

SHIFTERS, VERBAL CATEGORIES, AND THE RUSSIAN VERB

1. SHIFTERS AND OTHER DUPLEX STRUCTURES

1.1 A message sent by its addresser must be adequately perceived by its receiver. Any message is encoded by its sender and is to be decoded by its addressee. The more closely the addressee approximates the code used by the addresser, the higher is the amount of information obtained. Both the message (M) and the underlying code (C) are vehicles of linguistic communication, but both of them function in a duplex manner; they may at once be utilized and referred to (= pointed at). Thus a message may refer to the code or to another message, and on the other hand, the general meaning of a code unit may imply a reference (*renvoi*) to the code or to the message. Accordingly four DUPLEX types must be distinguished; 1) two kinds of CIRCULARITY - message referring to message (M/M) and code referring to code (C/C); 2) two kinds of OVERLAPPING - message referring to code (M/C) and code referring to message (C/M).

1.2 M/M "REPORTED SPEECH" is speech within speech, a message within a message and at the same time it is also speech about speech, a message about a message," as *Vološinov* formulates it in his study of this crucial linguistic and stylistic problem. Such "relayed" or "displaced" speech, to use *Bloomfield's* terms, may prevail in our discourse, since we are far from confining our speech to events sensed in the present by the speaker himself. We quote others and our own former utterances, and we are even prone to present some of our current experiences in the form of self-quotation, for instance by confronting them with statements by someone else: "Ye have heard that it hath been said*** But I say unto you***" There is a multiplex scale of linguistic processes for quoted and quasi-quoted speech; *oratio recta*, *obliqua*, and various forms of "represented discourse" (*style indirect libre*). Certain languages, as for instance Bulgarian (s. *Andrejčin*), Kwakiutl (s. *Boas*), and Hopi (s.

Whorf), use particular morphological devices to denote events known to the speaker only from the testimony of others. Thus in *Tunica* all statements made from hearsay (and this covers the majority of sentences in the texts aside from those in direct discourse) are indicated by the presence of *-áni*, a quotative postfix used with the copulative word (*Hase*).

1.3 C/C PROPER NAMES, treated in *Cardinal's* "controversial essay" as a very knotty problem of linguistic theory, take a particular place in our linguistic code: the general meaning of a proper name cannot be defined without a reference to the code. In the code of English, "Jerry" means a person named Jerry. The circularity is obvious: the name means anyone to whom this name is assigned. The appellative *pup* means a young dog, *mongrel* means a dog of mixed breed, *hound* is a dog used in hunting, while *Fido* means nothing more than a dog whose name is *Fido*. The general meaning of such words as *pup*, *mongrel*, or *hound*, could be indicated by abstractions like *puppyhood*, *mongrelness*, or *houndness*, but the general meaning of *Fido* cannot be qualified in this way. To paraphrase *Bertrand Russell*, there are many dogs called *Fido*, but they do not share any property of "Fidoness". Also the indefinite pronoun corresponding to names such as *Jean*, *Jan*, *Joan*, *June*, etc. - the "what's-her-name" or "what-do-you-call-her" or "how-d'ye-call-her" - includes a patent reference to the code.

1.4 M/C A message referring to the code is in logic termed an AUTO-NYMOUS mode of speech. When we say, *The pup is a winsome animal* or *The pup is whimpering*, the word *pup* designates a young dog, whereas in such sentences as "*Pup*" is a noun which means a young dog, or more briefly, "*Pup*" means a young dog or "*Pup*" is a monosyllable, the word *pup* - one may state with *Carnap* - is used as its own designation. Any elucidating interpretation of words and sentences - whether intralingual (circumlocutions, synonyms) or interlingual (translation) - is a message referring to the code. Such a hypostasis - as *Bloomfield* pointed out - "is closely related to quotation, the repetition of speech", and it plays a vital role in the acquisition and use of language.

1.5 C/M Any linguistic code contains a particular class of grammatical units which *Jespersen* labeled SHIFTERS: the general meaning of a shifter cannot be defined without a reference to the message.

Their semiotic nature was discussed by *Burks* in his study on *Peirces'* classification of signs into symbols, indices, and icons. According to

Peirce, a symbol (e.g. the English word *red*) is associated with the represented object by a conventional rule, while an index (e.g. the act of pointing) is in existential relation with the object it represents. Shifters combine both functions and belong therefore to the class of INDEXICAL SYMBOLS. As a striking example Burks cites the personal pronoun. *I* means the person uttering *I*. Thus on one hand, the sign *I* cannot represent its object without being associated with the latter "by a conventional rule", and in different codes the same meaning is assigned to different sequences such as *I, ego, ich, ja* etc.: consequently *I* is a symbol. On the other hand, the sign *I* cannot represent its object without "being in existential relation" with this object: the word *I* designating the utterer is existentially related to his utterance, and hence functions as an index (cf. Benveniste).

