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by

MARIA KRUPP

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Date.. *Nov. 15, 1982* ....

This thesis is dedicated to my parents, John and Olga Krupp.

ABSTRACT

This study proposes to investigate what factors govern variation in word order in Russian.

Various authors hold conflicting theories in explaining the deviations in Russian from the regular Subject - Verb - Object (SVO) word order in transitive sentences. The principal theories put forth are that: 1) word order in Russian can be categorized as relatively unrestrained (for example, Borras & Christian 1959); 2) there is no freedom of word order in Russian - it is conditioned by its functions in discourse (Sirotinina 1965); and 3) that in written Russian word order is more fixed than in oral Russian (Kovtunova 1973).

In view of these theories, the specific aim of this study was to explore the following four hypotheses in order to ascertain precisely what causes permutations in normal SVO transitive sentences, where there is no cause for emphatic or contrastive stress:

1. *The Given-New Hypothesis:* given information will precede new information.

2. *The Standard Word Order Hypothesis:* the normal word order for Russian transitive sentences is Subject - Verb - Object (SVO).

3. *The Relative Stress Contour Hypothesis:* low stress noun phrases (such as pronouns) will focus on the noun phrases carrying new information by being in

post-position.

4. *The Movement of New Information Hypothesis:* any element carrying new information is moved from its usual position in a SVO structure where GIVEN information is also present.

An experiment was devised to test these theories using native Russian speakers as subjects. Data were collected on the participants' word order choice, with both object and subject nouns and pronouns, carrying given and new information, in written form. The difference between the choice of positioning under these various conditions was then measured and compared against the predictions of the different theories.

The experiment results strongly support the SWO hypothesis over all of the other ones proposed, with the GN Hypothesis operating in subordination to the SWO strategy. There is also evidence in support of the RS Hypothesis, although the original strategy proposed requires modification. Finally, the MN Hypothesis received recognition on a secondary level from the aberrant subjects. However, the invariable choice for ordering of sentence types was "canonical" word order, i.e., SVO, in six out of seven contextual conditions.

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I. INTRODUCTION

A. Preliminaries

One of the recurring problematic questions in the grammatical study of the Russian sentence is that of the flexibility of word order. Of the studies done on word order in Russian, scholars usually take one of three positions: 1) that word order is generally free (Borras & Christian 1959); 2) that there is no freedom in word order, but its conditionality is different from languages with rigid word order, and its function in the sentence is not only grammatical but discourse-determined (Sirotinina 1965); or 3) that it is relatively free in oral discourse, but relatively fixed in written materials (Kovtunova 1973).

A variety of data indicate that the basic or "canonical" word order in Russian transitive sentences is Subject + Verb + Object (hereafter referred to as SVO), and although it is not the aim of this study to uphold this statement, the most convincing evidence is the following:

1. *Statistical:* Two separate sets of statistics show that approximately 80% of Russian transitive sentences have a SVO ordering (79% - Bivon (1971), 80% - Svedstedt (1976)).

2. *Grammatical:* Where there are no inflectional cues for the grammatical function of noun phrases (NP), SVO

ordering is adopted, as in the sentence: Mat' ljubit
doč' (Bivon 1971).

3. *Stylistic or Communicative:* Stylistically or
pragmatically unmarked sentences preserve SVO order.
That is, where no context is provided, as in
discourse-initiating clauses, the order will be the
above (Thompson 1977:95). Similarly, "nonsense"
sentences such as: Glokaja kuzdra steko budlanula bokra
i kudrjačit bokrenka (Kovtunova 1967:97, quoting Ščerba)
adopt the same SVO order. Violations of this order, on
the other hand, tend to be judged by native speakers as
highly expressive, or appropriate only in special
contexts (Bivon 1971:9).

Therefore, there seems to be reasonably strong
justification for the assumption that Russian transitive
structures are initiated in a canonical SVO ordering,
despite the claims of certain authors (e.g., Babby 1978)
that such structures would be unordered in the "base" of,
for example, a Transformational - Generative Grammar of
Russian. Regardless of what position is taken on this issue,
it is the permutations of the SVO ordering in Russian
transitive sentences that this study seeks to examine.

B. Aim of Study

In order to analyse the modifications of the SVO ordering in Russian transitive sentences, four hypotheses were selected as put forth by the authors studied in Chapter Two. The hypotheses are as follows:

1. *Given - New (GN):*

The Given - New Hypothesis, characteristic of Speech and Written Material, is elucidated by the claim that:

> The universal character of this theory lies in the separation of the two types of information. Given information is taken to be that information which the speaker assumes he shares with the addressee, while New information is, that which the speaker assumes the hearer is not aware of. Given information is normally separated from the New in a systematic way. Typically, Given information precedes New...
>
> (Prideaux 1982:5)

The justification for this hypothesis is advanced by J. Firbas (1974:35), a Functional Sentence Perspective scholar, who states:

> Being a very primitive (though efficient) means, sentence linearity cannot - under the circumstances - but reflect the normal and natural order of phenomena as occurring in the extralinguistic reality. Initiating an action,

the actor necessarily exists before it. Only after it has started, can the action reach or affect its goal or produce some altogether new object... The communication develops along the same line.

We will interpret this hypothesis specifically in terms of the order of noun phrases in Russian transitive sentences, disregarding the verb.

2. *Standard Word Order (SWO)*:

In this theory, found in speech and written discourse that is influenced by speech, a strategy is adopted whereby the normal SVO word order will be preserved whenever possible, and new information will be highlighted by additional stress (non-contrastive stress, however, not to be confused with the contrastive or emphatic stress found in declarative, contradictory statements).

3. *Relative Stress Contour (RS)*:

This hypothesis, relevant to both oral and written materials, states: Inherently low stress items (pronouns) give focus to the noun phrase carrying New information by being positioned *after* that element.

4. *Movement of New Information (MN)*:

Any element which contains New information will move from its normal position in a SVO structure with respect to the presence of GIVEN information.

To test these hypotheses stimulus sentences were presented to subjects in pre-selected contexts to gauge their preferences in word order. The experiment involved setting up two subsets of sentence types: in the first subset nouns were used and in the second subset pronouns were used, to determine statistically the validity of the proposed hypotheses.

The following is a sample of the detailed table that appears in Chapter Two, indicating the predictions of preferred word order by the four theories, based on two input sentences with distinct distributions of given and new information in the noun phrase arguments of the verb.

```
PREDICTIONS:
==============================================================
 HYPOTHESES    GN          SWO          RS          MN

CONTEXT
TYPES
--------------------------------------------------------------
S = NEW (N)    OSV OVS     SVO          VSO SOV     VSO OSV
O = GIVEN (Pr)                                      VOS OVS
==============================================================
S = GIVEN (Pr) SVO SOV     SVO          OSV VOS     SOV OSV
O = NEW (N)                                         VOS OVS
==============================================================
```

Note. V is always NEW. (N) = Noun, (Pr) = Pronoun

TABLE 1.   Sample Prediction of Word Order in SVO Russian
            Sentences

As is indicated above and over the total set of context types, each theory make very different predictions, thereby

satisfying the need to keep the hypotheses as independent from one another as possible.

C. Overview

In view of the proposed hypotheses and their experimental testing the following layout will be adopted in this thesis: Chapter Two will constitute a review of the literature dealing with Word Order in Russian. The review includes both descriptive and experimental studies, and a Predictions Table outlining the expected results from the four, hypotheses. The designs and procedures of the experiments in association with the various word order hypotheses are discussed in Chapter Three. In Chapter Four the results are analysed and displayed on graphs, indicating the major trends in the responses. The fifth chapter discusses the results in comparison to the predictions outlined in Chapter Two, and contains the summary of the principal findings of this study.

II. REVIEW OF STUDIES OF WORD ORDER IN RUSSIAN

A. Introduction

A number of noted grammarians have addressed the problem of defining word order in Russian. Their studies are reviewed in this chapter; each of the theories is defined and examined. The major principles that are dealt with are that of Functional Sentence Perspective, i.e., the communicative role of the words; the optional placement of the direct object in the sentence; and the role that extra stress plays in sentence constituent ordering.

Included is an examination of some of the Transformational studies of word order in Russian and some of the few existing experimental studies and their relevance to the various theories.

The motivation for the hypotheses to be tested later and the predictions of word order in Russian transitive sentences will be drawn from this representative body of current thinking on the problem.

B. Descriptive Literature
Functional Sentence Perspective (FSP)

Many of the scholarly works researched in this study uphold or are inclined to the theory of FSP. Since it would be overly repetitive to list each work separately, this study attempts to combine the scholarly works by defining the principles of FSP, and where necessary how it applies

specifically to Russian word order. The authors of the works referred to include: Firbas, Daneš, Večorek, Tolstoy, Kuno, Halliday, Adamec and others, for general theoretical discussions, and Kovtunova, Sirotinina, Krylova and Khavronina, for more detailed applications to Russian syntax.

FSP is concerned with the organization of the sentence as a message: with "how the grammatical and semantic structures function in the very act of communication" (Halliday 1974:44).

Among the theoretically-oriented authors cited, there are three aspects of FSP under discussion: 1) GIVEN information - NEW information; 2) theme (T) - rheme (R); 3) various degrees of communicative dynamism (CD) (Daneš 1974:106).

The first distinction was initially defined by V. Mathesius (1939) as the "starting point of the utterance as that which is known ... in the given situation and from which the speaker proceeds" (Daneš 1974:106). In simplified terms GIVEN information is information that is already known and NEW information is what the speaker states about the GIVEN. In discussing the second distinction, Mathesius defines the theme as something that is being spoken about in the sentence and the rheme as what the speaker says about the theme. J. Firbas advanced the idea of CD; by this concept he means "the extent to which the sentence element contributes to the development of the communication" (Daneš:

107); simultaneously the theme is the sentence element that carries the lowest degree of CD within the sentence. In other words, CD assigns to the different sentence elements various degrees of thematicity or rhematicity (Daneš:107).

It is not the aim of this study to examine FSP deeply, nor to elaborate which might be drawn between GIVEN-NEW and THEME-RHEME. The simplified hypothesis generated by this concept and applicable to this study is that GIVEN precedes NEW and/or THEME precedes RHEME. We will not distinguish betwen these two facets of FSP, especially since the various authors themselves frequently use the terms interchangeably, as will be seen below.

Traditional Grammar Within FSP

O. Vinceler (1977) raises individual theoretical questions that he considers necessary when studying word order in Russian. He acknowledges that it is usually alleged that word order in Russian is unconstrained, and that theoretically any permutation in word ordering is possible. However, upon closer examination of possible permutations, Vinceler states that word order is constrained by several governing factors. He sees the "role of context in syntax as one of eminence" and ties in theme and rheme with it as does Kafkova (1979:247). Both maintain that content enables theme and rheme to materialize. His views coincide with those of

Kovtunova's who will be discussed below. Joseph Lake adheres to the major theories presented in that theme precedes rheme and that stress falls on the focus of the sentence — the focus being rheme (1975:167). Since his article represents the mainstream of studies surveyed, it will only serve as a potential reference here.

I. I. Kovtunova (1967, 1969, 1973, 1974, 1976, 1979) has written extensively on the problem of categorizing word order in Russian. In one of her major studies (1969) she states that word order is in part dependent upon the logical focus of the sentence, i.e., its communicative role. Kovtunova attempts to specify under what conditions word order is free and under what conditions it is fixed. She investigates the theory of *Functional Sentence Perspective* in stating her assessments. That is, sentences are divided into two parts: the theme (GIVEN) and the rheme (NEW). GIVEN information normally stands in initial position, especially in written discourse, while NEW information is positioned at the end of a sentence. Her basic conclusions encompass word order both in oral and in written speech. She surmises that the theme and rheme in oral speech are indicated mainly through intonation (1967:143), which, she contends, accounts for the remarkably free word order in oral speech when it is compared to the relatively fixed word order of written speech (1969:60). In effect, Kovtunova states that word order in Russian is conditioned by the theme and rheme, which are signalled by word order in written material and/or

intonation in speech, thereby concluding that more often than not, word order in Russian is governed by contextual conditioning factors.

When all of her studies listed in the bibliography are examined, a common theory emerges throughout: when studying word order in Russian it is essential to realize that word order functions simultaneously on two levels in the structure of a sentence: 1) on the level of its syntactical function (Subject/Predicate) and 2) on the level of its Functional Sentence Perspective (theme/rheme). Kovtunova justifies this assessment by the following example (Sentence Type - 'Subject (S))+ Predicate (P)):

1. if the theme = S and rheme =P (e.g., *Syn uexal*) then FSP and syntactical functions correspond, but

2. if theme = P and rheme = S (e.g., *Uexal syn*) then FSP and syntactical functions are opposed to one another (1967:112), i.e., the neutral SP order is violated on the syntactical level.

Conversely if we tried in 2) to maintain the canonical word order the theme-rheme order would be violated on the FSP level. In the instances where the order PS violates the normal syntactic function order, then word order fulfills only one function - expressing theme and rheme (1973:55).

In the analysis of the present study, Kovtunova's claims will be audited to determine their degree of validity under the headings of both the Given-New Hypothesis, which basically is equated with her FSP model, as well as the Standard Word Order Hypothesis, to which she apparently adheres in her recognition of a canonical sentence structure.

A second notable author examining the role of word order in Russian is O. Sirotinina (1965). She emphatically states that word order in Russian cannot be categorized as free (1965:167). Her investigations indicate that word order fulfills a grammatical and communicative function simultaneously and that the communicative form is expressed in oral speech through intonation and in written speech through word order (7).

A section of her study is devoted to the positioning of the direct object in a sentence. Since this is rarely, if at all, discussed by most scholars, it is essential that it be elaborated upon because of its pertinence to the current investigation.

Sirotinina claims that the grammatical 'norm' of word order in a predicate (P) (comprised of a transitive verb and a direct object (DO)) is P + DO, if the communicative function of the DO contains NEW information (36). Preposing of the DO (DO + P) in written speech is very rare; it is only placed before a NEW verb when it carries GIVEN information to more clearly mark the difference between

GIVEN and NEW information (40). In oral speech the DO, if it carries GIVEN information, becomes enclitic and is more readily positioned before the P, since in oral speech the communicative structure of a sentence is expressed through intonation, not word order. By the same token, the placing of a DO containing NEW information is less rigid in oral speech than in written and can therefore, also be positioned before the verb (46). This preposing of the DO becomes much more frequent when the DO is a pronoun.

