

## **From Meaning to Form: an Alternative Model of Functional Syntax**

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The purpose of this article is to introduce a model for a meaning-based functional syntax. A full description of the model may be found in our recent monograph (Mustajoki 2006b). Work on the model has been carried out in the Department of Slavonic and Baltic Languages and Literature at the University of Helsinki over the last fifteen years. Given that the above-mentioned book and various shorter publications (Mustajoki 1997, 1999, 2003a, 2003b, 2004) have appeared in Russian, it seems appropriate to give a short overview of the model in English. The only presentation of the model in English thus far is to be found in (Chesterman 1998); but this monograph was based on an earlier version of the model (Mustajoki 1993). A number of corrections and improvements have been made in the most recent version of the model.

Linguists have been dreaming of the creation of a meaning-based grammar for generations. The first scholar to express the need for such a linguistic description was apparently Georg von der Gabelentz. He drew a distinction between a synthetic and an analytic system of a language. He connected the synthetic system (*das synthetische System*) with grammatical synonymy: the speaker who wants to express a thought or a feeling has different possibilities for doing so. Von der Gabelentz gives the following set of examples to demonstrate various ways of expressing generalization in German: *Ein Fixstern hat / Jeder Fixstern hat / (Die) Fixsterne haben / Alle Fixsterne haben / Fixsterne haben insgesamt eigenes Licht.*

More or less the same aspiration was later expressed by Otto Jespersen (1924: 33), S. I. Bernštejn (1922: 213) and L. V. Ščerba (1974: 56, 333-338). *La pensée et la langue* by Ferdinand Brunot (1922) is usually regarded as the first implementation of the idea. This massive book (appr. 1,000 pages) is an original attempt to describe language in a new way, but as a whole Brunot is rather inconsistent in his attempt to follow the principle of going “from meaning to form.”

There are several more recent realizations of the “meaning to form” approach. In the monograph (Mustajoki 2006b), one chapter is devoted to the comparison of our model with other ones that pursue similar goals and follow

similar basic principles. Here we can mention only some of the major similarities and differences. With regard to Alexander Bondarko's *Functional Syntax* (Bondarko 1983, 1984, 2001), a number of shared ideas are evident; the most relevant of these is the clear aim of basing the linguistic description on semantic categories. However, Bondarko's model covers only *selected* semantic categories. On some points it also lacks consistency in its use of terminology, and in how the underlying principles are applied; this is evidently due to differences in opinion between the co-authors of the collective works.<sup>1</sup>

Another prominent Russian functionalist, Galina Zolotova, has influenced our model in various ways, but we cannot share some of her opinions concerning the foundations of such an approach (for instance, her reluctance to differentiate between form and function/meaning). Actually, Zolotova's own illustrations in tabular form and the terminology used by her (Zolotova 1982, 127-129; Zolotova *et al.* 1998, 102-110) show that it is reasonable to describe these phenomena at two separate levels. Moreover, in our model we try to follow the "meaning to form" principle more systematically than is the case in the works of Zolotova.

Igor Mel'čuk's "Meaning ↔ Text" model also has much in common with our model. The differences include, for instance, the depth of the description: in some cases Mel'čuk (1974/1999) goes "deeper" and sees, e.g., causation in situations where we prefer an interpretation closer to the viewpoint of a naïve speaker. Another important distinction is in the description techniques used: Mel'čuk tries to formalize the generation of the surface structures, while we see no reason to show it step by step. Indeed, although we avoid bringing forward too much psychological evidence for our interpretations, it is worth mentioning that in a normal speech situation, we merely see a correspondence between given semantic structures or "embryos of an utterance" and the linguistic means to express them, without a gradual process of producing our speech through a set of provisional states.

Some further names within Russian linguistics must be mentioned here. Works and concepts provided by Premysl Adamec (1973, 1975, 1978), Maja Vsevolodova (2000) and Istvan Pete (1988) have had an important influence on our thinking on the functional approach as such, and on our definitions of particular semantic categories.

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<sup>1</sup> Here we have in mind especially the famous series of six collective monographs compiled under the supervision of Alexander Bondarko, *Teorija funkcionalnoj grammatiki*.

In the Western linguistic tradition, obvious points of comparison include the systemic or functional grammar of M. A. K. Halliday (e.g. 1994, 2004), and the cognitive approach of Ronald Langacker (e.g. 1987, 1991a, 1991b). However, our model stands closer to the Functional grammar of Simon Dik (and his followers) (Dik 1978, 1980, 1989, 1997) and the Role and reference grammar of Robert van Valin (2001), the main ideas of which are very similar to ours. However, there are a large number of differences in points of detail, not least when it comes to the interpretation of the level of role structure description. The following set of examples may serve to illustrate this (cf. Dik 1997, 125):

- (1) *Igor teaches maths to the children.*
- (2) *Igor teaches the children maths.*
- (3) *Igor teaches the children with maths.*
- (4) ***Igor teaches the children into maths.***

Dik considers that the utterances (1–4) reflect different roles of actants. In FS we adopt as our starting point the “deep” predicates representing the semantic level, rather than the surface verbs.

It is necessary to point out terminological difficulties we face in our not very precise research field called *linguistics*. Let us take a single example. What we call *semantic* structure in our model could be named – with no clear differences in meaning – *denotative*, *conceptual*, *onomasiological*, *psychological*, *ontological*, *cognitive*, *noematic*, *ideographical*, *meaning-based*, or *deep*. There is no space here to justify our terminological choice, but the list of other possible variants can help the reader to comprehend the very essence of the model. So, for many basic concepts linguistics offers a variety of terminological solutions. The reverse is also true: many of the terms that we use have several possible interpretations (including such important ones as *causation* and *modality*). A degree of caution is therefore needed concerning our use of terminology.

