to adjunct conditional clauses.

- Argument *esli* is not interchangeable with other conditional markers, while adjunct *esli* is. For instance, *v slučae esli* 'in the case if' is possible in (16):

(16) V slučae esli ty pried-eš, tebja arestuj-ut.
in case-SG.LOC if you.SG.NOM come-FUT.2SG you.SG.ACC arrest-FUT.3PL
'In the case if you come, you will be arrested.'

The same is not true for argument uses. Only *esli*, but not *v slučae esli*, can be used in contexts like (17).

(17) *Jasmin obradu-et, v sluča-e esli ty pried-eš.
Jasmin.SG.ACC rejoice-FUT.3SG in case-SG.LOC if you.SG.NOM come-FUT.2SG
Intended: 'Jasmin will be glad if you come.'

In other words, only *esli* has a use we are talking about, i.e. the argument use. The other conditional marker is only used in an standard adjunct conditional clause, but not in argument constructions like (17).

- Argument *esli* is impossible if the predicate lacks a valency slot for a sentential argument.

(18) Esli my vyigra-em et-o povys-it naš-i šans-y.
if we.NOM win-FUT.1PL this-NOM.SG.NEUT increase-FUT.3SG our-PL.ACC chance-PL.ACC
'If we win, it will make our chances higher.'

(19) *Naš-i šans-y povys-it esli my vyigra-em.
our-PL.ACC chance-PL.ACC increase-FUT.3SG if we.NOM win-FUT.1PL
Intended: 'If we win, it will make our chances higher.'

The verb *povysit'* cannot have a reason argument expressed by an embedded clause. This is why, while (18) with an adjunct clause is perfect, (19) with an argument clause is ungrammatical. Thus, the use of *esli* we deal with here must fill a valency slot of the matrix verb, and its combinational potential is restricted to a subset of predicates and contexts, which is more typical of argument than of adjunct clauses.

- For argument *esli*-clauses, the position after the matrix clause is obligatory, while conditional proper clauses can be situated before, after or

inside the main clause. For instance, in (20), the embedded clause can be posed after the main one. The same is impossible for (21), where the argument *esli* (see Pekelis 2008, Serdobolskaya 2011 showing that in Russian, as well as typologically, the linear position is more rigid for sentential arguments than for sentential adjuncts):

(20) Esli ty pried-eš, my pogovor-im.
if you.SG.NOM come-FUT.2SG we.NOM talk-FUT.1PL
'If you come, we will talk.'

(21) *Esli ty pried-eš, Jasmin ne ponrav-it-sja.
if you.SG.NOM come-FUT.2SG Jasmin.SG.DAT NEG like-FUT.3SG-REFL
Intended: 'If you come, Jasmin will not like it.'

Note that in what follows , I consider the use of *esli* both in the IO position of intransitive Experiencer-subject verbs, such as *obradovat'sja* 'be glad' and in the subject position of transitive Stimulus-subject verbs, such as *obradovat'* 'rejoice'. In reality, the syntactic status of *esli*-clauses can be different. For instance, with Experiencer-subject verbs *esli*-clauses can sometimes occupy the initial position, thus not entirely corresponding to the criteria of 'argument' *esli* (see property 3 in the list above). However, this difference is not really relevant for me, because I primarily address the relations existing between *esli*- and *čto*-constructions.

12.3 The use of *čto* in unreal contexts

In this section, which is central for my paper, I will consider the cases where the default argument clause marker *čto* can be used in unreal contexts, thus violating the general rule, formulated for examples like (5) and (6). I will show that some semantic features of the sentence (de dicto reading of some elements, non-specificity of participants) facilitate the use of *čto*.

12.3.1 Non-specific participant context

The first case where the use of *čto* in unreal contexts are not prohibited is constituted by constructions with a non-specific experiencer. Consider the following pair:

(22) Vs-ex bes-it, #čto / esli on-i ne priznan-y.
all-PL.ACC drive.crazy-PRS.3SG that / if they-NOM NEG recognized-PL
Intended: 'It drives everyone crazy if he is not recognized (i.e. by the society).'

(23) Každ-ogo bes-it, ?čto / esli on ne priznan-∅.
each-SG.ACC drive.crazy-PRS.3SG that / if he.NOM NEG recognized-SG.M
'It drives anyone crazy if he is not recognized (i.e. by the society).'