Если же дополнение не является новым, в контактной постпозиции оно сливается в устной речи с глаголом, местоименное дополнение становится просто энклитикой. В силу этого значимые дополнения обычно располагаются препозитивно (дистантно) (47).

This portion of Sirotinina's assertions we will later analyze under the Relative Stress Contour Hypothesis, even though she states that the DO (nominal or pronominal) stands in *front* of a NEW verb.

She continues by claiming that the ordering of SP is also not free in written speech; it is dependent on the communicative structure of a sentence. When S is GIVEN (one statistical survey finds that in 83% of approximately 6,000 sentences the subject is GIVEN), (Svedstedt 1976), S will precede P (95). Post-positional S occurs only when S = NEW and also where sentences are unstructured communicatively (i.e., both S and P are both NEW or GIVEN) (97). All in all Sirotinina declares that initial S governs 93% of the time

(102). In oral speech the SP ordering is less rigid as the communicative structure is considerably weakened; instead, extra stress on a new S indicates its communicative role; rather than does word order (100).

In conclusion, the essence of the argument is that the communicative structure of a sentence in written speech is expressed only through word order and in oral speech *firstly* through intonational means (152). Thus, placement of sentence constituents depends on their communicative, grammatical and stylistical roles, accounting for no freedom of word order in Russian. In the final analysis, she, like Kovtunova, recognizes the relevance of the GN Hypothesis, to some extent the canonical word order (SWO) Hypothesis, and furthermore adds the notion that *pronouns* are particularly sensitive to the GN Hypothesis in speech - a modification labelled the RS (Relative Stress) Hypothesis.

Valgina's publication parallels that of Sirotinina's only on a much smaller scale. She too argues that word order in Russian is not considered free, but that grammatical and FSP functions operate together or in direct opposition to one another to give element ordering (134). To avoid repetition, Valgina is cited as a reference.

The co-authors Krylova and Khavronina (1976) write that there are various conditions limiting arbitrary word order in a Russian sentence, since upon examining three sentences that are identical except for varying word order, one can see that by changing the word order one is changing the

meaning of the utterance.

The authors indicate that one condition that governs the "seeming" freedom of arranging words in a sentence is the style of speech. For example, in poetry one can find adjectives placed after the nouns they qualify or separated from them by other words. In another style of speech, such as the scientific, this word order would be incorrect stylistically.

However, the basis of their claims is nested in the concept of FSP which as before, is defined as the division of a sentence into theme and rheme. As a result, word order depends on the speaker's/writer's aim in conveying new and familiar information.

For example: Виктор был у меня в гостях (17).

Here the speaker's aim is to impart information about Victor's activities; therefore Victor is common information (theme) and his activities are new information (rheme) (17). Rather than asserting that Russian follows a canonical SVO ordering, Krylova and Khavronina divide sentence types (i.e., declarative, interrogative) into five principal variants. The categorization of the variants is determined by what is the theme and what is the rheme in each sentence type. In emotive speech intonation and word order will interact and apply simultaneously, accounting for rearrangements in the direct theme-rheme ordering to, say, rheme-theme-rheme, as in the sentence:

Мхом пахнет прелым и грибами (136).
(R) (T)   (R)

In other words, the rheme is moved from its usual place and given additional prominence by intonation (135).

An example of the authors' categorization is:
Variant IV (88):

$$O + S = Complex\ T,\ P = R$$

Word Order: $O + S + P$

In summary, all of Krylova and Khavronina's assertions are governed by the theory of FSP. No recourse is made to SWO or RS for pronouns as in the previous author's work.

A. Bel'skij (1956) is of the opinion that whatever thoughts are not communicated via grammatical means in an utterance are done with the aid of intonation. He adds the definition of *definite* to given and *indefinite* to new and claims that a given-definite subject is expressed through intonation in Russian:

Мальчик пришел - S= GIVEN
Мальчик пришел - S= NEW   (190)

In this way, when canonical word order occurs, intonation indicates that S = given + definite. Otherwise, S = given + definite is expressed with a change in word order.

В русском языке интонационное выражение смыслового предиката часто сопровождается инверсированным порядком слов (195).

This coincides with two of the hypotheses in the present study, GN and SWO, and will be referenced accordingly.

Transformational Grammar

There is very little available literature on transformational grammar in relation to word order in Russian. This survey deals with three different authors and their assertions, the first of whom is O. Dahl.

Dahl (1969, 1974) attempts to unite the theory of Functional Sentence Perspective with the theory of Transformational Grammar in his studies of Topic and Comment. He assumes "a working hypothesis that the base component of a transformational grammar is identical in all languages" (1969:5). From this point Dahl further develops his claims by stating that it is necessary for one to assume that the "topic-comment (TC) structure is to be accounted for in the semantic representation of a sentence and is not merely a surface phenomenon" (1974:75) and that TC structure can be viewed as "the reflection of some fundamental aspects of the semantic representation of the sentence" (1974:75). One of the examples he gives is the sentence "Korol'-bogac." "The king is a rich man" defines an individual, "the king", and assigns to him the property "to be a rich man" (1974:76).

Dahl criticizes the theoretical bases of Functional Sentence Perspective (FSP) saying that the idea that a speaker "first chooses the lexico-syntactic structure and then the actual bipartition of the sentence is quite unfounded" (1969:11). He bases his criticisms of the FSP theory on the grounds that the definitions of sentence

elements as either belonging to the theme or the rheme are insufficient - that the definition of what is "given" holds good only for a few cases (9). He cites the example: "Somebody came in," and raises the question is "somebody" given, or not? Unfortunately, Dahl does not seem to offer a substantiated alternative definition. However, Dahl admits that the theory he outlines is schematic and incomplete yet still claims that it directly generates Russian word order (18). The main pertinent points of Dahl's theory are that:

The ultimate constituents of base structure are in principle those of predicate logic. Thus, the meaning of a sentence can be analysed into a number of atomic formulas, connected with each other, on the one hand, by logical constants, on the other, by a system of indices that determines which formulas have the same referent. The normal form of a sentence is an implication. The topic-comment structure of a sentence is determined by the distribution of the functionals to the left and right side of the implication sign. Surface grammatical relations are partly a reflection of topic-comment structure, partly of the index system (51).

L. Babby (1978) is the second author this study examines who attempts to apply transformational grammar to word order in Russian. He points out that in a Russian sentence grammatical relations are expressed almost entirely

by case morphology, and that word order does not reflect grammatical relations. In other words, although a change in word order in Russian expresses the theme/rheme structure, it does not express a change in the grammatical relations. Case defines grammatical relations, not configuration/fixed word order (40). Thus, Babby's conclusions are in direct opposition to most of the other scholarly works surveyed.

Lastly, J. Gundel (1975) discusses briefly the topic-comment structure of a sentence, although she equates it to "the phenomenon of FSP" (174). She says that in "Russian, topic-comment structure is reflected primarily in word order and in sentence stress," and that primary sentence stress always falls on the comment (174). Also stated is the claim that Russian sentences "with distinct topic-comment structures ... are also used appropriately in different contexts," (175) which is congruent with most of the scholars surveyed. Gundel therefore differs quite dramatically from the preceding more traditional transformational grammarians in that she recognizes the influence of context on Russian word order, while the former are constrained by the requirement that sentences be generated in isolation from context.

C. Experimental Studies

As with the studies in transformational grammar, there is a scarcity of experimental data available pertaining to word order in Russian. Of the three to be surveyed, only two

were done on an in-depth scale and even they differ in focus and material. As a result the statistics are not entirely conclusive or all-encompassing.

The first experimental study to be examined is that of R. Bivon's (1971), who bases his investigation solely on written discourse. He categorizes the factors that underlie the ordering of elements under three broad headings: contextual; grammatical; stylistic (7). He defines contextual as the pragmatic information language communicates, i.e., the communicative or the GIVEN-NEW information. Bivon differs from Sirotinina, Kovtunova et al. in that he further sub-divides NEW into NON-ESSENTIAL (NEN) and ESSENTIAL (EN). He states that the accepted order of GN, from evidence studied is:

NEW

GIVEN - NON-ESSENTIAL NEW - ESSENTIAL NEW (8)

Thus, here Bivon is in agreement with one of the hypotheses proposed in this study (GN), and is in accord with the majority of the scholars' works surveyed.

He further notes that the order G - EN - NEN occurs when an utterance has a high degree of emphasis, found most frequently in spoken language, and that when no GIVEN information is present the order EN-NEN occurs (9).

Bivon defines the grammatical factor as follows:

In Russian the function of an element is determined by inflexion rather than the position of the elements relative to each other. This leaves Russian,

greater scope for element order to express the contextual distinctions discussed previously (11).

In other words, Bivon seems to be saying that grammatical inflection of syntactic function creates *freer* word order, which, in turn, can be exploited for pragmatic purposes.

The third category is stylistic and Bivon asserts that there are relatively rare occasions when different word orders are possible without changing grammatical and/or contextual meaning. It is only in this limited way that one can say that word order in Russian is "free" (11).

In order to understand Bivon's analysis it is necessary to define the terminology used in his study as follows:

a. Subject: realised by a nominal group (S)

b. Predicator: usually realised by a verbal group (P)

c. (Extensive) Complement: corresponds to the category of direct object (C).

His investigation consists of a series of contextual analyses of sentence types most frequently found in written Russian (48) drawn from a selection of the University of Essex Russian Language Project's Texts, and supplemented by texts from Soviet literature and newspapers (30).

The following is a table indicating the percentages of various sentence types containing Subject, Predicate and Complement out of the total unspecified corpus of sentences

investigated (the frequency of each word order occurrence is
a percentage of the total occurrences of S, P and C in any
order) (42):

$$S - P - C \qquad (79\%)$$
$$S - C - P \qquad (1\%)$$
$$P - S - C \qquad (1\%)$$
$$P - C - S \qquad (2\%)$$
$$C - S - P \qquad (4\%)$$
$$C - P - S \qquad (11\%)$$
$$\overline{}$$
$$\text{TOTAL:} \qquad 98\%*$$

*(Words interrupting one another comprise the other 2%.)
Bivon then gives a contextual analysis for each of the
orders cited above (48), which is represented in Table 2.

	S	P	C
S-P-C (79%)	G	NEN	EN
	G	N	N
	G	NEN	NEN
emphatic	EN	NEN	NEN
C-P-S (11%)	EN	NEN	G
	NEN	NEN	G
emphatic	NEN	NEN	EN
C-S-P (4%)	G	NEN	G
	G	N	G
emphatic	NEN	NEN	EN
P-C-S (2%)	EN	NEN	NEN
	N	G	G
S-C-P (1%)	G	N	N
	G	NEN	NEN
	G	EN	NEN
emphatic	G	NEN	EN
P-S-C (1%)	NEN	NEN	NEN

G - Given; NEN - Non-essential new; EN - Essential new; N - New (no essential or non-essential new distinguishable).

TABLE 2.   Bivon's (1971) Contextual Analysis of Various Russian Word Orders

We will have occasion to return to this table later in the discussion of the results of our own experimental work.

Of the experimental studies done on word order in Russian, Dag Svedstedt's (1976) is perhaps one of the more comprehensive. However, his study is confined to examining the position of objective personal pronouns in Subject (S) - finite verb (P) - objective personal pronoun (O) type clauses. He initiates his study with the hypothesis that the direct object is more frequently placed in front of the predicate when it is a pronoun than when it is a noun. The study concentrates on two common permutations of word order: SPO and SOP. Svedstedt notes that if S is chosen as the theme of the clause, then word order is to be regarded as unmarked stylistically and communicatively.

The study examined 6,600 clauses of S + P + O type and in 80% of these clauses S constituted the theme (20). Of importance to note is that both written and spoken text types were used in this study.

The word class of the subject was divided into a noun, a personal pronoun or other pronouns and classified as follows (42):

a. S seldom marked intonationally
b. S marking optional
c. S marking always takes place
d. S marking difficult to pinpoint.

A further categorization of S results in:

1. Explicitly given S (theme)
2. New S (rheme)

3. Implicitly given S (could be ES or NS)
4. Contrastive S - marked intonationally - theme or rheme
5. Explicative S - intonational marking - contrast.

In all, four variables must be listed in the ordering of material in order to achieve maximum coverage (54):

    a. the character of S (noun, pronoun)
    b. type of clause (simple, compound)
    c. mode of expression (monologue, dialogue, spoken, written)
    d. prosody of S (implicit, explicit).

The results are listed below in conjunction with the four variables:

a) Character of S

	SPO	SOP
S = Noun	63%	37%
S = Personal Pronoun	46%	54%
S = Other Pronoun	25%	75%

These figures indicate the considerable effect that the character of S has on the relative distribution of the two permutations (169). In other words SPO predominates when S is a noun and SOP predominates when S is a pronoun.

b) Type of Clause (Monopredicative (MP), Polypredicative (PP) and S, P, O + some other part = AO)

	SPO	SOP
MP	39%	61%
PP, AO	78%	22%

Svedstedt claims that the large difference in distribution according to clause type is governed mainly by prosodic factors (176).

c) *Mode of Expression (M = Monologue, D = Dialogue)*

	SPO	SOP
M	70%	30%
D	28%	72%

If one surmises that SPO is largely selected in monologue because monologue belongs to written speech and that SOP is selected because dialogue belongs to the spoken character of speech (as appears to be the case from Svedstedt's data), then this is an indication that in Svedsted's terms "stylistic" factors play as important a role in determining choice of permutation as do prosodic ones (172).

d) *Prosody of S ((S) = seldom marked, (S̲) = possible marking, S̲ = nearly always marked)*

	SPO	SOP
(S)	83%	17%

| ($\underline{S}$) | 39% | 61% |
| $\underline{S}$ | 15% | 85% |

The percentages indicate that the prosodic realization of S in terms of emphatic or contrastive stress is of great importance for the choice of permutation (169).

The conclusions are self-evident when each variable is looked at individually. Obviously all four variables are significant in permutation choice -- some more than others. Choice of word order within the confines of Svedstedt's study is determined by other factors in addition to the prosodic/communicative structure of a sentence, one other factor being stylistics, for example (184).

In summary, he finds that the speaker and the writer choose their permutations due to different communicative and stylistical considerations.

