The function of word order in Russian compared with Danish and English

Ordstillingens funktion på russisk, sammenlignet med dansk og engelsk

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1

Introduction

1. Word order in Russian

Word order is not free in Russian, but the word order variation is nevertheless rather impressive, and in many cases Russian has a wider range of word order options than Danish or English have. In e.g. double object constructions the objects can appear in either order and in transitive sentences, all six logically possible orders are possible:

(1) a. Ivan nenavidit sobak
    *Ivan hates dogs*
    "Ivan hates dogs"

    b. Ivan sobak nenavidit
    c. Sobak Ivan nenavidit
    d. Sobak nenavidit Ivan
    e. Nenavidit Ivan sobak
    f. Nenavidit sobak Ivan

In many other respects Russian is quite similar to Danish and English: Russian has prepositions, and postpositions are very rare (Russian has *nazad* “ago”, where Danish has *for...siden* “ago” and English has *ago*). Single word adjective phrases precede the modified noun, determiners typically precede the noun and relative clauses follow the modified noun.
The major constituents of the sentence can, however, appear in a multitude of sequences and the standard view (see chapter 4 below) is that word order is used to express the pragmatic structure of the sentence. The initial part of the sentence is supposed to contain given elements (theme, topic) and the final position is supposed to contain the new elements (rheme, focus). The different orders thus express different pragmatic construals. In (1)a, b and e we are concerned about stating something about Ivan “Ivan”, whereas in (1)c, d and f we are concerned about stating something about sobak “dogs”.

According to this point of view, word order reflects the information structure status of the constituents and the subtle pragmatic differences between the orders decide when which order is used.

This approach, however, raises a number of questions: What exactly does theme and rheme mean? What is the difference between (1)a, b and e? Or between (1)c, d and f? Does information structure decide the order in embedded sentences? Does a specific context force speakers to use one specific order or does the context simply limit their options?

2. Processing and word order

The research program developed by Hawkins (Hawkins 1994, 2000, 2004) attempts to establish and explain patterns in performance from a processing perspective. The central idea in this context is that processing efficiency influences word order choice.

The suggestion is that in cases where speakers have a choice, they will tend to choose the most efficient order – i.e. the order that facilitates processing the most (see chapter 2, section 2.4.3 for a precise definition of efficiency), and this predicts that we should find a correlation between frequency and efficiency in performance data.

In a language where all six orders are allowed in transitive sentences, SVO and SOV are more efficient than VSO, VOS, OVS and OSV and we thus expect the orders SVO and SOV to be more frequent in such a language. We also expect the orders SVO and SOV to be more frequent as the basic order in languages in general because, since they are more efficient and frequent, they should more often be grammaticalized and hence more often be the basic order. This is the logic behind the Performance-Grammar Correspondence Hypothesis:
Performance-Grammar Correspondence Hypothesis

Grammars have conventionalized syntactic structures in proportion to their degree of preference in performance, as evidenced by patterns of selection in corpora and by ease of processing in psycholinguistic experiments.

(Hawkins 2004:3)

When we look at the distribution of basic word orders in language samples, we find that SVO and SOV are more often grammaticalized as the basic order compared to the other orders. Hawkins (1994:336) refers to a language sample analyzed by Tomlin (1986) consisting of 402 languages. Of these 348 (87%) have the basic order SVO or SOV, 37 (9%) have the order VSO, 17 (4%) have the basic order VOS or OVS, and none have the order OSV as the basic one (Hawkins 1994:336).

This same pattern is found in the much larger sample reported in Dryer (2008) where a total of 1228 languages are analyzed. If we disregard the 171 languages where a basic order has not been established, then we see that among the remaining 1057 languages an impressive 933 (88%) have the basic order SVO or SOV, 85 (8%) have the order VSO, 35 (3%) have the order VOS or OVS, and just 4 (1%) languages have OSV as the basic order.

The fact that these patterns are similar is hardly a coincidence. Hawkins' suggestion is that the preferred orders have processing advantages compared to the other orders and therefore they are the most frequent orders, and the orders most likely to be fixed as the basic orders (Hawkins 1994:338).

The first step in testing this idea is to establish whether performance patterns really do reflect processing efficiency – e.g. whether the most efficient orders in cases where there is a choice, really are the most frequent ones. This has been argued for a number of languages in Hawkins (1994, 1998, 2004), and it would be very interesting to see whether this correlation can be found in Russian data too.

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1 The languages examined in these works are: Danish, English, Finnish, German, Greek, Hebrew, Hungarian, Japanese, Korean, Polish, Romanian and Turkish.
3. The topic of this dissertation

We thus have two alternative approaches to Russian word order: The traditional and widely assumed approach where word order is believed to reflect information structure status, and the new processing approach, cf. (2), which has not yet been tested on Russian data.

The main goal of this dissertation is to test whether there is a correlation between processing efficiency and frequency in mainly Russian, but also Danish, performance data. If this turns out to be the case, then this of course supports Hawkins' theory; furthermore, such a correlation is a serious challenge to the almost universally accepted hypothesis that Russian word order is driven entirely by information structure.

One could argue that word order might not be influenced by just one factor, but that instead a model should be made where multiple factors are incorporated and then both information structure and processing efficiency could be among these factors. This could be a topic for future research, but I think it would be premature to begin at this point. The reason is that in the literature on Russian word order, the widely held view (see chapter 4 below) is not that multiple factors are involved. On the contrary we basically find the view that word order is driven by information structure and nothing else. Given this state of affairs I think that the first logical step is to investigate whether another factor, such as processing efficiency, has a clear influence on word order, and if it does, then we can start building models where more factors are incorporated.