The peculiarity of the personal pronoun and other shifters was often believed to consist in the lack of a single, constant, general meaning. Husserl: "Das Wort 'ich' nennt von Fall zu Fall eine andere Person, und es tut dies mittels immer neuer Bedeutung." For this alleged multiplicity of contextual meanings, shifters in contradistinction to symbols were treated as mere indices (Bühler). Every shifter, however, possesses its own general meaning. Thus *I* means the addresser (and *you*, the addressee) of the message to which it belongs. For Bertrand Russell, shifters, or in his terms "egocentric particulars", are defined by the fact that they never apply to more than one thing at a time. This, however, is common to all the syncategorematic terms. E.g. the conjunction *but* each time expresses an adversative relation between two stated concepts and not the generic idea of contrariety. In fact, shifters are distinguished from all other constituents of the linguistic code solely by their compulsory reference to the given message.

The indexical symbols, and in particular the personal pronouns, which the Humboldtian tradition conceives as the most elementary and primitive stratum of language, are, on the contrary, a complex category where code and message overlap. Therefore pronouns belong to the late acquisitions in child language and to the early losses in aphasia. If we observe that even linguistic scientists had difficulties in defining the general meaning of the term *I* (or *you*), which signifies the same intermittent function of different subjects, it is quite obvious that the child who has learned to identify himself with his proper name will not easily become accustomed to such alienable terms as the personal pronouns: he may be afraid of speaking of himself in the first person while being called *you* by his interlocutors. Sometimes he attempts to redistribute

these appellations. For instance, he tries to monopolize the first person pronoun: "Don't dare call yourself *I*. Only *I* am *I*, and you are only *you*." Or he uses indiscriminately either *I* or *you* both for the addresser and the addressee so that this pronoun means any participant of the given dialogue. Or finally *I* is so rigorously substituted by the child for his proper name that he readily names any person of his surroundings but stubbornly refuses to utter his own name: the name has for its little bearer only a vocative meaning, opposed to the nominative function of *I*. This attitude may persevere as an infantile survival. Thus Guy de Maupassant confessed that his name sounded quite strange to him when pronounced by himself. The refusal to utter one's own name may become a social custom. Zelenin notes that in the Samoyede society the name was taboo for its carrier.

1.6 *Jim told me "flicks" means "movies"*. This brief utterance includes all four types of duplex structures: reported speech (M/M), the autonomous form of speech (M/C), a proper name (C/C), and shifters (C/M), namely the first person pronoun and the preterit, signaling an event prior to the delivery of the message. In language and in the use of language, duplicity plays a cardinal role. In particular, the classification of grammatical, and especially verbal, categories requires a consistent discrimination of shifters.

2. ATTEMPT TO CLASSIFY VERBAL CATEGORIES

2.1 In order to classify the verbal categories two basic distinctions are to be observed:

- 1) speech itself (S^a), and its topic, the narrated matter (n);
- 2) the event itself (E), and any of its participants (P), whether "performer" or "undergoer".

Consequently four items are to be distinguished: a narrated event (E^n), a speech event (E^a), a participant of the narrated event (P^n), and a participant of the speech event (P^a), whether addresser or addressee.

2.11 Any verb is concerned with a narrated event. Verbal categories may be subdivided into those which do and those which do not involve the participants of the event. Categories involving the participants may characterize either the participants themselves (P^n) or their relation to the narrated event ($P^n E^n$). Categories abstracting from the participants

characterize either the narrated event itself (E^n) or its relation to another narrated event ($E^n E^n$). For categories characterizing only one narrated item – either the event (E^n) itself or its participants (P^n) themselves – the term **DESIGNATORS** will be used, while those categories which characterize a narrated item (E^n or P^n) with respect to another narrated item ($E^n E^n$ or $P^n E^n$) will be termed **CONNECTORS**.

Designators indicate either the quality or the quantity of the narrated item and may be termed **QUALIFIERS** and **QUANTIFIERS** respectively.

Both designators and connectors may characterize the narrated event (*procès de l'énoncé*) and/or its participants either without or with reference to the speech event (*procès de l'énonciation*) (\dots/E^s) or its participants (\dots/P^s). Categories implying such a reference are to be termed **SHIFTERS**; those without such a reference are **NON-SHIFTERS**.

With regard to these basic dichotomies any generic verbal category can be defined.

2.2 P^n Among categories involving the participants of the narrated event, **GENDER** and **NUMBER** characterize the participants themselves without reference to the speech event – gender qualifies, and number quantifies the participants. E.g. in Algonquian, verbal forms indicate whether the performer on the one hand, and the undergoer on the other, are animate or inanimate (Bloomfield, 1946); and the singleness, duality, or multiplicity of performers as well as undergoers is expressed in Koryak conjugation (Bogoraz).

2.21 P^n/P^s **PERSON** characterizes the participants of the narrated event with reference to the participants of the speech event. Thus first person signals the identity of a participant of the narrated event with the performer of the speech event, and the second person, the identity with the actual or potential undergoer of the speech event.

