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TAXONOMIC CATEGORIES AND SEMANTICS OF ASPECTUAL OPPOSITION

1. *Taxonomic categories*

This paper belongs to an area that may be called post-vendlerian aspectology. My objective is to predict the semantics of the aspectual opposition of a Russian verb on the basis of the lexical semantics of the verb in question - first of all, on the basis of the verb's **taxonomic category** (T-category), this term being used as a rough equivalent of Z.Vendler's aspectual class, so that states, activities, accomplishments and achievements, see (Vendler 1967), may serve as examples of T-categories.

The role of T-categories in semantics can only be compared with the role of parts of speech in grammar. Vendler demonstrated that T-categories may be used in order to describe efficiently co-occurrence restrictions - in syntax and in morphology; cf., e.g., differences in combinability of a verb with time modifiers - accomplishments and not activities combine with adverbials denoting time of completion, example (1); activities and not accomplishments combine with adverbials of duration, example (2):

- (1) a. *napisal za dva chasa* 'wrote in two hours';
b. **spal za dva chasa* '*slept in two hours';
- (2) a. *spal dva chasa* 'slept for two hours';
b. **napisal dva chasa* '*has written for two hours'.

Another fact discussed by Vendler - non-combinability of verbs of state with the form of the Progressive in English:

(3) *He is knowing the answer.

There is, still, an important side of the notion of T-category that Vendler did not take into consideration: the T-category of a verb reveals itself in the **format of definition**, which is common to all verbs of the same T-category. E.g., the lexicographic definition of a verb of action necessarily includes the following semantic components: "activity" (the Agent was doing smth with a Purpose), "causation", "result (corresponding to the Purpose of the Agent)"; thus, e.g., the meaning of the verb *open* in (4) can be paraphrased - in the spirit of (Wierzbicka 1980) - as follows:

(4) *John opened the window* =

Exposition: Object was not open

I. activity: Subject was doing smth with a Purpose

II. causation: (I) CAUS (III)

III. process: a process in Object was taking place: synchronous to the activity of Subject; having a Limit

IV. result (coinciding with the Limit; corresp. to the Purpose): the state began and is preserved at the Moment of Speech (MS): Object is open.

Components "activity", "causation" and "result" are necessitated by the format of definition of a verb of action, while, e.g., component "process" does not belong to the categorial ones.

Now, it can be easily demonstrated that similarities of co-occurrence restrictions (or combinatory possibilities) of verbs of one and the same T-category are but a consequence of the identity of the format of definition. For example, *napisal za dva chasa* 'has written in two hours', example (1a), is possible because the idea 'was doing smth and finished it when the goal was reached' is present both in the meaning of the verb in the Pfv *napisat'* and in the meaning of the modifier of the time of completion *in two hours*. On the other hand, the meaning of *spat'*, Ipfv, example (1b), is not connected with the idea of completion inherent in the meaning of the modifier.

Thus, T-categories may be characterized by means of the format of definition of their members, and common co-occurrence restrictions are but a consequence of common features of meaning.

The problem of describing semantic relations of a verb with its aspectual counterpart may be reduced to the following two questions:

- 1) whether or not a verb may have an aspectual counterpart;
- 2) the semantic contents of the aspectual opposition if the counterpart does exist.

Our general assumption is that both the existence of an aspectual counterpart and the semantics of the opposition is predictable on the semantic basis; in other words, formulations in semantic terms are claimed to be effective, so that a dictionary, if it contains sufficient semantic information, can mention only exceptions (from general rules), which are relatively few. As an example of such an exception one may take verbs *utverzhdat'* 'assert', *otricat'* 'deny': they have no correspondent Pfv, though semantically they belong to the same class as *trebovat'* 'demand', *sprashivat'* 'ask' which do have correspondent Pfv, Isachenko (1960: 305), cf. existence of Pfv forms of verbs meaning 'state' and 'deny' in other languages, e.g. in Italian. Another example - from Maslov (1948): the absence of the corresponding Ipfv for the verbs *ochnut'sja*, *vstrepenut'sja* - they could have had a corresponding Ipfv with the iterative meaning, as is the case, e.g., with *naxodit'*, *sluchat'sja*. (On the other hand, for such verbs as *sploxovat'* iterative counterpart may be questioned on semantic grounds.)

In some cases the T-category is insufficient for aspectual predictions and we must profit from subcategorial components of the lexical definition. In general, there is a hierarchy of categories to which a verb belongs, so if there is no solution at the categorial level it may be sought for on the lower ones.

Two notions should be defined before we finish with introductory remarks.