This terminological inaccuracy also concerns the term *functional*. The approach we call functional is referred to by some linguists as *onomasiological* (e.g. Gak 1977: 17-18, 1985: 12-15; Danilenko 1988, 108; Bacevič & Kosmeda 1997: 23-38) or *ideographical* (Belošapkova & Miloslavsky 1988: 7). On the other hand, the functional approach can be interpreted in a much broader sense as a contrast to formal, autonomous, structural, or generative linguistics (cf. Dik 1978, 4-5; Itkonen 1983; Foley & Van Valin 1984, 3; Lomov 1994, 11-13; Kibrik & Plungjan 2002, 276). Functionalism can also be seen as part of the anthropological orientation in linguistics (Postovalova 1988, 8-9).

Another inevitable problem is the indistinct borderline between different categories. We face such a situation in any linguistic research, but especially in research based on semantic categories. We can use linguistic tests or experiments reflecting the opinions of native speakers to clarify the relevant features of semantic categories, but one can never reach a classification with strict and 100 percent reliable borderlines between them. We therefore have to settle for overlapping categories (cf. Chvany 1996, 63–95; Apresjan 1995, 140–142).

We now turn to the main part of the paper. We will try to summarize the basic principles and aims of our functional syntax (henceforth FS).

### 1. The main goal and tasks of FS

1.1. FS is based on the principle of going “from meaning to form”; to be more specific, “from semantic categories to linguistic means.”

1.2. FS differs from traditional grammar mainly in how the description of linguistic phenomena is structured, but less so in the content of the description. So, the surface structures *Ему холодно*. ‘He is cold’, *У него температура*. ‘He has a temperature’, *Он в коме*. ‘He is in a coma’ are all dealt with in the same chapter entitled *Physiological state* because they have a similar semantic structure (a Physiological state with an actant, an Experiencer).

1.3. Our purpose in creating FS is not to replace traditional grammar, but to provide a complementary way of describing linguistic phenomena.

1.4. In the communicative situation, FS reflects the point of view of the speaker who is searching for a suitable way to express his/her thoughts. However, FS does not aim to describe the mental processes taking place in the speaker’s head.

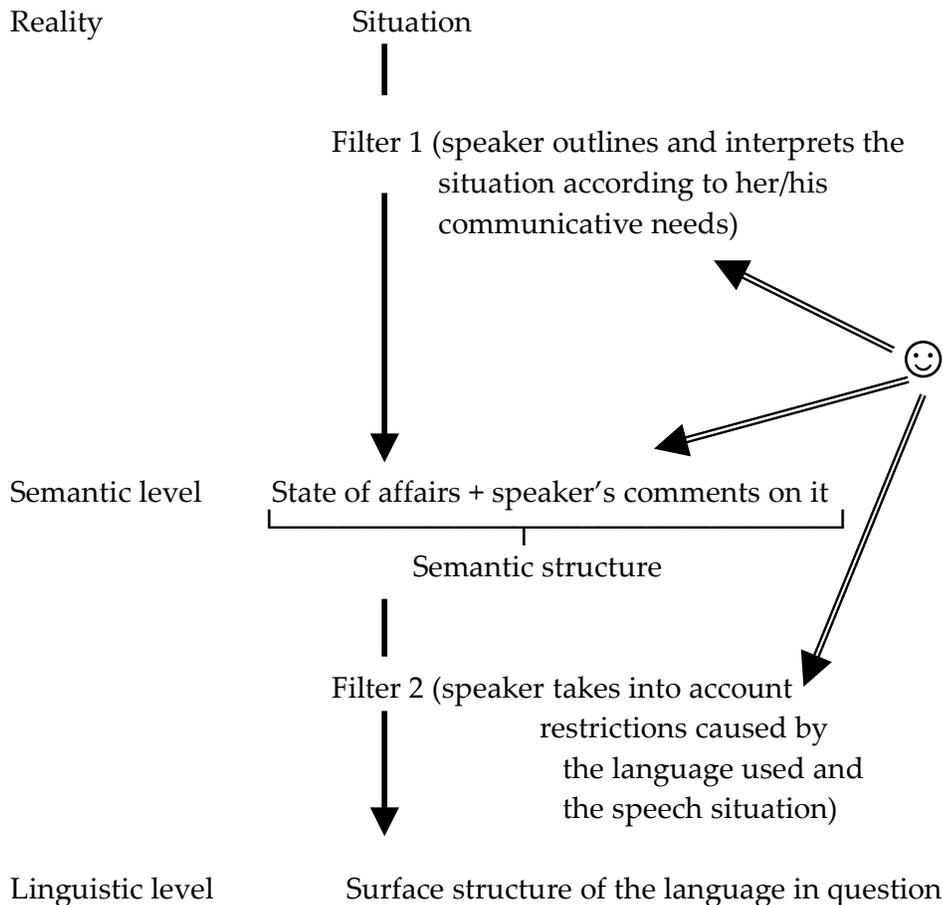
1.5. The present-day version of FS does not go very far into pragmatics (features of dialogue and discourse), but such elements can easily be added to the model.

1.6. The creation of a FS consists of three stages:

- Defining the foundation of the description – semantic structures and their main elements, semantic categories;

- Description of the linguistic means which can be used in expressing the defined semantic structures and categories in language  $x$  or in a set of languages; and
- Establishing the possible restrictions in the use of the linguistic means.

2. The main concepts and terms of FS



2.1. The linguistic description in FS is based on semantic structures, which reflect the state of affairs and the speaker's comments on it.