In (22), the use of *čto* seems to be fully prohibited in the non-specific meaning 'It drives anyone (of not known class of people) crazy if they are not recognized', because the pronoun *vse* 'everyone' typically refers to a specific set of persons. The variant with *čto* in this example can only be possible if the situation in the embedded clause is real: we are speaking of a specific class of people of who we know that they are not recognized (e.g., 'In our group of students, nobody is recognized. It drives everyone of us crazy'). In (23), *čto* can be used (though maybe a bit worse than *esli*) due to the fact that *každyj* 'anyone' can refer to a non-specific set of persons. (23) can even be understood as a logical law, though at some particular time there can be no individual, for whom the formulation is valid.

It is also important that *čto* is as felicitous as *esli* in contexts including experiencer-oriented components. For instance, in (24) the diminutive form *mamočka* 'mummy' is apparently oriented to the experiencer (the child who calls his mother in such a way). Another experiencer-oriented component is *opjat'* again: only the child, and not the speaker can interpret the occurrence of the situation as repeated. This is why *čto* is well compatible with the context:

(24) Ljub-ogo rebenk-a ogorča-et, čto mamočk-a opjat'
any-M.SG.ACC child-SG.ACC upset-PRS.3SG that mummy-SG.NOM again
serd-it-sja.
be.angry-PRS.3SG-REFL
'It upsets any child that his mummy is angry again.'

Therefore, it should be claimed that the use of *čto* in unreal contexts creates or facilitates a *de dicto* reading. For instance, the use of *ty* 'you' in (24) is much less probable than *mamočka* 'mummy'. This results from the fact that *mamočka* is interpreted *de dicto* ('experiencer's mummy'), while *ty* is interpreted *de re* ('the addressee of the speaker').

12.3.2 The 'role' context

Importantly, there is a context which is compatible with *čto* even under an unreal operator, which I call the 'role context'. I mean the context where the speaker takes on a mask of another person, proposes the addressee to do it or imagines any other (most typically, non specific) person to be in the same situation. For instance, utterances like *And you, would you be happy if you son fell ill one day before the trip* belong to the role type.

I distinguish two subtypes of the role context: in the first one, the role-taker is specific (usually it is the addressee, as in the example above, or the speaker), in the second one, (s)he is non-specific (cf. *Who would reject a plan like this?!*, meaning 'Nobody would reject a plan like this').

The addressee / speaker subtype

Let us first consider the subtype where the role-taker is specific. For instance, (25), with *čto*, and (26), with *esli*, are both felicitous in the context where the addressee is supposed to take over someone's role:

(25) [Petja is worried by the fact that his son is last in the class].
A ty by ne pereživa-l-∅, čto tvoj-∅ syn-∅
and you.SG.NOM IRR NEG worry-PST-SG.M that your-M.SG.NOM son-SG.NOM
postojanno poluča-et dvojk-i?
constantly get-PRS.3SG F-mark-PL.ACC
'Wouldn't you worry about the fact that your son constantly gets F-marks?'

(26) A ty by ne rasstroi-l-∅-sja, esli by tvoj-∅
and you.SG.NOM IRR NEG be.upset-PST-SG.M-REFL if IRR your-M.SG.NOM
syn-∅ postojanno poluča-l-∅ dvojk-i?
son-SG.NOM constantly get-PST-SG.M F-mark-PL.ACC
'Wouldn't you be upset if your son were constantly getting F-marks?'

The context is unreal, because the speaker does not claim that the addressee really has a son who really gets F-marks. (S)he only asks if the addressee would be upset by his/her son's marks in a possible world where his/her son gets F-marks. However, the marker *čto* can be used here, as in (25).

The same is true for 'role'-constructions where the speaker poses himself to the place of the subject:

(27) Mne by ne ponravi-l-o-s' čto v mo-ix veš̌č-ax
I.DAT IRR NEG like-PST-SG.NEUT-REFL that in my-PL.LOC thing-PL.LOC
ry-l-∅-sja postoronn-ij čelovek-∅.
rummage-PST-SG.M-REFL alien-M.SG.NOM person-SG.NOM
'If a stranger rummaged in my things, I wouldn't like it.'