In order to test whether there is a correlation between processing efficiency and frequency in Russian, one needs a syntactic analysis of the constructions that are to be tested (e.g. of the six possible orders of transitive sentences). The most thorough work on the syntax of Russian has been carried out in the generative framework (see chapter 2, section 5 below), which is one reason why I will adopt it here. This has the advantage that analyses of several constructions are already developed, but it also has the result that some of the concepts and methods in Hawkins' theory have to be reformulated slightly to match the generative analysis. In cases where no analysis has been provided, or in cases where several contradicting analyses exist, analyses are provided or discussed.

Furthermore the processing approach claims that grammar may look as it does because processing bends it in certain ways, and if this holds, then processing facts should potentially be able to act as a tool in deciding between alternative analyses.
This dissertation attempts to answer three questions:

- Is there a correlation between frequency and efficiency in Russian (and Danish) performance data?
- What exactly is claimed about word order by information structure theories, and is there any evidence that they are right?
- Can processing facts be of any benefit to syntax, especially as a method to choose between alternative analyses?

The dissertation is organized in the following way: First, Hawkins' theory is presented and modified in chapter 2, and then the tests, which clearly demonstrate a correlation between processing efficiency and frequency, are presented in chapter 3.

In chapter 4, information structure accounts are discussed and some of the theoretical problems with these theories are presented.

In chapter 5, four studies that aim to empirically test the correlation between information structure and word order are discussed, and a pilot study is presented.

In chapter 6, the syntax of the constructions under discussion is investigated more carefully, and the possible interaction between processing and syntax is discussed.

Chapter 7 contains the summary and the conclusion.
2
The Performance Theory of Order and Constituency (PTOC)

1. Introduction

The Performance-Grammar Correspondence Hypothesis is stated within the theory called The Performance Theory of Order and Constituency (PTOC) described in Hawkins (1990, 1994, 2004). This theory is as stated above essentially a hypothesis about a connection between performance and grammar, but in this part the focus is on the performance predictions that PTOC makes.

It is suggested that a quite simple principle can account for many of the parsing data that principles such as Frazier’s Minimal Attachment (Frazier 1987) or Gorrell’s Simplicity (Gorrell 1995) can account for. This simple principle is Minimize Domains (MiD) (Hawkins 2004:31) – below it will be explained in detail, but simplifying a great deal one could say that this principle states that the parser prefers orders that allow the fastest recognition of the main structure of the sentence.

The parser disfavors orders that delay the recognition of the structure as in (1)a, and prefers orders that allow a rapid recognition of the structure as in (1)b:

(1) a. I gave [the valuable book that was extremely difficult to find] [to Mary]
   b. I gave [to Mary] [the valuable book that was extremely difficult to find]

(Hawkins 1994:57, (3.1))
In (1)a we only realize that the verb has two arguments when the preposition to is parsed, but in (1)b we know this already at the fifth word. (1)b is according to PTOC preferred by the parser over (1)a because it is easier to parse – easy in the sense that the (1)b order more rapidly allows recognition of the overall structure of the sentence, and it does so on the basis of much less material.

(Adapted from Hawkins 1994:59, (3.1'a))

(Adapted from Hawkins 1994:60, (3.1'b))
The trees in (2) illustrate how much structure has to be parsed before we understand that we are dealing with a ditransitive sentence. Clearly the amount of structure that needs to be parsed is much greater in (2)a than it is in (2)b.

This parsing preference affects language production according to PTOC. A general tendency should be observed for speakers to produce more orders of the kind that the parser prefers than orders of the kind that the parser does not prefer. Or in other words: If there is a choice as in (1), then speakers are predicted by PTOC to choose the more efficient variant (in the case of (1) that would be (1)b) over the less efficient variant (Hawkins 1994:84).

Exactly this prediction has been tested by Hawkins (Hawkins 1994, 1998, 2004) on a number of constructions in twelve different languages. The tests all follow this general scheme: A construction that allows variation is found (such as particle shift), then the most efficient one is determined using the machinery of PTOC, and then corpus data is analyzed to see which of the two (or more) variants is the most frequent. The prediction of PTOC is that the most efficient orders should be the most frequent ones.

In the tests conducted so far, between 85% and 95% of the corpus data consist exactly of the most efficient orders (Hawkins 1994, 1998, 2004), thus confirming the prediction.

These results support Hawkins' claim that his principle of MiD (see 2.4.4 below) can account for the speakers' choice of word order in performance, and the further testing of this idea is the main goal of chapter 3.

How does a speaker of English choose between (3)a and (3)b in performance?

(3)  
  a. Peter looked up the number.  
  b. Peter looked the number up.

This is essentially the kind of question that PTOC attempts to answer, and the suggestion is that the speakers will tend to choose the more efficient orders, over the less efficient orders.

All we need to test this hypothesis is a clear definition of processing efficiency, which will be presented below.

In section 2, PTOC is presented and some minor points are discussed. In section 3 some motivation for adopting a generative syntax is given by illustrating that the simpler syntax assumed by Hawkins (1994, 2004) causes PTOC to make some wrong predictions about
attachment decisions in the on-line parsing of garden path sentences. Furthermore the
difference between reanalysis that causes processing breakdown and reanalysis that does not
is rather elegantly explained if one assumes more elaborate syntactic structures such as in the
generative framework, and they are not captured by PTOC. In section 4, PTOC is adapted to a
more elaborate syntactic theory and some modifications are introduced. In section 5, a brief
overview of the assumed syntax is presented and in section 6, the chapter is concluded with a
summary.