1) **Aspectual pair** is constituted by two verbs, one in the Pfv, another in the Ipfv, satisfying the following condition, see (Maslov 1948): the verb in the Ipfv must be able to express - perhaps among its other meanings - the meaning of iteration of the situation denoted by the Pfv. (Another criterion - supposedly extensionally equivalent to the first one: the Ipfv must be substitutable for the Pfv in the context of praesens historicum.) Thus, *otkryt'* - *otkryvat'* 'open' constitute an aspectual pair because we can say, e.g., *On vseгда otkryvaet okno po utram*, where Pres. Ipfv *otkryvaet* means 'otkryt', Past Pfv + habitually'. On the other hand, *schest'* - *schitat'* 'believe' do not constitute a pair because here the verb in the Ipfv, even in

the context of iterativity, does not acquire the meaning of the Pfv (*Ty vseгда schitaesh', chto ja neprava* = 'schitaesh + habitally', not 'schel + habitually'). Or take the verb *predpochest'* 'prefer, Pfv': Ipfv *predpochitat'*, exists but it denotes a disposition, i.e. a stable state or even a property, so that, e.g., *On predpochitaet molchat'* can not mean 'preferred many times'.

2) **Lexeme** is a word taken in one of its meanings. All our formulations concern lexemes and not words. At our present state of knowledge very many words must be split - in order to get a lexicographic definition - into several different lexemes (e.g., *lovit'* in *lovit' babochku*, action, and in *lovit, rybu*, activity, are different lexemes). The unity of word would have been restored if we had better known the laws of semantic derivation (= systematic polysemy) in language.

2. Primary and derived T-categories

Thus, the format of definition is our first stone added to the elegant edifice of Vendlerian verb classification. Now about the second one. Categories should be introduced not as an unordered set but by a calculus. We make a distinction between the primary categories and the derived ones. For the primary categories their formats of definition are fixed in advance; e.g., the format of definition for verbs of action is clear from (4). Every derived category must be provided with a rule that generates definitions of verbs of this derived category from the definitions of the corresponding primary one. And the rule bears the format of definition in itself.

Where does the notion of derived category come from?

The fact is that the very first attempts to use Vendler's classification in Slavic aspectology posed several problems.

Problem 1. It is evident that *postroit' <dom>* 'to build <a house>' or *narisovat' <kruzhocek>* 'to draw <a circle>' are accomplishments; but where does the corresponding Ipfvs belong? Vendler's classification has no room for them.

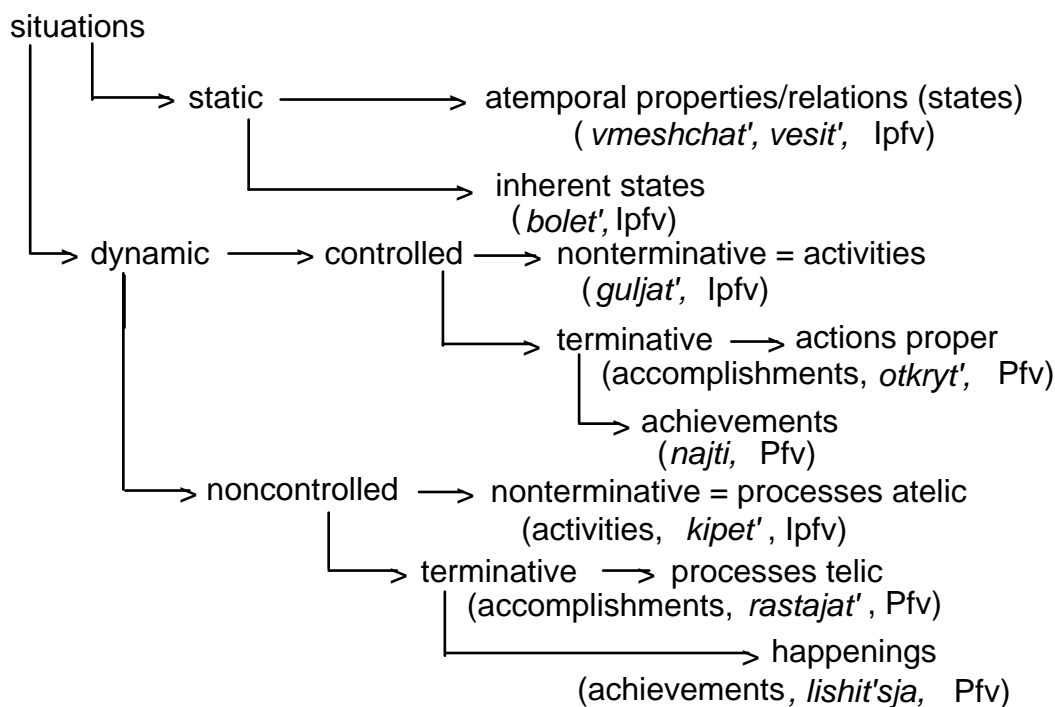
Problem 2 was elegantly posed by M. Flier: delimitatives (*pospat'* 'sleep for a while', *pokurit'* 'smoke for a while') are not accomplishments - e.g., they co-occur with adverbials of duration (*pospal polchasa* 'slept for half an hour'); but they are not achievements either - on the same pretext. So where do they belong?

The puzzle dissipates if we take into account the fact that Vendler classified primary uses of verbs. As for English, it is clear that such verbs as *wash* or *open* in their primary use denote an action "in its completeness", while their use in the form of the Progressive has nothing to do with **lexical** taxonomy: this use belongs to the competence of grammar.