The analysis of the present study will be compared to some of Svedstedt's percentages, since the experiment in this proposal can draw certain parallels with the statistics reviewed above. We will, however, supplement his findings by considering both nouns and pronouns in both subject and object positions, and will examine a greater variety of word order permutations.

Unlike Svedstedt, we do not include all pronoun types in our experiment, i.e., personal, demonstrative, etc., nor do we deal with Explicitly or Implicitly given $, or Contrastive S, i.e., marked intonationally. Also, in our study we do not distinguish between monologue or dialogue as

modes of expression. Finally, this thesis deals with simple SVO structures (which Svedstedt calls Monopredicative) only, whereas Svedstedt includes compound or Polypredicative clauses in his investigation.

I. Thompson (1977) states that word order in Russian is freed by marked grammatical relations, as opposed to English where the relatively fixed word order serves to mark grammatical relations (88).

/ She makes the point, as do other scholars, that theoretically almost any sentence in Russian has the possibility of having several word orders, contingent on what the communicative task of the speaker is. Thompson also concedes that there is one more neutral or more typical word order than all other choices, and that "in categorical judgements consisting of the traditional subject and predicate, the flow of information in Russian typically proceeds from what is GIVEN to what is NEW" (89). Her study differs from the other scholars, however, in that it was based on the assumption that in second language learning, the learners' native word order constraints would be transferred to the target language. She tested the hypothesis that Americans studying Russian used differing word order than did the (Russian) native speakers (90), with interesting results relevant to the present analysis. Of importance are the statistics produced by the Russian native speakers, even though Thompson's study was done on a small scale. The Russians used SV order for intransitive sentences

52.5% of the time and VS order 47.5% of the time. The SV percentage appears to be rather low in comparison to the other statistical studies discussed earlier.

A final point worthy of comment is the fact that Thompson's study produced a significant reaction by the Russian group to absence of context. Firstly, the Russians developed several alternative orders and supplied the context for each one. Secondly, when asked to choose only one order, without context, they usually selected the word order SP. Thus, Thompson asserts that this indicates that the concept of neutral word order (SP) is psychologically real, a fact which is demonstrated as a statistical trend in her data (95).

Of relevance to the present study then are Thompson's findings of an obvious neutral word order in Russian in the absence of context; and the necessity of providing a contextual basis for any word-order studies of Russian.

D. Objectives for Present Study.

As can be deduced from the reviews of existing studies on word order in Russian, it is evident that most of the investigations either touch on the surface of this complex phenomena without substantial theoretical underpinning, or gravitate towards the dominant FSP theory. The majority of the studies deal with contextual analyses, as does the present one. However, the nature of the present experiment attempts to test four hypotheses, thereby encompassing all

of the proposed claims set forth by the various authors.

It is important to note at this point that whereas the surveyed literature indicates significant differences between word order in Russian oral versus written language, it was not felt that this distinction could be captured by the technique employed in the experiment. During the pilot studies, which were presented in written form, it was discovered that the subjects were reading the sentences to themselves in any case, thereby invalidating any claims that would relate the findings to exclusively written discourse. This does, however, raise an important theoretical issue; namely whether there is a clear-cut empirical distinction between oral and written language. If one adopts the position of some reading authorities that *all* reading involves subvocalization, then this distinction disappears, or at least becomes virtually impossible to test. This was the approach forced upon us by the pilot studies.

The following is a table summarizing the predictions of the four hypotheses relating to word order in transitive sentences in Russian, under contextual conditions specifying the GIVEN-NEW information structure of the sentence.

CONTEXT TYPES	GN	SWO	RS*	MN
S = NEW (N) O = NEW (N)	SVO VSO OVS SOV VOS OSV	SVO	N/A	N/A
S = NEW (N) O = GIVEN (N)	OVS OSV	SVO	OVS? OSV?	VSO OSV VOS OVS
S = GIVEN (N) O = NEW (N)	SVO SOV	SVO	SVO? SOV?	SOV VOS OSV OVS
S = GIVEN (N) O = GIVEN (N)	SOV OSV	SVO	N/A	SOV VSO VOS OSV
S = NEW (N) O = GIVEN (Pr)	OVS OSV	SVO	SOV VSO	VSO OSV VOS OVS
S = GIVEN (Pr) O = NEW (N)	SVO SOV	SVO	VOS OSV	SOV VOS OSV OVS
S = GIVEN (Pr) O = GIVEN (Pr)	SOV OSV	SVO	N/A	SOV VSO VOS OSV

Note. V is always NEW. (N) = Noun, (Pr) = Pronoun

*Since this hypothesis is applicable only to pronouns, we can only assume that the GN hypothesis will operate with nouns under RS, predicting the orders marked with a question mark.

TABLE 3.   Prediction of Word Order in Simple Russian Transitive Sentences, According to Context

III. THE EXPERIMENTS

A. Introduction

The motivation for this present study is found in the relatively unsubstantiated claims set forth in the previous chapter. The majority of scholars base their assertions on FSP theory, with little attention being given to statistical data and experimentation. The factors that govern change in word order in Russian are still shrouded in ambiguity.

Thus, in addressing the problem, an experiment was carried out to investigate the six permutations of SVO sentences under seven varying contexts. The conditions were chosen in order to manipulate the communicative function of the elements of the sentences.

B. Word Order Study

Hypotheses

The experiment tested the following hypotheses:

GIVEN-NEW Hypothesis (GN): GIVEN information will precede NEW information.

Standard Word Order Hypothesis (SWO): NEW information is specified by additional stress and the canonical SVO order is preserved.

Relative Stress Contour Hypothesis (RS): Low stress noun phrases such as pronouns will converge on the

noun phrases bearing NEW information by being placed immediately after the NEW

Movement of NEW information Hypothesis (MN): Any element carrying NEW information is moved from its usual position in a canonical SVO structure with respect to elements bearing GIVEN information.

These hypotheses generate varying predictions, as indicated graphically by Table 3 in Chapter Two. The 'GN' hypothesis predicts that any constituent carrying GIVEN information will stand in initial position and any constituent carrying NEW information will follow the GIVEN.

The SWO hypothesis predicts that the canonical SVO order will not be violated; instead, NEW information will be indicated with additional (non-contrastive) stress.

The RS hypothesis is reserved for low stress items, i.e., pronouns, and predicts that a pronoun will be positioned after the noun phrase bearing NEW information in order to give focus to the NEW constituent.

Since this theory is predicated on low stress pronouns, we would assume that nouns, which are not low stress items, will not move in the same way as the pronouns. Because the RS hypothesis does not encompass noun phrases carrying GIVEN information, we will assume rightly or wrongly that when this occurs the GN hypothesis will operate instead.

The MN hypothesis predicts that any constituent carrying NEW information will be moved from its normal position.

Subjects

The experiment utilized 13 subjects, all of whom were native Russian speakers and had lived in the USSR as recently as six years ago. Subjects ranged from 20 to 50 years of age, and consisted of 4 females and 9 males. All of the subjects, with the exception of one, had post-secondary training in the USSR and spoke a fairly high standard of literary Russian. This standard of Russian was desirable in order to diminish possible dialectic interference during the course of the experiment.

Materials

The 35 sentences appearing in the experiment responded to and created seven different types of context. There were five replicates of each of the seven types and each replicate contained six word order choices that were to be ranked from one ("the best") to six ("the worst"). The seven context types, together with the response sentences created the environment necessary to test all four of the proposed

hypotheses.

In order to eliminate potential interfering factors, such as adverbs of time or place, adjectives, etc., all of the 35 sentences contained only a subject, a transitive verb and a 'patient' or true object, i.e., no goal of action objects with prepositions were used, nor were complex verbs with incorporated prepositions. All of the verbs carried NEW information and only personal pronouns were used, eliminating other types (such as demonstrative). As a result the following chart lists the overall context created by the initiating sentences together with the response sentences:

Context 1: S = NEW (Noun), O = NEW (Noun)

Context 2: S = NEW (Noun), O = GIVEN (Noun)

Context 3: S = GIVEN (Noun), O = NEW (Noun)

Context 4: S = GIVEN (Noun), O = GIVEN (Noun)

Context 5: S = NEW (Noun), O = GIVEN (Pronoun)

Context 6: S = GIVEN (Pronoun), O = NEW (Noun)

Context 7: S = GIVEN (Pronoun), O = GIVEN (Pronoun)

It is evident that the contexts themselves operated within two groups: Contexts 1 through 4 contained only nouns, while Contexts 5 and 6 contained both nouns and pronouns and Context 7 had only pronouns. These two levels were necessary, once again, to support or refute the hypotheses under investigation.

Procedures

A booklet was printed containing the 35 context-defining sentences along with the 35 response sentences, each in its six possible word orders. In order to obtain natural responses, the contexts of the sentences were randomized, as were the six possible orderings of response sentences.

Each booklet contained a set of instructions. Subjects were asked to rate the sentences that appeared in the right-hand column on a 6-point scale, depending on their suitability to the context that appeared in the left hand column. The instructions directed the subjects to anchor their scale before ranking each of the 6 word order choices individually. That is, they were to read the context given (in the left-hand column), then read through the 6 word order choices of the response sentence (in the right-hand column) and assign the number 1 to the sentence that best suited the context. Next, they were instructed to assign the number 6 to the word order choice that least suited the context. After the subjects had anchored their responses, they were free to proceed assigning remaining rankings from 2-5. The instructions also enabled the subjects to assign the same ranking to more than one of the responses, if they felt some of the responses were equally as good or equally as bad. The instructions and experiment are reproduced in Appendix A.

There was no time limit to the experiment, as it was done individually, not within a controlled class setting. The author was present to supervise and to ensure that there was no consultation between subjects, if more than one was present. The author also recorded observations of the subjects while they were enacting the experiment. The session lasted from 45 minutes to one hour. An analysis and discussion of the compiled data from the experiment continues in Chapter Four.

IV. RESULTS AND ANALYSIS

A. Introduction.

In order to analyse the experimental results, graphs representing the average responses for each word order choice under each of the seven conditions were plotted, and an analysis of variance (ANOVA) was conducted on the four variables: replication, sentence type (word order), context and speaker. The graphs and analyses originally included all of the subjects. However, it was observed that in the case of certain contexts, the behaviour of a few subjects was somewhat erratic. The analyses were then re-executed excluding the aberrant subjects, instead their results were superimposed over the remaining average responses in the graphs. The general trends for each context type were examined and the best and the worst points noted. In view of the observation that there was considerable variation in response ranks 2-5, i.e., those between the best and worst, a second ANOVA on recoded responses, where 1 stayed 1 (i.e., "most acceptable"), 2-5 became 0 ("uncertain"), and 6 was set at -1 ("least acceptable"), was carried out. Generally speaking, however, this had little effect on the results. A comparison between nominal and pronominal context conditions and a discussion of deviations in responses follows. The first analysis to follow describes verbally the general trends for each context type. Following this description of general tendencies are more detailed results stemming from

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the corresponding ANOVA analysis and examination of deviant subjects. The reader is referred to the graphs and tables at the end of this chapter for clarification.

B. Results

In all, seven context-response conditions were generated. They are listed below along with the overall best average responses (B) and the worst responses (W):

CONTEXT		RESPONSE	AVERAGE
C1:	S = NEW (N)	B = SVO	1.1
	O = NEW (N)	W = OSV/VOS	4.5
C2:	S = NEW (N)	B = SVO	1.4
	O = GIVEN (N)	W = VSO/VOS	4.4/4.3
C3:	S = GIVEN (N)	B = SVO	1.4
	O = NEW (N)	W = OSV	4.9
C4:	S = GIVEN (N)	B = SVO	1.1
	O = GIVEN (N)	W = VOS/OVS/OSV	4.6/4.5/4.5
C5:	S = NEW (N)	B = SVO/(SOV)	1.8/(2.2)
	O = GIVEN (Pr)	W = VSO	5.2
C6:	S = GIVEN (Pr)	B = SVO	1.2
	O = NEW (N)	W = OVS	5.3
C7:	S = GIVEN (Pr)	B = SOV/(SVO)	1.4/(2.0)
	O = GIVEN (Pr)	W = OVS/VOS	5.2/5.1

C = Context, (N) = Noun, (Pr) = Pronoun, B = Best, W = Worst

TABLE 4.   Best and Worst Overall Responses to Context
Conditions with (Mean) Average Value.

As can be observed, SVO sentence types predominate in virtually every contextual condition as the best response. Of significance is the fact also, that when O is NEW or GIVEN the worst responses are usually those that violate GN ordering (see Graph 4.5). Similarly, in Graphs 4.3 and 4.6, where S = GIVEN and O = NEW, the average curve shows a considerable trend towards acceptability at the last point VSO, as opposed to Graphs 4.2 and 4.5, where S = NEW and O = GIVEN where VSO is the worst possible order. Thus although SVO ordering dominates in all instances except where subject and object pronouns appear, this ordering is especially reinforced when the subject is GIVEN. That is, there appears to be a secondary ordering preference gravitating towards GIVEN preceding NEW, although this is far from consistent in all contexts.

Since C1 through C4 represent subject and object nouns and C5 through C7 represent subject and object pronouns, it is of value to compare the contextual opposites (of which there are none for C1) and their corresponding word order preferences.

NOUNS		PRONOUNS	
CONTEXT	RESPONSE	CONTEXT	RESPONSE

C2: S = N
    O = G
	B = SVO
	W = VSO/VOS
		C5: S = N (N)
		    O = G (Pr)
			B = SVO
			W = VSO

C3: S = G
    O = N
	B = SVO
	W = OSV
		C6: S = G (Pr)
		    O = N (N)
			B = SVO
			W = OVS

C4: S = G
    O = G
	B = SVO
	W = VOS/OSV
		C7: S = G (Pr)
		    O = G (Pr)
			B = SOV
			W = OVS

TABLE 5.   Comparison of Responses of Contextual Opposites

SVO was ranked best in all contexts except C7, where both O and S are pronouns. Here SOV was ranked best, with SVO a close second choice (SOV = 1.4, SVO = 2,.0). It is uncertain what factors are governing SOV dominance in this instance, except for the presence of a pronominal subject and object. We will return to this point in the discussion of results in the concluding chapter.

SVO and GN ordering are considerably weakened in one other context type, i.e., C5, where S = NEW (N) and O = GIVEN (Pr). This one context supports the assumption that object pronouns will give focus to NEW by being placed after the element carrying NEW information, accounting for the average response for SVO of 1.8 and the SOV ordering of 2.2.

