Jakobsonian morphological research, and as eleven important results to which this research has led. It seems imperative to start with three main features of Jakobson's morphological studies; although these are characteristic of all his linguistic work rather than limited to his explorations in morphology, they are needed to provide the necessary background. (I admit that the delineation of the results, as opposed to the principles or to the main features and vice versa, is, to a certain degree, arbitrary. I simply was under the magic of numbers: 3 + 7 + 11 = 21; cf. the winning number in the card game "21" and the epigraph.)

I. THREE MAIN FEATURES OF ROMAN JAKOBSON'S MORPHOLOGICAL RESEARCH

1. The broadest view of natural language and linguistics, both of which Jakobson has always regarded in close connection with other spheres of human knowledge and with the general scientific picture of the world—and the most precise delimitation and observance of the proper boundaries of language and linguistics.

On the one hand, it is hard to name any linguist who has studied the relations between linguistics and other sciences as intensively and as deeply as Jakobson. Linguistics and poetics (the title of one of R.J. articles: 1960), linguistics and musicology (the title of another of his articles: 1932a), linguistics and anthroprology (1953), linguistics and communication theory (1961a), linguistics and mathematics, linguistics and psychology, linguistics and neurology (1980), linguistics and semiotics, and many other similar topics all are continually in the active zone of Jakobson's attention. His outstanding linguistic analysis of aphasia has determined the development of modern aphasiology; and he was one of the first to advance the profound analogy between natural language and the genetic code (1967a: 678–79). It is by no means accidental that Jakobson has been repeatedly invited to make the opening or closing reports at so many interdisciplinary conferences with a massive participation of linguists. Language viewed against the background of other communication systems, that is, as a particular case of semiotic device, is the fundamental direction of Jakobson's research (1968).

On the other hand, Jakobson is uncommonly attentive to every, albeit small at first glance, linguistic fact, and at the same time, extremely scrupulous with respect to the sovereignty of His Majesty Natural Language. "Linguista sum; linguistici nihil a me alienum puto!"—he writes with pride and complete justification (1953: 555). Language, according to Jakobson, must be examined against the background but not through the prism of other semiotic and social institutions. In this connection, his article on the imperative (1963) is especially noteworthy, for it convincingly defends the immanent linguistic criteria for isolating the imperative as a grammatical category. Jakobson points out, for example, that an imperative utterance cannot be transformed into a question: He works ⇒ Does he work? I would work if . . . ⇒ Would I work if . . . ?, while Work! ⇒ . . . and he repudiates purely philosophical considerations which tend
to subsume under the imperative all utterances expressing commands, orders, requests, appeals, etc. (1963: 190–191).

Another point of utmost relevance for today’s linguistic science is Jakobson’s emphasizing that the nonexistence or the fictitiousness of the entities denoted by natural language expressions has nothing to do with language as such and “has no bearing on the question of their semantic significance” (1959a: 495). Colorless green ideas sleep furiously. A pregnant male, or Golf plays John are fully grammatical and therefore as linguistically valid as any less strange sentence is. Linguistics should not be interested in what is expressed but only in how it is expressed.

Note that in one of the well-known scientific battles of the forties—hocus-pocus linguistics vs. God’s-truth linguistics, that is, giving the description a maximal uniformity and formality at any cost vs. making it maximally faithful to the facts and to the “soul” of the language—Jakobson was, and has remained, on the side of God’s truth from the very beginning: “code-given truth,” as he himself puts it. His determined support undoubtedly promoted the triumph of the latter orientation.

2. The most general and abstract formulation of linguistic problems—and their solutions based on the most concrete and specific linguistic material.

On the one hand, practically all of Jakobson’s morphological papers are devoted to one or another important question concerning the very essence of language. In the above-mentioned article on the Ukrainian imperative (1963), the connection between the semantico-logical nature of grammatical categories and the linguistic means used for their expression is investigated; a small note (1959e) touches on the enigma of the zero signata; another article (1935) examines the interdependence of different levels of language; and so on. The relation of the phenomena under analysis to the general linguistic problems standing behind them is always masterfully accentuated by Jakobson himself.

On the other hand, Jakobson’s studies in morphology are, as a rule, extremely concrete and specific. Here are some examples: the particularities of the genitive case in Russian (1957c); the neuter gender in Rumanian (1959d); Slavic clitics (1935); grammatical categories of the Russian verb (1957b); the structure of the imperative endings in Ukrainian (1963); the meaningful alternation “voiceless stop—voiceless spirant” in Gilyak (1957a); etc. I could also mention such works as 1932b, 1936, 1948a, and 1958. It is this specificity that makes Jakobson’s theories so convincing, while at the same time the generality of the problems he formulates ensures the theoretical value of his specific results.

3. The maximally tight link with the best linguistic traditions—and the maximally bold innovativeness of theoretical breakthroughs.

On the one hand, Jakobson, more than any other outstanding contemporary linguist, relies on the accomplishments of his predecessors. From the Stoics and Schoolmen to Charles Sanders Peirce, from the unjustly forgotten Mrozinski to Baudouin de Courtenay, from Winteler, Whitney and Sweet to Saussure, Boas, Sapir, Whorf, and Bloomfield—all of the most remarkable precursors of contemporary linguistics have been absorbed into Jakobsonian morphological studies naturally and solidly. This is particularly true of some Russian linguists—Vostokov, Potebnya, Šaxmatov, Fortunatov, Peškovskij—of whose ideas Jakobson is a prominent expert and advocate. Jakobson has stressed many times his deep devotion to “sound” traditions, emphasizing his dislike for new terminology that disguises old notions and his effort to make use of existing concepts, sharpening them when necessary rather than replacing them (cf. 1953: 557).

