

Entailments and implicatures of aspectual forms

1. Review of the problem of aspect

It is worth reviewing the most crucial conclusions concerning Russian aspect and aspect in general that have been made so far.

1.1. Event structure¹

Plungian [Плунгян 2003] distinguishes 5 most important fragments of a situation from the point of view of "linear aspectuality". These are:

beginning (the moment of transition from a state 'situation doesn't take place' to a state 'situation does take place')

end (the moment of backward transition)

middle (the period of time between the beginning and the end)

preparation phase (a state that is characterized as being so that there are some indications of the beginning of the situation)

resulting phase (a state which comes after the end of the situation)²

1.2. Semantic types of predicates

Also the following semantic types of predicates are distinguished, and in particular Russian verbs are conceptualized as being either states (состояния) or processes (процессы), telic processes and atelic processes (предельные и непредельные), and events (события).

The crucial point is that Russian imperfective and perfective aspects are strictly distributed between these types.

Perfective verbs always denote events (we might even say that they are meant for denoting events) while imperfective verbs may denote any of the three types of phenomena: states, processes and events³ [Зализняк, Шмелев 2000: 36].

1.3. Event from the point of view of the event structure

All the attempts to explicate it (perfective aspect) express somehow or other the idea of the change of situation, a view from outside on some borderline on the other side of which there appears a new situation⁴ [Анна Зализняк, Шмелев 2000: 34].

It means that the conception of perfective must always include the change of situation, and in Plungian's classification of event structure the change of situation happens either in the *beginning* or in the *end*.

¹ We will see the confusion of these two terms: *event* as a semantic type of predicate and *event* as a situation in the whole used in the term "event structure". I don't know how to replace it, so the ambiguity will remain.

² *начало* (момент перехода от состояния 'ситуация не имеет места' к состоянию 'ситуация имеет место')
конец (момент обратного перехода)

середина (промежуток между началом и концом),

подготовительная стадия (состояние, такое что имеются признаки начала ситуации) и

результатирующая стадия (состояние, наступающее после конца ситуации).

³ Глаголы совершенного вида всегда обозначают события (можно сказать, что они предназначены для обозначения событий), а глаголы несов. вида могут обозначать любое из трех типов явлений: состояния, процессы и события

⁴ Все попытки его (совершенный вид) эксплицировать так или иначе выражают идею смены ситуаций, взгляда извне на некую границу, за которой возникает новая ситуация.

2. The choice of aspect as selection

Selection is to be understood as making visible a relevant part of an event and making it accessible to truthconditional evaluation at a certain interval of time ('точка отсчета'/TO) that may be located after that relevant part of the event or within that part of the event (retrospective/synchronous), thereby distinguishing different groups of aspectual readings. Selecting a certain part of an event does not mean dropping or cutting of the rest of the event, rather **selection means 'asserting' and leaving the other parts of that event for presupposition or implicature** [Sonnenhauser].

When we choose perfective aspect which always denotes an *event*, we focus on the *change of situation* part of the event, which means that we select the beginning or the end of some situation.

When we choose imperfective aspect we focus on some other part of the event. Imperfective in Russian can denote an event, and it happens in its "общефактическое значение". Therefore appears the so-called "конкуренция видов": both imperfective in its "общефактическое значение" and perfective in its "конкретно-фактическое значение" can denote the same situation. How can this happen if perfective and imperfective focus on different things?

- (1) Ты показывал Kate пис'мо ?
2sg to_show.IPFV Katya.DAT letter
- (2) Ты показал Kate пис'мо ?
2sg to_show.PFV Katya.DAT letter

The difference here is in the interpretation: "общефактическое значение" of imperfective aspect makes an accent on the very fact, while "конкретно-фактическое значение" of perfective – on its relevant consequences⁵ [Анна Зализняк, Шмелев 2000: 26].

In the terms of event structure, with imperfective we focus on the *middle* part, on the interlocutor showing the letter to Katya.