2.3 E^n **STATUS** and **ASPECT** characterize the narrated event itself without involving its participants and without reference to the speech event. Status (in Whorf's terminology) defines the logical quality of the event. E.g. in Gilyak, the affirmative, presumptive, negative, interrogative, and negative-interrogative statuses are expressed by special verbal forms (Krejnovič). In English the assertive status uses the "do"-combinations which in certain conditions are optional for an affirmative assertion but compulsory for a negative or questioned assertion. On aspects which quantify the narrated event see examples in 3.3.

2.31 $E^n E^s$ **TENSE** characterizes the narrated event with reference to the speech event. Thus the preterit informs us that the narrated event is anterior to the speech event.

2.4 $P^n E^n$ **VOICE** characterizes the relation between the narrated event and its participants without reference to the speech event or to the speaker.

2.41 $P^n E^n/P^s$ **MOOD** characterizes the relation between the narrated event and its participants with reference to the participants of the speech event: in Vinogradov's formulation, this category "reflects the speaker's view of the character of the connection between the action and the actor or the goal".

2.5 $E^n E^n$ There is no standardized name for this category; such labels as "relative tense" cover only one of its varieties. Bloomfield's (1946) term "order" or rather its Greek model "taxis" seems to be the most appropriate. **TAXIS** characterizes the narrated event in relation to another narrated event and without reference to the speech event, thus Gilyak distinguishes three kinds of independent taxis – one requires, one admits, and one excludes a dependent taxis, and the dependent taxes express various relationships with the independent verb – simultaneity, anteriority, interruption, concessive connection, etc. A similar Hopi pattern is described by Whorf.

2.51 $E^n E^{ns}/E^s$ **EVIDENTIAL** is a tentative label for the verbal category which takes into account three events – a narrated event, a speech event, and a narrated speech event (E^{ns}), namely the alleged source of information about the narrated event. The speaker reports an event on the basis of someone else's report (quotative, i.e. hearsay evidence), of a dream (revelative evidence), of a guess (presumptive evidence) or of his own previous experience (memory evidence). Bulgarian conjugation distinguishes two semantically opposite sets of forms: "direct narration" ($E^{ns} = E^s$) vs. "indirect narration" ($E^{ns} \neq E^s$). To our question, what happened to the steamer *Evdokija*, a Bulgarian first answered: *zaminala* "it is claimed to have sailed", and then added: *zamina* "I bear witness; it sailed." (Cf. H. G. Lunt on the systematic distinction made in the Macedonian verbal pattern between "vouched for" and "distanced" events.)

2.6 The interrelation of all these generic categories may be illustrated by the following over-all scheme:

	<i>P involved</i>		<i>P not involved</i>	
	<i>Designator</i>	<i>Connector</i>	<i>Designator</i>	<i>Connector</i>
<i>Qualifier:</i> <i>Quantifier:</i>	Gender Number	Voice	Status Aspect	Taxis
<i>Shifter:</i> <i>Shifter:</i>	Person	Mood	Tense	Evidential

With special regard to the opposition shifters vs. non-shifters, we condense this model into a simpler table:

	<i>P involved</i>		<i>P not involved</i>	
	<i>Designator</i>	<i>Connector</i>	<i>Designator</i>	<i>Connector</i>
<i>Non-shifter:</i> <i>Shifter:</i>	P ⁿ P ⁿ /P ^s	P ⁿ E ⁿ P ⁿ E ⁿ /P ^s	E ⁿ E ⁿ /E ^s	E ⁿ E ⁿ E ⁿ E ^{ns} /E ^s

3. THE GRAMMATICAL CONCEPTS OF THE RUSSIAN VERB

3.1 Let us list and classify the grammatical concepts expressed by the Russian verbal forms. This list amends and complements our studies of 1932 and 1939. As was pointed out in these papers, one of two mutually opposite grammatical categories is "marked" while the other is "unmarked". The general meaning of a marked category states the presence of a certain (whether positive or negative) property A; the general meaning of the corresponding unmarked category states nothing about the presence of A, and is used chiefly, but not exclusively, to indicate the absence of A. The unmarked term is always the negative of the marked term, but on the level of general meaning the opposition of the two contradictories may be interpreted as "statements of A" vs. "no statement of A", whereas on the level of "narrowed", nuclear meanings, we encounter the opposition "statement of A" vs. "statement of non-A".

When referring to a pair of opposite grammatical categories, we always qualify them as "marked vs. unmarked" in that order. Likewise, in referring to classes, first the designators and then the connectors are mentioned. Within each of these classes, categories involving P are listed before categories confined to E. Finally it is appropriate to treat the shifters before the corresponding non-shifters.

All verbal categories are dealt with except participles, a hybrid class which grammatically pertains both to the verb and to the adjective.

3.2 PERSON: a) personal (signaling that Pⁿ = P^s) vs. impersonal; b) within personal: first person (signaling the addresser) vs. second person (signaling any imaginable P^s and more narrowly the addressee); c) within 2nd person: inclusive (signaling the participation of the addresser) vs. exclusive (without such an indication). Imperative and hortative use this distinction: cf. *otdoxnem* and *otdoxni*, *otdoxnemte* and *otdoxnite*.