All in all GIVEN-NEW ordering of information is clearly operating as a possible strategy as well, although somewhat weaker than SVO ordering. This is reflected in the obtained

results on two levels:

a. The choices that were ranked as the worst by the respondents were those that violated the GN ordering. That is, in most contexts, wherever NEW information appeared in initial position and GIVEN in final in the various word orders *other than SVO*, these sentence types were consistently ranked as the least acceptable.

b. When S was GIVEN the canonical word order choice was strengthened, i.e., SVO was virtually a unanimous choice as the best.

C. Deviations

In an experiment of this nature it is to be expected that not all of the subjects will respond in a uniform manner. As mentioned at the outset, the more obvious aberrancies were removed from each context-type. Some of the same subjects deviated from the norm in more than one context, as are indicated by the graphs, but none were deviant in all contexts. As a result there was no justification for eliminating some subjects entirely under the assumption that they had misinterpreted their task. Instead, we chose to isolate them in individual contexts. In certain contexts the aberrant subjects had a tendency to

form a group (a group here meaning two or more subjects), an example being the aberrations evident in Graph 4.1. We will list the deviations from the overall average responses for all context types and attempt to assign explanations for each.

    a. C1: S = N (N), O = N (N); Graph 4.1

The aberrant preferences in this context for "best" choice were SVO and for "worst" choice OSV. Both of these choices were the same as the norm. The basic differences from the overall average responses were that OSV also received relatively good ratings (1.8 to 3.0 compared to a norm of 4.5), and that one subject ranked VSO as 2.2 (compared to a norm of 4.3). Excepting the VSO choice, the subjects generally acted as a group. Since these sentence types contained only NEW information and thus no communicative markers, it is possible that these deviations indicate a secondary preference for certain fixed word order types after the SVO choice.

    b. C2: S = N (N), O = G (N); Graph 4.2

This context produces the most scattering of responses. The "best" choice for the norm is SVO but the aberrant responses fluctuate between SVO, SOV and VSO. The same fluctuation is apparent in the "worst" choice; the norm being VSO and the exceptions choosing SOV, VSO and OSV. There is no

group formation in this context, all exceptions behave differently. We will assume that because S = NEW in this context it caused the subjects to scatter their responses due to, perhaps, the confusing strategies of standard word ordering in direct opposition to GN ordering.

c. C3: S = G (N), O = N (N); Graph 4.3

The two deviant lines represented in this context-type violate both standard (SVO) and GN ordering. Whereas the norm for "best" is SVO and "worst" is OSV, the aberrant choices for "best" is equally SVO, OVS and VOS and for "worst" SOV and VSO. The deviations are not uniform in their pattern of choices and at this point the only explanation forthcoming is that the aberrant subjects misinterpreted these particular context generated response sentences.

d. C4: S = G (N), O = G (N); Graph 4.4

The aberrations here vary in the intermediary rankings, i.e., those choices ranked from 2 to 5. "Best" corresponds to the norm, "worst" for the two outliers are chosen as OVS or OSV. Both deviant subjects behave differently and once again there is no obvious explanation for their departure from the norm.

e. C5: S = N (N), O = G (Pr); Graph 4.5

The overall average responses for this context-type are SVO for "best" and VSO for "worst". Two of the three aberrant subjects mark OVS as "best" and the other marks SOV as "best". All three follow the norm in choosing VSO as "worst" response choice. Generally speaking the deviant subjects form a loose group pattern and display the tendency to choose the word orders that support the GN ordering, since in this context GN and standard word ordering are working against one another. Another possibility to be considered is the fact that because O is GIVEN and is a pronoun with low stress, therefore behaving differently than a noun, some interference occurred as a result of the RS strategy which puts pronouns after NEW nouns.

f. C6: S = G (pr), O = N (N); Graph 4.6

Both the norm and the exceptions rank SVO ordering as "best". The aberrant choices for "worst" word orders are OVS, VOS, OSV (the norm being VOS), all of which are in accord with the GN element ordering. Two of the deviants are generally uniform; the other is isolated within their own pattern. The aberrations occur within the scope of "best" and "worst", causing their isolation from the norm.

g. C7: S = G (Pr), O = G (Pr); Graph 4.7

This context had no true exceptions and showed the most accord across subjects. OVS was

consistently chosen as the "worst" response choice and SOV was unanimously chosen as "best", the latter choice supporting both the GN ordering of constituents and the proposed RS ordering.

D. Summary

Upon summarizing the analyses of the results obtained from this experiment it is of relevance to include the following observations.

Firstly, the question arises whether there were any subjects who consistently appeared to favour a different strategy across environments. From the data plotted on the graphs we can infer that no subjects *consistently* utilized strategies deviating from the norm to form isolated sub-groups. As mentioned previously no one subject consistently deviated across environments. However, there were not sufficient subjects to specifically evaluate the possible formation of sub-groups among the outliers. Generally the best points were well agreed upon; in comparison the worst points had less concurrence and the intermediate points showed plenty of variation.

The fluctuations in response choices in the intermediate rankings resulted in a recoding of the ANOVA by assigning 0 ("uncertain") to any point between the best and the worst. After removing this factor from the data, little overall difference was found (See Table 7). The ANOVA also resulted in a favourable statistical indication that there

were no significant variations apparent across the replicates, which was a condition strived for when designing the experiment. This result was particularly comforting in that, when reducing the experiment from 70 to 35 stimulus contexts, the original balance of Imperfective and Perfective aspects in the response sentences was lost. Obviously this had no effect on the results of the experiment. There were some interaction effects in the ANOVA, in particular sentence type (the most significant effect) by context; this was the desired interaction effect the experiment was designed to incorporate. On the other hand there was also some lesser *context by replicate* and *context by replicate by sentence type* interaction which might only be explained by the specific lexical items used in the experimental replicates.

In summary, the observations made from the compiled results are that: SVO ordering is heavily favoured; there is also an interaction apparent between standard word order and GIVEN-NEW, and where applicable the relative stress ordering. Pronouns, as opposed to nouns, have a marked effect on standard word order in that they can overrule the dominant SVO word order choice when S and O are both GIVEN.

The ensuing chapter will specifically compare the results to the previous predictions with reference to the claims discussed by the authors in Chapter Two.

CONTEXT I · S=NEW(N), O=NEW(N)
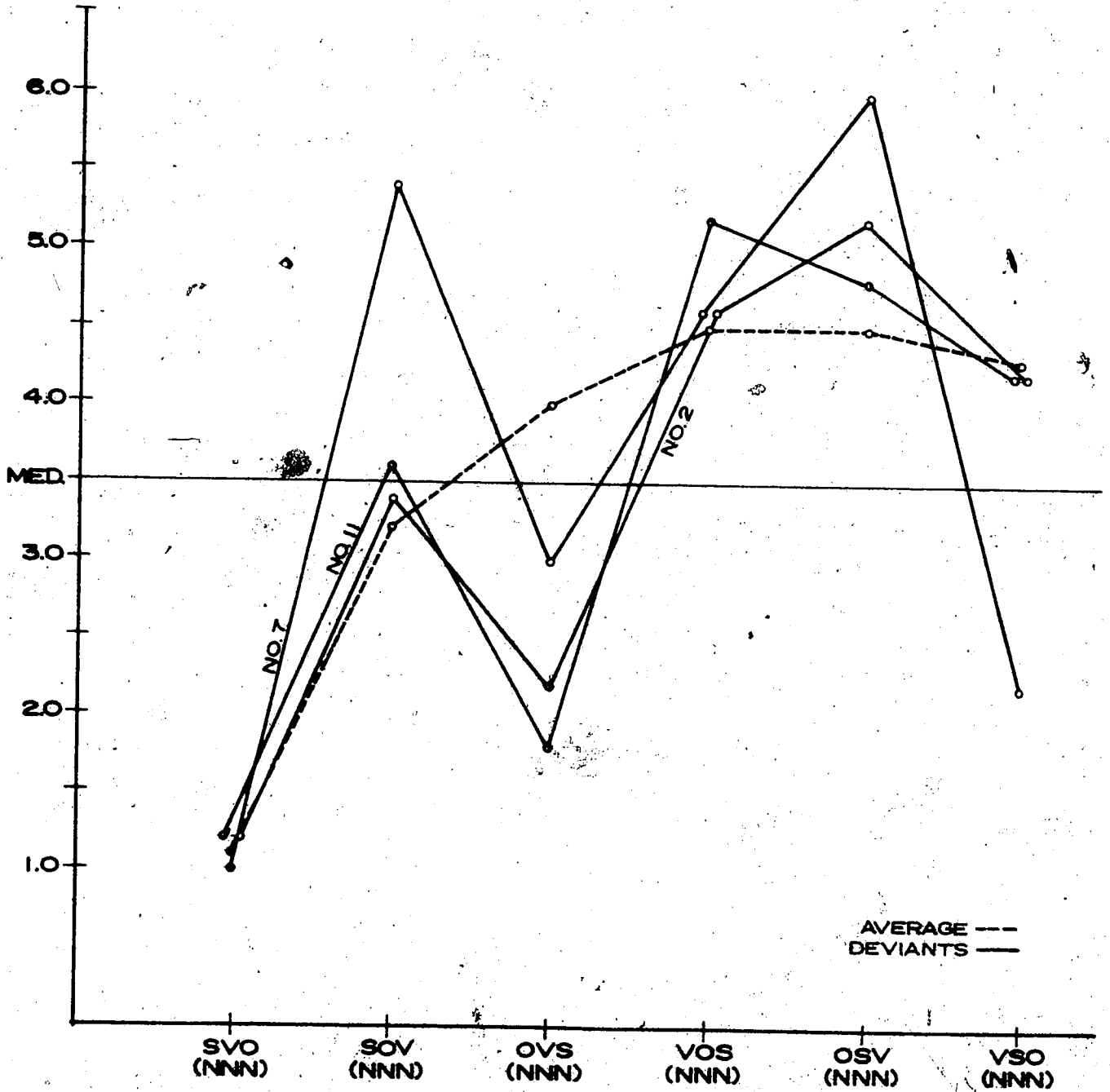
GRAPH 4.1 · AVERAGE RESPONSES ACROSS
SENTENCE TYPES

CONTEXT 2 : S=NEW(N), O=GIVEN(N)
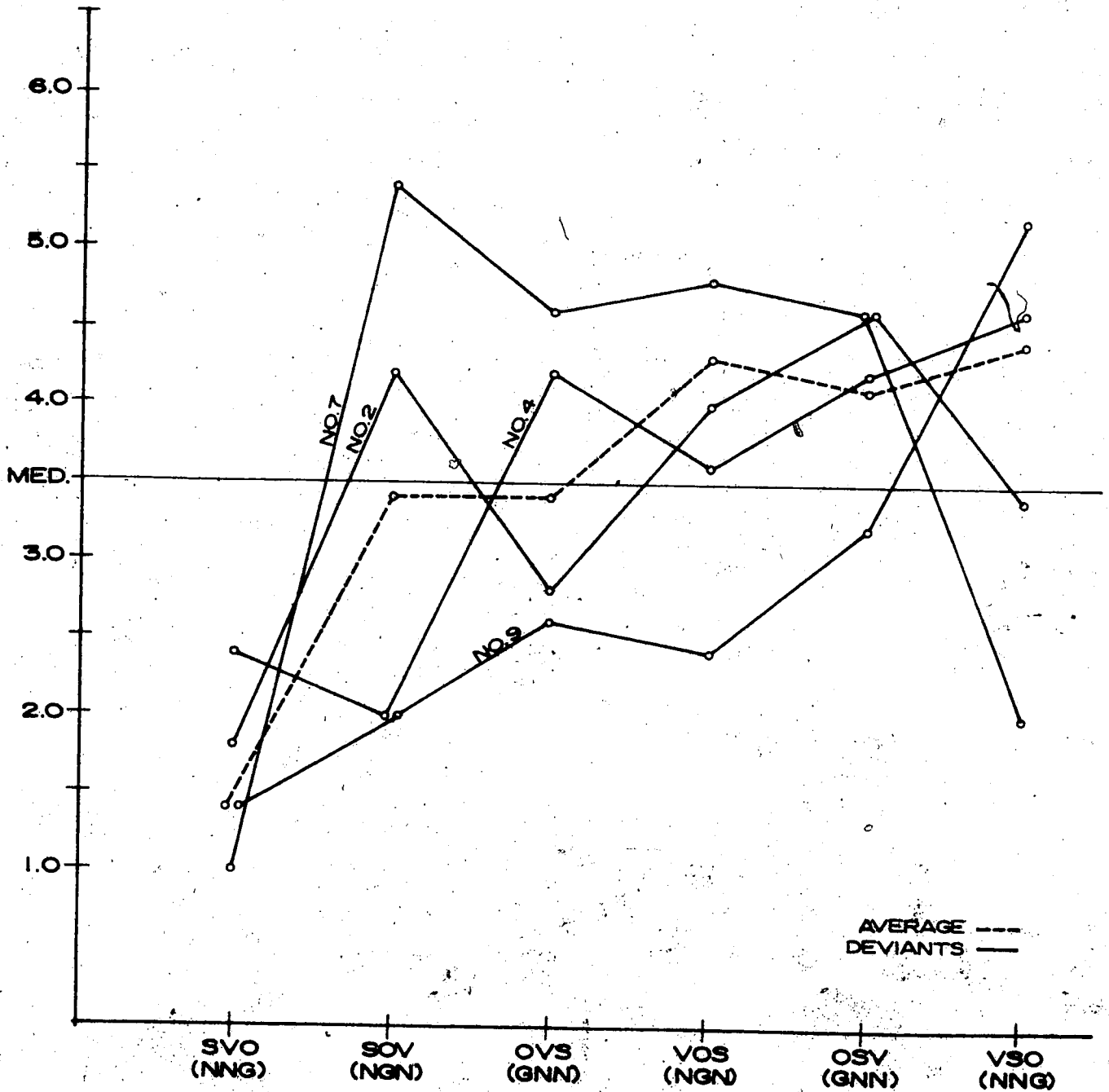
GRAPH 4.2: AVERAGE RESPONSES ACROSS SENTENCE TYPES