2.2. The states of affairs are situations or fragments of reality (the real, virtual, or inner world) as they are interpreted by the speaker.

2.3. Besides the schematic semantic structures, one can speak about their realizations through the addition of specific content. For instance, a Physiological state, one of the nuclear semantic structures, can be realized

with a great number of different contents, e.g., “Igor is in a state of hunger/coldness/temperature/hangover/cancer, etc.”

2.4. The following notation is used:

- [St<sub>PHI</sub>; E] – semantic structure, which consists of a predicate (Physiological state) and a actant (Experiencer)
- «Igor is in a state of temperature” – one of the possible contents of the semantic structure
- N<sub>dativ</sub> + V<sub>быть</sub> + Adv<sub>о</sub> – one of the possible surface structures which can be used to express the semantic structure in Russian
- *Мне холодно* ‘I am cold’ – a possible linguistic realization of the surface structure.

2.5. Semantic categories are not based on the smallest possible elements of meaning (atoms, primitives), but they are supposed to reflect a naïve speaker’s impressions of the world. For instance, behind the content “Irina gives Igor a book” stands a nuclear structure which is not split further into semantic elements, such as “Irina CAUSES: Igor has a book.”

2.6. A semantic structure consists of the following elements:

- nucleus of the semantic structure = (deep) predicate + actants  
An example: a predicate denoting a concrete action + actant<sub>1</sub> (Agent) + actant<sub>2</sub> (Object) (“Igor is building a house”).
- modifier = a metaverb determining the nucleus + actants (in some cases a metalexeme without an actant). Examples: «ASK», «BEGIN», «CAUSE», «POSSIBLE», «END».
- specifier = a semantic element clarifying an actant, the predicate, or the semantic structure as a whole. Examples: Time, Aspectuality, Determinacy, Quantity.

2.7. As to complexity, semantic structures can be divided into two main categories:

- simple semantic structure = nucleus + obligatory modifiers

An example: ASK + predicate denoting a concrete action + actant<sub>1</sub> (Agent) + actant<sub>2</sub> (Object); a possible content: "I ASK: Sergey builds a house"; a possible linguistic expression: *Сергей строит дом?* 'Is Sergey building a house?'

- complex semantic structure = simple semantic structure<sub>1</sub> + metaconjunction + simple semantic structure<sub>2</sub>.

A possible content: "Sergey builds a house ALTHOUGH Sergey already has two houses"; a possible linguistic expression: *Сергей строит дом несмотря на то, что у него уже есть два дома.* 'Sergey is building a house although he already has two houses.'

2.8. A simple semantic structure can be expanded by two ways: adding an optional modifier or an embedded element:

- expanded (simple) semantic structure = simple semantic structure + optional modifier

An example: «BEGIN + a predicate denoting concrete action + actant<sub>1</sub> (Agent) + actant<sub>2</sub> (Object); a possible content: "Sergey began building a house"; a possible linguistic expression: *Сергей начал строить дом.* 'Sergey started building a house.'

- embedding = actant of a simple semantic structure with an extra semantic element.

An example: predicate + actant<sub>1</sub> + (Characterization + actant<sub>2</sub>); a possible content: «Alex builds (a luxurious house)"; a possible linguistic expression: *Сергей строит роскошный дом.* 'Sergey is building a luxurious house.'

2.9. If a state of affairs forms part of a semantic structure, it is denoted by the symbol P, e.g. {[P<sub>1</sub>] IN ORDER TO [P<sub>2</sub>]} (*Сергей построит себе новый дом, чтобы осуществить мечту жены.* 'Sergey will build a new house in order to fulfil his wife's dream').

### *Actants*

2.10. Actants are not treated in FS as separate units, but as non-predicative elements of semantic structures and their modifiers.

2.11. Actants that are able – according to the interpretation of the speaker – to control the action, or to feel emotions or other states, belong to category I (prototype: “a human being”). Further categories are: concrete inanimate actants (II, “a chair”), mass actants (III; “water”) and abstract actants (IV; “an idea”).

2.12. Actants can be divided into the following classes according to their roles:<sup>2</sup>

- Agent (A) – an actant which produces and/or controls the action (always belongs to category I): “Igor writes a letter/opens the window/is running.”
- Experiencer (E) – an actant which feels an emotion or physiological state (only category I): “Igor is cold/bored”, “Igor loves Irina.”
- Neutral (N) – an actant about which something is said (who/how/where (s)he/it is) (all categories from I to IV): “Fingers/roads/stories are long”, “Igor is tall/a Russian”, “There is a solution.”