3.21 GENDER: a) subjective (signaling the presence of Pⁿ) vs. neuter; b) within subjective: feminine (signaling that Pⁿ is not male) vs. masculine (which does not specify sex): *Vošel staršij vrač, ženščina let soroka.*

NUMBER: plural (signaling the plurality of Pⁿ) vs. singular.

3.3 TENSE: preterit vs. present.

3.31 STATUS is expressed in Russian on a syntactical, but not on a morphological level: cf. *Ne on... Ne pojdet... On li? ... Pojdet li?*

ASPECT: a) perfective (concerned with the absolute completion of Eⁿ) vs. imperfective (noncommittal with respect to completion or non-completion): cf. impf. *pet'* 'to sing' and pf. *spet'* 'to complete singing'; impf. *dopevat'* 'to be in the final stage of singing' and pf. *dopet'* 'to complete the final stage of singing'; impf. *zapevat'* 'to be in the initial stage of singing' and pf. *zapel'* 'to complete the initial stage of singing'. The preterit signals that of two events, Eⁿ precedes E^s, while the present implies no sequence; consequently a perfective verb in the preterit cannot be used for a reiterated completion, since only the last completion in the temporal sequence is expressed by the perfective aspect: *Inogda on pogovarival (impf.) o reformax* (the pf. *pogovoril* could not be used); *To vystrel razdavalsja (impf.), to slyšalis' kriki* (perfective preterits *razdalsja, poslyšalis'* could not be substituted for these imperfective forms). Only if the repetitive event is summed up and its final completion is stated, the perfective preterit may be used: *Za vse eti dni on ponagovoril o reformax*. In the present, where no temporal sequence is grammatically involved, each completion is absolute, and the perfective is used: *Inogda on pogovorit o reformax; To vystrel razdastsja, to kriki poslyšatsja*. The perfective preterit signals the temporal antecedence of Eⁿ (in relation to E^s) and its completion. The perfective present does not indicate whether Eⁿ precedes E^s or not, and when used in its narrowed,

nuclear meaning, it intimates that Eⁿ does not precede E^s, and thus its envisaged completion is posterior to E^s: futurity is the most usual meaning of the perfective present, e.g. *Oni zakričat* 'They are expected to raise a cry'.

b) within imperfective: determinate (signaling the integrity, unbrokenness of Eⁿ) vs. indeterminate, e.g. *exat* - *ezdit*'.

c) within imperfective and indeterminate: iterative (signaling a formerly reiterated or habitual and later irrevocable Eⁿ) vs. non-iterative: *On pljasyval* 'He used to dance but later ceased to' - *On pljasal* 'He danced'.

d) within imperfective: inceptive (signaling the inception of Eⁿ) vs. non-inceptive.

e) within inceptive: perfectivized ("future") vs. non-perfectivized. Both varieties of the inceptive are expressed by periphrastic forms combining the infinitive of an imperfective verb with the present forms of the auxiliary verb "to be". The non-perfectivized inceptive uses the imperfective form of the auxiliary verb, while the perfectivized inceptive resorts to the corresponding perfective forms. The imperfective present form is expressed by a zero form (\neq), opposed to the imperfective preterit *byl* etc. on the one hand, and to the perfective present *budu* etc. on the other hand. The non-perfectivized inceptive simply states the act of starting: *Oni kričat* 'they are about to cry'; the perfectivized inceptive anticipates the completion of the starting act: *Oni budut kričat* 'they are expected to cry'. The relation between these two forms is similar to the usual relation between *Oni kričat* and *Oni zakričat*. [It has been objected that such forms as *Oni kričat* are mere elliptical constructions (= *Oni stali* or *načali kričat*) allegedly confined to the terminal position in a sentence and to infinitives rendering an exterior, palpable action. The belief that a finite verb is omitted in such expressions has long ago been correctly discarded by Šaxmatov, and vainly would one endeavor to replace the zero form of the auxiliary verb "to be" by some preterits in proverbs like *Ljudi molotit*, *a on zamki kolotit* 'People are about to thresh, while he is about to break locks'. Neither the restrictive references to "a final position" and to "a concrete action", nor the old attempts to call in question the use of the second person in this type of constructions take into account such current turns of speech as *Ty filosofstvovāt*, *da vsě bez tolku* 'You are about to philosophize, yet still it makes no sense at all'.]

3.4 MOOD: a) conditional (signaling events which could happen in the speaker's view without having actually happened) vs. indicative.

Cf. *Žil by on na vole, ne znal by pečali* 'If he lived in freedom, he would

know no sorrow' and *Žil on na vole, ne znal pečali* 'He lived in freedom and knew no sorrow'; *Žit' by emu na vole, ne znat' by pečali* 'If he could live in freedom, he would know no sorrow' and *Žit' emu na vole, ne znat' pečali* 'May he live in freedom and know no sorrow'; *Žit' by emu na vole!* 'May he live in freedom!'

b) injunctive (signaling the Eⁿ as imposed upon the participant) vs. indicative.

There are two basic varieties of the injunctive: either it figures as a pure appeal (address-form) or it is transposed into a declarative statement.