2. PTOC

This section presents the basic notions in PTOC. The theory is rooted in the literature on
 parsing and processing and many of the concepts are familiar from this line of research (e.g.
 concepts are presented and illustrated somewhat elaborately here in order to demonstrate
 Hawkins’ take on parsing and in order to present basic parsing assumptions to a reader
 unfamiliar with these.

In 2.1 two fundamental assumptions of PTOC are illustrated, in 2.2 the syntactic
 structure assumed by Hawkins is presented, and in 2.3 the five construction principles are
 explained. In 2.4 the processing principles are presented and processing efficiency is defined.

2.1 The axioms

PTOC is based on two basic assumptions or axioms as Hawkins labels them.

(4) Axiom of Constructability

For each phrasal node P there will be at least one word of category C dominated by P
 that can construct P on each occasion of use.

(Hawkins 1994:379, (3.5’))
The axiom of constructability states the fairly uncontroversial idea that syntactic structure exists and that it is carried by the words (or in other terms: Certain words carry certain kinds of information about the syntactic structure). In order for this to work, we must assume that humans are able to understand which words carry which parts of the structure, and this ability is what is expressed by the second axiom, the axiom of PNCC (= phrasal node constructing category) uniqueness. If it was not the case that e.g. the article the unambiguously constructed its mother node (M) NP (or DP) and that the finite verb unambiguously constructed its mother node VP and possibly its grandmother node (G) S, but instead they could also construct any other XP, then we would be no wiser with regard to the structure of a sentence when we encountered the article the or the finite verb. There must be words that give us unambiguous information about the structure, because otherwise the information about the syntactic structure would be unavailable.

These axioms or assumptions are not controversial. In Frazier (1987:561-2), where the garden path model is laid out, it is assumed that words are incorporated into the structure as they are encountered. In effect, this has the result that the structure gradually grows as more words are parsed, and for this to work one has to assume something along the lines of (4) and (5). The difference is Hawkins' suggestion that any node will have a fixed set of words (phrasal node construction categories in his terms) that can construct it, so e.g. the S-node can only be inferred on the basis of the finite verb or a pronoun with overt nominative morphology (and maybe other cases). For Frazier (1987), on the other hand, the parser will assume an S-node as soon as it encounters a word, any word.

Pritchett (1992: chapter 3) presents a parser that is essentially head-driven, which means that something like (4) and (5) is assumed: The PNCC for a given node will then be the head of this node – N projects NP, A projects AP etc.
2.2 The structure

Hawkins’ structures look like simplified pre-government and binding generative grammar structures (see e.g. Akmajian & Heny 1975) (later, in section 4 below, I will adapt PTOC to a later version of generative grammar).

The idea is that PTOC can explain patterns in performance and grammar in all languages, and this requires that the structure in all languages must somehow be comparable. The languages of the world are, however, not all described within just one syntactic theory and this obviously poses a problem to anyone who wishes to compare data from a multitude of languages. Hawkins solves this problem by assuming a simplified syntactic structure, which is compatible with more elaborate theories.


Strict binary branching is rejected by Hawkins and instead flatter structures with tertiary (or more) branching are allowed (Hawkins 1994:72-75, 2004:19).

So Hawkins would draw a tree-structure for (3a) as follows:

(6)

\[ S \]

\[ NP \quad VP \]

\[ N^o \quad V^o \quad Part \quad NP \]

\[ Peter \ looked \ up \quad the \ number \]

We notice that the immediate constituents (IC)\(^2\) of S are NP and VP constructed/projected\(^3\) by the two first words in the sentence: *Peter, looked*. The VP contains three ICs: \(V^o\), Part and NP, which are inferred when the first three words of VP are encountered.

The structure assumed in PTOC is kept as simple as possible based on the data available in order to allow compatibility with elaborate systems, and to facilitate analysis of large

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\(^2\) The nodes that a given mother node immediately dominates are the immediate constituents of this mother node.

\(^3\) When I say that e.g. *the* constructs or builds DP, this is shorthand for "from the word *the*, the parser can infer the existence of a DP node and consequently adds a DP node to the structure."
quantities of corpus data (Hawkins 1994:72). There are, however, as we will see, good reasons to assume a more elaborate syntax.

2.3 The construction principles

The logic behind the construction principles is actually what is stated in the axioms. The idea is that if a word X uniquely appears in a phrase XP, then the parser has enough information to project the phrase XP when it encounters the word X. This is the simplest situation, but one can imagine a word Y that always appears inside a phrase YP and furthermore that this phrase YP is always dominated by some other phrase, say ZP. In that case the word Y will in effect carry enough information to allow the parser to infer both the YP and the ZP. In other words, the parser will construct as much structure as it possibly can based on the incoming words, and the construction principles are Hawkins' attempt to make the connection between the words and the structure explicit.