There is an important property of role contexts which is responsible for their ability to choose *čto* instead of *esli*. Consider (28), where the *čto*-clause contains a possessive phrase:

(28) Tebe by ponravi-l-o-s' čto tvoj-a devušk-a
you.SG.DAT IRR like-PST-SG.NEUT-REFL that your-F.SG.NOM girl-SG.NOM
kur-it?
smoke-PRS.3SG
'Would you like it if your girlfriend smoked?'

Possessive phrases normally have a presupposition that the possessor has a possessee, marked in the sentence. For instance, the NP 'your girlfriend' presupposes that the addressee has a girlfriend. However, in constructions like (28), this requirement is not valid. Moreover, the default reading of (28) is that even if the addressee does really have a girlfriend, the speaker does not mean any specific girlfriend.

In *esli*-clauses, the situation is different. A construction, analogous to (28), but with *esli*, can denote either the specific girlfriend or a non-specific one.

i. The addressee really has a girlfriend. The speaker asks him whether he liked it if his girlfriend smoked.

ii. The speaker asks the addressee if he liked (hypothetically) that a girlfriend he would have smokes.

The following tendency, which may seem counterintuitive, seems to regulate the use of *čto* and *esli* in the role context: the less specific the possessee is, the more probable is the use of *čto*. It is a bit unexpected, given that in examples like (5) and (6) it is *esli*, and not *čto*, which is possible in unreal context.

Note that the use of *čto* is also probable if the experiencer is non-specific (see on *kto*-constructions below) and if the situation has a very low reality degree. The real explanation of a strange combination of *čto* with non-specific participants is that *čto* in examples like (25) and (27–28) is intended to introduce

an unreal situation, which is non-characteristic of this complementizer. This is why the referential status of NPs in the embedded clause should be non-specific, since the non-specific status is better compatible with unreal situations.

The use of an NP referring to a specific object facilitates the *de re* reading and the 'real' interpretation of the utterance, which the speaker in (25–28) did not mean. If the NP refers to a non-specific object, this facilitates the *de dicto* reading (see Kallfelz 2007, Cieśluk 2010 for similar analysis of the relation between the de re / de dicto interpretation and the use of pronouns).

It is well-known that the specificity feature is correlated with the narrow vs. wide scope distinction (see Lyons 1999: 168–169, among others). For instance, Lyons points out that existential quantifiers can be interpreted as specific (in this case they have wide scope) or non-specific (with narrow scope).

(29) John didn't meet a stranger.

a. **Specific interpretation, wide scope:**
$\exists x(\text{stranger}(x) \wedge \neg\text{met}(\text{John}, x))$('John didn't meet some specific stranger')

b. **Non-specific interpretation, narrow scope:**
$\neg\exists x(\text{stranger}(x) \wedge \text{met}(\text{John}, x))$('John didn't meet any stranger')

It seems that the narrow scope facilitates the *de dicto* reading, which, in turn, makes the use of *čto* in unreal contexts possible. In (30), the narrow scope reading of (29) is represented, where the girlfriend is non-specific.

(29′) the non-specific reading of (29):[5]
$\textsc{quest}(\text{like}(\text{you}, p) \wedge p = \exists!x(\text{girlfriend}(\text{you}, x) \wedge \text{smoke}(x)))$

The hypothetical wide scope reading is given in (30), yet this interpretation is much more natural for the unreal complementizer *esli* than for *čto*: here the girlfriend the speaker means is specific:

(29″) the specific reading of (29):[6]
$\exists!x(\text{girlfriend}(\text{you}, x)) \wedge \textsc{quest}(\text{like}(\text{you}, p) \wedge p = \text{smoke}(x))$

The non-specific subtype: *kto*-constructions

Along with the role context where the actual situation is hypothetically applied to the hearer or the speaker, there is another variant of the role construction

5 I use the QUEST abbreviation to mark the utterance as a question.

6 The same opposition between the specific and non-specific readings of the possessee is relevant for *kto*-contexts (see the next section). Details are omitted there due to the lack of space.

with the interrogative pronoun *kto* 'who' and the negative polarity item *nikto* 'nobody'. The speaker estimates the existing situation and claims that nobody will react to it in a particular way.