On the other hand, to this day many of Jakobson’s results are considered in traditional Slavic and Russian studies to be the extreme of modernism. This is the case, for example, with his system of categories of the Russian verb (1957b) and with his description of Russian conjugation (1948a), both of which still have to find a place in the university manuals of Russian, let alone high school textbooks. (For example, the latest Russian reference grammar published by the Soviet Academy of Sciences—Švedova 1980—has not accepted Jakobson’s approach.)

To summarize, the three basic characteristics of Jakobson’s morphological (and for that matter, all of his linguistic) research are the following:

1. The scientific broadness of perspective with its utmost linguisticity.
2. The most general character of the problems stated with the most specific material drawn for their solution.
3. The loyalty to traditions successfully combined with daring innovations.

It is within this framework that the principles presented in the following section are advanced and implemented.

II. SEVEN BASIC PRINCIPLES OF ROMAN JAKOBSON’S MORPHOLOGICAL RESEARCH

As was the case with the three above-mentioned features, some of the principles that follow relate not only to morphology but to phonology or to linguistics in general as well. Nevertheless, they must be cited here: substantial parallelism of all linguistic levels is, according to Jakobson, one of the most typical properties of natural language (cf. Principle 6) and, therefore, Jakobson’s principles of linguistic description are the same for all the domains of linguistics.

Several of Principles 1–7 were stated, and in a sufficiently general form, before Jakobson, or independently of him. Yet it is he who combined all these principles into a system and has consistently applied them as such in concrete linguistic research.

1. The principle of the calculus of possibilities is illustrated best of all by Jakobson’s analysis of verbal categories in 1957b. The most outstanding feature of this analysis is its actual approach to the problem: instead of supplying an empirically obtained list of categories (as is usually done), Jakobson first of all establishes the most general logically possible pattern thereof. In doing this, he introduces two universal distinctions:
- speech itself (S) vs. the narrated matter (N);
- the event itself (E) vs. any of its participants (P).

From this, Jakobson constructs four basic items, in whose terms the verbal categories of any language can be described: E° (= a speech event), E'° (= a narrated event), P° (= a participant of the speech event), and P'° (= a participant of the narrated event). Adding the further distinction of the quantitative vs. the qualitative characterization of any entity under consideration, Jakobson is in a position to calculate all of the possible relationships between verbal categories in the following terms:

a. Categories that characterize the participants of the narrated event (either the participants themselves, P°, or their relation to the event, P°E°) vs. categories that characterize the narrated event itself (either the event as such, E°, or its relation to another narrated event, E°E°).

b. Categories that characterize (events or their participants) qualitatively (= qualifiers) vs. categories that characterize quantitatively (= quantifiers).

c. Categories that characterize the narrated event or its participants with reference to the speech event (either to the event itself . . . /E°; or to its participants: . . . /P°), that is, shifter, vs. categories that characterize the narrated event or its participants without reference to the speech event.

It is hard to deny myself the pleasure of presenting here the universal table of verbal categories that resulted from this investigation (cf. Fig. 1, reproducing, in a slightly modified form, the table drawn by RJ in 1957?b: 136).

Among the twenty-four squares of Table I, some of the empty ones seem to be impossible to fill in, even in principle: there are, so to speak, meaningless or contradictory (but this still remains to be ascertained and proven). Others predict certain still unknown verbal categories, to be discovered in languages of the world. On the whole, Jakobson’s table of verbal categories may be compared to Mendeleev’s Periodic Table. Just as the latter does for chemical elements, the table of verbal grammatical categories, on the one hand, reveals the relationships between known categories, and, on the other hand, it orient the linguist in the search for new categories, which, in fact, the table predicts.

With the Jakobsonian Table of verbal categories, the researcher obtains a principled basis for classifying grammatical categories when describing the morphology of a given language.

In more general terms, the very essence of Principle 1 is as follows: in approaching the description of some range of phenomena, the linguist must first of all single out the simplest items underlying these phenomena, and then by combining these items in all possible ways, construct the most general universal pattern for the totality of observable data. To examine linguistic facts against a background of universal patterns that have been established beforehand (also on the basis of facts, of course)—this is exactly what the principle of a calculus of possibilities boils down to.

There is a further point to be emphasized: the logical completeness of
descriptions entailed by Principle 1 by no means precludes substantive or factual exhaustiveness. "There should be no 'and so on' in grammars," Jakobson writes—and he means it. On the contrary, Principle 1 facilitates exhaustiveness on the factual side.

2. The principle of intersecting classification, or the feature approach, requires the detection of some basic elements (factors, features) of a description and their subsequent combination in all possible ways. Principle 2 is methodological: it points out how to construct the universal patterns and schemas that were discussed above, under Principle 1.

Note that instead of the hierarchical classifications so typical in traditional linguistics and leading to partitions (i.e., to disjunct subsets), Principle 2 puts forth an intersecting, or multidimensional, classification dealing with overlapping subsets.

The feature approach was introduced into phonology by Trubetzkoy and Jakobson and then transferred by the latter into morphology. (Later Noam Chomsky carried it over into transformational syntax: cf. his Standard Theory.) This approach enables linguists to avoid frequent fruitless arguments about the "best" partition of a set of linguistic items, and to concentrate instead on specific properties of these items representing the properties observed in terms of a few standard features.

The use of logically independent features, of which Jakobson is an outstanding advocate, makes it possible to discover and describe important underlying similarities—as if a set of objects that seem very heterogeneous at first glance were pierced through by one abstract feature. (Regarding the abstract character of features, RJ has stressed many times that one and the same feature can be realized on the surface in different ways; what he is always talking about are abstract features, those that are "emic" in character.)