2.3.1 Mother Node Construction (MNC)

This principle states that a phrasal node will be constructed by one of its daughters (i.e. ICs) in the on-line parsing. In this way NP is constructed by the in (3a), repeated here for convenience:

(7) Peter looked up [NP the number]

The idea is that there are one or more phrasal node constructing categories (PNCCs) for each phrasal node, and these allow the reader or listener to infer the relevant M. In this way NP is constructed in English by e.g. the PNCCs: the, a(n) and N since they all unambiguously require an NP as the mother node (Hawkins 1994:61-62).4

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4 When more elaborate structures are introduced in section 5 this obviously needs reformulation.
2.3.2 Grandmother Node Construction (GNC)

The higher structure in a sentence must of course also be inferred on the basis of some of the words in the on-line parsing. Since every NP is not necessarily a constituent in S (consider *Peter, he is a nice chap* or *Peter, are you sad?*), we must assume that S has to be constructed by a constituent which has to be inside S. Hawkins argues that finite V is a PNCC for S in English since a finite V unambiguously tells us that we are dealing with not only VP but also S above it – this construction of the grandmother node is GNC (Hawkins 1994:361). Thus GNC accounts for the S node in (4).\(^5\)

In English the nominative pronouns also construct S by GNC, since they unambiguously appear as subjects, and never in the pre-sentential position (Hawkins 1994:362-3).

2.3.3 Sister Node Construction (SNC)

This principle is active when we infer that an embedded sentence follows when we encounter a complementizer. Consider (8):

\[(8) \quad \text{i said } [s [\text{comp that} [s \text{he was here}]]]\]

The constituent S´ has two ICs: the word *that* and its sister, the embedded sentence *he was here*. The fact that a sentential sister follows is clear when *that* is encountered prior to actually encountering S, hence *that* constructs S via SNC. A perhaps more convincing example that Hawkins cites is *because*, which allows the inference that an embedded S follows (Hawkins 1994:359-361).

*That* can obviously be a determiner as well, but if we assume with Radford (1997:52) that the determiner *that* is phonologically distinguishable from the complementizer *that*, then Hawkins is right at least as far as the spoken language is concerned. It is however not

\(^5\) In Pritchett (1992) a parsing model similar to PTOCs but based on Government & Binding theory is presented. According to Pritchett's model, IP is constructed by finite V (via EPP) – the main difference is that Pritchett only allows heads to be what Hawkins calls PNCCs, and consequently Pritchett's model would ban principles like SNC and possibly AgP.
completely uncontroversial to assume that the parser can predict future nodes on the basis of the words.

2.3.4 Immediate Constituent Attachment (ICA)

This principle is defined as follows by Hawkins:

\[(9)\quad \text{In the left-to-right parsing of a sentence, if an IC does not construct but can be attached to, a given mother node M, in accordance with the PS rules of the grammar, then attach it, as rapidly as possible. Such ICs may be encountered after the category that constructs M, or before it, in which case they are placed in a look-ahead buffer.} \]

\[(\text{Hawkins 1994:62, (3.4)})\]

ICA is active when relative clauses are attached to the relevant NP and adverbs are correctly attached to the VPs that they modify.

Consider (10):

\[(10)\quad \text{He quickly responded} \]

Here the adverb is a constituent in VP, but is not a PNCC of VP (\textit{quickly} does not allow the parser to infer VP, because it can be, but does not have to be, a constituent in VP). Thus Adv is placed in a look-ahead buffer and attached to VP when \textit{responded} is encountered in accordance with ICA.

The idea that an incoming word can be placed in a look-ahead buffer is not the only option. Fodor & Inoue (1998:105) suggest a parsing heuristic called \textit{Attach Anyway}, which states that even if an incoming word does not fit into the structure as it looks at that point in the parse, the parser will have to attach it, even if it means breaking the rules of grammar. This bad or wrong attachment will then later be subject to an adjustment procedure.

An interesting piece of data which they cite from Mitchell (1987) at another point in their article (Fodor & Inoue 1998:115) demonstrates how incoming words seemingly are attached anyway:
(11) After the child sneezed the doctor prescribed a course of injections.

Mitchell’s studies show that readers compute the version where the doctor is the object of sneezed, suggesting as Mitchell concludes, that the parser initially blindly attaches the incoming words into the structure already built regardless of grammaticality (Mitchell 1987:615).

Either way Hawkins' point remains the same: An incoming word that does not fit into the structure will not be attached to its final attachment site until the parser has encountered some other and later word that reveals the true attachment site. There is a delay with these kinds of words, and that can be expressed in terms of a look-ahead buffer, or in terms of attachment and subsequent adjustment.

2.3.5 Agreement Projection (AgP)

The principle called agreement projection is defined as follows:

(12) In the left-to-right parsing of a sentence, if any word of syntactic category B exhibits agreement features with a syntactic category A, then the mother node of A is immediately constructed over (the mother node) of B.

(Hawkins 1994:368-9, (6.18))

AgP allows the reader/listener to infer the existence of NP prior to encountering the noun of NP, if e.g. an adjective agreeing with N is encountered first. It will be possible to construct NP when we read bonarum “good” in the Latin phrase bonarum feminarum “good women”, because the case-ending on the adjective presupposes a feminine noun in genitive plural. NP is constructed by the agreeing adjective in this case either directly above Adj or above AdjP if this phrase is assumed (Hawkins 1994:369).