With perfective we focus on the *end* part: before the event happened Katya was in the state of not knowing of the content (or existing) of the letter. After she was shown the letter, she entered in the state of knowing of its content (or existing), which means that she *changed her state*, and it has some relevant consequences.

As for selection meaning 'asserting' and leaving the other parts of that event for presupposition or implicature, we will see it proved in the following section.

3. Semantic and pragmatic rules of making entailments and implicatures

Let's consider event structure of the verb *sdavat* (*examen*).

Table 1
Sdavat' (*ekzamen*)

1	2	3	4	5
preparational phase	beginning	middle	end	resultant phase
have the exam	begin taking the	the exam being	to pass the exam	have the exam

⁵ Общефактическое значение несов. вида делает акцент на самом факте, а конкретно-фактическое значение сов. вида – на его релевантных последствиях общефактическое значение несов. вида делает акцент на самом факте, а конкретно-фактическое значение сов. вида – на его релевантных последствиях

not passed	exam	taken (the process)	(get a mark)	passed
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Since we are not discussing inchoatives or completives, we do not focus on the point when the process of passing the exam started and stopped, what is important is the fact that the state somehow changed. We can reduce the scheme to the following:

Table 2
Sdavat' (ekzamen)

preparational phase	middle	resultant phase
have the exam not passed	the exam being taken (the process)	have the exam passed

Imperfective verbs denote states and activities that are not necessarily completed. **Perfective verbs denote change of state** from performing the activity to completing the activity. **Being in the achieved state entails existence of the former stage of activity**, but not vice versa. Therefore, in positive sentences, a change of state (perfective verb) entails previous activity (imperfective verb) (3), but activity (imperfective) does not entail a change of state (perfective) (5). The opposite holds for the negative sentences: **absence of activity entails absence of a change of state** (4), but not vice versa (6) [Levinson 2005: 3].

- (3) *Vasya sdal ekzamen => Vasya sdaval ekzamen*
- (4) *Vasya ne sdaval ekzamen => Vasya ne sdal ekzamen*
- (5) *Vasya sdaval ekzamen =/> Vasya sdal ekzamen*
- (6) *Vasya ne sdal ekzamen =/> Vasya ne sdaval ekzamen*

Vasya sdal ekzamen
Vasya passed.PFV examen

The verb '*sdavat'/'sdat'* can hardly be translated to English: they may mean in different context *to take* or *to pass*. It must be always taken into consideration that the gloss 'passed' doesn't exactly mean *passed*.

Vasya ne sdal ekzamen
Vasya NEG passed.PFV examen

Vasya sdaval ekzamen
Vasya passed.IPFV examen

Vasya ne sdaval ekzamen
Vasya NEG passed.IPFV examen

Let's consider entailments.

- (3) *Vasya sdal ekzamen => Vasya sdaval ekzamen*
- (4) *Vasya ne sdaval ekzamen => Vasya ne sdal ekzamen*

Perfective verb denotes all the situations giving way to one another. For example, '*Masha vymyla pol*' (Masha washed.PFV floor) is true if and only if it is true that the floor was dirty, that Masha washed it and that (as a result) the floor is clean⁶ [Анна Зализняк, Шмелев 2000: 33].

⁶ Глагол сов. вида описывает все сменяющие друг друга ситуации. Так, *Маша вымыла пол* истинно только тогда, когда истинно, что пол был грязен, что Маша мыла пол, и истинно, что (в результате этого) пол чист.

So if Vasya passed the exam, it means that he did all the things that happen before that: he had the exam not passed, he tried to pass it, he managed to. If the whole event took place, then all its parts took place, too. Metaphorically I'll speak of the event and its parts "being true". Consider basic rules of truth values in conjunction:

Table 3

A	B	A and B
F	F	F
T	F	F
F	T	F
T	T	T

If Vasya didn't even try to pass the exam, it implies that he didn't pass it. The whole event cannot be true if one of its parts is not true.