Two appeal forms of the injunctive are to be distinguished: hortative (signaling a participation in the Eⁿ) vs. imperative. The latter calls for a participation in the Eⁿ, while the former adds a coaxing note. The perfective and determinate verbs express these categories by univocal forms while the other verbs use periphrastic forms to indicate the inclusive person. E.g. in the hortative, the perfective verb *napisat'* and the corresponding imperfective *pisat'* present the paradigm: addresser *napišu-ka*, *budu-ka pisat'*, addressee *napiši-ka*, *piši-ka*, addressees *napišite-ka*, *pišite-ka*, addresser-addressee *napišem-ka*, *budem-ka pisat'*, (attenuated appeal: *davaj-ka pisat'*), addresser-addressees, *napišemte-ka*, *budemte-ka pisat'* (attenuated *davajte-ka pisat'*). The imperative offers the same paradigm as the hortative, but without the particle *ka* and without the exclusive addresser form (1Sg.): in the imperative the addressee is always involved whether in singular or in plural and whether with or without addresser's participation, whereas the hortative involves the addressee and/or the addresser. Only the hortative of the determinate verbs lacks the 1Sg. form.

The declarative form of the injunctive contains no distinctions of grammatical person or number and syntactically may be applied to each of the so-called "three persons" in both numbers. When used in a conditional clause, it means a counterfactual assumption of the speaker: *Pobegi* (or *begi*) *on, emu by ne sdrobrovat'* 'Had he set out running (had he run), it would have turned out badly for him'. In an independent clause this form of imperfective verbs means a compulsion upon the Pⁿ assumed by the P^s: *Vse otdyxajut, a on begi* 'Everybody is resting, while he has to run'. The corresponding perfective form means an action performed by Pⁿ but so surprising for P^s that it seems counterfactual; *Vse otdyxajut, a on (ni s togo, ni s sego) pobegi* 'Everybody is resting, while he (all of a sudden) sets off running'. When such a narrative injunctive is built from imperfective verbs, it resorts to a periphrastic imperative form: *Vse otdyxajut, a on (ni s togo, ni s sego) davaj bežat'*

'Everyone is resting, while he (all of a sudden) is running'. Thus the narrative injunctive of a perfective verb uses its imperative addressee form ("2Sg."), while the narrative injunctive of an imperfective verb uses the imperative addressee form of the auxiliary verb *davaj*. Only the imperfective verbs when used in independent clauses express the difference between the two varieties of a declarative injunctive: [assumptive] *begi*; and [narrative] *davaj bežat*'.

3.41 VOICE: reflexive vs. non-reflexive. In contradistinction to the latter, the "reflexive" restricts the participation in the narrated event. The non-reflexive verb corresponding to the reflexive verb may syntactically be transitive or intransitive. The transitive admits two primary Pⁿ – a subject and a direct object, and the reflexive form excludes the second of them. Cf. *Sonja myla posudu* 'S. washed the dishes' and *Sonja mylas* 'S. washed herself' or *Posuda mylas* 'The dishes were washed'. The grammatical subject is the only primary participant admitted by the intransitive verb. As a rule, the corresponding reflexive form excludes the subject and is used only in impersonal constructions (cf. *Ja tjaželo dyšu* 'I breathe heavily' and *Tjaželo dyšitsja* 'it's difficult to breathe'); or in a few cases, the sphere of action undergoes a substantial restriction (cf. *Parus beleet* 'A sail shows white' and *Parus beleetsja vdali* 'A sail glimmers white in the distance'; *zvonju* 'I ring' and *zvonjus* 'I ring at the door').

3.5 EVIDENTIAL is expressed in Russian only on a syntactical level. Cf. such particles as *de*, *mol*, and the devices used by the various forms of direct and indirect speech.

3.51 TAXIS: a) dependent (signaling an Eⁿ concomitant with another, principal Eⁿ) vs. independent. A tense in a dependent taxis functions itself as a taxis: it signals the temporal relation to the principal Eⁿ and not to the E^s as tense does in an independent taxis.

The relation preterit vs. present is changed into an opposition definable in Whorf's terms as sequential (signaling the temporal contact between the two Eⁿ). Imperfective preterit gerund: *Vstrečav ee v rannej mladosti, on snova uvidel ee čerez dvadcat' let* 'After having repeatedly met her in his early youth, he saw her again twenty years later'; *Nikogda ne vstrečav ego ran'se, ja včera poznamilsja s nim* 'Having never met him before, yesterday I made his acquaintance'. Imperfective present gerund: *Vstrečaja družej, on radovalsja or raduetsja* 'when meeting friends, he was (is) delighted'; *On umer rabotaja* 'He died while working' (both