Now in Russian it is not clear in advance that the Ipfvs *otkryvat'*, *stroit'* corresponding to Pfvs *otkryt'*, *postroit'*, are derived entities. But if we make such an assumption then lexical taxonomy of Russian verbs becomes much more transparent.

See below the hierarchy of primary T-categories that is presumably universal (at least for the "average European" languages). Indeed, it is rather a classification of situations than of verbs, though a class of verbs naturally stands behind each class of situations. The direction of derivation is different in different types of aspectual pairs, so both aspects are involved.

Hierarchy of primary T-categories



There are eight terminal categories in our hierarchy instead of Vendler's four. In fact, three additional categories arise because Vendler was exclusively interested in verbs with human subjects. Thus, activities, achievements and accomplishments have, each of them, a counterpart in the class of non-controlled situations: non-controlled activity = atelic process; non-controlled accomplishment = telic process; non-controlled achievement = happening. The fourth additional category is due to the fact that states proper are distinguished from atemporal properties and relations, cf. opposition of *see*₁ 'now', state, and *see*₂ 'able to see', e.g., after eye operation, property, in Vendler (1967).

The scheme above represents a certain cut-through in the real hierarchy of categories. We can as well make use of hypercategories (e.g., action = action proper or achievement; momentary verb = achievement or happening; transition = process or happening); and of subcategories, cf., e.g., a subcategory of many-act activities, such as *to wave*, *to cough* belonging to the category of activities).

Now about derived categories. They can be classified according to the type of the rule that provides the definition to its members.

1) Derived members of aspectual pairs get their definitions from grammar, namely, from the definitions of aspectual meanings. For example, *otkryt'*, Pfv, belongs to a primary category, while for the corresponding Ipfv, *otkryvat'*, that belongs to a derived category, its definition is supplied by a grammatical rule, see below.

2) For verbs belonging to marked actionalities (Aktionsarts) their format of definition is provided by word-formation rules. E.g., *guljat'* belongs to a primary category, while the meaning of *poguljat'*, belonging to a derived category Delimitative, is defined as follows:

(5) $X \text{ poguljal} = \text{'at } t' < t \text{ } X \text{ began walking, at } t \text{ } X \text{ was walking for a while, at } t'' > t \text{ } X \text{ stopped walking'}$.

3) (Second stage of semantic derivation.) Every verb has one basic aspectual meaning and a rich repertory of context-dependent secondary ones. E.g., *otkryvat'* in its basic meaning denotes an unfolding action, but it may also have a secondary meaning of a repeated action. Primary category characterizes a verb as used in its basic aspectual meaning, other meanings being accounted for not in the lexicon but in grammar. But there are verbs with a defective paradigm of aspectual meanings, namely, those lacking the basic aspectual meaning. They belong to a derived T-category; but lexical definitions for such verbs need not be construed anew: they are

supplied by grammatical rules that determine context-dependent aspectual meanings for non-defective verbs. Several examples.

Example 1. Such verbs as *naxodit'* 'find, Ipfv', *sluchat'sja* 'happen, Ipfv' have a defective paradigm of aspectual meanings - they cannot be interpreted in the Progressive - which is the basic meaning for Russian Ipfvs. The format of definition for these verbs is supplied by a grammatical rule of semantic interpretation of the Iterative for verbs with a non-defective aspectual paradigm, such as *otkryvat'*. Their T-category may be called **Iterative**.

Example 2. Such verbs as *vorovat'* 'to steal habitually', *pitat'sja* 'to eat habitually' are semantically related to *krast'*, *jest'* in the same way as *smoke* in the meaning of Habitual is related to *smoke* in the Progressive. Thus, the format of lexicographic definition for *vorovat'* and the like is generated by the rule that provides the interpretation for the Habitual meaning of the Ipfv. Hence the corresponding T-category, which is called **Occupation**, see Paducheva 1993a.

Example 3. Verbs like *podrazhat'* 'imitate', *ignorirovat'* 'ignore', *afishirovat'* and the like (with the evaluational meaning) lack the primary meaning of the Ipfv aspect and the primary meaning of the Present Tense (namely, they can be used in the form of the Present Tense to refer to a single event in the past; cf. *Zachem ty podrazhaesh svoemu otcu?* 'Why do you imitate your father?'). They belong to the T-category **Behavior**. Note that Behavior must be included in the range of context dependent aspectual meanings of verbs that do have basic aspectual meaning, such as *lomat'* 'to break'; thus, you may say *Zachem ty lomaesh stulja* 'Why are you breaking chairs' in a situation when a person broke one chair, example from Apresjan (1988: 70).

4) A verb may change its T-category when used in a non-primary case frame:

- (6) a. *lovit' muxu* - primary case frame, Action;
- b. *lovit' mux* - secondary case frame, Activity;
- (7) a. *nalit' vodku v grafin* - concrete-referential Object, primary case frame; T-category - Action.
- b. *nalit' v grafin vodki* - partitive, secondary case-frame; T-category - Cumulative. Activity.

As we see, a verb of a minor T-category (such as Iterative, Occupation, Behavior) usually can be treated as a verb of some primary T-category with a deficient paradigm of aspectual meanings.