(30) Da i k-omu by ponravi-l-o-s' čto ljubim-yj
PRT and who-DAT IRR like-PST-SG.NEUT-REFL that beloved-M.SG.NOM
ispolnja-et kapriz-∅ neznakom-oj devušk-i?
fulfil-PRS.3SG caprice-SG.ACC unacquainted-F.SG.GEN girl-SG.GEN
'Who would like that the person they love obey all commands (lit. caprices) given by a girl they do not know?' (i.e., 'nobody would like it').

Notably, the percent of speakers which judge the use of *čto* in modal contexts like (30) in *kto*-constructions is much greater than for the hearer- or speaker-subtype, illustrated by (25) and (27)-(28). Constructions like (25) and (27)-(28) of the speaker/addressee subtype are accepted by 40% native speakers with future in the main clause and 74% with subjunctive forms in the main clause, while for *kto*-constructions the proportion is 81% for the future and 86% for the subjunctive.

This difference calls for an explanation. It may seem more natural if *kto*-constructions tended to be only compatible with *esli*: the subject of the mental act is non-specific, thus, the mental act itself is even 'less specific' than in the cases when the speaker or the hearer must imagine themselves in the same situation (cf. (28)). Note, however, that the tendency lying beyond the distribution of clause types with *kto* is the same as the one holding for the possessee in role contexts: the less specific a participant is, the more probable is the use of *čto*.

The situation is not as paradoxical as it may seem. With *kto* and *nikto*, the pronoun itself shows that the situation is unreal. This is what makes the use of *čto* possible: no parasitic 'real' reading is possible. In contrast, if the speaker or the hearer is posed as a hypothetical participant of the situation, the construction with *čto* can well be interpreted as 'Will you be surprised that your son smokes?' ('the speaker knows that the hearer's son really smokes'). Recall that non-specific elements tend to have narrow scope, which, in turn, facilitates their *de dicto* interpretation.

12.3.3 Future vs. irrealis paradox

The heterogeneity of the class of unreal contexts becomes evident if we compare the uses of complementizers with future tense and with subjunctive mood.

Future tense has been long claimed to be a mixed category, combining tense and modal components (see Fleischman 1982, Bybee, Perkins & Pagliuca 1994, Plungian 2011 on the intermediate place of future between tense and modality). If a person says: 'I will go to London tomorrow', he cannot claim it with the same degree of certainty as he does when describing a past event ('I went to London yesterday').

At the same time, if we compare the use of the Russian future with the subjunctive mood form, which includes a past tense form with the suffix *-l* and the particle *by*, we will find out that the degree of reality is much greater for future forms. Future can express objective claims about events which will necessary take place (e.g., *Zavtra budet prazdnik* 'Tomorrow will be a holiday'). In contrast, the uses of subjunctive, such as condition, volition, necessity and so on, have to do with hypothetical, unreal or counterfactual semantics.

It may seem that unreal and counterfactual TAM forms constitute a more natural context for the use of unreal complementizers like *esli*, than real ones. However, rather unexpectedly, both *esli* and *čto* are found with conditional forms in the main clause. In contrast, if the main verb has a future form, *esli* is much more probable in the embedded clause and is judged as much more acceptable by native speakers.

The survey shows that only 39% of the native speakers consulted (18 out of 46) regard the sentence with future marking of the matrix verb (31) as acceptable. In contrast, example (32) with the subjunctive form in the matrix clause are accepted by 33 out of 46 native speakers (72%):

(31)

A	tebe	ponrav-it-sja,	čto	tvo-ego	syn-a	v
and	you.DAT	like-FUT.3SG-REFL	that	your-M.SG.ACC	son-SG.ACC	in
škol-e	bj-ut?					
school-SG.LOC	beat-PRS.3PL					

'Will you like it if your son was beaten at school (constantly)?'

(32)

A	tebe	by	ponravi-l-o-s',	čto	tvo-ego	syn-a
and	you.DAT	IRR	like-PST-SG.NEUT-REFL	that	your-M.SG.ACC	son-SG.ACC
v	škol-e	bj-ut?				
in	school-SG.Loc	beat-PRS.3SG				

'Would you like it if your son was beaten at school (consistently)?'

The variants with *esli* do not differ from each other in the speakers' rate of acceptability (93% for the variant with the subjunctive form and 85% for the

one with the future form).