events are closely connected in time). There is a similar relation between the preterit and present form of the perfective gerund – *vstretiv* and *vstretja*. It is hardly possible to substitute the latter form for the former in such a sentence as *Vstretiv ee v rannej mladosti, on snova uvidel ee čerez dvadcat' let* 'After having met her once in his early youth, he saw her again twenty years later' or *nikogda s nej bol'se ne, videlsja* 'never saw her again'. One can say *Pročitav* (or *pročtja*) *knigu, on zadumalsja* 'Having read the book, he lapsed into thought', but *pročtja* could not be used in the sentence *Pročitav knigu, on vposledstvii často govoril o nej* 'When he read a book, later on he often spoke about it'. Examples of the perfective present gerund: *vstretja vas, ja* (one may add *pri ètom*) *ne poveril* (or *ne xotel verit*) *svoim glazam* 'Having met you, I did not believe (did not want to believe) my eyes': both events are nearly simultaneous. If the principal verb precedes such a gerund, the latter may express the resultant of the first of two closely contiguous events: *On vnes predloženie, vstretja (pri ètom) rjad vozraženij* 'He introduced a proposal which met with a number of objections'; *Ona upala, povredja sebe (pri ètom) rebro* 'She fell and thereby hurt a rib'. Only a few verbs build a perfective present gerund, and even in their paradigms there is a tendency to replace such forms by the preterit form and in this way abolish the distinction between sequential and concursive in the perfective gerunds: *On zažeg spičku, osvetiv* (substituted for *osvetja*) *komnatu* 'He struck a match and thereby lighted up the room', but *On zažigal spičku, každyj raz osveščaja* (and not *osveščav*) *na mig komnatu* 'Each time he struck a match, he lighted up the room for a second'.

In the Moscow speech of my generation the sequential is split into two purely tactic forms – consequential (signaling an internal connection between the two Eⁿ) vs. non-consequential (without implying internal connection): *Nikogda ne vstrečavši akterov, on ne znal, kak govorit' s nimi* 'Since he had never met actors, he did not know how to approach them'; *Nikogda prežde ne vstrečav akterov, on slučajno poznamilsja s Kačalovym* 'Having never before met actors, he became acquainted with K.'; *Vstretivši ego, ona gusto pokrasnela* 'She blushed scarlet, because of having met him', *Vstretiv Petra, on vskore stolknulsja ešče s neskol'kimi znakomymi* 'Shortly after having met Peter, he ran into some other friends'. It is easier to substitute forms like *vstretiv* for forms like *vstretivši* than vice versa. One may say, *Snjavši* (or *snjav*) *pal'to, ja počuvstvoval pronizyvajuščij xolod* 'When I took off my coat, I (consequently) felt a piercing cold'. But the form *snjavši* is scarcely possible in a sentence like *Snjav pal'to, ja sel za stol* 'After having taken off my coat, I sat down at the

table'. Thus the alleged synonymy of such forms as *sxvatja*, *sxvativ*, *sxvativši* or *poxalturja*, *poxalturiv*, *poxalturivši* is actually invalid.

3.6 Among all verbal forms, it is the infinitive which carries the minimal grammatical information. It says nothing either about the participant of the narrated event or about the relation of this event to other narrated events and to the speech event. Thus the infinitive excludes person, gender, number, taxis and tense.

To a lesser extent than in the infinitive, the concurrence of verbal categories undergoes restrictive laws.

Gender and marked number (plural) are mutually exclusive.

Person and gender are mutually exclusive.

Person implies number.

Person and marked tense (preterit) are mutually exclusive.

P-designators and marked taxis (gerund) are mutually exclusive.

Among marked aspects, 1) perfective, determinate and iterative, 2) perfective, iterative and inceptive are mutually exclusive, and only determinate and inceptive are compatible: e.g. *On bežat'* and *On budet bežat'*.

Inceptive excludes marked tense (preterit), marked (non-indicative) mood and marked taxis (gerund).

Iterative excludes present and injunctive (correlated with the present).

Conditional and present are mutually exclusive.

Except for the appeal forms of the injunctive, marked (non-indicative) moods and person are mutually exclusive.

The appeal forms exclude the opposition personal vs. impersonal and imply the opposition inclusive vs. non-inclusive.

Marked (non-indicative) mood and marked taxis (gerund) are mutually exclusive.

Aspect and voice are the only categories compatible with all verbal categories whatsoever. Among aspects, however, only the pairs perfective vs. imperfective and determinate vs. indeterminate embrace all verbal categories. The pair inceptive vs. non-inceptive is confined to the present, whereas the opposition iterative vs. non-iterative excludes only the present and the injunctive. Cf. *My živali v stolice* 'We are no longer living in the capital, as we used to in the past'; *Esli by on ne žival v stolice, on skoree privyk by k derevne* 'If he had never lived in the capital as he used to, it would be easier for him to get accustomed to the country'; *Živavši podolgu v stolice, on ne mog svyknut'sja s provinciej* 'Having formerly spent long intervals in the capital, he could hardly adjust himself to the province'; *Emu privelos' živat' podolgu v derevne*

'Only in the past he had occasion to spend long intervals in the country'; *V ètom gorode nam ne živat'* 'Nevermore are we to live in this city as we used to'; *Na čužbine ne živat' – toski ne znavat'* 'He who has not spent a lot of time in foreign lands, has not experienced nostalgia'.