CONTEXT 3 · S=GIVEN(N), O=NEW(N)
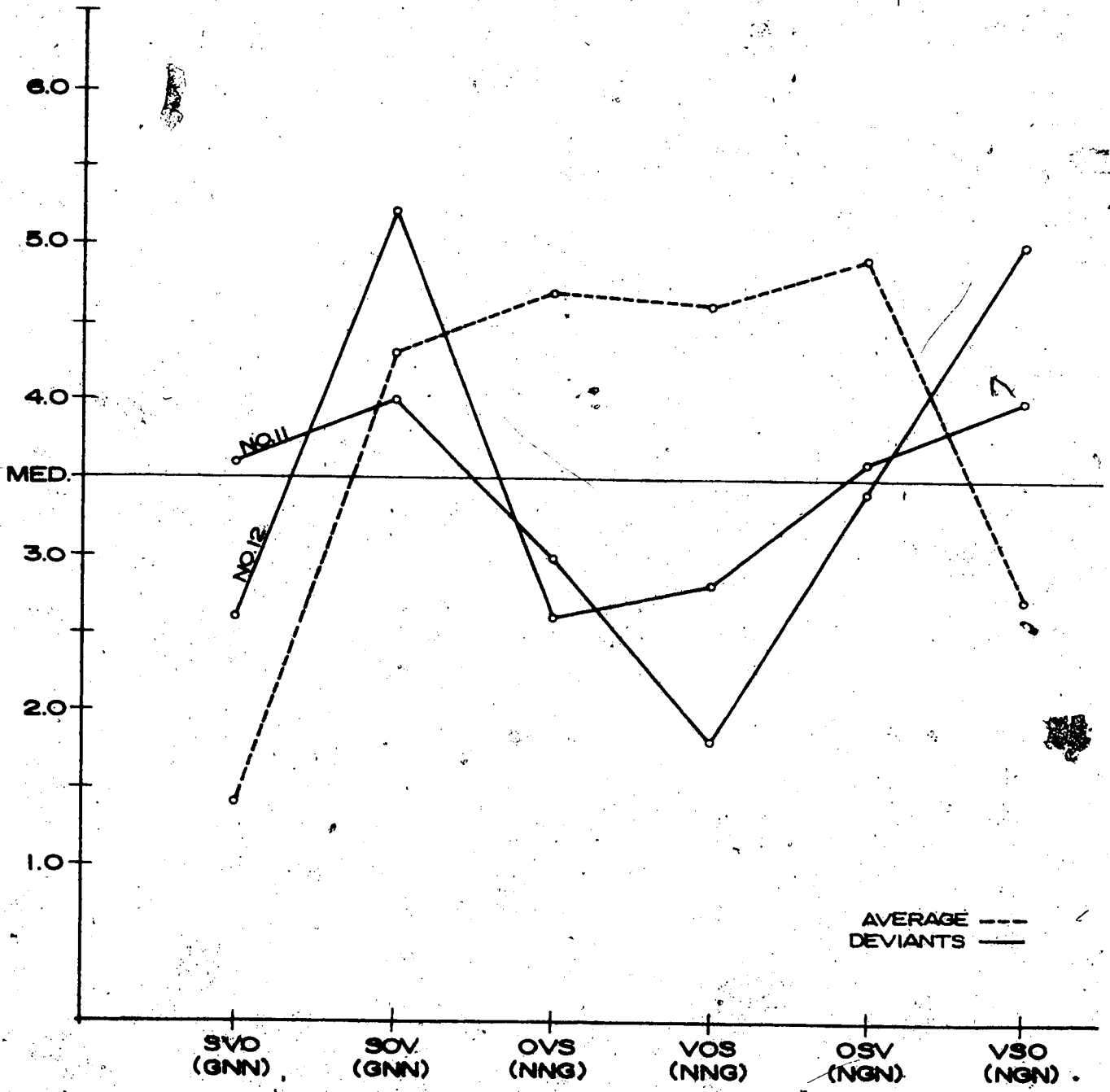
GRAPH 4.3 AVERAGE RESPONSES ACROSS
SENTENCE TYPES

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CONTEXT 4 · S=GIVEN(N), O=GIVEN(N)
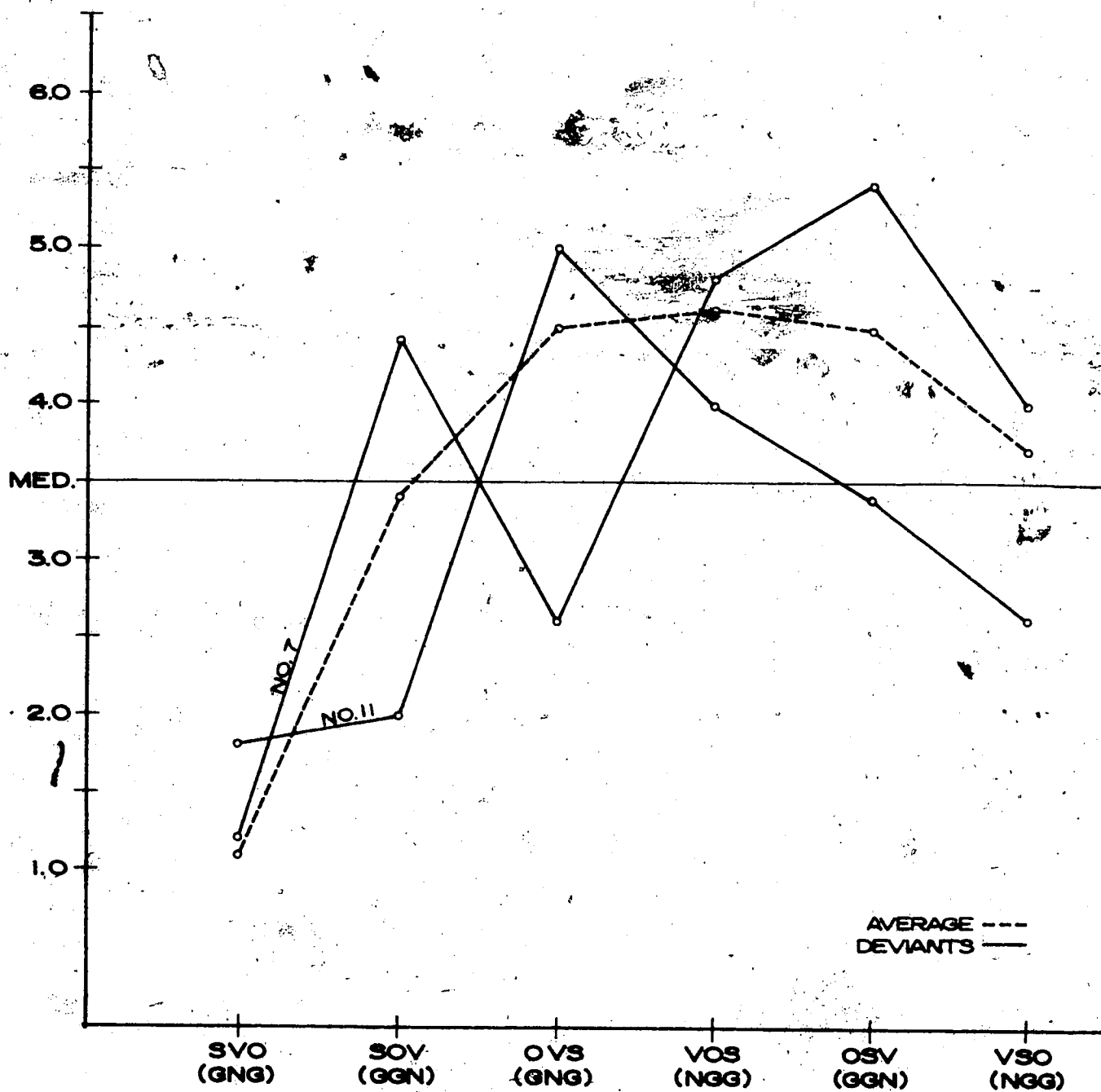
GRAPH 4.4 · AVERAGE RESPONSES ACROSS
SENTENCE TYPES

CONTEXT 5 : S=NEW (N), O=GIVEN (Pr)
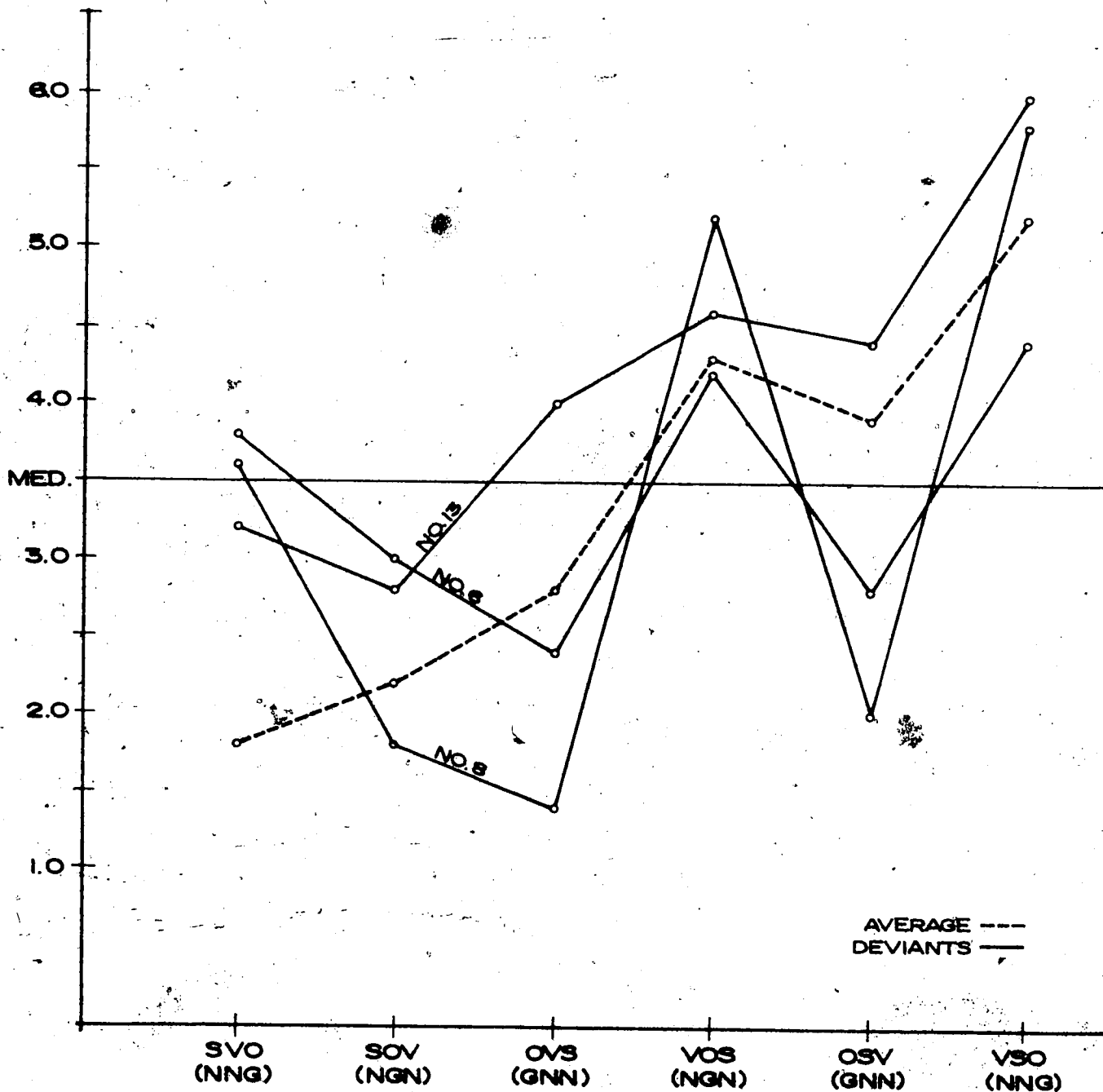
GRAPH 4.5 : AVERAGE RESPONSES ACROSS
SENTENCE TYPES

CONTEXT 6 · S=GIVEN(Pr), O=NEW(N)
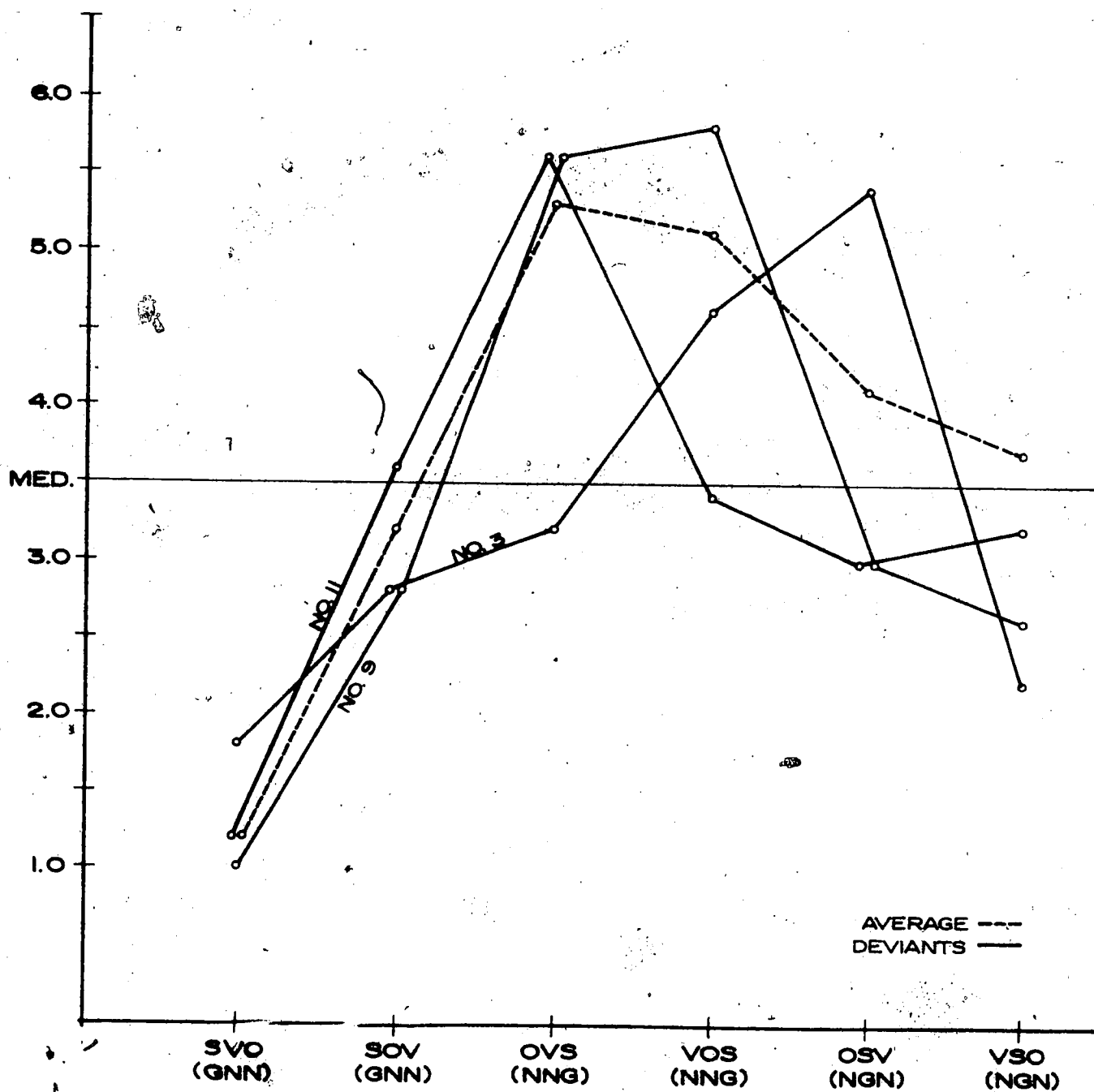
GRAPH 4.6 · AVERAGE RESPONSES ACROSS
SENTENCE TYPES