Considering an event as a sequence of situations in the event structure, if an event includes one part, it includes all the previous parts, and if an event excludes one part, it excludes all the following. We cannot get to a certain state, a certain position in the event structure if we have not surpassed all the previous. If we have not surpassed a certain position, we cannot move any further in the event structure. We can summarize it the following way:

If X phase of an event is true, it entails that all the previous phases are true, too.

If X phase of an event is false, it entails that all the following phases are false, too.

Let's consider (5) and (6).

(5) *Vasya sdaval ekzamen => Vasya sdal ekzamen*

(6) *Vasya ne sdal ekzamen => Vasya ne sdaval ekzamen*

In the case of (6) we cannot entail anything, but we can implicate (conventionally) that Vasya tried to pass the exam, but didn't manage to. Here the Gricean Maxims play crucial role.

(7)

A: *Vasya sdal ekzamen?*

B: *Net, Vasya ne sdal ekzamen.*

A:

A on ego voobshe sdaval ?
and he.NOM he.ACC at_all passed/took.IPFV

B: *Da/Net.* – Yes/No

In this case if A asks the question in perfective it means that he doesn't know the truth value of the resultant phase of the event, and he holds in mind (pragmatically presupposes) that all the previous phases are true. If it hadn't been so, if he hadn't been sure about the truth value of the middle phase, he would have asked in imperfective.

Answering in perfective, B lets A confirm his presupposition that Vasya took the exam, and as Vasya does not have it passed, therefore, he failed. But the presupposition might as well be not true – the answer in perfective satisfies such variant, but only in part. It satisfies the Maxims of Quantity (B says as much as required), but it doesn't help in avoiding ambiguity and therefore Maxims of Manner (A concludes other thing).

(8)

A: *Chto u Vasi s ekzamenom?* – What's up with Vasya's exam?

B: *Vasya ekzamen ne sdal / ne sdaval.*

In this case A seems not to know anything about the exam except the fact that it was to take place, and therefore needs full information. Now if B said *Vasya ekzamen ne sdal*, meaning that he didn't even try to, he would violate both Maxims of Manner and Maxims of Quantity. Therefore such an answer is impossible in the case if Vasya didn't even try to pass the exam and B knows about it and the second one (*Vasya ekzamen ne sdaval*) is the only possible answer.

Let's formulate the Gricean Maxims applied to making implicatures from aspectual forms in the terms of event structure and logical rules.

Maxims of Manner (avoid ambiguity).

To ask a question the speaker must choose as strong form as possible. That is: if the speaker knows the truth of all the phases except the resultant one, he must ask his question in a form so that the full answer would cover the resultant phase – that is, in perfective. If he knows about the truth of the preparational phase, he must ask a question in a form so that the full answer would cover the middle phase, but only it, so it must be imperfective, otherwise the negative answer in perfective wouldn't give him the information required (7). If the speaker doesn't know anything about the situation, he must choose the most general form of the question, that is, avoiding any verb form (8).

To answer such a question the speaker also needs to choose as strong form as possible; if there is inevitable ambiguity, it is for the hearer to settle it and he chooses the strongest interpretation possible. Perfective always denotes that the whole event took place, there is one and only interpretation. The strong interpretation of imperfective is that the speaker knows that the middle phase took place and doesn't know if the resultant phase took place or not. The weak one is that he knows that both the middle and the resultant phase took place. **Ad hoc hearer interprets imperfectives in a strong way.**

In negative sentences negative imperfective has only one interpretation that both middle and resultant phases are false. The strong interpretation of negative perfective is that the middle phase took place but not the resultant one. The weak one is that both the middle and resultant phases are being made. **Ad hoc the hearer interprets a negative perfective sentence as being strong**, but the weak interpretation is possible, hence (7).

Let's consider first Maxims of Quantity (say as much as required).