For the non-transitive verbs the voice opposition reflexive vs. non-reflexive is usually confined to the unmarked person (impersonal) of the unmarked aspect (imperfective).

4. THE GRAMMATICAL PROCESSES OF THE RUSSIAN VERB

4.1 Any Russian inflected form comprehends a stem and a desinence. Stems are prefixed or unprefixed (simple). In our examples a desinence is separated from a stem by a dash, a prefix from the following morpheme by a plus, and morphemes within a simple stem or desinence are separated from each other by a hyphen, e.g. /ví+rv-a-l-a-s/.

A stem may include a stem-suffix, e.g. /rv-á-t/, or be unsuffixed, e.g. /grís-t,/. A verbal stem may present two alternants – the full-stem and the truncated stem, differing from the former ordinarily by the omission of the final phoneme, e.g. /znáj-/:/zná-;/ /rvá-/:/rv-/. Full stems are divided into closed stems ending in a non-syllabic, /znáj-/, /star-éj-/, /gríz-/, and open stems, ending in a syllabic, /rvá-/, /dú-nu-/ (for a detailed account see our paper of 1948).

Three types of desinential morphemes are to be distinguished; an "initial suffix" which is never preceded by another desinential suffix, e.g. /rv-a-l-á/ or /rv-a-l-á-s/, /rv,-ó-m/ or /rv,-ó-m-sa/; a "final suffix" which does occur without being followed by another suffix, e.g. /rv-a-l-á/, /rv,-ó-m/; a "postfix" which may be added to a final suffix, e.g. /rv-a-l-á-s/, /rv,-ó-m-sa/, /rv-á-f-ši/. If a desinence consists of one suffix, the latter is at once initial and final, e.g. /rv-ú/, /gríz,-á/. The desinences are divided into consonantal and vocalic. The consonantal desinences begin with a consonant /gríz-l-a/ or consist of one consonant /zná-f/. The vocalic desinences begin with a vowel /gríz,-ó-š/ or consist of one vowel /gríz-ú/ or of a zero alternating with a vowel /znáj-#/:/gríz,-í/.

Different verbal categories make use of unsimilar grammatical processes.

4.2 Person, gender, and number employ the final desinential suffixes. When person is expressed, the distinction between the two numbers and between the first and second person is conveyed by the same suffixes at

once, while the "third person" is rendered by the final, and its number by the initial suffix /gar,—i-t/:/gar,—á-t/. This is the only exception to the utilization of final suffixes by the designators characterizing the participants of the narrated event. With this separate expression of number and "third" person, compare the pronominal pattern: while suppletion is used in the pronouns of the first and second person (/já/ and /mí/, /tí/ and /ví/), the "third person" is expressed by the root and the difference of gender and number by the desinences: /ón—#/ , /an—á/ and /an,—i/.

4.3 To signal tenses, vocalic desinences are used for the present, and consonantal ones for the preterit, /znáj—u/:/zná—l—#/; /znáj—a/:/zná—f/; /rv,—ó-m/:/rv—á—l,—i/. Vocalic desinences distinguish the present and the injunctive mood, correlated with the present indicative, from all other verbal forms – preterit as well as infinitive. The latter uses a one-suffix consonantal desinence which ends in zero alternating with a vowel (/zná—t,/:/n, is—t, i/).

4.31 Aspects are differentiated by modifications in the stem (stem-suffixes or prefixation) and by periphrastic forms. The pair determinate vs. indeterminate is distinguished by the alternation of two unprefixated stems: either an open full-stem is opposed to a closed full-stem ending in /-aj-/, /-áj-/, or an unaffixed stem is opposed to a suffixed stem. /b, iž-á—/:/b, ég-aj—/, /l, it,—é—/:/l, it-áj—/, /kat,—i—/:/kat-áj—/, /n, ós—/:/nas-í—/. The two unaffixed stems of the pair iterative vs. non-iterative are distinguished by the suffix /-ivaj—/ or /-váj—/ in the iterative form, e.g. /p, is-ivaj—/:/p, is-á—/, /čit-ivaj—/:/čit-áj—/, /zna-váj—/:/znaj—/. If a prefix is added to an iterative vs. non-iterative or determinate vs. indeterminate pair, then unless the lexical meaning of the pair diverges, the relation between its members changes into the opposition perfective vs. imperfective. Determinate and indeterminate become perfective and imperfective respectively, while iterative changes into imperfective and non-iterative into perfective, cf. /pr, i+n'ós—/:/pr, i+nas,—i—/:/ví+p, is-a—/:/ví+p, is-ivaj—/. In other pairs, perfective vs. imperfective, a prefixed stem is opposed to an unaffixed one or an open full-stem to a closed one ending in /-aj-/, /-áj-/, e.g. /na+p, is-á—/:/p, is-á—/, /r, iš-í—/:/r, iš-áj—/, /p, ix-nú—/:/p, ix-áj—/, /at+r, éz-a—/:/at+r, iz-áj—/. If both members of a perfective vs. imperfective pair have open stems, the stem-suffix /-nu—/, /-nú—/ signals the perfective verb, e.g. /kr, ik-nu—/:/kr, ič-á—/, /max-nú—/:/max-á—/.