Thus, we may hope that every verb (as a dictionary entry) can be provided with a T-category and, correspondingly, with the format of definition - either it would be a primary category, with an a priori associated format of definition, or a derived one, with definitions conforming to some general rule and having a definite format because of that.

For primary T-categories the format of definition is supplied by lexical semantics, while the derived ones receive their formats of definition from the semantics of morphology, as in Examples 1-3; or of word formation, as in (5); or of the semantics of syntax, as in (6),(7) with a secondary case frame.

A general account of all T-categories, both primary and derived ones, would have been at place here. Such an account is not yet in full view but it already looms through the clouds.

Another taxonomic problem is to obtain **generalized** categories that include each of them several different specific categories (on perfect states see Paducheva 1993). The members of a generalized category may differ in their format of definition but display common combinatory possibilities. Thus, Action (completed), Achievement, Happening and Delimitative belong to one and the same generalized T-category Event. A generalized category State includes both inherent states, as *bolet'*, and perfective states, as *soglashat'sja*. Derived activities (as *lovit' rybu* 'to fish') share their generalized category with primary activities, such as *guljat'*. Verbs of gradual change ("an important category which Vendler does not mention", Wierzbicka (1980:199) constitute a generalized category comprising both primary categories - telic and atelic processes; activities - and derived categories such as Process unfolding (*soxnut'*).

3. *T-categories and aspectual pairs*

Let us now return to aspectual oppositions. For each T-category of the Hierarchy in Section 2 we must identify the T-category of its aspectual counterpart (if such one exists) and provide it with a format of definition. (Derived categories form aspectual pairs but exceptionally and will be omitted in this exposition.) If the T-categories of both members of an aspectual pair are specified the semantics of the aspectual opposition may be said to be explicated. Because of the lack of space we

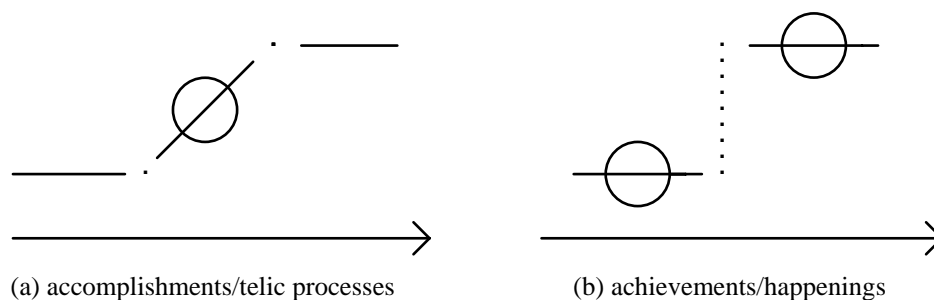
shall only speak about aspectual pairs with the Pfv as a primary member. Of the eight T-categories of the Hierarchy four belong to the Pfv - actions, achievements, telic processes and happenings. Basic T- categories of their corresponding Ipfvs are represented by the Table below.

Table I
Aspectual pairs with the Ppv as a primary member

Pfv	Ipfv
1. Action proper	Action unfolding (<i>otkryvat'`open'</i>)
2. Achievement	-
a) conative	Tendency (<i>vyigryvat'`win'</i>)
b) performative	Perfective state (<i>obeshchat'`promise'</i>)
c) exercitive	State of intention (<i>naznachit'`appoint'</i>)
d) ?	Iterative (<i>naxodit'`find'</i>)
3. Telic process	Process unfolding (<i>tajat'`melt'</i>)
4. Happening	-
a) ?	Tendency (<i>opazdyvat'`be late'</i>)
b) ?	Perfective state (<i>zagorazhivat'`block'</i>)
c) Shift	Unbounded tendency (<i>usilivat'sja`become stronger'</i>)
d) ?	Iterative (<i>sluchat'sja`happen'</i>)

A verb in the Pfv denoting an action or a telic process presents the situation as divided into three temporal intervals - initial state, transition (dynamic phase) and final (new) state (cf. Nakhimovsky 1988). For these verbs the aspectual counterpart usually exists and the situation denoted by the aspectual counterpart in the Ipfv - Action/Process unfolding - constitutes a subinterval of the dynamic phase, see scheme (a). But if a verb in the Pfv denotes an achievement or a happening then the transition is conceived as occupying no time (at least, it is inaccessible to a synchronous observer), see scheme (b), and its aspectual counterpart in the Ipfv does not exist on the categorial level (namely, it does not exist for all members of the T-category): for momentary verbs corresponding Ipfv may only exist on a subcategorial level, and here some minor T-categories can be discerned - Tendencies, Perfective states, States of intention. Situations denoted by verbs of these categories occupy one of the two static subintervals presented by scheme (b). Namely, tendencies and states of intention occupy the left subinterval, preceding

the transition, while perfective states occupy the right interval, following the transition:



What determines the choice of the subinterval (whether it will be the right or the left one) made by the Ipfv of a momentary verb is a problem which is not yet solved in its general form.