CONTEXT 7 : S=GIVEN(Pr),O=GIVEN(Pr)
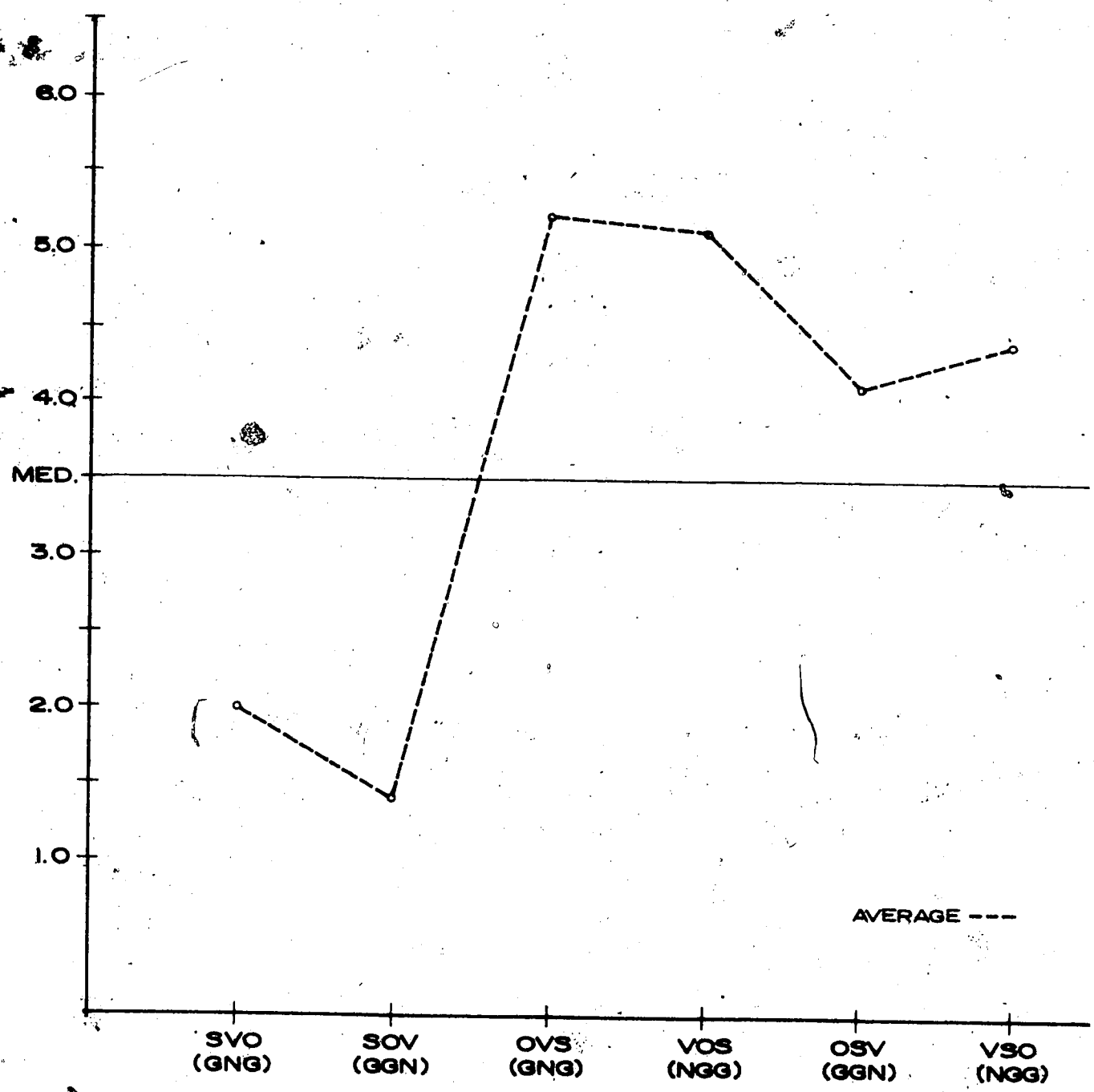
GRAPH 4.7: AVERAGE RESPONSES ACROSS
SENTENCE TYPES

SOURCE	SUM OF SQUARES	DEGREES OF FREEDOM	MEAN SQUARES	F RATIO	PROBABILITY
S - WITHIN	3.573	12	0.298		
A	1.462	6	0.244	4.715	0.001
AS - WITHIN	3.719	72	0.052		
B	0.358	4	0.089	1.388	0.252
BS - WITHIN	3.090	48	0.064		
AB	2.612	24	0.109	1.753	0.018
ABS - WITHIN	17.874	288	0.062		
C	333.542	5	66.708	109.246	0.001
CS - WITHIN	36.638	60	0.611		
AC	127.119	30	4.237	13.705	0.001
ACS - WITHIN	111.300	360	0.309		
BC	7.432	20	0.372	1.497	0.083
BCS - WITHIN	59.578	240	0.248		
ABC	48.984	120	0.408	1.872	0.001
ABCS - WITHIN	314.073	1440	0.218		

WITHIN SUBJECT FACTORS ARE: A = Context, B = Replicate, C = Sentence Type

TABLE 6.   ANOVA   on Russian SVO Orders Over Factors: Context, Replicates, Sentence Types

TYPE	SVO	SOV	OVS	VOS	OSV	VSO
CONTEXT						
C1	0.923	-0.092	-0.108	-0.215	-0.385	-0.246
C2	0.723	-0.046	0.015	-0.215	-0.154	-0.277
C3	0.754	-0.231	-0.262	-0.123	-0.277	0.0
C4	0.908	0.015	-0.262	-0.246	-0.385	-0.108
C5	0.385	0.354	0.277	-0.200	-0.031	-0.646
C6	0.938	0.0	-0.523	-0.508	-0.062	-0.015
C7	0.385	0.692	-0.477	-0.508	-0.169	-0.246

TABLE 7. Overall Average Recoded Ranking of Sentence Types according to Context (B =1, W = -1, Others = 0)

V. DISCUSSION AND CONCLUSION

A. Introduction

The current study has embodied theoretical discussions and claims with experimental results in order to verify what conditions govern choice of constituent ordering in Russian transitive sentences. In the previous chapter we discussed the major trends that were developing as a result of the analyses. To follow is a further discussion that relates directly to the hypotheses proposed in Chapter One. A comparison is drawn between the predictions in Table 3 and the data obtained, refuting or supporting the authors' claims. The relevance of the assertions outlined by the scholarly works in the literature survey to the data obtained from the present experiment is examined.

Concluding this study is a summary of the principal disclosures gained and considerations for future research.

B. Analysis: Results and Hypotheses

In proceeding with our proposed comparison, we will briefly reintroduce each hypothesis and support or reject its validity with the compiled results.

The first hypothesis under discussion is the GIVEN-NEW (GN) Hypothesis, where GIVEN information precedes NEW in the noun phrase arguments of the verb. Therefore, presumably, wherever S appeared as NEW information the expected word order choice was one that would displace S from initial

position. Conversely, wherever S appeared as GIVEN information the anticipated choice was S in initial position. Similarly, when O carried NEW information it was to stand after the GIVEN and when O carried GIVEN information it was to be found in initial position. However, the statistics clearly indicate that in Russian, word ordering the GN hypothesis, although valid, relinquishes its alleged prevalence to standard word ordering, regardless of what is GIVEN or NEW. Referring back to Table 3 we predicted the following for the GN hypotheses, where applicable:

CONTEXT TYPES	PREDICTED ORDERING	ACTUAL RESULTS
C1: S = NEW (N) O = NEW (N)	ALL	SVO
C2: S = NEW (N) O = GIVEN (N)	OVS OSV	SVO
C3: S = GIVEN (N) O = NEW (N)	SVO SOV	SVO
C4: S = GIVEN (N) O = GIVEN (N)	SOV OSV	SVO
C5: S = NEW (N) O = GIVEN (Pr)	OVS OSV	SVO
C6: S = GIVEN (Pr) O = NEW (N)	SVO SOV	SVO
C7: S = GIVEN (Pr) O = GIVEN (Pr)	SOV OSV	SOV

TABLE 8. Comparison: Predicted Ordering and Actual Results for the GIVEN-New Hypothesis

Table 8 illustrates that the only instances where the GN hypothesis operates is when 1) S is GIVEN and therefore is in harmony with canonical word ordering, and 2) when S and O are both pronouns (and therefore, GIVEN - here the verb is NEW and sentence final). Since it has already been established that pronominal objects and subjects have a marked effect on word order as opposed to nominal objects and subjects, in this context-type (C7) GN cannot be said to be the governing hypothesis since in C7's contextual counterpart, C4 (where S = GIVEN (N), O = GIVEN (N)) the word order chosen as the best was SVO, not SOV.

This is not to say that GN is discredited entirely as a valid hypothesis. There are factors in the results that indicate that GN is indeed present and operating, however not on the primary level it was previously assigned. The support for the validity of GN is indicated in the subjects' responses: where S was GIVEN there was less uncertainty (or scatter) among responses for the best word order choice since the GN ordering and canonical word ordering were working together, compared to the instances where S was NEW. Also, the sentence types that were consistently ranked as "bad" all violated the GN ordering. For example, in C2 where S = NEW (N) and O = GIVEN (N), although the SVO (NNG) choice as the best sentence type violated the GN hypothesis, the VOS (NGN) choice as the worst sentence type supported the GN hypothesis, i.e., violation of GN ordering.

In summarizing the effect of the results on the GN hypothesis, we can state that the GIVEN-NEW Hypothesis is operative, but not as the principal determinant in the ordering of constituents in Russian transitive sentences.

The next hypothesis under examination is the Standard Word Order Hypothesis (SWO), where the canonical word order of S+V+O would prevail, regardless of contextual conditions. The following is a comparison between predictions and results for this hypothesis, where relevant:

CONTEXT TYPES	PREDICTED ORDERING	ACTUAL RESULTS
C1: S = NEW (N) O = NEW (N)	SVO	SVO
C2: S = NEW (N) O = GIVEN (N)	SVO	SVO
C3: S = GIVEN (N) O = NEW (N)	SVO	SVO
C4: S = GIVEN (N) O = GIVEN (N)	SVO	SVO
C5: S = NEW (N) O = GIVEN (Pr)	SVO	SVO
C6: S = GIVEN (Pr) O = NEW (N)	SVO	SVO
C7: S = GIVEN (Pr) O = GIVEN (Pr)	SVO	SOV

TABLE 9. Comparison: Predicted Ordering and Actual Results for the Standard Word Order Hypothesis

The comparison indicates the sustained dominance of the SWO hypothesis in all contexts, with the exception of C7, regardless of what is GIVEN and what is NEW. The only factor that affects this clear-cut dominance (and then only marginally, i.e., SOV average response = 1.4 and SVO average response = 2.0) is the presence of pronouns in C7. We have already discounted why GN cannot be said to be the only operating theory here, therefore the only other obvious interpretation to be gathered from the data is that canonical word order dominates throughout transitive Russian sentences, even violating the GN ordering, and cedes its position only when a pronominal subject and object are present. The SWO hypothesis also stated that NEW information would be highlighted by extra stress rather than violate the standard SVO ordering. Since this experiment did not include an oral portion, we cannot assert that this claim is valid. However, in view of the results and the prominence of SVO ordering, it might be proposed that in those instances where the SWO hypothesis violates the GN hypothesis, extra stress, rather than GIVEN-NEW constituent ordering signals NEW information and thus separates it from the GIVEN information.

The third hypothesis outlined was the Relative Stress Hypothesis (RS) where low stress items, i.e., pronouns give focus to the noun phrase carrying NEW information by being placed *after* that element. We also made the assumption that since the RS hypothesis applied only to pronouns, the

applicable contexts where nouns appear (C2, C3) would operate under the GN hypothesis. An examination of the predictions versus the actual results follows:

CONTEXT TYPES	PREDICTED ORDERING	ACTUAL RESULTS
C2: S = NEW (N) O = GIVEN (N)	OVS OSV	SVO
C3: S = GIVEN (N) O = NEW (N)	SVO SOV	SVO
C5: S = NEW (N) O = GIVEN (Pr)	SOV VSO	SVO
C6: S = GIVEN (Pr) O = NEW (N)	VOS OSV	SVO

TABLE 10. Comparison: Predicted Ordering and Actual Results for the Relative Stress Hypothesis (and the GIVEN-NEW Hypothesis for Nouns), Applicable Contexts Only

The data indicates that neither the RS, nor the GN hypotheses are operating here, as SVO ordering was chosen in all four of the applicable contexts. (We have already evaluated the GN hypothesis in relation to its validity and therefore we will focus now on the RS hypothesis.) A more detailed examination of the data, however, indicates that the RS hypothesis has credibility on a subordinate level to

the SWO hypothesis.