As formulated in (12) the principle of agreement projection would predict that in a Danish sentence such as (13) a DP or NP node is projected over the predicate adjective, which is not a likely analysis:
(13) …at de var glade

    that they were happy.PLUR

    "That they were happy"

The adjective *glade* agrees with the subject pronoun *de*, and consequently (12) states that the mother node of *de*, DP, must be projected over the adjective yielding the following structure:

![Diagram](image)

Apart from the fact that D⁰ in Danish usually is assumed only to take NP as its complement (see Hankamer & Mikkelsen 2002:139-141)

6, this analysis also entails that there is a free head position preceding the adjective and it should consequently be possible to fill it, with the material that we usually see in D⁰ in Danish. (15) demonstrates that this is not the case:

(15) a. *… at de var mine glade

    that they were my happy

    "That they were my happy"

b. *… at de var disse glade

    that they were these happy

    "That they were these happy"

---

6 That D⁰ only takes NP as a complement is the view in Hankamer & Mikkelsen (2002) in their analysis of Danish, but Delsing (1993) following Abney (1987) assumes that D⁰ optionally can take (at least) either AP or NP as a complement.
c. ?... at de var de glade

\textit{that they were the happy}

"They were the happy"

In (15)c the filling of D\textsuperscript{0} is not as bad as in (15)a or b, but this has to do with the fact that the structure in (16), which arguably involves an empty NP, is possible:

(16) \ldots at de var de glade\_\_, og vi var de sure\_\_

\textit{that they were the happy and we were the angry}

"That we were the happy ones, and they were the angry ones"

In (16) it is understood that they were the happy ones among some specific set of people. So the underlined blank spaces could be filled with some appropriate noun (actors, couples, soldiers, students) fitting the context. But without a context revealing what noun has been left out, (15)c is unacceptable, suggesting that there is an empty NP in the structure in (16) and in an acceptable version of (15)c.

The problem with AgP can clearly be mended easily with a slight reformulation, and the intuition behind AgP is probably right: If the parser encounters an agreeing adjective then the noun it is agreeing with could in principle be inferred.

This depends on the structure the adjective appears in. If the adjective is parsed after a transitive verb, then the predicate reading is unavailable and the parser must assume that the adjective is part of an NP, because it cannot stand alone in that structural position, see (17)b. But if the adjective is parsed after a copula verb, as in (17)c, then the predicate reading is available and the parser does not have to assume other phrases than the AP:

(17) a. Jack knew pretty girls
    b. *Jack knew pretty
    c. Lucy was pretty
2.4 The processing principles and relevant notions

Recall that the machinery in PTOC has the dual purpose of defining *processing efficiency* and to test whether speakers are more inclined to choose orders with a higher degree of processing efficiency in cases where they have a choice.

In order to analyse data, it is necessary to have the construction principles and some notion of the structure that they build, but in order to define processing efficiency, we need the notion of a domain and a concept of complexity – both to be introduced below.

When we have a clear and quantifiable notion of processing efficiency, then it is possible to define precise principles of processing yielding testable predictions about word order preferences.

2.4.1 Domains

An important notion in PTOC is a parsing domain. Since parsing proceeds incrementally, attaching one word at a time from left to right, then there must be a point in the parse where it begins the parsing of a given phrase, and a point where it finishes the parsing of this phrase. All material (words and nodes) between these two points is within one parsing domain.

It is crucial that a parsing domain is not necessarily identical to the phrase. We can imagine that the material contained within the parsing domain for some phrase is a subset of the material contained in that phrase. To see how this works, let us look at the parsing domain referred to as a *Phrasal Combination Domain*:

(18) **Phrasal Combination Domain (PCD)**

The PCD for a mother node M and its I[mmediate] C[onstituent]s consists of the smallest string of terminal elements (plus all M-dominated non-terminals over the terminals) on the basis of which the processor can construct M and its ICs.

(Hawkins 2004:107, (5.2))

The important thing here is that the PCD for a given mother node is a different notion than merely the words dominated by this node. Consider again the particle construction:
In (19) and (20) the VP stretches from the first word contained in it to the last word contained in it (from *looked* through *number/up*). In (20) the PCD is similar to the VP, but in (19) the PCD is shorter, since the PCD stretches from the first PNCC to the last PNCC, and not from the first word to the last word.

Hawkins (2004) describes a number of different parsing domains, but here we will mainly look at PCDs and at the so-called *Lexical Domains*:

(21) **Lexical Domain (LD)**

The LD for assignment of a lexically listed property P to a lexical item L consists of the smallest string of terminal elements (plus their associated syntactic and semantic properties) on the basis of which the processor can assign P to L.

(22) \[[LD \textit{Peter brought the old lamp to}] \textit{us in the evening}\]

Accordingly in (22) the lexical domain of *bring* consists of the verb and its arguments:

The LD reaches from the subject NP (*Peter*) to the preposition (*to*), at which point the PP is constructed and the co-occurrence frame (or subcategorization frame) of the verb is complete. The adjunct PP *in the evening* is not a part of the lexical domain of *bring*.

A domain is thus an alternative way to divide a sentence into parts, which does not lead to the same parts as a syntactic analysis of a sentence leads to – i.e. domains are not identical to constituents (except occasionally by chance). The parser is focused on a domain until its last PNCC is encountered, and after this the parser shifts its focus to the next domain – the
domain is thus in a sense equal to the time span that the parser uses on a particular subpart of the structure at hand.

2.4.2 Complexity

Complexity is, informally speaking, equal to amount of structure. Concepts like weight or heaviness (as in e.g. Heavy NP shift) are also equal to amount of structure. The more structure there is, the more complexity. And the more words there are, the more structure and consequently the more complexity.