Now we shall give formats of definition for the T-categories of Ipfv verbs included in the Table .

1. *Action unfolding*. As was already said, see example. (4), the format of definition for actions, in the Pfv, is determined by components "activity", "causation" and "result". The Ipfv counterpart of a verb of action denotes an unfolding action - an activity of the subject directed towards a goal that is not yet reached. The definition of an Ipfv verb belonging to the T-category Action unfolding can be received from the definition of the corresponding Pfv by means of a rule that substitutes the component "purpose" for the component "result" and changes the position of the Observer (which is synchronous to the activity of the Subject in the case of the Ipfv and retrospective with the Pfv):

(8) *Ivan otkryvaet okno* `John is opening the window' =

Exposition: before MS Object was not open

I. activity: at the MS Subject is doing smth with a Purpose

II. causation: (II) CAUS (III)

- III. process: the process in the Obj takes place: having a limit; synchronous to the activity of Subject
- IV. purpose: at $t > MS$ the state begins: Object is open.

Ipfv may be said to be derived from the Pfv by the RESULT==> TELOS transformation, the notion of result being semantically prior to that of telos (cf. the rule of omitting the culmination in the definition of the Progressive in (Moens, Steedman 1988). The Ipv is treated as derived from the Pfv in (Wierzbicka 1967). In Wierzbicka (1980:166) the verb *kill* is defined in its perfective interpretation (though some other verbs are defined, "for simplicity's sake", in the Progressive).

As a rule, a verb in the Ipv belonging to the T-category Action unfolding allows for interpretation in the Progressive. Progressive interpretation may be more or less natural for a verb depending on the presence of this or that subcategorical component in its lexicographic definition.

a) Actions with accumulation of effect - such as `wash', `warm', `widen', `clean', `build', `shave', `dry', `open' - are more liable to the Progressive-interpretation than conatives in the sense of Forsyth (1970:49), such as *postupat' v institut*, denoting rather an attempt than an activity. Conatives differ from actions with accumulation of effect by the absence of the component `process in/with the Object: synchronous to the activity of the Subject'.

b) For actions consisting in yielding an initial impulse to the Object, such as `to shoot <an arrow>', `to jump', `to throw', `to blow up', `to kill', `to poison' (the process in/with the Object here being non- synchronous to the activity of the Subject), the Progressive interpretation of the Ipv is not natural, though not excluded altogether.

Supershort process in the Object does not interfere with the Progressive interpretation if the process is synchronous to the activity of the Subject, cf. such verbs as *povernut' - povorachvat' (vykljuchatel')*, *nazhat' - nazhimat' knopku* `push the button', *vkljuchit' - vkljuchat' (svet)* `turn on (the light)'.

c) Progressive use is of doubtful acceptability for abstract verbs such as *predotvrashchat'* `prevent', *uvelichivat' <skorost>* 'increase <the velocity>'. This property of behaviour of abstract verbs is controlled by the subcategorical component "activity: non specified".

2. *Corresponding Ipv's for verbs of achievement.* For achievements progressive interpretation of their Ipv counterparts is excluded, which fact is predicted by the semantic component "activity: non-homogeneous to the result" that

characterizes achievements. Indeed, for *najti* 'find' the corresponding activity is expressed by another verb, namely, *iskat'* 'look for'; analogously for *ponjat'* 'understand', *vyigrat'* 'win' and many others. This component blocks the Progressive interpretation of the verb provided by the component "activity: Subject was doing smth".

As the Table shows, associated Ipfvs of achievements may belong to different categories, namely, Tendency, State of intention, Perfective state, Iterative.

2.a) *Tendency*. Tendencies serve as aspectual counterparts not only for achievements but also for happenings. Tendency is a state of the Subject that makes it possible for the Observer to forecast future development of events as leading to a new state - namely, that one denoted by the corresponding Pfv. In other words, a Tendency verb denotes a set of exponents of a new state exposed to an Observer (tendencies as a subclass of Ipfvs were mentioned by Ju.Maslov or H.Tommola but never studied extensively).

Examples of tendencies derived from achievements: *vyigryvat'* 'to win', *uspevat'*, *dogadyvat'sja*, *pobezhdat'*, *preodolevat'* 'to overcome', *obgonjat'*, *dogonjat*.

Examples of tendencies derived from happenings: *zabolevat'* 'to be becoming ill', *opazdyvat'* 'to be sure to be late', *oxladevat'*, *iznemogat'*. The verb *zabyvat'* 'forget, Ipfv' may be used as a tendency only in its figurative meaning (*Ty zabyvaesh, gde ty naxodishsja* 'You behave as if you do not remember, where you are'); for example, sentence *Ty zabyvaesh svoju shljapu*, where *zabyvat'* has its direct meaning, is unacceptable in Russian (though in French one may say *Tu oublis ton chapeau*, with the verb *oublier* used as a tendency).

Example of a lexicographic definition of a tendency verb:

- (9) a. *X opozdal* 'X is late, Pfv' = 'X got to Y later than the deadline';
 b. *X opazdyvaet* 'X is being late, Ipfv' = 'X is in such a state that under normal conditions X will get to Y later than the deadline' = 'there are indications that X will get to Y later than the deadline'.