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<sup>2</sup> The set of actants shows us a typical case of the difficulties in linguistic classifications. Let us take some examples. Does Igor have the role of Agent in *Igor was standing at the door*? Yes: this is not the prototypical Agent, because Igor is not “acting” or producing anything, but he is controlling the state of affairs. Is the vase an Agent in *The vase was standing on the table* as well? No: it has the role of a Neutral, because it is not controlling the situation. Do we differentiate “resultative” Objects (*Igor wrote a book*) and “normal” Objects (*Igor read a book*)? No. The difference between them can be shown in the semantic structure using embedding. The former sentence represents the semantic structure [(A<sub>Cnt</sub>); A, (=Ex, O)]; the latter one the structure [(A<sub>Cnt</sub>); A, O]. Shall we differentiate animate and inanimate Object in utterances like *Sergey hit the thief* and *Sergey hit the ball*? One solution could be to call the former object Experiencer, because he is feeling something at the same time. Despite this, we prefer an interpretation where we do not distinguish between animate and inanimate Object. There are two reasons for this. First, there are a lot of situations where an animate object does not actually “feel” anything in a real sense of the word (cf. *He took Irina / the computer home; He accidentally touched the guest / the table*). Second, from the point of view of the state of affairs it is not so relevant what the object is feeling (though this may become the topic of a subsequent state of affairs). One concrete issue to be dealt with in any classification of semantic roles is the number of different levels of description. Robert van Valin (2001: 31) has four of them: Verb-specific semantic roles, Thematic relations, Semantic macroroles and Grammatical relations. In order to keep the model reasonably simple, we operate only at two levels. The level of grammatical relations is for us the surface structure. Our semantic structure more or less corresponds to the Thematic level. We use, as a matter of fact, the idea of Semantic macroroles in defining the actants (we speak about “Subject-roles” which are manifested in the categories of Agent, Experiencer and Neutral). The concept of Verb-specific semantic roles is not relevant to our purposes, because we operate at the semantic level of predicates, which do not directly correspond to the verbs of a given language.

- Object (O) – an actant towards which a concrete or abstract action is directed or which appears as a result of such action (all categories from I to IV): “Igor opens a window/writes a letter/loves Irina/music.”
- Theme (T) – an actant which the Agent of speech is talking about (all categories from I to IV): “Igor is talking about football/Irina.”
- Recipient (R) – an actant which receives something or benefits from the action (only category I): “Igor gave Irina a book/sent Nina a letter/told an anecdote to Pavel.”
- Source (S) – an actant from which something is transferred to the Recipient (mainly category I): “Irina got a book from Igor/read in the newspaper about the catastrophe.”
- Instrument (I) – an actant which is used by the Agent (all categories except I): “Irina wrote the story with a pencil/on the computer.”
- Place (L) – an actant referring to a locative element obligatory for the state of affairs (apparently all categories from I to IV): “The house is located on the sea”, “There is nobody in here”, “The goalkeeper has the ball.”

### *Predicates*

2.13. The classification of predicates is based on a combination of different criteria: their semantics, temporal-aspectual features, the set of actants they have, and the question to which they give an answer. There are the following primary predicates and their semantic types:

- Action (Ac): An Agent is doing something and controlling the state of affairs; possible actants: Object, Instrument, Recipient, Theme. Semantic types of temporally localized (related to concrete situations) states of affairs:

Motion (Ac<sub>Lc</sub>): “Irina is walking/is carrying a book to school.”

Physical activity (besides motion) (Ac<sub>Phys</sub>): “Igor kicked/killed the mouse.”

Intellectual activity (Ac<sub>Int</sub>): “Igor was thinking about the kids.”

Speech activity (Ac<sub>Sp</sub>): “We talked about Irina’s faith.”

Activity connected with possession (AC<sub>Ps</sub>): "Irina gave the dog a lump of meat."

Social activity (AC<sub>Soc</sub>): "Igor punished Anton."

Physiological activity (AC<sub>Phi</sub>): "We were eating soup."

A type of a temporally non-localized state of affairs –  
Characterizing (or identifying) activity (AC<sub>Ch</sub>) / (AC<sub>Id</sub>): "Igor sings in a choir."

- Relation (RI): identifies the relationship between an Experiencer and Object or between two Neutrals. Semantic types (all of them refer to temporally non-localized states of affairs):

Social relation (RI<sub>Soc</sub>): "Igor is responsible for all the decisions."

Emotional relation (RI<sub>Em</sub>): "Irina loves Sergey."

Intellectual relation (RI<sub>Int</sub>): "Irina does remember everything."

Identifying relation (RI<sub>Id</sub>): "Irina is Igor's wife."

Characterizing relation (RI<sub>Ch</sub>): "Igor is taller than Vladimir."

- Possession (Ps): relation between an Agent-Owner and an Object ("Sergey has a Mercedes.")
- Location (Lc): temporally localized (non-permanent) or temporally non-localized (more or less permanent) relation between an Agent or a Neutral and a Place ("A book lies on the table", "The house is located by the sea.")
- Existence (Ex): information about a temporally non-localized existence of a Neutral ("There are angels") or a temporally localized existence of an Agent or a Neutral in a certain place ("There is a book on the table", "There is a house by the sea.")
- State (St): typical features: 1) non-processual state of affairs; 2) only one actant, an Experiencer in Emotional and Physiological states, a Neutral in a Physical states and a Place in an Environmental state. Examples:

Emotional state (St<sub>Em</sub>): "Igor is in a state of boredom."

Physiological state (St<sub>Phl</sub>): "Igor is in a state of coldness."

Physical state (St<sub>Phys</sub>): "The hands/floors are in a state of dirt."

Environmental state (St<sub>Nat</sub>): "This place is in a state of coldness."

- Characterization (Ch): only one actant, Neutral; temporally non-localized state of affairs, qualitative featuring ("Irina is beautiful/clever", "The book is interesting/new.")
- Identification and classification (Id): temporally non-localized state of affairs, belonging of a Neutral to a certain group: "Igor is a Russian/a teacher."

2.14. Besides the primary predicates, there also exist secondary ones (symbol =>) referring to changes in relations or states. Examples:

(Rl<sub>Int</sub>=>): "Irina remembered her friends." (*Ирина забыла о своих друзьях.* 'Irina forgot her friends.')

(Rl<sub>P</sub>=>): "Sergey has a wallet." (*Сергей потерял свой бумажник.* 'Sergey lost his wallet.')

(=>Ex): "There exists (a certain) key." (*Ключ нашелся.* 'A key was found.')