Firstly, in C5, although SVO was ranked as the best choice overall (1.8), we find that the expected SOV ordering for the RS hypothesis was ranked only marginally higher (2.2). The recoded ANOVA (see Table 7) further supported this with SVO ordering ranked at 0.39 and SOV ordering ranked at 0.35 for C5. Thus, like the GN hypothesis, the RS hypothesis cedes to the SWO hypothesis. However, it is evident that the RS theory must be extended to encompass pronouns in both subject and object positions (C7), since this is the only condition under which the regularity of SVO ordering is usurped. In C7 the best sentence type choice was SOV (1.4) compared to SVO (2.0). The recoded ANOVA enhances this seemingly marginal distinction by ranking SOV sentence types as 0.69 and SVO types as 0.39 (Table 7). The distinction is great enough to state that in C7 where S = GIVEN (Pr), O = GIVEN (Pr) the resulting word order choice of SOV adheres to a modified RS hypothesis; namely that since V = NEW and S + O = GIVEN and pronominal and therefore low stress items), both S + O stand in *front* of the NEW verb to give focus to it, in the absence of a NEW subject. This modified hypothesis draws support from O. Sirotinina (1965) and will be discussed accordingly, as well as considered for future research. It must also be stated that the ordering of pronouns might not have anything to do with Intonation/Stress, etc. Another plausible theory can be put forth that the ordering of pronouns might be part

of a historical trend to a fixed word order since the preposing of pronoun objects is encountered in another language that historically had cause to influence the Russian language, *circa* 18th century, namely French. This possibility is also briefly considered by O. Sirotinina (1965:44).

Thus, although our version of the RS hypothesis did not seem to bear weight, there is enough of a distinction between the behavior of nouns and pronouns in subject and object positions to support a modified or reworked RS hypothesis, or to consider alternate theories.

The final hypothesis put forth is the Movement of New Information Hypothesis (MN), where any element carrying NEW information is moved from its usual position in a SVO structure, with GIVEN information also present within the SVO structure. Table 11 represents the analogy between predictions and results for the MN hypothesis within the applicable context-types.

CONTEXT TYPES	PREDICTED ORDERING	ACTUAL RESULTS
C2: S = NEW (N) O = GIVEN (N)	VSO OSV VOS OVS	SVO
C3: S = GIVEN (N) O = NEW (N)	SOV VOS OSV OVS	SVO
C4: S = GIVEN (N) O = GIVEN (N)	SOV VSO VOS OSV	SVO
C5: S = NEW (N) O = GIVEN (Pr)	VSO OSV VOS OVS	SVO
C6: S = GIVEN (Pr) O = NEW (N)	SOV VOS OSV OVS	SVO
C7: S = GIVEN (Pr) O = GIVEN (Pr)	SOV VSO VOS OSV	SOV

TABLE 11.   Comparison: Predicted Ordering and Actual
Results for MN Hypothesis

There is little evidence to support the MN hypothesis.
The only condition where the predictions of ordering match
the actual results for the MN theory is in C7. However, this
is immediately refuted by C4, the noun counterpart to C7. If
the MN hypothesis is to gain recognition in C7, then it must
also gain recognition in C4. However, support for the MN
hypothesis can be drawn from an investigation of the
aberrations, as they appear on the graphs in Chapter Four.
There are subjects who rank some sentence types as good,

despite the fact that these sentence types violate the SWO and the GN hypotheses in some of the context types. In C2 (S = N(N), O = G(N)) one subject gives VSO an average ranking of 2.0, another gives VOS 2.4 and OVS 2.6. All of these three sentence types were predicted for the MN hypothesis. Further, in C3 (S = G(N), O = N(N)) OVS receives a ranking of 2.6 and 3.0 and VOS 1.2 and 2.6 from aberrants. In C4 (S = G(N), O = G(N)) VSO is ranked 2.6. Finally in C6 (S = G(Pr), O = N(N)) OSV stands at 3.0 according to two aberrants. As can be seen, all of these sentence types violated all of the other hypotheses (GN, SWO, RS) and yet were all ranked under the median of 3.5 by the various aberrants. The inferred assumption here is that the MN hypothesis is of some validity also on a subordinate level and can account in part for some of the aberrations. Thus there is some justification in pursuing this hypothesis with further experimentation with a larger subject group.

This analysis can be concluded by stating that each hypothesis outlined in Chapter Two was supported in varying degrees by the ensuing data. The hypothesis that is undisputable is that of standard word order, as it is supported with substantial data. The predictions for the GN hypothesis were not fully realized by the results, as they were not for the RS and MN hypotheses. However, underlying evidence in the data was present for the justification of the RS, MN and especially the GN hypotheses. In essence then, the results do not entirely support *all* of the

predictions, but nor do they discount *all* of the predictions. One further possibility which was not investigated in detail here, but which could be dealt with in subsequent studies is the question, the relative strength or salience of each hypothesis.

C. Comparison: Results and Scholarly Claims

In Chapter Two an outline of the scholarly works relating to word order in Russian was given, the first of which incorporated the FSP theory where GIVEN informationn precedes NEW (or THEME precedes RHEME). The statistics previously presented discount the FSP theory in the sense that the GN hypothesis was relegated to a position of secondary prominence after the SWO hypothesis. The FSP scholars conceded that the SVO sentence structure in Russian occurred when S was GIVEN or in the absence of context. This study indicates that SVO also occurs when context is present and when S is NEW. GN does work, however, to *disallow* certain sentence types, i.e.., it functions as a "censoring" rather than a necessarily "promoting" factor. That is, if one examines the ANOVA in Table 7, it can be seen in most cases that those orders violating GN are invariably rejected by the subjects as possible responses in a given context, those adhering to GN but violating SWO are generally not acceptable but are better than the former case, while those in accord with just SWO are preferred.

I. I. Kovtunova's (1967, etc.) theory that word order functions simultaneously on two levels in sentence structure, i.e., syntactic (Subject/Predicate) and FSP (theme/rheme), and that syntactic and FSP operate either in harmony or in opposition, is extended by the results in this study. Again it is evident that when syntactic and FSP functions are in accord (S = GIVEN, O = NEW) the SVO ordering is strengthened and that when syntactic and FSP functions are in opposition to each other (S = NEW, O = GIVEN) the syntactic function overrules, i.e., SVO ordering prevails.

B. Sirotinina's (1965) assertion that the preposing of a DO (DO + P) occurs in written speech only when the DO is GIVEN (and more often than not pronominal) and the verb is NEW, is evidently of some relevance, since C7 (See Graph 4.7) supports this assertion by illustrating SOV as the best word order choice (where O = GIVEN (Pr), V = NEW). However, her claim that when S is NEW it will be found in post-position (97) is contradicted by the statistical evidence discussed earlier, i.e., even when S was NEW SVO ordering was chosen as the best response. By the same token, Krylova and Khavronina's assertions are refuted, as are the other authors' claims who propounded the FSP theory (i.e., an invariable GIVEN-NEW order in spite of canonical word order).

The dominance of the SWO hypothesis also lends minimal or no support to the authors who applied transformational

grammar to word order in Russian: O. Dahl (1969, 1974), although in disagreement with the FSP theory, offered no substantial alternative; J. Gundel (1975) who basically equated topic-comment sentence structure with that of FSP; and L. Babby (1978) proposed that case morphology expressed grammatical relations and that therefore there is no underlying canonical word order for Russian.

In assessing the results of the present study to the experimental studies surveyed, the first author under discussion is R. Bivon (1971).

In his contextual analysis Bivon found that S-P-C (Subject + Predicate + Complement) ordering occurred 79% of the time out of the unspecified number of sentences analysed, when S is GIVEN, P is NON-ESSENTIAL NEW, and C is ESSENTIAL NEW.

Our data are in accord with the above in that when the order S-P-C (SVO) occurs, S is GIVEN and the verb and object are NEW. However, we also found that SVO order is adopted when S is NEW and O(C) is GIVEN which is opposed to Bivon's claim that in this instance C-S-P (OSV) ordering occurs. His assertion that C-P-S ordering is preferred when C is ESSENTIAL NEW, P is NON-ESSENTIAL NEW and S is GIVEN is surprising when compared to the data presented here, since this order violates both the SWO strategy and the GN strategy. As mentioned previously, SWO is the dominant strategy utilized in the present data and the GN strategy operates where orders such as C-P-S violate the GN ordering,

and are therefore deemed the *least* acceptable. Likewise, where only NEW information is present in a sentence (C1) our data indicates unanimous SVO ordering, whereas Bivon claims P-C-S (VOS) to be the exclusive choice. *All* rankings for VOS ordering in the present experiment for C1 exceeded 4.0 (see Graph 4.1), i.e., VOS was among the *least* acceptable choices. (A point to remember is that Bivon distinguishes between ESSENTIAL NEW and NON-ESSENTIAL and this study does not.)

S-C-P type ordering (SOV) is the choice from Bivon's Table 2, where S is GIVEN and P and C are either NEW, ESSENTIAL NEW or NON-ESSENTIAL NEW. The conditions in C5 (see Graph 4.5), where S is NEW and O is pronominal and GIVEN does not concur with Bivon's contextual conditions for this order. C5 has SVO as the best overall response choice, followed closely by SOV ordering. Also the results in C7 (Graph 4.7) where both S and O are GIVEN and pronominal further oppose Bivon's S-P-C's contextual conditions since C7 is the only context where SOV is chosen as the *best* overall response and according to Bivon's analysis the order C-S-P. (OSV) should have been chosen for the conditions in C7. OSV order was ranked as quite unacceptable in this context, i.e., with a mean rating 4.1.

In summary, the choices of sentence types in Bivon's contexts are very much in conflict with our data. Although Bivon's contextual analysis is different from the present analysis in that he did a text count and therefore had

different variables within his analysis than our study did, his results are so dramatically different even in those areas where the two counts overlap that it suggests that he perhaps did not exert sufficient control over other variables influencing his data.

D. Svedstedt (1976) confines his study to investigating the position of objective personal pronouns in SVO and SOV sentence type ordering in Russian. Thus, his results can only be compared with those obtained here in C5 (S = NEW (N), O = GIVEN (Pr)) and in C7 (S = GIVEN (Pr), O = GIVEN (Pr)). As outlined in Chapter Two, Svedstedt examined his theory across four variables:

a. the character of S (noun, pronoun)

b. type of clause (simple, compound)

c. mode of expression (monologue, dialogue)

d. prosody of S (implicit (NEW), explicit (GIVEN))

Upon analyzing the character of S, Svedstedt finds that when S is a noun it occurs in SPO (SVO) sentence types with a frequency of 63% and in SOP (SOV) sentence types with a frequency of 37%. When S stands as a personal pronoun the incidence of S in SPO ordering is 46% and in SOP ordering, 54%. Based on these observations Svedstedt concludes that SPO ordering predominates when S is a noun and SOP predominates when S is a pronoun.

Our findings indicate this major trend in both C5 and C7. In C5, where S is a noun, SVO sentence structure prevails and in C7, where S is a pronoun, SOV sentence

ordering overrides SVO dominance.

The following table compares the average raw (best = 1, worst = 6) and adjusted (best = 1, worst = -1) rankings found in this study with those of Svedstedt:

	RAW RANKING		ADJUSTED RANKING		SVEDSTEDT	
	SVO	SOV	SVO	SOV	SPO	SOP
C5:	1.8	2.2	0.39	0.35	63%	37%
C7:	2.0	1.4	0.39	0.69	46%	54%

TABLE 12. Comparison of Raw and Adjusted Rankings with Svedstedt (1976) when S = Noun (C5) and when S = Pronoun (C7)

It is evident that Svedstedt's analysis of the influence of the character of S is reflected in the current study since his percentages are mirrored by the ranking trends of the respondents.

The second variable he includes is clause type, where monopredicative clauses (MP) i.e., clauses with a simple verb occurred in SPO type sentences 39% of the time and in

SOP types 61% of the time. These percentages are clearly at variance with the results of the present study, which contains MP type clauses *only*, and shows an overwhelming preference for SVO in all environments except those indicated.

Further, the variable of mode of expression is not considered totally relevant to this study, since we did not distinguish between monologue and dialogue,. but the dominance of standard word order in our study is not in total agreement with Svedstedt's claim that in monologue SPO occurs with a frequency of 70% and SOP 30%, i.e., although we cannot compare his percentages with our rankings, SOP appears to have a rather high percentage. His final variable of emphatic and contrastive stress was not tested in this study.

The results of this experiment point out that the only variable that affects standard word order choice is that of the character of S, i.e., pronominal subjects combined with pronominal objects are distinct from nominal. In this limited way our study concurs with that of Svedstedt's.

Svedstedt set out to examine the theory that a pronoun object would stand in front of the predicate with greater frequency than a noun object across the four variables mentioned above, and under the assumption that a pronoun object becomes enclitic (i.e., relative stress contour) to give focus to the NEW subject. In his conclusion he also stresses the importance of the four variables in explaining

the positioning frequencies of the objective pronoun in SOP and SPO sentence structures.

As in Bivon's experimental study, Svedstedt's data are difficult to assess in their entirety in comparison to the data here since he also did only a textual analysis. It is likely that the presence of different variables and different controls in the analyses surveyed above accounts for the disparity in results when compared to our data. The current experiment removed most interfering factors while the textual analysis of Svedstedt's did not, an example being that while we had simple isolated SVO structures, Svedstedt lifted many of his from within complex clause structures. As a result we cannot make a direct comparison with his data.

The final scholar reviewed earlier was I. Thompson (1977) who stated that information in Russian sentences proceeded from GIVEN to NEW. We have previously discounted this claim and so as not to become repetitious will only assert that the present study does not uphold the GIVEN-NEW flow of information as a prevalent factor in constituent ordering. Thompson also noted the importance of providing a context for any word-order studies of Russian which was further supported in this work.

In conclusion, it becomes evident that the results of this study contest much of what has been asserted by the scholarly works reviewed in Chapter Two. This indicates the need for further and more extensive research in examining

word order in Russian, with careful attention given to controlling context-types, i.e., eliminating all potential interference in context and response sentences, and extending research beyond the confines of textual counts and analyses.