In Miller & Chomsky (1963:485), complexity is defined as the sum of terminal and non-terminal nodes in a sentence. So any given sentence will have a number describing its complexity and this number is reached by counting all nodes in the tree-structure suggested for the sentence.

Complexity in PTOC is based on this, but the major difference is that Hawkins (1994) uses this metric to calculate the complexity of parsing domains, whereas Miller & Chomsky (1963) used it to quantify the complexity of a sentence globally.

In PTOC, any given domain will have a specific complexity expressed as a number. Hawkins suggests two ways of calculating this number. The first method is to count all non-ICs in the domain, which is very similar to Miller & Chomsky's (1963) suggestion, except that they would count all nodes including the ICs. The logic behind Hawkins' complexity metric is that all the non-ICs are in fact all the material that the parser has to consider in order to project the ICs in the domain. The ICs are thus assigned a slightly different status in the sense that they do not count as complexity in their own domains.

In order to analyze large quantities of data, Hawkins suggests a second method, which simplifies the calculation method and instead assumes that a domain's complexity is equal to the number of words it contains.

If we calculate the respective complexities of the PCDs for VP in (19) and (20) above using the non-IC metric and using the word metric, we get these results:
(23) PCD-complexity for the VPs in (19) and (20):
   (19) number of non-ICs = 4  
        number of words = 3  
   (20) number of non-ICs = 6  
        number of words = 4  

No matter which of the metrics we use, the result is the same: The PCD for the VP in (19) is less complex than the PCD in (20).

2.4.3 Efficiency

The relation between the complexity and the number of constituents expresses the processing efficiency of a parsing domain. The intuition behind this is that the more structure (i.e. the more complexity) the parser has to cope with in order to recognize the constituents in a domain, the slower it works. And vice versa: The less complexity the parser has to deal with in order to project the constituents, the faster it works.

The calculation method is simple: The efficiency of a given domain is equal to the number of constituents divided by the complexity (measured as either number of non-ICs or number of words), and the result is expressed as a percentage.

The calculation of efficiency using non-ICs as a measure of complexity is called the IC-to-non-IC metric, and the calculation method using words as a measure for complexity is called the IC-to-word metric (Hawkins 1994:69-77).

Any parsing domain has a complexity of \( n \), and any parsing domain has one or more constituents in it. In (19) above the PCD has three constituents: the finite verb, the particle and the NP (Hawkins assumes a tertiary branching VP-node dominating these three constituents). Once the following three words have been parsed, \textit{looked}, \textit{up} and \textit{the}, the PCD of the VP is complete. At the point where the parsing of a domain is completed, we can calculate its complexity and calculate the efficiency of the domain using one of the two metrics.
If we calculate the respective efficiencies of the PCDs for VP in (19) and (20) above using the IC-to-word metric, we get these results:

(24) PCD-Efficiency for the VPs in (19) and (20)

(19) complexity = 3
     constituents = 3
     efficiency = 100%

(20) complexity = 4
     constituents = 3
     efficiency = 75%

If we calculate the relative efficiencies of (19) and (20) using the IC-to-non-IC metric we get the same hierarchy, namely that (19) is more efficient than (20), but we get different percentages.

To illustrate the IC-to-non-IC metric, let us look at the relevant part of the structures:

(25) a. 

\[ \text{VP} \quad \text{Part} \quad \text{NP} \]
\[ \text{V}^o \quad \text{looked} \quad \text{up} \quad \text{Det} \quad \text{the} \quad \text{N}^o \quad \text{number} \]

The line marks the end of the PCD for VP. In (25)a there are three constituents in the PCD for VP (\(V, \text{Part} \text{ and } \text{NP}\)), and 4 non-ICs (\textit{looked, up, Det} and \textit{the}) leading to a ratio of 75%.

In (25)b there are three constituents as well (the same ones), but more non-ICs because the entire NP is included in the PCD for VP. A total of 7 non-ICs (\textit{looked, NP, Det, N, the, number and up}) are included, yielding the result: 43%.
2.4.4 EIC and MiD

Short and efficient PCDs are preferred to more complex and less efficient ones, where efficiency is measured by the IC-to-word metric or the IC-to-non-IC metric. This idea is stated as the principle of *Early Immediate Constituents*:

(26) *Early Immediate Constituents* (EIC)

The human processor prefers linear orders that minimize PCDs (by maximizing their IC-to-non-IC [or IC-to-word] ratios), in proportion to the minimization difference between competing orders.

(Hawkins 2004:107, (5.3))

It should now be clear why PTOC predicts that the structure in (19) will be preferred in performance to the structure in (20) whenever the object NP is longer than the particle – that is, whenever the PCD for VP can be minimized by the order: [Part NP] as opposed to [NP Part].

Now we can turn to the processing principle of Minimize Domains, which states that the processor prefers orders that ensure the highest processing efficiency:

(27) *Minimize Domains* (MiD)

The human processor prefers to minimize the connected sequences of linguistic forms and their conventionally associated syntactic and semantic properties in which relations of combination and/or dependency are processed. The degree of this preference is proportional to the number of relations whose domain can be minimized in competing sequences or structures, and to the extent of the minimization difference in each domain.