The speaker must use at least the weakest form in case it satisfies the request in the form it was expressed and satisfies the Maxim of Quality.

In sum: the entailment and even the implicature *Vasya sdal ekzamen => Vasya ne sdaval ekzamen* never works, but sometimes a conversational implicature *Vasya ne sdal ekzamen => Vasya sdaval ekzamen* does work.

In the case of (5), implicatures do work sometimes, too.

The interpretation of a telic verb always includes aside from the aspect a following implication: a situation is characterized as being such as if nothing interrupts it (or if it finishes successfully), the situation will lead to an appointed resulting state⁷ [Падучева 2009: 385].

So if the common knowledge is such that we know that the situation will never stop or will always end successfully, we can (conventionally) implicate from a telic process the realization of its limit.

⁷ В толкование предельного глагола независимо от вида входит следующая импликация: ситуация характеризуется как такая, которая, если она не прекратится (или если закончится успешно), приведет к определенному итоговому состоянию.

(9)

A: *Vasya uzhe sdaval ekzamen?*

B: *Da.*

A: *I chto on poluchil?* – What did he get?

But in general we do not know if the situation would stop or not, if there would be some luck or not, so in general we do not implicate: *Vasya sdaval ekzamen* => *Vasya sdal ekzamen*. The reason for that is Maxim of Manner and Maxim of Quantity. If the speaker knows that Vasya has passed the exam, to avoid ambiguity and to be as informative as required he would prefer saying *Vasya sdal ekzamen* rather than *Vasya sdaval ekzamen*.

If the speaker says *Vasya sdaval ekzamen*, the hearer reasons that by using a weaker statement the speaker is guided by the Maxim of Quality and doesn't have enough information whether Vasya has passed the exam or not and therefore doesn't imply that Vasya has passed the exam..

4. Conclusion

Rules of making entailments:

(3) *Vasya sdal ekzamen* => *Vasya sdaval ekzamen*

(4) *Vasya ne sdaval ekzamen* => *Vasya ne sdal ekzamen*

If X phase of an event is true, it entails that all the previous phases are true, too.

If X phase of an event is false, it entails that all the following phases are false, too.

Rules of making implicatons:

(5) *Vasya sdaval ekzamen* =?> *Vasya sdal ekzamen*

(6) *Vasya ne sdal ekzamen* =?> *Vasya ne sdaval ekzamen*

With the use of the Table 3 we can see that for (5) if one of the parts of the event is true, it doesn't entail that the whole event is true, for it can be either true or false. But as we have seen, we can implicate (conversationally) the truth of the whole event. As we remember, the implication in (5) is very weak and not productive and depends on the common ground rather than on universal properties such as Gricean Maxims.

As for (6), with the use of the same Table 3 we can see that if the whole event is false, it doesn't entail that all of his parts are false, for they can be either true or false. But we have seen in 3 how with the use of Gricean Maxims we can make implicatures such as *Vasya ne sdal ekzamen* => *Vasya sdaval ekzamen*. The mechanism is following. In the case of ambiguity there is a certain strategy: supposing that the speaker satisfies the Maxim of Manner, **the hearer interprets a sentence in a strong way.**

The structuring of an event and the basic rules of truth values in conjunction can help predicting entailments and implicatures.

References

Анна А. Зализняк, А.Д. Шмелев. 2000. Введение в русскую аспектологию. Москва: Языки русской культуры.

Е.В. Падучева. 2009. Статьи разных лет. Москва: Языки славянских культур. 375-394, 417-427.

- В.А. Плу́нган. 2003. *Общая морфология. Введение в проблематику*. Москва: УРСС. 245-249, 291-308.
- D. Levinson. 2005. Imperfective of imperative and genitive of direct object: Grammaticalization of aspect and case due to emphatic negation in Russian and other Slavic languages. Ms. Stanford.
- B. Sonnenhauser. Aspect in Russian and Turkish: semantics and pragmatics of a grammatical category.