D. Conclusion

The salient conclusion emerging from this study is that a hierarchy of strategies is functioning in word order choice: SWO (standard word order) is the major factor governing the responses of most subjects in almost all contexts with interaction on a secondary level by the GIVEN-NEW constituent ordering strategy. A clear distinction in the applicability of the SWO and GN strategies was established on the basis of *preferred* versus *unacceptable* responses to the various context types. SWO, as repeatedly mentioned above, is the dominant hypothesis in the former case, while GN functions most vigorously in *disallowing* certain structures. In the two context types where the authority of canonical SVO ordering is overruled (or in danger of encroachment), namely C5 and C7, convincing justification for the Relative Stress Hypothesis surfaces. Obviously the peculiarities of pronoun placement override canonical word order in a more compelling manner than can GIVEN-NEW ordering in these contexts. According to the data obtained, pronouns are distinguishable from nouns in both object and subject placement.

Consequently, this study arrives at a different conclusion than virtually all scholars referenced in Chapter Two. The ANOVA indicated the vital importance of context to sentence type, yet the previous claims stated that canonical word order was undisputed only in the absence of context. The current experiment claims that canonical word order is the governing order not only in the absence of context, but in the presence of six varying contextual conditions. The SWO hypothesis overruled all other hypotheses, except where pronouns stood as both subject and object. Even with a NEW subject, which should have 'shifted' from initial position according to the GN hypothesis, SWO superceded GIVEN-NEW. According to all the FSP adherents, word order and communicative function operate in harmony or conflict, and when they do conflict communicative function (here the GN strategy) prevails. The contention from the findings of the experiments described here is quite the opposite: where canonical word order and communicative function make conflicting claims about preferred word order in Russian, canonical word order is the dominant force. Is immobility in word order penetrating the Russian language?

E. Future Considerations

In conducting this experimental study the author noted some shortcomings within the experiment itself and also some points necessary to comment on with regard to further research.

First, there was a shortage of subjects and as a result it was difficult to judge whether or not different strategy groups were forming among the subjects. The aberrations in the responses indicate the possibility of the formation of a group or groups which deviate from the norm. A substantial increase in the number of subjects would clarify the behaviour pattern developing in the exceptions.

In designing the experiment we were aware of possible interfering factors such as adverbs, verb types, etc. Thus the response sentences were strictly controlled in that much possible interference was eliminated in them. Further control is suggested in two areas: 1) developing the context fully, since individual lexical items might interact with context, and so that there is no question in the minds of the subjects that the response sentences are generated by the given context (some subjects had difficulty in certain instances relating the response sentences to the preceding context); 2) controlling the subjects in terms of age, education, social status and dialect to establish homogeneous groups.

In addition, the author suggests that the setting for future experiments remains the same as the *uncontrolled* setting used in this experiment, which ensured true spontaneity in responses by the subjects.

For future experiments of this type another important consideration to be taken into account is that of controlling "intonation", also claimed to be of importance

in expressing the communicative function of sentences. This experiment did not control for intonation since it was decided that it was beyond the scope of the present study.

A final word should be said about the comparability of the experimental study conducted here and some of the other statistical results surveyed in the literature. It was mentioned at the conclusion of Chapter Two that because of the nature of our ranking task and the way subjects performed this task, it became impossible to distinguish between written and oral Russian (subjects were vocalizing their responses when ranking them). Svedstedt claimed to have found substantial differences in two equivalent modes of expression for subject nouns and object pronouns (SVO - 70% in monologue, SOV - 72% in dialogue), whereas the current experiment showed SVO slightly better than SOV (Context 5), although both were quite acceptable. Svedstedt's statistics, however, are equally misleading, since his distinction between monologue and dialogue is based solely on textual evidence, i.e., all his data are drawn from written sources. Clearly much more sophisticated experiments must be designed to test the claim that such differences really exist. The same can be said for our experiment's failure to test for the distinction between "production" and "comprehension" or "evaluation". In a sense we provided a hybrid type of experiment, where the stimulus context was read and "comprehended", while the response was both comprehended and produced. Again this was beyond the

scope of our study and must be taken as a note of caution in overinterpreting the results presented here, as well as a suggestion for consideration in future experimentation.

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KEY TO APPENDIX A

Context 1: S = NEW (N), O = NEW (N)
            Sentence Numbers: 1, 7, 14, 16, 21

Context 2: S = NEW (N), O = GIVEN (N)
            Sentence Numbers: 2, 9, 22, 26, 30

Context 3: S = GIVEN (N), O = NEW (N)
            Sentence Numbers: 3, 10, 17, 28, 32

Context 4: S = GIVEN (N), O = GIVEN (N)
            Sentence Numbers: 5, 12, 19, 23, 34

Context 5: S = NEW (N), O = GIVEN (Pr)
            Sentence Numbers: 4, 11, 25, 27, 33

Context 6: S = GIVEN (Pr), O = NEW (N)
            Sentence Numbers: 6, 13, 24, 31, 35

Context 7: S = GIVEN (Pr), O = GIVEN (Pr)
            Sentence Numbers: 8, 15, 18, 20, 29

APPENDIX A

Instructions

First, choose the *best* sentence from the right hand column to match the context given in the left hand column and mark it 1.

Next, choose the *worst* sentence and mark it 6.

Mark the remaining sentences (in the right hand column) from 2 to 5, depending on their suitability to the context (in the left hand column).

If you think some of the sentences have equal suitability or nonsuitability, assign them the same number.

No consultation between subjects.

<u>Инструкция:</u>

Сперва выберите предложение из правой колонки, чтобы оно лучше всего подходило к контексту, данному в левой колонке и обозначьте его цифрой 1. Затем выберите худшее предложение и обозначьте цифрой 6.

Обозначьте оставшиеся предложения (в правой колонке) цифрами от 2 до 5 в зависимости от того, как они подходят к контексту (данному в левой колонке). Если вам кажется, что есть предложения, которые одинаково подходят или не подходят к контексту, обозначьте их одной и той же цифрой.

Пожалуйста, не советуйтесь друг с другом.

1. Поезд приехал из Ленинграда.
   Толпа стояла на перроне.

   a) Маша встретила Ивана.

   b) Маша Ивана встретила.

   c) Ивана Маша встретила.

   d) Встретила Ивана Маша.

   e) Ивана встретила Маша.

   f) Встретила Маша Ивана.

2. Профессор читает лекцию.

   a) Лекцию слушали студенты.

   b) Студенты лекцию слушали.

   c) Слушали лекцию студенты.

   d) Слушали студенты лекцию.

   e) Лекцию студенты слушали.

   f) Студенты слушали лекцию.

3. Иван пришел домой поздно
   вечером пьяный.

   a) Побил Иван жену.

   b) Иван побил жену.

   c) Побил жену Иван.

   d) Жену Иван побил.

   e) Иван жену побил.

   f) Жену побил Иван.

4. В универмаге я увидел
   красивую юбку.

   a) Купила жена её.

   b) Жена купила её.

   c) Её жена купила.

   d) Жена её купила.

   e) Купила её жена.

   f) Её купила жена.

5. Бабушка спекла калач для
   внуков.

   a) Калач сожрали внуки.

   b) Внуки калач сожрали.

   c) Сожрали внуки калач.

   d) Калач внуки сожрали.

   e) Сожрали калач внуки.

   f) Внуки сожрали калач.

6. Я вчера увидел Лизу на
   улице.

   a) Она покупала овощи.

   b) Она овощи покупала.

   c) Овощи она покупала.

   d) Овощи покупала она.

   e) Покупала она овощи.

   f) Покупала овощи она.

7. Летом есть много работы.
   Папа косит сено. Мама
   работает в огороде.

   a) Ягоды дети собирают.

   b) Дети ягоды собирают.

   c) Собирают ягоды дети.

   d) Ягоды собирают дети.

   e) Дети собирают ягоды.

   f) Собирают дети ягоды.

8. У Виктора отец и мать
   старые.

   a) Любит их он.

   b) Он любит их.

   c) Любит он их.

   d) Их он любит.

   e) Их любит он.

   f) Он их любит.

9. Мы вышли на улицу прогуляться. Все наслаждались природой.

a) Любила природу Лариса.
b) Природу Лариса любила.
c) Лариса природу любила.
d) Любила Лариса природу.
e) Лариса любила природу.
f) Природу любила Лариса.

10. Марии надоело вечно работать над докладом.

a) Убила Мария профессора. (Холдена)
b) Профессора убила Мария.
c) Мария профессора убила.
d) Профессора Мария убила.
e) Мария убила профессора.
f) Убила профессора Мария.

11. Володя снова появился в Москве.

a) Ксения встретила его.
b) Ксения его встретила.
c) Его встретила Ксения.
d) Его Ксения встретила.
e) Встретила его Ксения.
f) Встретила Ксения его.

12. Аня спешила мыть посуду. Было много чашек и стаканов.

a) Разбила Аня чашку.
b) Аня разбила чашку.
c) Чашку разбила Аня.
d) Разбила чашку Аня.
e) Аня чашку разбила.
f) Чашку Аня разбила.

13. Мальчики хотели драться
    после школы.

   a) Побили Васю они.

   b) Васю побили они.

   c) Они побили Васю.

   d) Васю они побили.

   e) Побили они Васю.

   f) Они Васю побили.

14. Мы приехали домой после
    церкви.

   a) Обед мама приготовила.

   b) Приготовила мама обед.

   c) Мама приготовила обед.

   d) Приготовила обед мама.

   e) Мама обед приготовила.

   f) Обед приготовила мама.

15. Учитель вошел в класс и
    положил свои тетради на
    стол.

   a) Он открыл их.

   b) Открыл их он.

   c) Их открыл он.

   d) Открыл он их.

   e) Он их открыл.

   f) Их он открыл.

16. Игрушки были раскиданны
    по полу.

   a) Кубики мальчик собрал.

   b) Собрал мальчик кубики.

   c) Собрал кубики мальчик.

   d) Кубики собрал мальчик.

   e) Мальчик собрал кубики.

   f) Мальчик кубики собрал.

17. Оля пошла в магазин.

    a) Оля купила цветы.

    b) Купила Оля цветы.

    c) Цветы Оля купила.

    d) Купила цветы Оля.

    e) Цветы купила Оля.

    f) Оля цветы купила.

18. Ваня ведет переписку
    с Машей.

    a) Её он любит.

    b) Он любит её.

    c) Любит он её.

    d) Он её любит.

    e) Любит её он.

    f) Её любит он.

19. Андрей балованный мальчик.
    Он постоянно дразнит Машу.

    a) Андрея Маша ударила.

    b) Ударила Маша Андрея.

    c) Маша ударила Андрея.

    d) Андрея ударила Маша.

    e) Ударила Андрея Маша.

    f) Маша Андрея ударила.

20. Я ходил в лес с папой,
    и мы нашли грибы.

    a) Их мы собрали.

    b) Мы собрали их.

    c) Их собрали мы.

    d) Собрали их мы.

    e) Мы их собрали.

    f) Собрали мы их.

21. Гости вдруг начали кричать. Поднялся большой шум.

a) Драку увидела хозяйка.

b) Хозяйка увидела драку.

c) Увидела хозяйка драку.

d) Хозяйка драку увидела.

e) Драку хозяйка увидела.

f) Увидела драку хозяйка.

22. Мама приготовила обед.

a) Обед дети съели.

b) Дети съели обед.

c) Съели дети обед.

d) Дети обед съели.

e) Обед съели дети.

f) Съели обед дети.

23. Кирилл играет в карты и мечтает получить много денег, не работая.

a) Кирилл деньги выиграл.

b) Деньги Кирилл выиграл.

c) Выиграл Кирилл деньги.

d) Кирилл выиграл деньги.

e) Деньги выиграл Кирилл.

f) Выиграл деньги Кирилл.

24. Офицер любил красиво одеваться.

a) Сапоги он почистил.

b) Он сапоги почистил.

c) Почистил он сапоги.

d) Сапоги почистил он.

e) Он почистил сапоги.

f) Почистил сапоги он.

25. <<Пожалуйста, возьмите деньги.>>

    a) Официант взял их.

    b) Их взял официант.

    c) Официант их взял.

    d) Взял официант их.

    e) Их официант взял.

    f) Взял их официант.

26. По радио передавали классическую музыку.

    a) Слушала Таня музыку.

    b) Музыку слушала Таня.

    c) Таня музыку слушала.

    d) Таня слушала музыку.

    e) Музыку Таня слушала.

    f) Слушала музыку Таня.

27. Здесь очень шумно и я не могу спать.

    a) Разбудили меня дети.

    b) Разбудили дети меня.

    c) Дети меня разбудили.

    d) Меня разбудили дети.

    e) Дети разбудили меня.

    f) Меня дети разбудили.

28. Дочь убрала всё со стола.

    a) Дочь посуду помыла.

    b) Посуду помыла дочь.

    c) Дочь помыла посуду.

    d) Помыла дочь посуду.

    e) Посуду дочь помыла.

    f) Помыла посуду дочь.

29. Я пошла в кино с тобой и
должна была сама купить
билеты.

a) Ты обидел меня.

b) Обидел ты меня.

c) Ты меня обидел.

d) Меня ты обидел.

e) Меня обидел ты.

f) Обидел меня ты.

30. Была свадьба. На столе
стояла водка.

a) Выпила Маша водку.

b) Маша выпила водку.

c) Выпила водку Маша.

d) Маша водку выпила.

e) Водку Маша выпила.

f) Водку выпила Маша.

31. Матери надоело читать.

a) Она газету выбросила.

b) Она выбросила газету.

c) Выбросила газету она.

d) Газету выбросила она.

e) Выбросила она газету.

f) Газету она выбросила.

32. Саша очень талантливый
художник.

a) Нарисовал Саша картину.

b) Саша нарисовал картину.

c) Картину нарисовал Саша.

d) Саша картину нарисовал.

e) Нарисовал картину Саша.

f) Картину Саша нарисовал.

33. В Монреале нас ждала не-
приятность: была гроза.
Лётчик не знал сможет ли
самолёт сесть.

    a) Принял аэродром нас.

    b) Аэродром принял нас.

    c) Нас принял аэродром.

    d) Принял нас аэродром.

    e) Нас аэродром принял.

    f) Аэродром нас принял.

34. Борис великий писатель.
Он пишет и романы и
рассказы.

    a) Борис напечатал роман.

    b) Роман напечатал Борис.

    c) Напечатал роман Борис.

    Борис роман напечатал.

    Роман Борис напечатал.

) Напечатал Борис роман.

35. Мы собираемся отдыхать
этим летом на Волге.

    a) Мы заказали билеты.

    b) Заказали мы билеты.

    c) Билеты мы заказали.

    d) Мы билеты заказали.

    e) Заказали билеты мы.

    f) Билеты заказали мы.