Tendencies may get the same kind of treatment that was given earlier to Iteratives, Occupations and Behaviors. Indeed, a verb of action, and especially a verb of non-agentive process, usually allows for two interpretations that may be called Process-interpretation and Tendency-interpretation. Tendency-interpretation consists in that only one temporal phase of the whole situation is put to the foreground (namely, the one that takes place at the present moment); other phases -

before and after the salient one - are taken for granted but are not **meant** by the speaker. Strictly speaking, the Process-interpretation requires an observer that moves in time synchronously to the process, while the observer that is limited by one time point sees - and, consequently, conveys - only the tendency observed by him at the present moment. Cf., e.g., two different interpretations of the sentence *Utjug nagrevajetsja* 'The iron is getting warmer': Tendency interpretation, a more probable one, presupposes that the speaker has just touched the iron and felt that it is warm as compared with the initial state when it was cold; while Process-interpretation presupposes that you are keeping your finger on the iron all the time registering all the stages of the gradual change of temperature.

Now if we have made a distinction in grammar between Tendency- and Process-interpretations of a verb and formulated a rule that generates, among others, Tendency-interpretation for verbs of process and action in the Ipfv then we may say that the T-category Tendency is assigned to those verbs for which Tendency-interpretation is the only one possible (Process-interpretation being excluded, e.g., because the process or activity standing behind the tendency observed has another name): the rule generating lexicographic definitions for tendencies already exists as grammatical rule providing Tendency-interpretation as one of secondary meanings of processes and actions in the Ipfv.

2.b) *Perfective state*. Perfective state very often turns out to be the T-category of the Ipfv counterpart of a Pfv speech act verb, such as *otkazat'sja* 'refuse', *poobeshchat'* 'promise', *potrebovat'* 'demand' and many others, see Paducheva 1993b. Thus, the lexicographic definition of the Pfv *poobeshchat'* conforms to a usual format of a verb of action:

(10) *X poobeshchal prijti* 'X promised to come, Pfv' =

I. activity: 'X performed a speech act: X said: I will come

II. causation: (I) CAUS (IV)

IV. result: X is in a deontic state: X is obliged to come. *On poobeshchal priyti, no ne prishel* 'He promised (Pfv) to come but didn't come', but not *On obeshcaet (Ipf) prijti, no ne prishel*

Meanwhile, the definition of the corresponding Ipfv is a problem: it contains the same semantic components as the Pfv and the only difference is that in the Ipfv the attention is concentrated on the fact that the deontic state of the Subject is still preserved at the Moment of Speech. Indeed, it is possible to say *On poobeshchal*

prijti, no ne prishel 'He promised (Pfv) to come but didn't come', but not *On obeshchaet* (Ipfv) *prijti, no ne prishel*.

Ipfv aspectual counterparts of happenings may also belong to the T-category Perfective state; this is, e.g., the case with many verbs with a wholly affected Object (see Paducheva & Rosina 1993), such as *napolnit'*, *zagorodit'* 'to block', *zaslonit'* 'to shadow', *pokryt'* 'to cover': their corresponding Ipfvs are perfective states.

2.c) *State of intention*. State of intention is a state of the Subject consisting in his/her intention to perform an action. The meaning of a state of intention is categorial for some momentary verbs of motion - *rasstavat'sja*, *otpravljat'sja*, *pokidat'* (*Cyganskij tabor pokidaju ja*), and also for verbs which J.Austin labelled as exercitives - *naznachat'* 'to appoint', *prigovarivat'* 'to sentence', *uvol'njat'* 'to dismiss' and very many others.

If a word belongs to the category of actions (e.g., *uchodit'*, *chitat' lekciju*, *perezhat'*), the State-of-intention meaning is just one of its contextually dependent aspectual meanings (it is called "present prophetic" or "planned future", see Glovinskaja 1989). But for momentary verbs, not allowing for the Progressive interpretation, the State-of-intention-meaning of the Ipfv is the only one possible. Hence the fact that verbs belonging to the category State of intention express the meaning of planned future unambiguously, while for verbs of action this is only one of their possible interpretations; e.g, sentences *Mama uxodit*; *Ostorozhno dveri zakryvajutsja*; *Oni perezzhajutna novuju kvartiru*; *Smotrite, on prygaet* are ambiguous, allowing both Progressive and Planned-future-interpretations.

Planned-future-interpretation, as well as Tendency-interpretation, belong to coercive ones; indeed, they arise in a context where the grammatical form of the Ipfv has an extended use, overriding the domain of its primary applicability. This is why a sentence lends itself to the Planned-future-interpretation only if no other interpretation is possible (e.g., for actions Planned-future-interpretation is appropriate only in the context of an adverbial modifier referring to the future: *Ia chitaju lekciju v sredu* 'I give my lecture on Wednesday'). For example, the newspaper heading *Francija vyvodyt svoi vojska is Berlina* 'France draws its troops away from Berlin' is misleading; indeed, the text under the heading says: "The Minister of defense declared that French troops would be driven away from Berlin", while we were already made to believe that this is actually being done "at the moment of speech".