A wonderful example of Principle 2 as applied in morphology is found in Jakobson 1959a, where the system of indicative forms of the English verb is fully described in terms of six basic categories: (a) passive vs. active (is killed-kills), (b) preterite vs. nonpreterite (killed-kills), (c) perfect vs. nonperfect (has killed-kills), (d) progressive vs. nonprogressive (is killing-kills), (e) potential vs. nonpotential (will kill-kills), (f) assertorial vs. nonassertorial (does kill-kills). Combining all these values in all the possible ways yields sixty-four logically possible forms (64 = 2^6), of which only twenty-eight actually occur. The absence of the remaining thirty-six forms has to be investigated and explained (e.g., the assertorial does not combine with the passive, the perfect, the progressive and the potential because the verb to do does not combine with other auxiliaries; the progressive does not combine with the perfect or the potential in the passive since two consecutive nonfinite forms of to be are unusual: 'has been killed,' 'will be being killed' etc.).

Yet some speakers readily accept sentences with a verb in the passive present perfect progressive:

(i) *Her house has been being continually painted* and repainted for seven years already.

(ii) *This mountain has been being climbed* since 1893.

I owe these examples to Th. Hofmann.

We see that Principles 1 and 2 are tightly interwoven, which is perfectly natural—after all, in a sense they are two different sides of the same phenomenon.

3. The principle of binarism has been very extensively discussed in the literature, and so it will be enough to briefly touch upon it here.

The requirement of reducing the description of any complex system to minimal, that is, binary, oppositions provides for high logical precision and enhances completeness of analysis: by always subdividing the area under examination into A and not A, the researcher lessens the probability of missing a phenomenon. Some facts that seem to form a linear sequence—"gradual oppositions"—may display, under the binary approach, an essential hierarchy. As a case in point, see the analysis of the category of person in Jakobson 1932b: the superficially linear series "first, second, third person" is resolved into two hierarchical categories, "personal vs. impersonal" (first and second persons vs. third person) and "participation of the speaker in the event vs. nonparticipation of the speaker" (first vs. second person). This view explains a number of particularities in the use of different persons and turns out to be very productive. Not without reason it was decisively taken up by Benveniste in his famous article on the structure of verbal persons (1966a).

Two additional comments are in order here. (a) Principle 3 does not require every classification or every system described to be necessarily dichotomous, in the sense that the set in question must be divided into exactly two disjunct subsets, each of which (independent of the other) must be divided in two again, and so on. Nothing of the sort! Principle 3 by no means contradicts the idea of intersecting classification; it demands only that the classificatory features, not the classification itself, be binary. And with the help of two-valued features, the most diverse and multidimensional relations among the objects under consideration can be easily described. Thus, in Jakobson 1958 it is convincingly shown how the meanings of the eight Russian cases (including the partitive forms) are represented by means of three strictly binary features: (1) directionality; (2) quantification; (3) marginality. The case meanings themselves do not give way to a dichotomous classification but form instead a three-dimensional square—a cube (cf. Fig. 2).

The binarism of classificatory features espoused by Jakobson actually prompts the rejection of dichotomous (and, in general, of all hierarchical) classifications in favor of the feature analysis (i.e., Principle 2). Let it be recalled that it was the binary distinctive features of phonemes, as proposed by Jakobson, that allowed linguistics to overcome the traditional dichotomous chasm between vowels and consonants by describing both in terms of the same abstract features.

(b) For Jakobson binarism is by no means simply a convenient device postulated by the linguist as a useful trait of his metalanguage. Principle 3 is advanced as a reflection of the state of affairs in natural language—as a reflection of the real property of oppositions that build up any linguistic structure. Jakobsonian features are binary only because they are binary in
language itself. This linguistic binarism is linked by Jakobson with the binarism of the human mind in general, which is manifested not only in language, but in all other intellectual and cultural spheres as well. The neurological and psychological research of recent years supports Jakobson's view more and more; however, this is beyond the scope of my theme.

4. The markedness principle consists in recognizing the essential asymmetry of opposed linguistic items: one of any two opposed items is normally distinguished by the language itself in that it receives a special mark, while the other is characterized only by the absence of such a mark. The notion of markedness was introduced into linguistics by N. S. Trubetzkoy on the basis of phonemic correlations: marked voiced consonants vs. unmarked voiceless consonants (the mark being the vibrations of vocal chords), etc. But it was Jakobson who not only applied this notion in numerous concrete analysis, but insightfully generalized it as well, extending Principle 4 to morphology, that is, to the meaningful units of language. There are at least three respects in which Jakobson's contribution seems to be particularly valuable.

(a) Jakobson showed the necessity of distinguishing the following two oppositions (he calls them “antinomies”; see Jakobson 1932b):

- The signaling of some A vs. the nonsignaling of A (or, in the handy notation of M. V. Panov, nA vs. řA). Example: Russian oslica ‘animal of the species <asinus asinus>’ of the feminine sex’ vs. osel ‘animal of the species <asinus asinus>;’ here A = ‘feminine sex,’ so that oslica is nA while osel, is řA.
- The nonsignaling of some A vs. the signaling of non-A (řA vs. nA). Example: Russian oselj, ‘animal of the species <asinus asinus>’ vs. osel, ‘animal of the species <asinus asinus>’ of the nonfeminine [= masculine] sex’ (oselj is řA, while oselj is nA). Cf. Eto ne oslica, a osel ‘This is not a she-donkey, but a he-donkey’; oselj is the unmarked member in both oppositions.

(b) Jakobson stresses the important fact that the markedness of a given item can be different in different respects. Let us consider, for instance, the opposition “nominative case vs. accusative case” in Russian. With respect to grammatical meanings, the nominative is unmarked, and the accusative is marked, while with respect to grammatical means the situation is more complicated, since either case can be both marked or unmarked (1939: 214–215), cf. Fig. 3.

And that is not all. At the same time, the lexemes of the type sluga ‘servant’, sud’ja ‘judge’, junoka ‘youth’ belong to an unmarked paradigm, which comprises nouns of feminine as well as masculine gender, whereas the lexemes of the type syn ‘son’, xvost ‘tail’ belong to a marked paradigm embracing only masculine nouns.

In other words, there is no obligatory parallelism of markedness in different respects. Therefore, we cannot speak simply about markedness: it must always be specified in what respect markedness or unmarkedness is being discussed.