Note that the distinction between the future and the subjunctive is basically of the same type as the one observed between specific vs. non-specific participants (recall that with specific participants, the use of *čto* is less probable). The subjunctive explicitly marks that the situation is non-real — thus, the irreality does not obligatorily have to be marked by the complementizer choice. The future is not restricted by non-specific unreal situations, thus, *esli* is used to mark that the situation is unreal.

In other words, in the mood domain, the same paradox is observed, as in the domain of specificity (see above): the less specific / real is the situation (in the former case, we dealt with the specificity / real existence of participants), the more probable is the use of *čto.* This paradox is accounted for, provided that non-specific components have a narrow scope and facilitate *de dicto* readings. The use of *čto* is possible if the embedded situation is interpreted *de dicto*, from the point of view of the experiencer in a possible world.

12.3.4 Aspectual class of the complement situation

As I have shown, the TAM marking of the matrix verb is relevant for the choice of complementizer. In turn, the features of the stimulus situation, namely, the aspectual class, also influence this choice. With repeated and habitual situations, *čto* is more felicitous than with states and dynamic situations taking place. For instance, (34) with a repeated situation, is better than (33), where the situation occurred once (33% of positive judgements for (33), and 47% for (34)):

(33) A ty by ne rasserdi-l-∅-sja, čto tvoj-∅
and you.SG.NOM IRR NEG get.angry-PST-SG.M-REFL that your-M.SG.NOM
syn-∅ priše-l-∅ domoj pjan-yj?
son-SG.NOM come-PST-SG.M home drunk-M.SG.NOM
'Wouldn't you be angry if your son came home drunk?'

(34) A ty by ne serdi-l-∅-sja, čto tvoj-∅
and you.SG.NOM IRR NEG be.angry-PST-SG.M-REFL that your-M.SG.NOM
syn-∅ prixod-it domoj pjan-yj?
son-SG.NOM come-PRS.3SG home drunk-M.SG.NOM
'Wouldn't you be angry if your son used to come home drunk?'

Again, the distinction observed here matches the referentiality and modality distinctions pointed at above. The less specific is the situation (repeated situations are less specific than punctual and stative ones), the more probable is the use of *čto*. It seems that the specificity of the situation makes the real interpretation of a construction with *čto* more probable.

12.3.5 'Specificity agreement'

As shown above, the use of *čto* in unreal contexts is subject to several restrictions (though neither of them are to be interpreted as strict grammatical rules):

- non-specific experiencer;
- non-specific possessee, if there is any (the existence of the possessee is not presupposed);
- mainly unreal (subjunctive) marking of the matrix verb;
- mainly iterative or habitual aspectual meaning.

These tendencies seem to be paradoxical when applied to *čto*. The complementizer is specified for factive real contexts with verbs like *radovat'* 'rejoice'. So why are its uses in unreal contexts specified for the "most unreal" and the "least specific" readings? Let us repeat the possible answer here.

In reality, there is no paradox in all cases listed above. **If the maximal set of non-real diagnostic contexts feature in the sentence, no ambiguity seems to occur: the 'real' semantics of *čto* does not conflict with the non-reality of the embedded situation, since the situation is interpreted 'de dicto': the emotional attitude of the experiencer is real in a possible world, where the embedded situation (with its participants) takes place at all**.

For instance, if both the experiencer and the possessee are non-specific (as, for instance, in 'Who would like it if his/her son were beaten'), it is evident that the situation is non-real. If no specific participants are listed, no specific real situation can be meant by the speaker. This facilitates the possible world reading of the *čto*-construction. No element is real, nothing disagrees with the possible world contexts.

If there is a specific component of the situation (for instance, the experiencer is definite and specific, or the situation takes place only once), the

presuppositions do not agree with each other. One can, of course, imagine a reading like 'Would you like it if your (non-existing) son were beaten'. However, the fact that one of the participants (the experiencer 'you') is real and specific, facilitates a real reading. This is partially due to the fact that specific components of the utterance often have wide scope, and the unreal reading is easier if all elements have narrow scope.

Thus, the opposition between real vs. unreal contexts is relevant for the sentential argument marking. Normally, *čto* is used if the complement of the factive verb denotes a real situation, and otherwise *esli* should be chosen. However, *čto* is sometimes used in unreal contexts if the embedded event is interpreted *de dicto*, inside the possible world where this event is supposed to take place.