(=>St<sub>Phl</sub>): "Igor is in a state of healthiness." (*Игорь выздоравливает.* 'Igor is getting well.')

### *Nuclear semantic structures*

2.15. Nuclear semantic structures can be divided into groups according to their communicative proximity, i.e.. to what extent they can be used in the same speech situation to express what the speaker wants to say. For instance, semantic structures with the predicates "buy (a car)" and "have (a car)" are dealt with in the same chapter, although they represent quite different types of predicates (one refers to an action, the other to a state of possession). The communicative semantic spheres are as follows: Physical activity and action, Motion and location, Social activity and relation, Intellectual activity, Existence, Possession, Emotion, Physiological state, Physical state, Environmental state, Characterization, Identification.

### *Modifiers*

2.16. There are obligatory and optional modifiers. Obligatory modifiers are included in every semantic structure, optional ones occur only if the speaker finds it necessary.

2.17. At the semantic level modifiers are indicated using metaverbs. In the schematic presentation of semantic structures, modifiers stand before the nucleus [P], e.g. Causation is indicated by {(Caus; A) [P]} or more exactly {(Caus = PERSUADE; A) [P]}, where A stands for the Agent of the modifiers (in this particular case Agent-Causator).

2.18. Modifiers are often explicitly expressed at the surface level, but there are many types of utterances in which they are omitted.

2.19. There exists one obligatory modifier – Speech function (Func). It has the following main classes:

- Statement: the most important metaverb is “STATE”, which is normally not expressed explicitly at the utterance level: *Игорь убирает комнату.* ‘Igor is cleaning up the room.’ There are also some other metaverbs, e.g. “ANSWER”, “AGREE”, “PROMISE”, “SWEAR.”
- Question: “ASK” (*Убирает ли Игорь комнату?* ‘Does Igor clean up the room?’)
- Request: the basic metaverb is “ASK FOR” (*Убери комнату!* ‘Do clean up the room!’) Further metaverbs: “ADVICE”, “INVITE”, “DEMAND”, “PROPOSE”, “WARN”, “BEG.”

2.20. Besides the main Speech functions, two more can be noted:

- Proclamation: “DECLARE” (*Объявляю заседание закрытым.* ‘I declare the meeting closed.’)
- Social contact: “COOPERATE” (*До свидания!* ‘Goodbye’) and “EMPATHIZE” (*Жаль, что так случилось.* ‘It’s a pity that it happened.’)

2.21. The whole range of Speech functions is used in direct speech (dialogue). Indirect speech (story telling) usually consists entirely of Statements.

2.22. There are three optional modifiers: Stage, Causation and Authorization.

2.23. The Agent of the modifier Stage is always the same as in the nucleus. The six categories of Stage are:

- The meaning of Irreal stage (Irr) occurs when the speaker builds up in his/her mind a hypothetical situation, a fragment of a virtual world (*Если бы я увидел медведя, я бы упал в обморок* 'If I saw a bear, I would faint.')
- Preparatory stage (PrePhase) is a possible part of the realization process of P referring to a phase where P has not yet begun to exist, but the potential Agent takes preparatory (usually mental) action in order to do or begin to do P. Metaverbs: "PLAN", "PREPARE", "DECIDE", "TRY", "AVOID" (*Ирина собирается поехать в Монголию* 'Irina is going to travel to Mongolia.')
- In Modal phase (ModPhase) attention is paid to the circumstances that have a certain influence on the probability of the realization of P. The Agent (or some kind of Experiencer) does not directly control the Modal phase, but s/he is the Agent of the potential P. Modal phases are indicated not by metaverbs, but by other metalexemes: "POSSIBLY", "IMPOSSIBLE", "ALLOWED", "PROHIBITED", "NECESSARY", "UNNECESSARY", "DESIRABLE", "UNDESIRABLE."
- Temporal phase (TempPhase) is expressed by the metaverbs "BEGIN", "CONTINUE", "FINISH" and by the metalexemes (non-agentive variants of the metaverbs) "BEGINNING", "CONTINUATION", "END" (*Виктор начал /продолжал /кончил убирать комнату. //Дождь пошел /продолжался /прекратился.* 'Igor started/continued/finished cleaning up the room // It started/continued/ceased to rain.')
- Change of tempo (Tempo) is expressed by metaverbs "SPEED UP" and "SLOW DOWN" (*Ирина спешила/затягивала подготовку проекта* 'Irina speeded up/delayed the preparation of the project.')
- Final stage (FinPhase) denotes some changes in the speakers' attitude to the realization of the final stage of P. Examples of the metaverbs: "MANAGE", "DO/ARRIVE IN TIME", "BE LATE."

2.24. In Causation (Caus), the activities of an Agent cause P, but the Agent her/himself is not the Agent (or other "Subject-actant") of P (cf. *Ирина рассердила Виктора.* 'Irina made Igor angry.' ≈ "Irina CAUSED (by her behaviour): Igor got angry.")

2.25. The modifier Causation differs from an embedded causation in the way that in the latter case we are dealing with a direct impact on the Object. The use of a metaverb does not reflect the nature of such a P in an acceptable way: [Ac; S, (=>Ch; O)] *Игорь укоротил ковер*. 'Igor shortened the carpet' ≠ "Igor CAUSED: the carpet got shorter."

2.26. The use of the modifier Causation differs from complex semantic structures with the metaconjunction "BECAUSE" in the sense that in the latter case we are not dealing with real causation, but with a cause-consequence relationship between two P's: {(Caus; P<sub>caus</sub>) [P]} *Сильный дождь вызвал полегание хлебов*. 'A heavy rain flattened the corn'; {[P] BECAUSE [P<sub>caus</sub>]} *Хлеба полегли вследствие сильного дождя*. 'The corn was flattened because of the heavy rain.'