The elaboration of this remarkable result leads to an understanding of the fact that “to be marked” is different, generally speaking, from “to be semantically/formally more complex.” To take an example: in the opposition perfective aspect vs. imperfective aspect (in the Russian verb) the perfective aspect is, as

![Figure 2](image_url)

**Figure 2**
System of Russian Cases in Terms of Three Binary Features

![Diagram](image_url)

- Partitive
- Genitive
- Nominative
- Accusative
- Locative
- Prepositional
- Instrumental
- Dative
- directionality
- quantification
- marginality
Jakobson has stressed many times, marked, and the imperfective is the unmarked member. This is manifested, first of all, in the precise intuitive feeling by native speakers of the special primacy of the imperfective aspect. It is not mere chance that in foreign-language-to-Russian dictionaries the Russian equivalents of the foreign-language verbs are given in the imperfective. In the contexts where the opposition of aspects is neutralized, it is the imperfective that usually appears, for example, in the negated imperfective: *vstan’* (perf.)/*vstavaj* (imperf.) ‘get up’ — *ne vstavaj*/*ne vstan’* ‘don’t get up’; *zakrojte knigi* (perf.)/*zakryvajte knigi* (imperf.) ‘close [your] books!’ — *ne zakryvajte knigi/*ne zakrojte knigi ‘don’t close [your] books!’ (Actually, the perfective is also possible in the negated imperfective form, but not with an imperative meaning: *ne vstan’ ran’she vremeni* ‘make sure you don’t get up before it is time’ or *ne zakrojte necajanno knigi* ‘be sure not to close accidentally [your] books’ are not orders, but simply warnings.) Nevertheless, the imperfective aspect can be formally more complex than the perfective in some cases (*sbros-[i]*/[perf.]* ‘to throw down’ — *sbras-yy-[ar]*/[imperf.]* ‘idem’), simpler in others (*s-del-[at]*/[perf.]* ‘to make’ — *del-[ar]*/[imperf.]* ‘idem’); and in a third case forms of both aspects are equally complex (*bros-i-[l]*/[perf.]* ‘to throw’ — *bros-a-[l]*/[imperf.]* ‘idem’). The same three relationships are also possible between both aspects on the semantic side (this has been noted, in particular, in Aprèsjan 1980: 63–66): *umirat* (‘to die’; imperf.) is semantically more complex than the perfective *umret’ (‘U xemer = ‘He ceased to live’; X umirat = ‘He was nothing through such physical states that, if nothing interfered, X umet’; pet’ (as in On ped tu samuyu pesniu ‘He was singing that song’) is simpler than *spet* (‘to complete singing’); and *mesiat’ [komu-l-čitat’] ‘to make it harder [for someone to read]’ and *pomesiat’ [komu-l-čitat’] ‘to have made it impossible [for someone to read]’ are equally complex.

Similarly, in the opposition of feminine gender vs. masculine gender, the marked member is the feminine gender. However, from the viewpoint of form or meaning, various relationships between genders are possible: *učitel’* ‘teacher’ — *učitel’-nie-[a] ‘a teacher of feminine sex’ (a feminine noun is both formally and semantically more complex than its masculine counterpart); *vdo-[a] ‘a widow’ — *vdo-ee ‘a widower’ (a feminine noun is formally and semantically simpler than its masculine counterpart); *leningr-ec ‘an inhabitant of Leningrad of the masculine sex’ — *leningr-ec-k-[a] ‘an inhabitant of Leningrad of the feminine sex’ (both nouns are equally complex formally, while semantically the feminine noun is simpler); and so on. Note that in comparing the meanings in the pairs quoted, I used the following curious fact: the meaning *feminine sex = female* is simpler than *masculine sex = male* (Wierzbicka 1972: 44–45). Indeed, *feminine sex* ‘ability to create inside one’s own body and bring into the world other beings like oneself’; whereas *masculine sex* ‘ability to cause a being of the feminine sex to create inside her own body and bring into the world other beings like herself.’ But all this does not at all affect the markedness of the feminine gender, as opposed to the unmarked masculine.

Markedness/unmarkedness may be connected with the mode of storing the corresponding items in the speaker’s memory: the unmarked member is stored as such, and its marked partner is derived from it by some rules. Thus, a number of psycholinguistic experiments show that English sentences in the passive (passive being the marked voice) are understood with a greater effort, that is, more slowly and with more mistakes, than the related active sentences. This seems to suggest that additional operations are needed to understand a passive sentence if compared to the active one.

Let it be noted also that the unmarked member of a grammatical opposition is usually characterized by a greater level of polysemy than the marked one. In Russian, the imperfective aspect in verbs and the singular nouns have a greater variety of meanings than the perfective aspect and the plural, respectively. Correspondingly, a wider sphere of usage (cf. J. Kuryłowicz’s well-known thesis) and a greater frequency in texts are characteristic of the unmarked member; for example, the frequencies of the imperfective aspect and the singular in Russian texts are 53% and 72% (Steinfeldt 1963: 44,52).

(c) Language avoids the piling up of marked categories in one item (Jakobson 1939). Therefore, in the unmarked present tense of the Russian verb, person is distinguished, but in the marked past tense it is not; the Russian adjectival distinguishes gender in the unmarked singular, the neuter and the masculine being distinguished only in the unmarked nominative, but not in the marked plural, etc. In this Jakobson has proposed, following Ch. Bally, an important linguistic universal: a language avoids differentiating more entities within a marked category than in the corresponding unmarked one.