The difference between a tendency and a state of intention consists in that the latter denotes a situation when the coming new state is fully predetermined by the

will of the controlling subject (though the transition to the new state may depend on some intermediary events); while Tendency-interpretation requires the context of absence of control - or at least the context of non-complete control over the situation on the part of the Subject; in particular, Tendency-interpretation is natural for conatives (such as *vyigryvat'* 'win', *pobezhdat'* 'overcome') with their semantic component "good luck".

3. *Process unfolding*. Processes unfolding are not very numerous. An example of a lexical definition, after Wierzbicka (1967):

(11) a. *Sneg rastajal* 'The snow has melt, Pfv' = 'The state has begun: the snow became water and thus ceased to exist'.

b. *Sneg tajet* 'the snow is melting, Ipfv' = 'The snow was undergoing successive states of such a sequence of states that if it underwent all the states of this sequence it will become water and cease to exist'.

4. *Unbounded tendency*. Unbounded tendencies serve as an aspectual counterparts for such Pfv's as *ukrepit'sja*, *uvelichit'sja* 'increase', *umen'shit'sja* 'decrease', *usilit'sja* 'become stronger', *zamedlit'* (*No tut mashina glavnaja svoj zamedljaet xod*, A.Galich), *uluchshit'sja*, *otdalit'sja*, *podorozhat'*, etc. , see Glovinskaja (1982:86). They denote one kind of happenings, which we call Shift: a shift is a happening consisting in a change of the value of a certain numeric parameter of a process (or a state). E.g., *Veter usililsja* presupposes that the wind is blowing and has a certain force that can be measured. The difference between a shift and an ordinary happening consists in that an ordinary happening is a transition from one state to another, while a shift is just a change registered by an observer, cf. "now" in example (12), which does not correspond to any salient time point in the development of the situation. For a shift its corresponding Ipfv is an unbounded tendency:

(12) a. *Veter usililsja* 'the wind became stronger, Pfv' = 'the wind is now stronger than before'

b. *Veter usilivajetsja*, Ipfv = 'the wind is now stronger than before and will be stronger that it is now'.

II. T-categories of Pfv's derived from Ipfv's

Now about aspectual pairs with the Ipfv as a primary member. They are all of them not acknowledged by the traditional grammar though they do correspond to the definition accepted in Section 1.

Table II

Aspectual pairs with the Pfv as a derived member

Ipfv	Pfv
1. Atemporal property	-
2. State	-
3. Atelic process	-
a) gradative	Shift (<i>usilit'sja</i> `become stronger')
4. Activity	
a) many-act activity	Semelfactive (<i>vzdrognut'</i> `shudder')
b) one-directional movement	Inceptive (<i>pojti</i> `start going')
c) activity with the cumulating of result	Quantitative (<i>vypit' vody</i> `drink some water')

Verb denoting atemporal properties, such as *vesit'* `to weigh', *stoit'* `to cost', as well as inherent states (*boljet'* `to be ill'), have no aspectual counterparts. The same is true of genuine atelic processes - such as *kipet'* `to boil': Inceptives or Finitives that derive from atelic processes (*zakupet'*, *dokupet'*) are but actionalities.

3.a) Shifts. The only subclass of atelic processes that can have a Pfv counterpart is constituted by verbs with a monotonously increasing parameter, like *uvelichivat'sja*, that can be represented not only as unbounded tendencies (see Section I.4) but also as atelic processes: duality comes into play - of Process- and Tendency-interpretation - that was spoken about earlier. Thus, if Ipfv is given a Process interpretation then its corresponding Pfv - a shift - should be treated as a verb of a derived T-category:

- (13) a. *Veter usilivajetsja* `The wind is becoming stronger, Ipfv' = `every next moment X becomes stronger' (than it was at the preceding moment (see Glovinskaja 1982: 86);
- b. *Veter usililsja* `X became stronger, Pfv' = `X was becoming stronger for some period of time; thus at MS X became <perceptibly> stronger'.

4.a) Semelfactives. Somewhat unexpectedly, an Ipfv denoting physical activity (or process) composed of a sequence of homogeneous acts such as *klevat'* `peck' constitutes - according to Maslov's criteria - an aspectual pair with a derived Pfv marked by the suffix *-nu*, Pfv being a semelfactive that denotes a single act of

this activity and presents it as an action of no duration - as accomplished by a single gesture ("v odin priem"). The fact is that an Ipfv like *klevat'* has two meanings - 1) that of the cumulative iterativity (the activity itself) and 2) that of the distributive iterativity - a set of separate acts produced, possibly, at different moments and / or by different agents. Examples of semelfactives: *vzdrognut'* 'to shudder', *tolknut'* 'to push involuntarily', *morgnut'* 'to wink', *maxnut'* 'wave', *tknut'* 'poke', *axnut'* 'to say Oh!' and very many others.