2.27. There are several semantic categories of Causation:

- Pure causation (*Подарок Сергея порадовал Ирину / Павел пустил мяч по склону*. 'Sergey's gift made Irina happy, Pavel let the ball roll down the slope.')
- Factitive causation (*Сергей сшил себе в ателье костюм*. 'Sergey had his suit made by a tailor.')
- Deontic causation (*Ирина заставила Игоря убрать комнату*. 'Irina forced Igor to clean up the room.')
- Speech causation (*Ирина уговорила Игоря убрать комнату*. 'Irina persuaded Igor to clean up the room.')
- Preventative causation (*Ирина мешала Игорю убирать комнату*. 'Irina hindered Igor from cleaning up the room.')
- Permissive causation ("ALLOW" ≈ "NOT PREVENT") (*Ирина позволила Игорю убрать комнату*. 'Irina allowed Igor to clean up the room.')
- Prohibitive causation (*Ирина запретила Игорю убирать комнату*. 'Irina forbade Igor to clean up the room.')
- Assistive causation (*Ирина помогла Игорю убрать комнату*. 'Irina helped Igor to clean up the room.')

- Introductory Causation (*Ирина учила Игоря Виктора убирать комнату.* 'Irina taught Igor to clean up.')
- 2.28. The modification Authorization (Aut) gives additional information about the "owner" of the P or her/his attitudes to it.
- Author of the opinion {(Aut = REGARD; A<sub>Aut</sub>) [P]} denotes who stands behind the information given (*Согласно свежим исследованиям /по мнению некоторых финнов /по моему, баня (сауна) весьма положительно влияет на здоровье.* 'According to recent investigations/in the opinion of some Finns/to my mind sauna has a very positive influence on people's health.')
- Probability (epistemic modality, Mod<sub>Ep</sub>): the speaker comments on the scale of probability (p) of P: HIGH p (*Уверен, что он придет.* 'I am sure that he will come'), NOT-VERY-HIGH p (*Думаю, что он придет.* 'I think he will come'), LOW p (*Возможно, что он придет.* 'Maybe he will come.')
- Judgment: the speaker determines his/her attitude to P (*Хорошо/плохо/жаль/полезно, что будет дождь.* 'It is nice/bad/a pity/useful that it will rain.')

### *Specificators*

2.29. Specificators concretize particular features of an actant or a predicate. There are primary and secondary specificators.

2.30. Primary specificators give additional information mainly about the predicate. They therefore play a central role in the semantic structure. There are the following primary specificators: Negation, Temporality, and Aspectuality.

2.31. In speech, affirmation is usually not expressed and is considered to be present by default. It is therefore natural to speak about the specificator of Negation. It relates either to the predicate – and at the same time to the whole semantic structure – (*Вчера Игорь не читал газеты.* 'Yesterday Igor was not reading newspapers') or to a metaverb (*Вчера Игорь не хотел читать газеты.* 'Yesterday Igor did not want to read newspapers'), or to one of the actants or specificators (*Вчера вечером Игорь читал не газеты /Игорь читал газеты не вчера.* 'Yesterday Igor didn't read newspapers, Igor didn't read newspapers yesterday.')

2.32. In the field of Temporality the following semantic categories are considered: Time, Temporal Localization of the P, Repeated time.

- Time has three main meanings according to the combinations of the reference point, the time of the event, and the moment of speech: Past, Present, Future.
- All states of affairs are divided into two categories: temporally localized and temporally non-localized (abstract) (Temp<sub>Abstr</sub>). Only the temporally localized states of affairs can refer to a particular situation, cf.: *Вчера Игорь читал газеты/убирал комнату/играл в теннис/ смотрел телевизор.* 'Yesterday Igor read newspapers/cleaned up the room/played tennis/watched TV.' ~ \**Вчера Игорь был высоким /русским /любил мороженое.* '\*Yesterday Igor was tall/a Russian/liked ice-cream.'
- Repeated time has two types of realization: Frequentativeness (Temp<sub>Fr</sub>) (*Игорь был два раза в Одессе.* 'Igor has been to Odessa twice') and Usuality (Temp<sub>Us</sub>) (*Игорь часто бывает в Хельсинки.* 'Igor often travels to Helsinki.')

2.33. The main aspectual meanings are:<sup>3</sup>

- Stative (Asp = STAT) (*На улице холодно. / У Игоря была температура. /Ирина сидит в кресле.* 'It is cold, Igor had a temperature, Irina is sitting in the chair.')
- Processual (Asp = PROC) (*Ирина гуляла в лесу. /Антон что-то бормотал про себя./Анна играла на гитаре.* 'Irina wandered in the forest, Anton mumbled something to himself, Anna was playing the guitar.')
- Dynamic (Asp = DYN) (*Игорь пишет книгу. // Мы шли к магазину. // Ирина толкает / вталкивает машину в гараж.* 'Igor writes a book, we were going to the shop, Irina is pushing the car to the garage.')
- Terminal (Asp = TERM) (*Игорь написал диссертацию. // Мы дошли до магазина / подошли к магазину. // Ирина втолкала /втолкнула машину в гараж.* 'Igor wrote a book, we went to the shop, Irina pushed the car to the garage.')

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<sup>3</sup> Aspectuality seems to be one of the most difficult semantic categories in the sense that it is hard to differentiate Aspectuality as a semantic category and aspects in Slavonic languages (cf. Mustajoki 1999, 2005, 2006a ).