5. The iconicity principle. Protesting against the too literal and therefore trivial understanding of the Saussurian postulate about the arbitrariness of linguistic signs, Jakobson insists on the iconic character of numerous linguistic devices — that is, on the direct resemblance between some signantia and signata. So, for example, Jakobson points out the iconicity of word order (1965): the order of conjoined verbs expresses the order of events (*Yeni, vidi, vici*); the order of conjoined nouns may reflect a hierarchy of entities denoted by them (*The president and his wife*), but not the other way around, i.e. not something like *Mrs. Reagan and her husband*; the usual order of the subject and the object of an action — with the subject preceding the object — is connected with the psychological order in which the components of a situation are normally perceived. The other cogent example is provided by the degrees of adjectives: lengthening for the signs may correspond to an increase in the degree of quality, for example, *high — higher — highest* / *haiz/, / *hаз/, or Latin alt-[is] ‘high’ — *alt-4-(or) ‘higher’ — *alt-l-sim-(us) ‘highest’.* Similarly, plural forms of verbs are often physically longer than singular forms: French *jefin / fini* / *1
finish’ — nous finissons/finis ‘we finish’, tu finis/finis ‘you [sg.] finish’ — vous finissez/finisse ‘you [pl.] finish’, il finit/finis ‘he finishes’ — ils finissent/finissent ‘they finish’; or Polish znat ‘I know’ — znany ‘we know’, znasz ‘you [sg.] know’ — znacie ‘you [pl.] know’, zna ‘he knows’ — znały ‘they know’. No language is known in which the nominal plural is always expressed by a zero morph and the singular by a nonzero morph, although the reverse is completely normal, for example, in English or Spanish. In general, the tendency is to use zero morphs for “zero” (= unmarked) categories (cf. the zero suffixes of the nominative and the third person in Turkic languages). This, however, is no more than a tendency, and not an absolute law; see above, p. 186, item (b), about markedness in different respects.) Two further linguistic devices, both highly iconic, could also be mentioned: the use of reduplication for the expression of plural, emphasis, repetition, duration, or intensity, as well as the use of palatalization for the expression of diminutiveness, for example, in Basque (zakur/sakur ‘dog’ — txakur/čakur ‘doggie’, or ianta/tanta ‘a drop’ — itanta/tant’a ‘a tiny drop’, etc.).

A rich illustration of what Principle 5 entails in the uncovering of essential dissimilarities of externally similar phenomena and thus in the demonstration of their true nature is provided by Jakobson’s analysis of the Russian and Bulgarian gestures for “yes” and “no” (1967b). The Russian (and in general European) affirmative nod is primary, its iconic essence being inclination, obedience, agreement. The affirmative nod goes back to a biologically programmed gesture of obedience: one’s head inclined before the other. The negative shaking of one’s head (from side to side) is maximally different, at the purely semiotic level, from the affirmative nodding movement, still preserving a certain iconicity: the turning of one’s head from the interlocutor signifies unwillingness to listen or see. In Bulgarian, where a native observer could distinguish the same head movements — down-and-up jerk, equivalent to nodding, and from-side-to-side shaking — things are completely different. Here the negative gesture is primary; the “obstantiate” jerking of one’s head up (with its subsequent return to a normal position). The most contrastive movement to this is the turning of one’s head in the horizontal plane, this gesture being also iconic: to lend an ear (Bulgarian Ač nadavam uko, literally ‘I lend [you] my ear’, i.e., ‘I’m listening’). In the emphatic repetition of both gestures, the European affirmation does not differ outwardly from the Bulgarian negation, nor the European negation from the Bulgarian affirmation: one more instance of substantial deep differences that appear “homonymously” on the surface.

An important corollary of the Jakobsonian approach to the iconicity of linguistic signs is his requirement of finding and explicitly stating the most delicate parallels between the signs and the signatum. Jakobson insists on taking into account not only the full identity of morphs, which is commonplace, but also the specific situations in which, for example, some affixes share a certain grammatical function and one phoneme or at least one phonemic feature, which thus becomes the carrier of the above function (1965: 353). For example, in Russian the phonemes /m/ and /m/ are found in the endings of all the marginal cases (dative, instrumental, prepositional), in nouns and adjectives (nos-am ‘nose’ instr. sg., nos-ami ‘nose’ dat. pl., nos-am ‘nose’ instr. pl., dlinn-am ‘long’ prep. sg. masc/neut), but they do not occur in the endings of any of the nonmarginal cases; in Polish, in all the endings of the instrumental case (in all parts of speech, and in all numbers and genders) the feature of nasality appears either in a consonant or in a vowel. Consequently, the phonemes /m/- /m/ in Russian and the feature of nasality in Polish serve as the mark of case marginality and of the instrumental case, respectively. The appeal to consider any, even the most insignificant and quite particular, form/meaning correlations in a grammatical description seems to be very fruitful. To give a further example, the detailed account of the Russian declension in the terms just indicated (Jakobson 1958) has been developed by A. A. Zaližnjak (1967), who examines the connection of the vowel -a- with plurality in the Russian nominal declension (ostrov-a, ostrov-a-m, ostrov-a, mi, ostrov-a-x ‘islands’, nom./dat./instr./prep.) and of the element -in- with singularity (arnjan-in ‘[an] Armenian’ vs. arnjan-e ‘Arménians’), etc.

Essentially, what Jakobson did was to give linguistics the following task, complicated but at the same time fascinating: to introduce a new, submorphic level of description, which would allow the analyst to state naturally such correlations as, for example, the following two:

(a) In Russian declension, spirants serve as a mark of quantifying cases: -x- of the prepositional, and -v-f of the genitive (Jakobson 1958: 170).

(b) In Ukrainian conjugation, if a verbal form ends in a vowel, then the rounding (= flatness) of this vowel is a mark of the first person: in the indicative we have pas-u ‘I hear’, pas-ém-o ‘we hear’ vs. pas-é ‘you [pl.] hear’ etc., and in the imperative, kyn- ‘let us throw’ vs. svysen-y ‘whistle’; kyn- ‘throw’ and so on (Jakobson 1963: 197).