(Hawkins 2004:103, (3.1))

In other words, MiD states that everything that goes on between the words and constituents, i.e. case assignment, agreement, semantic dependencies, coreference, domination etc. preferably should be computed within as short a string as possible.
According to MiD the processor prefers short efficient domains, just like EIC prefers short efficient PCDs. In fact, EIC is a subprinciple to the more general principle MiD, since EIC makes the predictions for PCDs that MiD makes for all types of domains (Hawkins 2004:33). In a given sentence there will be PCDs and LDs (and possibly other domains), and MiD claims that the order that ensures the most efficient domains will be preferred in performance.

2.5 Summary

To assume that words carry information about syntactic structure, or that they project the structure, necessarily leads to the assumption that the parsing of a phrase must have two boundaries: The beginning of its processing and the end. These boundaries must be marked by words – i.e. there must be some word in the string that allows the parser to assume e.g. VP and there must be a word that allows the parser to assume that the VP is completed (e.g. a determiner following a transitive verb). The stretch of words between these two points is called a parsing domain in PTOC.

If a parsing domain contains much structure or many words its complexity is high. Complex parsing domains lead to low processing efficiency.

The principles Early Immediate Constituents and Minimize Domains both state that the parser, all else being equal, will prefer word orders that ensure domains with high efficiency to orders that result in domains with low efficiency.

3. PTOC and Garden Path Sentences

Pritchett (1992:12) presents a taxonomy of garden path sentences (GPs) and posits two challenges for processing theories. But before we can deal with these challenges in detail, some terminology has to be defined. When Pritchett speaks of GPs, he has in mind sentences

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7 It could seem that the subprinciple of EIC is redundant, since MiD makes the same predictions not just for PCDs but for all domains. EIC was the main focus of attention in Hawkins 1994 before MiD was posited, and is the most thoroughly tested principle in PTOC. Theoretically EIC could be right, and MiD wrong, if it turns out that processing efficiency is relevant only for PCDs but not other domains.
where reanalysis is required because the parser assigns properties to the parsed string that ultimately turn out to be erroneous; furthermore, he has in mind that this reanalysis causes a processing breakdown, rather than simply encumbering processing. Such GPs involve conscious reanalysis (see also Frazier 1987) and this is how they differ from sentences that are simply hard to process (Pritchett 1992:7).  

In Frazier & Clifton (1996:10-11), reading times from an experiment are reported for 8 pairs of sentences that differ minimally, and of these 8 sentences, 5 are of the type that Pritchett (1992) would consider to be GPs. The average reading time for the non-GP sentences is 1281.7 ms, and for the GPs it is 2130.6 ms. In the 5 pairs where we have minimally contrasting GPs and non-GPs, the reading times for the GPs are higher in all 5 instances. The average difference in reading times in these 5 cases is 896.8 ms. These results clearly support Pritchett’s suggestion that there is a real difference between sentences that require reanalysis on the one hand, and GP sentences that cause processing to break down on the other.

Reanalysis is required in both sentences in (28) but only (28)b is a GP, which I, following Pritchett, indicate with an inverted question mark.  

(28) a. I knew the boy was mad
b. ¿I warned the boy was mad

Pritchett distinguishes five types of GPs in his taxonomy shown here:

(29) Taxonomy of Garden Path Phenomena

a. **Main clause – Relative clause ambiguity**

   The boat floated down the river.

   ¿The horse raced past the barn fell.

---

8 GPs are a phenomenon found and studied in written language where the necessary punctuation and intonation clues are not provided (see discussion of GPs in Ferreira, Christianson & Hollingworth 2001:3-5, Mitchell 1987:604). The fact that intonation (and punctuation) can disambiguate GPs does not, however, explain how GPs are processed when presented without intonational and orthographical disambiguation and this fact is therefore largely orthogonal to the discussion of GP-processing (see the discussion in Pritchett 1991:158).

9 All examples in this section are from Pritchett 1992, or based on Pritchett 1992 but with a slightly different wording. The judgements of the sentences (i.e. GP or non-GP) are Pritchett's, which he based on surveys conducted mainly among 50 Harvard students in 1987, and also on follow up surveys (see note12 in Pritchett 1992:159).
b. **Complement clause – Relative clause ambiguity**
The tourists persuaded the guide that they were having trouble with their feet.

¿The doctor told the patient he was having trouble with to leave.

c. **Object – Subject ambiguity**
John believed the ugly little man hated him.

¿After Susan drank the water evaporated.

d. **Double object ambiguity**
Rex gave her presents to Ron.

¿Todd gave the boy the dog bit a bandage.

e. **Lexical ambiguity**
The church pardons many sinners

¿The old train the children.

(Pritchett 1992:12, (22))

The first challenge is to explain the direction of the GPs. It is striking that we only find GPs in cases of main clause – relative clause ambiguity when the correct reading is the relative clause reading, and we never find GPs in these cases when the correct reading is the main clause reading. The same is true of complement clause – relative clause ambiguities, where the GP effects occur only when the correct reading is the relative clause reading. In subject – object ambiguities the GPs are found when the correct reading is the subject reading. Double object and lexical ambiguity seem to result in GPs in various directions (Pritchett 1992:19-20). These directionality facts should follow from a processing theory.

The second challenge is to explain why some instances of reanalysis cause processing to break down, whereas others seem hardly noticeable. This should follow from a processing theory as well.

### 3.1 The directionality of GPs

In Pritchett (1992), the directionality of the GP effects is explained by one principle that is assumed to be followed by the parser when it faces a choice:
(30) Generalized Theta Attachment: Every principle of the syntax attempts to be maximally satisfied at every point during processing.