The difference between *čto* vs. *esli* seems to reflect a perspective difference: *esli* marks irreality and its interpretation is based on the **irreality of the whole situation**. It is not obligatory for the use of *esli* that the participants of the embedded situation are non-specific — only this situation is unreal. *Čto* marks the situation as real, because the situation is interpreted from the point of view of the experiencer, **who is herself inside the possible world**. This is why the participants of the embedded situation have to be interpreted *de dicto* and, most typically, to be specific.

Contrary to argument clauses, deverbal nouns normally do not show sensitivity to the real vs. unreal opposition, as can be seen in (8) and (9). In the following section I will demonstrate that the same difference between sentential arguments with complementizers vs. deverbal nouns manifests itself in another type of contexts, called 'radical negation': these contexts are compatible with deverbal nouns and incompatible with sentential arguments.

12.4 Radical negation

Kustova (1996), Paducheva (2005) discuss so-called radical negation. This type of negation is specific in that not only the assertion, but also the presupposition is denied. For instance, in (35), the usual negation shows up:

(35) On-∅ menja sovsem ne rasstroi-l-∅ t-em, čto
he-NOM I.ACC at.all NEG upset-PST-SG.M that-SG.INS.NEUT that
opozda-l-∅.
be.late-PST-SG.M
'He didn't upset me at all by his being late.'

The assertive component of semantics of the verb *rasstroit'* 'upset' is denied here: the speaker is not upset. The presupposition is left intact, as it is usually the case with presuppositions: example (35) is only interpretable and has a true value, if it is true that the person spoken about was late.

The radical negation is exemplified by example (36). Not only the assertion ('the teacher is upset') is negated here, but the same is true for the presupposition: Petja will not be late at all:

(36) Petj-a bol'še ne bud-et obiža-t' učitel-ej
Petja-SG.NOM more NEG AUX-FUT.3SG offend-INF teacher-PL.ACC
svo-imi opozdanij-ami.
own-PL.INS being.late-PL.INS
'Petja will never more offend the teachers by his being late.'

Paducheva (2005) shows that the (im)possibility of the radical negation depends on many factors including the verb itself, the TAM form and the context in the wide sense.

Importantly, the description of the radical negation given by Paducheva and Kustova is mainly built on examples with deverbal nouns, such as *opozdanie* 'being late' in (36). Crucially, the situation with sentential arguments introduced by complementizers is rather different.

The negative construction with factive verbs combined with the factive complementizer *čto* is normally unable to have a radical interpretation. If it were available, we would expect (37) with the given interpretation to be possible:

(37) #Petj-a bol'še ne bud-et obiža-t' učitel-ej
Petja-SG.NOM more NEG AUX-FUT.3SG offend-INF teacher-PL.ACC
t-em, čto opazdyva-et.
that-SG.INS.NEUT that be.late-PRS.3SG
'Petja will never more offend the teachers by his being late.'

However, this interpretation is impossible. Example (37) can only mean that Petja will be late, but this will no longer offend his teachers. In other words, negation of the factive sentential argument with *čto* can only have the usual, and not the radical interpretation. Only the 'normal' negation, as in (38), is allowed.

Note that the contrast between (36), with a radical negation reading, and (37), which lacks this interpretation, cannot be addressed in terms of factivity. With factive verbs like *serdit'sja* 'be angry', *besit'* 'drive crazy', and so on,

both deverbal nouns and sentential arguments denote a situation which is presupposed. We cannot claim that the construction with *čto* in (37) is in any sense 'more factive' that the deverbal noun construction in (36).

(38) Petj-a ne obide-l-∅ menja t-em, čto
Petja-SG.NOM NEG offend-PST-SG.M I.ACC that-SG.INS.NEUT that
opozda-l-∅.
be.late-PST-SG.M
'Petja did not offend me by his being late.'

The explanation seems to lie in the fact that sentential arguments, contrary to deverbal nouns, are marked for tense. Since the noun *opozdanija* in (36) is not tense-marked, it can be interpreted as a non-specific event. In (36) and similar examples, the NP *svoimi opozdanijami* denotes 'being late as a class of events, some of which have already taken place, while some could hypothetically occur in the future or will not occur at all'.