At present, the majority of linguistic descriptions do not reflect similar facts. There are still no adequate formal means for the rigorous description of such submorphic form/meaning correspondences, and, most importantly, the place of these correspondences in the models of languages is still far from clear.

Jakobson’s efforts to account for even the smallest manifestations of iconicity in language brings about a particular attention to all parallels and mappings between the plane of expression and the plane of content, that is, between different linguistic levels. Thereby, the iconicity principle is naturally linked to the following principle — that of interlevel connections in language.4

6. The principle of interlevel connection is solidly anchored in linguistics since Saussure, whose postulate, “La langue est un système où tout se tient,” has been recognized by everyone. But the acceptance of the postulate and its consistent application are far from one and the same thing. Therefore, those of Jakobson’s

4 The Jakobsonian approach to the iconicity of grammar is developed at length in Haiman 1980, which tries to show to what extent this iconicity reflects the structure of reality.
n numerous works that demonstrate the linguistic embodiment of Principle 6 by material of various grammatical phenomena are particularly valuable. I shall limit myself to two examples.

Jakobson 1935 offers an elegant analysis of the history and theory of Slavic verbal enclitics. The languages with free force stress (Bulgarian and the East Slavic languages) stopped obeying Wackernagel's Law (in accordance with this law, enclitics must occupy the second linear position in the sentence), and as a result, these languages lost enclitics. Therefore, the perfective (= compound) forms could no longer differentiate person: *dai ešm* > *dal, dai eši > dal, dai est* > *dal*, making the use of the subject personal pronoun obligatory: Russ. *ja dal, ty dal, on dal*. This construction was generalized, and as a final result, "Russian lost subjectless declarative sentences; [...] sentences without pronominal subjects became just elliptical variants of full two-element sentences. Therefore, in contemporary Russian, sentences with a personal verb but without a grammatical subject are impossible. Impersonal sentences should be considered as featuring a zero subject" (Jakobson 1935: 21; the translation is mine). In this way, the intimate link of accentuation — through morphology — with syntax is exposed. (At the same time, this small paragraph 50 years ago sketched a whole program for the theory of the syntactic zero, a program which even today has not yet been completely realized. The same article [Jakobson 1935] throws light on still another facet of the phenomenon under analysis: the dependence between the abolition of Wackernagel's Law and the appearance of the zero copula in Russian.)

A paper of Jakobson's dedicated to the comparison of the grammatical and phonological aspects of language (1948b: 114) emphasizes the necessity of the parallel investigation of both aspects: "Both synchronic and diachronic studies show an intimate link of solidarity and interdependence between these two autonomous structures — the phonemic and the grammatical." There are at least two dimensions to be distinguished:

(a) Phonological units are selected and used in different grammatical contexts, items, and categories in different manners. Here are some incidental examples: the initial, middle or final position in the word-form exclusively admits (or does not admit) some specified phonemes or phoneme clusters; at prefix-root as opposed to root-suffix junctures different sandhias are normally observed; in Gilyak, certain phoneme combinations are found in proper nouns that never occur in common nouns; in Semitic languages vowels are used practically in affixes only; in languages with vowel harmony certain phonemic oppositions are possible solely in roots; in Russian, among grammatical morphs only inflectional ones (in contrast to derivational) may consist of a single vowel, and among roots only pronominal ones (in contrast to non-pronominal, "full" roots) may consist of a single consonant; etc. Jakobson's works abound in similar observations.

(b) Changes in a phonological system are, as a rule, connected with changes in the corresponding grammatical system. Jakobson points out at least four aspects of such connections (in the direction from phonology to grammar):

- Disappearance of the physical difference between two forms, for instance, second and third persons singular in the Slavic aorist, eventually leads to the loss of the corresponding category.
- An alternation that arose "accidentally" begins to be exploited as a grammatical device (e.g., meaningful umlauts).
- Phonological changes entail the complete restructuring of paradigms (specifically, the reanalysis of stems); thus, the fall of **u** and **i** in old Russian resulted, after a series of modifications, in the new paradigm of the type *nos- nös-o.*
- Phonological changes bring about new grammatical categories. In Gilyak, after the indefinite object prefix **i**- an initial stop appeared as a spirant: **t**-*ov*- 'to teach' but **i-rov**- 'to teach someone', where **r** is a positional variant of **t**. But after the initial **t**- dropped, the opposition **t/-r**- was phonemicized and the corresponding alternation became a means for generating objectless forms from transitive verbs; the grammatical category of objectlessness was thus created.

Jakobson stresses that phonological changes promote the restructuring of a grammatical system only in those cases where the appropriate tendency has already taken shape in it. The reverse direction — the grammatical system determining phonological development — is given special attention by Jakobson as well. I shall not, however, concern myself with that problem.

7. The invariance principle, one of the main tenets of the Prague school, found in the person of Jakobson its most ardent and effective promoter: "The question of the Gesetzelementen of grammatical forms is basic to the theory of any grammatical system" (1936: 23). This statement did not remain just a slogan. Jakobson devoted one of his best known articles to the establishment of the "general meaning" of each Russian grammatical case (1936); he returned to this theme later (1958). In dealing with the general meanings of cases in languages like Russian, Jakobson placed himself in a very difficult and unfavorable position. The fact is that the Russian case (and, more generally, the Slavic case) is to a considerable degree a syntactically controlled category; in other words, in many of their uses Russian case forms are markers of syntactic dependencies and may lack their own semantic values. (This consideration is the basis of J. Kuryłowicz's, A. de Groot's, and A. V. Isačenko's case theories, and of the definition of case in the so-called algebraic linguistics: A. N. Kolmogorov, I. I. Režin, A. V. Gladkij, S. Marcus; see Gladkij 1969 and 1973 for more references; cf. also A. A. Zaliznjak's approach: 1973.) Therefore, the discovery of the general meaning of this or that Slavic case turns out to be an exceptionally hard matter, as this meaning easily dissolves in the syntactic context. Nevertheless, the general meaning of a Slavic case apparently exists, and it determines the tendency toward the use of the given case for given syntactic goals. The Jakobsonian analysis of the general meanings of the Russian cases yields interesting results, which can be roughly summarized as follows:
(a) The systemic value, or general meaning, of a case makes it possible to explain its specific uses. Thus, it is precisely the "pure" marginality of the Russian instrumental, which is nondirectional, in contradistinction to the A(cusative) and D(ative), and nonquantificational, in contradistinction to the G(entic) and P(repositional), that determines the possibility of its various syntactic uses: the agentive instrumental (ubit VRAZAMI 'killed by the enemies'), the instrumental of tool (narisovat PRORESM 'drawn with a pen'), the restrictive instrumental (jun DUSOJ 'young in soul'), the comparative instrumental (nicajug STRELOJ 'rushed like an arrow'), and so on. The fine shades of meaning found in cases like On byl tituljarnyj sovetnik 'He was a titular counselor' (an official rank of civil servants in prerevolutionary Russia) vs. On byl tituljarnyj sovetnikom 'idem, but implying a temporary state' are due to this very marginality (1936: 49).