The inceptive aspect combines the infinitive of the given verb with the perfective and imperfective present of the verb "to be".

4.4 Among the connectors, the non-shifters are expressed by means of postfixes. The marked voice joins a postfix to the final desinential suffix of the corresponding unmarked voice; the reflexive adds the postfix /-s/ or its automatic variants /-sa/, /-sá/ and /-ca/, e.g. /fstr, éč—u-s/, /fstr, ét,—i-š-sa/, /fstr, ét,—i-t-ca/. The correlative form of the preterit gerund adds the postfix /-ši/ to the non-correlative forms, e.g. /fstr, ét,—i-f-ši/:/fstr, ét,—i-f/. But before a second postfix, namely in the preterit gerund of reflexive verbs, the opposition correlative vs. non-correlative is abolished: the form /fstr, ét,—i-f-ši-s/ is the only one existing.

Hence of two successive postfixes the antecedent is redundant.

The shifters pertaining to the class of connectors, namely the moods, use enclitic particles, "annexes", in Whorf's terminology, instead of desinential suffixes and postfixes. The combination of such annexes with the preceding verbal morpheme undergoes the rules of external sandhi, whereas the combination of ordinary suffixes is governed by the laws of internal sandhi. In the injunctive moods, at the contact of annexes with the preceding morpheme, there appear clusters otherwise inadmissible within one word, as for instance /p, t,/, /f, t,/, /p, s,/, /f, s,/, /t, s,/, /s, s,/, /p, k,/, /f, k,/, or distinctions like /m, t,/:/m, t,/, /m, s,/:/m, s,/, /m, k,/:/m, k/. Cf. /pa+znakóm,—#— t, i/ and /pa+jd,—ó-m- t, i/, /pa+znakóm,—#— sa/ and /pra+jd,—ó-m- sa/, /pa+znakóm,—#— ka/ and /pa+jd,—ó-m- ka/. A space separating the hyphens and dashes from such annexes in our transcription symbolizes their particular character. In the indicative /v, il,—í-t, i/ there usually figures the close variant of /i/ due to the subsequent palatalized consonant of the same word, while in the imperative /v, il,—i- t, i/, sometimes – within the explicit code of standard Russian – we may observe a more open variant of /i/, as in the word group /pr, i+v, i—l-í t, i, b'é/, since the laws of internal sandhi do not work here. While the injunctive forms deal with fixed particles, the conditional operates with the movable particle /bi/ and its optional contextual variants /b/, /p/.

The particle /ka/ is specifically hortative, while the two other particles used by the injunctive – the 2Pl. /t, i/ and the reflexive /s/ or /sa/ are merely changed from a suffix and postfix into annexes. All these particles may be strung together and each one, or two, or all three of them, may be appended to both annex-less injunctive forms which can also be used separately. One of these forms is the verb stem with the desinential suffix —# (substituted by /—i/, /—í/ after a cluster and after a stem which has no fixed stress on its root or stem-suffix), e.g. /fstr, ét,—#/, /kr, ikn,—í/, /s, id,—í/, /ví+s, id,—i/. In the whole Russian verbal pattern,

it is the only example of a zero as the basic alternant of a desinence. The other annex-less form is identical with the 1Pl. of the perfective present but differs from the latter syntactically (absence of pronoun), semantically (it means 'let me and thee') and paradigmatically: /fstr,ét,—i-m/ is opposed to /fstr,ét,—i-m- t,i/ as "singular addressee" vs. "plural addressee", and to /fstr,et,—i-m- ka/ as imperative vs. hortative. Cf. the maximal accumulation of grammatical morphemes in /pa + v,id-áj—i-m-ti - s - ka/. Also the 1Sg. of the perfective present is utilized in injunctive forms but only jointly with the annex /ka/.

A few periphrastic forms of injunctive moods combine the infinitive of a verb with injunctive forms of auxiliary verbs: /búd,—i-m/, /búd,—i-m- t,i/, /búd,—i-m- ka/, /búd,—i-m—t,i- ka/, /da-váj—#/ , /da-váj—#- t,i/, /da-váj—#- ka/, /da-váj—#- t,i - ka/.

4.5 In sum, aside from a few periphrastic forms used by the imperfective verbs, the expression of the Russian verbal categories roughly exhibits the following pattern:

The P-designators (designators of the participants), whether shifters (person) or non-shifters (gender and number), make use of the final desinential suffixes.

The E-designators (designators of the event) deal with word-components anterior to the final suffix. The shifters (tense) employ initial desinential suffixes, while the non-shifters (aspect) go farther back; they ignore the desinence and operate with the stem – its suffixes and prefixation.

The connectors widely use units posterior to the final suffix. The non-shifters (voice and taxis) deal with the postfixes, while the shifters (mood) tend to reduce the desinence to zero and to replace the usual desinential suffixes by autonomous annexes, partly by changing the former into the latter, partly by adding new, purely modal particles.

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