The same is impossible for sentential argument constructions. Both constructions with the complementizer *čto* 'that' and with a combination *to, čto* 'the fact that' are marked for tense. Thus, whenever a sentential argument is used, it is anchored to some temporal localization, depending on which form is used (of course, if the matrix verb is factive). In other words, if we use a sentential argument in (37), the embedded clause being marked for the present tense, this means that Petja is late in some moment simultaneous to the moment of speech or time of the main event 'insult the teachers', thus having one of the regular readings of present tense forms. In any case, it is impossible to use sentential arguments in contexts like (37) without any temporal localization at all, in the same way as the deverbal noun is used in (36).[7]

The same distinction seems to lie behind the fact that *čto*-clauses are only used in unreal contexts like (30) under a special *de dicto* interpretation and mainly when the participants of the embedded situation are non-specific. Since *čto*-clauses are tensed, they mark by default an event which took place at some time in reality. Note, though, that the prohibition for the use of *čto* with radical negation is stricter than the restriction on unreal contexts, where *čto* is sometimes used in examples like (30). The difference can be formulated in the following way:

7 In Russian argument clauses with *čto*, the tense form is interpreted relatively, i.e., based on the localization of the situation with respect to the situation in the main clause.

- Radical negation requires a presupposed component to be negated. By default, it is excluded for sentential arguments, since the tense-markedness requires that the situation has a temporal localization;

- In contrast, the use in an unreal context does not require that the presupposition is canceled. Though the whole construction is interpreted in a possible world, in this world, the situation can be localized. For instance, in the sentence 'Who would be glad that his son gets F-marks' the sentential argument means 'his son gets F-marks at the reference point' — in other words, the situation has a temporal localization, simultaneous to the localization of the main event ('who would be glad').

12.5 Conclusions

In this paper, I have addressed the behavior of factive verbs in non-real contexts: I have focused on contexts where the complement of factive verbs comes to be true only in a possible world. I have found out that nominal and sentential arguments behave in a very different way in this sort of contexts. While nominal arguments are marked in the same way when marking a real situation and when being under an entailment-cancelling operator, sentential arguments are marked in different ways.

Nonetheless, there is no reason to claim that predicates become non-factive in contexts like this. We should rather consider that tense-marked constituents, when combined with factive predicates, by default get a real temporal interpretation. To use factive predicates in a possible world, a special marker *esli* is used, which marks that the whole situation (the factive mental act and the presupposition) occurred in a possible world.

Thus, it turns out that the real / unreal opposition of the components of factive verbs exists separately from the factive / non-factive opposition. Verbs like *radovat'sja* 'be glad' or *nravit'sja* 'like' are by nature factive — however, the default complementizer *čto* marks the reality of the complement situation (and not factivity). This is why a special marker *esli* must be used when the embedded situation is unreal.

However, the use of the factive complementizer *čto* is not fully excluded either. The difference between *čto* vs. *esli* reflects a perspective difference: *esli* marks irreality and its interpretation is based on the irreality of the whole situation. *Čto* marks the situation as real, because the situation is interpreted from the point of view of the experiencer, who is herself inside the possible world.

Note that the use of *čto* is the more possible, the more non-specific and unreal the situation is. It may seem rather unnatural and counterintuitive, given that normally *čto* denotes a real situation, and, correspondingly, is compatible with specific participants more than *esli*. The reason seems to be that the use of *čto* requires a *de dicto* reading. The speaker marks the situation as real, because she observes the situation from the perspective of the experiencer. To facilitate the *de dicto* reading, all components of the embedded clause must be 'agreed' to each other in that they have a non-specific reading: in that way, the precise identity of the participant or the instance of the situation can be chosen *de dicto*, for the possible world where the experiencer participates in a situation and perceives and estimates its components in a particular way. This is why the experiencer itself is mainly non-specific (i.e., interpreted separately for each instance of the situation), the possessee is non-specific too (its existence is not presupposed), the mental act is most often unreal (marked by the subjunctive), and the stimulus situation is repeated (i.e., it is also non-specific).

This 'agreement' in non-specificity seems to be a strategy which the language uses in order to make the non-standard (unreal) interpretation of *čto* easier for the speakers.

Recall that non-specific components can have a narrow scope reading (see, for instance, Lyons 1999: 168–169). This, of course, facilitates the *de dicto* reading. In contrast, the specific interpretation makes the *de re* reading easier due to the wide scope that specific components have (though the *de dicto* reading is also possible for many native speakers).

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