- Momental (Asp = MOM) (*Ирина чихнула. / Собака прыгнула. / Что-то блеснуло.* 'Irina sneezed, the dog jumped up, something flashed.')
- Resultative (Asp = RES) (*Мы приехали домой в два часа. / Игорь написал интересную книгу.* 'We arrived home at two o'clock, Igor has written an interesting book.')

2.34. The secondary specifiers are Determinacy, Quantity, Place and Manner.

2.35. The specifier of Determinacy has three main meanings:

- Defined (Det = DEF) (*Я купил эту машину.* 'I bought that car.')
- Specified (Det = SPEC) (*Я купил новую машину.* 'I bought a new car.')
- Unspecified (Det = INDEF) (*Я хотел бы купить новую машину.* 'I would like to buy a new car.')

2.36. There is also an additional case of Determinacy: Generalization, which occurs in temporally non-localized states of affairs (*Кошка умнее собаки / Кошки умнее собак. // Любовь вечна.* 'A cat is cleverer than a dog, cats are cleverer than dogs, love is eternal.')

2.37. The specifiers of Quantity can be divided into four main classes on the basis of whether they express exact or inexact quantity on the one hand, and absolute or relative quantity on the other. Examples: exact absolute (*четыре собаки* 'four dogs'), exact relative (*двое из нас* 'two of us'), inexact absolute (*несколько человек* 'some people'), inexact relative (*некоторые из нас* 'some of us').

2.38. More specific meanings can be expressed by metalexemes. So, inexact (absolute and relative) quantity is denoted by the metalexemes "A SMALL AMOUNT" (*Слушателей на концерт пришло немного.* 'Few people attended the concert'), "A NEUTRAL AMOUNT" (*Какое-то количество слушателей пришло на концерт. / Часть публики была в пьяном виде.* 'Some people attended the concert, a part of the audience was drunk'), "A BIG AMOUNT" (*Много людей / большинство из нас ходило на концерт.* 'A lot of people/most of us attended the concert.')

2.39. Quantity with an Authorization is expressed by the metalexemes "ONLY" and "ENOUGH."

2.40. The specifier Place (Loc) differs from the other optional specifiers referring to the whole semantic structure. There are several opposite pairs of place meanings: "IN" – "ON", "ABOVE" – "UNDER", "IN FRONT OF" – "BEHIND." Some further meanings can be distinguished, e.g. "BETWEEN", "OPPOSITE", "IN THE MIDDLE", "NEAR", "ALONG<sub>1</sub>."<sup>4</sup>

2.41. The main meanings of Place are divided into three variants according to which question they answer: movement TO, movement FROM, or without a movement, e.g. "IN-TO" (*положить в карман* 'to put into the pocket'), "IN-FROM" (*взять из кармана* 'to take from the pocket'), "IN" (*находиться в кармане* 'to be located in the pocket').

2.42. Obviously, some additional metaprepositions with more abstract place meanings have to be introduced, e.g. "AT<sub>1</sub>" (*Игорь на конференции /на собрании*. 'Igor is at a conference/in a meeting'), "AT<sub>2</sub>" (*Игорь у бабушки*. 'Igor is at his grandmother's'), "WITHIN" (*При университете имеется языковой центр*. 'There is a language centre within the university').

2.43. Some metaprepositions can be used only with a movement predicate, e.g. "THROUGH" (*(идти) через лес* 'to go through the forest'), ALONG<sub>2</sub> (*(идти) вдоль набережной* 'to walk along the seaside'), "VORBEI"<sup>5</sup> (*(идти) мимо университета* 'to pass the university (building)').

2.44. The specifier of Manner covers different semantic elements, which concretize the way the action is carried out. In a prototypical case the specifier characterizes the predicate ("QUICKLY", "SLOWLY"). Manner is often expressed at the surface level using an incorporation of that meaning to a verb, e.g. *бормочать* 'to mumble' ("speak quietly and indistinctly").

*Complex semantic structures: metaconjunction*

2.45. Complex semantic structures consist of two or more simple (or expanded simple) semantic structures and metaconjunction(s) joining them. They have the following schematic presentation {[P<sub>1</sub>] METACONJUNCTION [P<sub>2</sub>]}. Three types of relations can be determined: Connective, Taxis, and Logical.

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<sup>4</sup> As to the metaprepositions, it is important to bear in mind the obvious fact that they very often cover only a small part of the whole range of meanings of these polysemantic words. So "ON" is not the English *on*, but stands only for a certain meaning of it as the opposite of "IN", referring to a concrete location of an actant.

<sup>5</sup> The exceptional use of a German lexeme is due to the lack of a suitable English word.

2.46. Connective relations include the following meanings: Coordination (“AND”, “AS WELL”), Juxtaposition (“WHEREAS”), Division (“OR”), Identification (“EQUALS”), Comparison (“AS”).

2.47. Taxis relations include the following main meanings: Simultaneous (“AT THE SAME TIME AS”), Successive: Preceding (“BEFORE”), Successive: Following (“AFTER”).

2.48. Logical relations include the following basic meanings: Cause (“BECAUSE”), Consequence (“THEREFORE”), Condition (“IF”), Concession (“ALTHOUGH”), Goal (“IN ORDER TO”).

### 3. Relationship between semantic and surface structures

3.1. Although the semantic structure as a whole resembles the surface structure, there are a great number of cases of asymmetry between them.