Even for those who do not consider the quest for the semantically invariant core for each case to be expedient, the necessity of finding some kind of invariant characteristic of cases must still be obvious. In particular, Benveniste (1966b) gave a good example establishing the invariant syntactic function of the Latin genitive: to mark the adnominal transposition of both the nominative and the accusative. But despite the difficulty of the task it sets itself, Jakobsonian case semantics — posited as underlying the syntax of cases — is a very useful, even necessary thing. The problem is that at present linguistics is still poorly equipped to find the right place for such information — in much the same way as it cannot find a place for the so-called internal form and associative semantics of words which are so actively exploited by speakers (in puns or metaphors; inferring interpretation of unknown words from the context; and so on).3

(b) The general case meanings allow us to formulate the laws of case syncretism operational in a given language. For example, in Serbian all the marginal cases have in the plural one syncretic form (udar-ima 'blows' in D,I,P), while all the nonmarginal ones maintain their differences (udar-i 'blows' in N, udar-a in G, and udar-e in A); Czech presents an inverse picture: znamen-i 'sign' in N, G, A (all nonmarginal cases), but znamen-im 'signs' in D. znamen-imi in I, znamen-ich in P (1936: 69).

(c) "The connection between the components of a case meaning and phonemes or distinctive features of phonemes in the corresponding case form can be discovered: in Russian, -m- (in automatic alternation with -m-) occurs as the mark of the case meaning component 'marginality', whereas spirancy, the common attribute of -v- and -x-, serves as the mark of 'quantification.' Phonology and grammar turn out to be tied together by an entire series of transitional, interdisciplinary phenomena" (Jakobson 1958: 177; the translation is mine. — I.M.). It has already been noted above how important it is for linguistics to take into account all regular relationships between form and meaning (pp. 190–191) and the interconnection of different levels of language.

The semantic invariants of the Russian cases are perhaps one of the most vivid, but by no means the only trophy of Jakobson's in his hunt for invariants. In fact, all of Jakobson's linguistic work is dedicated to the continuous search for them: invariant elements in phonology (distinctive features), semantic invariants of grammatical meanings other than case (e.g., in Jakobson 1932b), invariant factors in different types of aphasia, and so forth.

Thus, Jakobson's morphological (and not only morphological) works are based on the seven above-mentioned principles:

1. Logical calculus of possibilities as a preliminary step in the investigation of any linguistic domain.
2. Feature approach, providing for the universal pattern in the totality of linguistic items under analysis.
3. Logical binarism of classificatory features (oppositions).
5. Iconicity principle.
6. Interconnection of linguistic levels.

The introduction of these principles into general linguistics and, in particular, into Slavistics is linked forever with Jakobson's name.

I must remind my reader once again that I have not shown, of course, all the valuable theses that have been established by Jakobson in morphological studies, let alone in linguistics. Thus my list does not include, among others, the following important items:

- The strict differentiation between the linguistic proper (= Germ. sprachwissenschaftlich) and the cryptanalytic, or deciphering, approach to language.
- A semantic approach to linguistic correctness, or well-formedness (1959a: 494–95); any utterance that expresses any kind of meaning (including nonsense, contradiction, lie, etc.) in accordance with the norms of a given language must be considered grammatically correct.
- The insightful analysis of the notion of linguistic sign. (Cf., in particular, Jakobson's thesis that "the signum is perceptible, and the signatum is intelligible," or translatable [1959c: 267], and his review of different types of signs.)
- The promising topic of poetic use of grammatical categories and grammatical devices (1961b).
- The study of language as a teleological system: the so-called means-ends model of language, with its insistence on the fact that any device is used by language for a specific goal and that there is a continuous feedback between the devices used and the goals.

These and many other features are considered too general, relating more to the theme "Roman Jakobson and linguistics" (successfully covered, as
indicated above, in Waugh 1976) than to the theme “Roman Jakobson and morphology.”

III. ELEVEN MOST IMPORTANT RESULTS OF ROMAN JAKOBSON’S MORPHOLOGICAL RESEARCH

Now to a brief summary of Jakobson’s positive results in the field of morphological theory and morphological description. When I say “results” I mean results such as theorems proved in mathematics, or a new species discovered by a zoologist, that is, results that can be easily counted. My summary is of necessity incomplete, including only the most essential of Jakobson’s accomplishments in the field of morphology. I indicate first four general theoretical results, and then seven specific descriptive ones.

1. The definition of “grammatical” as obligatory (Jakobson 1959a: 491-492); “Grammatica ars obligationis” (Jakobson 1959a: 491-492); “Languages differ essentially in what they must convey, not in what they can convey” (1959b: 264). A Russian, translating the English sentence I hired a worker, has to choose between nanjal ‘hired [perfective]’ and nanimal ‘hired [imperfective]’, between nanjal/nanimal [the subject is male] and nanjala/nanimala [the subject is female], and between raboritika ‘a male worker’ and raboritica ‘a female worker’. The Russian language demands this regardless of the speaker’s personal wishes: in Russian, one simply cannot be vague on these points. This is the essence of “grammatical,” precisely formulated and richly illustrated by Jakobson.