Such verbs as *zevat'* 'yawn', *kidat'* 'throw', *kivat'* 'nod', *kolot'* 'chop', *prygat'* 'jump' do not pertain to semelfactives: they can not be used in the Ipfv in reference to one act presented in its development. The semantic relation of these verbs to the corresponding Pfv is paradoxical: the Pfv presents an act as a momentary one, while the Ipfv treats this very act as having duration.

There are *nu*-PfvS derived from verbs denoting activity non-divisible into separate acts; they do not belong to semelfactives either. E.g., *dunut'* is not a semelfactive counterpart of *dut'* 'blow'.

The feature that is relevant here is reversibility of the transition; e.g., *prygnut'* is often ascribed to the same class as *maxnut'* 'to wave', though multiple jumping is not an activity semantically preceding a separate jump; but jumping can easily be multiplied - as opposed, e.g., to dying which is not, being an irreversible transition. Hence the class of reversible transitions that are susceptible of being multiplied.

4.b) Inceptives. Maslov's criteria identify such pairs of verbs as *pojti* 'start going' - *idti* 'go', *pobezhat'* 'start running' - *bezhat'* 'run' as aspectual ones. Indeed, Ipfv substitutes the Pfv in the context of iteration: cf. *Gazetu ne prinesli, i otec sam p o s h e l na pochtu* and *Kogda gazetu ne prinosiat, otec sam i d e t n a pochtu*.

4.c) Quantitatives. Verbs such as *pit'* 'drink', *est'* 'eat', *pachat'* 'plough', *sejat'* 'sow', *kopat'* (*zemlju*) 'dig (soil)', *plavit'* (*stal'*) and the like denote activity with accumulation of effect; indeed, while you are drinking, more and more water is drunk. These verbs are not to be confused with actions having a similar property - in fact, an action is a telic activity, while these verbs denote an activity that has no inherent bound (no telos). It may have an outward bound imposed by the Object (or some other participant of situation) - if the Object is a concrete-referential NP. But the case-frame with a concrete-referential Object is a derived one for these words: when used with this case-frame these verbs do not denote activities: they belong to a derived category Action, so that Pfv and Ipfv form a terminative aspectual pair, as in section I.1. Cf., e.g., *est sup* 'eats soup' (evidently, some definite portion), Ipfv, - *s'el sup* 'has eaten soup', Pfv.

The primary Object of these verbs is a mass term "in a Partitive case"; e.g., *On p'et vodu* = 'il boit de l'eau', which imposes no bound on the activity: *pit' vodu* from the categorial point of view is the same as *lovit' rybu*.

Now let us look at the semantic relation between (14a) and (14b). (14a) *pit' (Ipfv) vodu (Acc)*; *vypit' (Pfv) vody (Part)*. The verb in (14a) in one of its meanings may be understood as Iterative of *vypit' vody*; e.g., *Kazhdyj vecher piet vodu prezhdde chem lech' spat'* = 'Vypivaet vody'. Thus, we must add the relation between (14a) and (14b) to the list of non-trivial relations in aspectual pairs - the T-category of the Pfv in such pairs may be called Quantitative. Quantitatives are cognate to Delimitives: with Delimitives (such as *poguljat'* the boundary on the unfolding activity is imposed by the limitation of time, while with Quantitatives it is imposed by the Object.

The problem with Quantitatives is that the semantic relation described holds only in the context where the quantitative boundary on the Object is expressed grammatically, namely, by the partitive case. If it is expressed lexically, by a modifier of quantity, then the prefixless Ipfv cannot be used; e.g.,

- (15) a. *vypil stakan vody pered snom (Pfv)*
 b. *vypivaet (*piet) stakan vody pered snom (Ipfv)*

So we gain very little by postulating such a pair.

Shifts, Semelfactives and Inceptives traditionally are treated as Aktionsarts. The fact that they satisfy the definition of Aspect shows that the boundary between the two is shaky enough.

To make a summary of what was said, the following points should be put in relief.

1) The T-category of a verb reveals itself not only in its combinatory possibilities but also more straightforwardly - in its format of definition (common to all words belonging to the same category). Similarity in co-occurrence restrictions is but a consequence of common features of meaning.

2) T-categories should not be just listed - they constitute a system in itself, and a calculus (= a grammar) of T-categories should be constructed so that the history of

derivation of a category would make transparent the format of definition of the corresponding verb.

3) While defining minor T-categories, lexical semantics should make use of meaning definitions that belong to the competence of grammar: more often than not a word of a minor T-category may be treated as a word belonging to a major T-category but having a deficient paradigm (i. e., lacking some grammatical forms that are basic for other members of this category) or a functionally deficient paradigm (lacking some of the contextual meanings).

4) To account for the semantic contents of an aspectual opposition it is sufficient to identify the T-category of the derived member of an aspectual pair, with its characteristic format of definition.

5) Basic T-categories of Russian verb allow for the following predictions as to the existence of aspectual pairs: Pfv belonging to the T-category Accomplishment, i.e. action or telic process, presupposes the existence of a telic pair; permanent properties and relations avoid any kind of aspectual oppositions. Other semantic predictions about the existence of an aspectual pair requires a transition to subcategorical levels.

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