3.2. Any semantic structure or part of it can have (and very often has) a variety of different linguistic expressions. So, Physiological state [St<sub>PHI</sub>; E] can be expressed by several surface structures (both in Russian and in English): *Ему холодно. ~ He is cold, У него температура. ~ He has a temperature, Он в коме. ~ He is in a coma, etc.*

3.3. Most surface structures are capable of representing more than one semantic structure, e.g. *У Игоря температура* ‘Igor has a temperature’ (Physiological state), *У Игоря синие глаза* ‘Igor has blue eyes’ (Characterization), *У Сергея новая машина* ‘Sergey has a new car’ (Possession).

3.4. There are some regular differences between semantic and surface structures, namely:

- Incorporation (*Ирина отравила мышь. ‘Irina poisoned the mouse’, cf. ‘Irina killed the mouse with poison’*).
- Ellipsis (*Я приду вовремя. ‘I will come in time’, cf. ‘I PROMISE: I will come in time.’*)
- Analytic expression (*Хирург сделал Сергею операцию ‘The surgeon performed an operation on Sergey’, cf. ‘The surgeon operated on Sergey.’*)

- Condensation (a whole P is expressed by a single word) (*Разочарования приводят к упадку духа*. 'Disappointment causes depression', cf. {[P<sub>1</sub>] CAUSES [P<sub>2</sub>]} or "The fact that *x* is disappointed CAUSES: *x* falls into depression").

3.5. The question concerning the synonymy of linguistic expressions representing the same semantic structure is settled by regarding them as having the same denotative (invariantive, "deep") meaning but different presentative (variantive) meanings produced by concrete forms of the surface structure.

3.6. The denotative and presentative meanings can be considered both at the schematic level and at the content level. Thus, the semantic structure [St<sub>PH</sub>; E] has different realizations at the surface level (N + Adj, N + V<sub>have</sub> + N, N + V<sub>be</sub> + in+N etc.). All these surface structures have the same denotative meaning, but differ from each other in presentative meaning. In a similar way the utterances *I am cold* and *I am freezing* have the same denotative meaning but different presentative meanings.

3.7. The description of linguistic expressions representing a given semantic category does not include structurally unstable hints, the interpretation of which is dependent on a particular speech situation. However, conventional indirect ways to express different meanings are taken into consideration. The structure found in the utterance *It would be nice if we went to the cinema* is therefore mentioned as a possible way of expressing Request because it represents a structural means for the indirect expression of this meaning.

3.8. The connection between a semantic structure and its surface equivalents is not established by means of some kind of generative machinery, but by using the linguistic intuition of a native speaker. A linguistic expression *x* is thus an equivalent for a semantic category or structure *y* on the condition that *x* can be used in expressing *y*. In proving this connection the researcher has to rely on the intuition of a native speaker.

3.9. Semantic structures do not reflect a particular language and the categories grammaticalized in it. They are to a certain extent universal. However, it is not reasonable to speak about "complete" universality; in order to justify this, it would be necessary to have more evidence from languages of different kinds.

3.10. The model of FS can be used in a description of a single language, as well as in a comparison of two or more languages. In the latter case FS serves as a *tertium comparationis* for the comparative study.

#### 4. Methodological approaches and solution taken in compiling the FS

4.1. The whole model is consistently based on the principle “from meaning to form.”

4.2. This principle concerns the presentation of the linguistic data. In establishing and defining the semantic categories that serve as the starting point for the model, a variety of methods and techniques can be used. This includes deriving evidence from the facts of different languages (i.e., the principle “from form to meaning” can be applied for this purpose).

4.3. FS seeks to provide a full description of a language, and not only some fragments of it, in the same sense as traditional grammars of different languages. However, phonetic, derivational, and morphological phenomena are not described, but are regarded as given. Therefore, for a FS of Russian it is enough to say that the structure “N<sub>dative</sub> + V<sub>быть</sub> + Adv-o” is one of the ways to express Physiological state; describing the formation of the dative case does not belong to the tasks of the FS.<sup>6</sup>

4.4. The concept of FS is characterized by the aspiration of combining a solid scientific foundation with a practical and applied orientation. As a consequence of this approach, the following features of FS can be mentioned:

- both solid theoretical works and materials intended for language learning have been used as background literature in the creation of the model and in the description of particular semantic categories;
- some classifications of semantic categories are based not only on a single criterion, but on a selection of different approaches; this makes the classifications less consistent, but at the same time they

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<sup>6</sup> This is one of the reasons why we call our model “Functional syntax” rather than “Functional grammar”: it covers mainly those linguistic phenomena traditionally described in syntax. The other reason for the name is the fact that the label “Functional grammar” is already “reserved” for some other models (including Dik’s and Bondarko’s).

better reflect the intuitive impression of a native speaker (and of a linguist) about the proximity of semantic units<sup>7</sup>;

- in the use of terminology, ultimate strictness and consistency is a natural goal; however, the full attainment of such exactitude would entail a much more detailed definition of each particular semantic category – which, as a contradictory result, would not necessary increase the number of readers understanding the terms in the way that the author intended;
- use of a “moderate” schematic notation.

4.5. The model of FS is presented at the same time in its (more or less) full form, covering “all” aspects of a linguistic description. Such an approach enables the reader to get an all-round picture of the abilities and possibilities of the concept. This is also essential for understanding the whole idea of FS because different details of the model acquire their real meaning only in the context of other ones. However, the aspiration to cover linguistic phenomena on a large scale makes it impossible, on the other hand, to pay sufficient attention to all the semantic categories described.

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<sup>7</sup> The classification of predicates can be used as an example of this principle. One can create a very systematic classification for them, using a matrix with two parameters that can be called functional and semantic. However, the concrete implementations of this idea (Martynov 1974, Klobukov 1986) show that the application of such strict criteria leads to a rather artificial solution which is far removed from an intuitive impression of the facts.

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