2. The definition of a specific class of linguistic signs, so-called shifters, that are very important from the grammatical viewpoint. This definition is based on the examination of all the possible relationships between a linguistic message M and the corresponding linguistic code C (1957b);

M/M, or message referring to message, covers the reported (— quoted and quasi-quoted) speech;

C/C, or code referring to code, singles out proper names, since the meaning of a proper name cannot be stated without a reference to the code;

M/C, or message referring to code, subsumes the autonomous mode of speech and metalinguistic expressions;

C/M, or code referring to message, is the formula of shifters, signs whose meanings are impossible to define without a reference to the message in which they are used.

Jakobson brilliantly applied the notion of shifters to the description of verbal grammatical categories.

3. The universal pattern of verbal grammatical categories (Jakobson 1957b). Besides the Hjelmslevian general pattern of case meanings, this is one of the first attempts in modern linguistics to construct a calculus of grammatical categories.

4. The sketch of a theory of linguistic zero items (1939, 1940). Actually, Jakobson was the first to propose a general picture of all those phenomena to which we apply the term “zero.” In this picture, he provided a reliable basis for the elaboration of a formalized theory of zero in language. (Unfortunately, such a theory still does not exist.)

5. The description of consonant alternations in Gilyak and their role in the expression of the grammatical meaning of intransitivity (1957a).

6. The system of the grammatical categories of the English verb (1959a: 489-91). Strange as it may seem, to the best of my knowledge such a system had not been proposed earlier.

7. The system of the grammatical categories of the Russian verb (1932b, 1957b).

8. The description of the Russian conjugational system (1948a). This description immediately became a classic model for morphological descriptions of verbal systems in the most varied languages, but most of all in Slavic languages. Jakobson 1948a contains a full-fledged theory of Slavic conjugation, together with its practical application. Suffice it to mention simply such crucial notions as full-truncated stem, basic form of the stem, etc., as well as the reduction of the two traditional stems (infinitive and present) to one, which is achieved by stating the changes of the full basic stem before different types of endings. Even to this day, the revolutionizing significance of the Jakobsonian rules of Russian conjugation, which fit into seven and a half printed pages, has not been completely realized by many linguists. Perhaps, even if Jakobson had done nothing else in morphology than write “Russian Conjugation,” his name would still have had a prominent place in the annals of our science.

9. The system of grammatical gender in Russian (1959c), together with profound inquiries into the relationship of the markedness/unmarkedness of a given gender and the categories that are compatible/incompatible with it. For example, the opposition between masculine and neuter is only possible in the unmarked nominative or in caseless forms, that is, in short adjectives; or in past tense verbs, but again only in the unmarked singular; and so on. In this connection, it is worth noting another paper, Jakobson 1959d, which gives the most concise and accurate characteristics of the neuter gender in Rumanian.

10. The system of Russian case meanings (1936 and 1958), virtually representing an outline of a semantic case theory that contains, in an embryonic form, all its basic tenets.

11. The morphological description of the Russian declension (1958), about which much has already been said.

There are, to be sure, further important results in the domain of morphology, but to include them all would mean to list the complete bibliography of Jakobson’s morphological studies.

Finally, all that remains is to sum everything up. Although this may seem to contradict what has been said above, Jakobson did not create his own grammatical theory nor did he establish his own linguistic school. The main point here lies in one important distinctive feature of Jakobson himself,

* For an attempt to outline a theory of linguistic zero signs, following Jakobson’s principles, see Mel’tuk 1970.
opposing him to such ideologically minded linguists, creators of particular theoretical systems as, among others, Leonard Bloomfield (descriptive linguistics), Louis Hjelmslev (glossemics), and Noam Chomsky (transformational grammar). Although Jakobson is one of the founders of Prague structuralism, personally he is closer to "broad" linguists, linguists par excellence: for example, to Sapir or Benveniste, or to one of his teachers, Peškovskij. He is completely free of even the slightest trace of sectarianism; nothing is as far from him as any manifestation of esprit de clocher that is inevitable when "one's own," "particular" philosophical or theoretical system is constructed. This is why Jakobson's philological interests are so broad: he is to the same degree an authority in structural poetics and in the history of literature and mythology as he is in theoretical and descriptive morphology. Jakobson's trend in grammar, and for that matter in linguistics in general, has been and still is one of broadening and lengthening the road that had been projected by some of his forerunners, often extending it himself to boundaries where no one has ever been. In accordance with Vjač. V. Ivanov's astute comparison, from the viewpoint of the "classics vs. romantics" opposition, Roman Jakobson is a typical romantic, courageously blazing new trails, laying the foundations of new theories, and, as Lomonosov puts it, "conjoining pretty far-distanced ideas" as well as generously sowing new ones. At the same time, Roman Jakobson is a convinced realist, who always prefers the earthly beauty of linguistic facts to the cold elegance of formalistic abstractions divorced from the reality of Language.

I cannot attach the name of Roman Jakobson to a particular linguistic sect that would be his own, but there is no reason to be sorry about that. For a long time already it has belonged and will always belong to the one and indivisible field of linguistic science, for which Roman Jakobson has done so much.

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Jurij Tynjanov (1894–1943) was an outstanding theoretician of literature and a novelist. He was a co-founder and one of the most important members of the Petersburg group OPOJAZ (the “Society for the Study of Poetic Language”), part of the movement known as “Russian Formalism.” Tynjanov’s most significant contributions include The Problem of Verse Language (1924, trans. 1981), Archists and Innovators (1929), and other studies on literary dynamics and evolution.