(Pritchett 1992:138, (336))

Since Pritchett is working within the framework of Government & Binding, by the "principles of syntax" he has in mind principles like the Case Filter and the Theta Criterion, and in fact he demonstrates that these two principles alone can account for all the directionality facts regarding GPs.

I will not go through all the examples in detail, but to see how Pritchett's parser works, consider the GPs in (31):

(31) a. The horse raced past the barn fell.
    b. After Susan drank the water evaporated.

In (31)a we initially construct a DP the horse and since we have no other option at this point we leave it unattached, violating the Theta Criterion and the Case Filter locally. Then we encounter the ambiguous word raced, but since we can satisfy the Theta Criterion and assign the DP case by assuming that raced is a finite verb, this is what we do.

If we on the other hand had assumed it to be a participle, then the DP would remain without case and theta-role at this point in the parse – and this would be a local violation of the Theta Criterion and the Case Filter.

Past the barn is attached to VP and finally fell results in a processing breakdown – and since we initially were forced to choose the main clause reading, the direction is explained.

In (31)b the preposition has case to assign, and when Susan is parsed, it will get case. When drank is parsed, reanalysis of Susan is required: Susan now gets theta-role and case from drank and after assigns its properties to the embedded clause instead of to the DP (if embedded clauses have case; if not, the preposition will simply leave its case unassigned). If we do not reanalyze, then the verb would be unable to assign its theta-role to Susan, resulting in a local violation of the Theta Criterion. Notice that this reanalysis may be costly, but it does not in any way result in a GP at this point.
Now the water is attached as the direct object of drank, since this is the only way it can receive a theta-role and case – if we left the water unassigned hoping for a finite verb, then we would again locally violate the Theta Criterion and we would wrongly expect the water to be available as a subject when we reach the verb evaporate.

Evaporated causes processing to break down, and we see that Generalized Theta Attachment can account for the direction of the on-line attachment decisions.

Now the question is: Can PTOC account for the on-line attachment decisions that we need to posit to explain the occurrence of GPs?

To answer this, I will go through the five different types of GPs, showing which attachment decisions PTOC makes in the on-line parse.

3.2 The attachment predictions of PTOC

The parser assumed in PTOC can build structure according to the construction principles, and it is MiD that decides which of the possible structures that will be built in the actual case in the on-line parse. In other words, if there is a choice, then the parser will choose the variant that ensures the best ratios for the affected domains (Hawkins 1994:94). Let us see whether this will give us the correct results for the garden path sentences from Pritchett's taxonomy, assuming that the relevant domains are the PCDs and the LDs.

(32) The horse raced past the barn fell.

In (32) the crucial moment is when raced is parsed. Here the parser has to choose either the relative clause attachment or the main clause attachment, and, as shown by Pritchett, it must be the case that it chooses the main clause attachment, because otherwise (32) would not be a GP sentence. Does Hawkins' parser make this decision? Assuming Hawkins' syntax, the choice is between the tree in (33)a and the tree in (33)b:
Only (33)b involves a LD, so we cannot compare LDs. Both structures contain PCDs, so let us calculate and compare them.

To calculate the ratio for the relevant PCDs we can use either the IC-to-word metric or the IC-to-non-IC metric (see 2.4.3 above),\(^\text{10}\) and we will see that they lead to different results in this case. We will consider the IC-to-word metric first.

In (33)a there are four phrases and consequently there must be four PCDs. In (33)b there are three phrases, S, NP and VP, and thus three PCDs. The result is as follows when we use the IC-to-word metric:

---

\(^{10}\) In Hawkins (2004:49-58), a principle *Maximize On-line Processing* (MaOP) is suggested to affect parsing together with EIC. But MaOP is hardly likely to play a role here, because it is calculated using a specific metric called the OP-to-UP metric, which refers to ultimate properties. But in the on-line parse we do not have a clear idea of the ultimate properties, since this would rule out any possibility of GP effects. Alternatively, we can try to calculate the local OP-to-UP ratio for the three words available when *raced* is parsed. This gives the following result:

<table>
<thead>
<tr>
<th></th>
<th>the</th>
<th>horse</th>
<th>raced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>main clause reading:</strong></td>
<td>Det</td>
<td>N</td>
<td>V</td>
</tr>
<tr>
<td><strong>category:</strong></td>
<td>NP</td>
<td>-</td>
<td>S,VP</td>
</tr>
<tr>
<td><strong>phrases:</strong></td>
<td>NP[Det]</td>
<td>NP[N] S[NP], S[VP], VP[V]</td>
<td></td>
</tr>
<tr>
<td><strong>attachments:</strong></td>
<td>-</td>
<td>-</td>
<td>NP = subject</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NP = 0-subject</td>
</tr>
<tr>
<td><strong>relations:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OP-to-UP ratio:</strong></td>
<td>3/13 = 23%</td>
<td>5/13 = 38%</td>
<td>13/13 = 100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>the</th>
<th>horse</th>
<th>raced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>relative clause reading:</strong></td>
<td>Det</td>
<td>N</td>
<td>V</td>
</tr>
<tr>
<td><strong>category:</strong></td>
<td>NP</td>
<td>-</td>
<td>S,VP</td>
</tr>
<tr>
<td><strong>phrases:</strong></td>
<td>NP[Det]</td>
<td>NP[N] NP[S'], S[S], S[VP], VP[V]</td>
<td></td>
</tr>
<tr>
<td><strong>attachments:</strong></td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>relations:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OP-to-UP ratio:</strong></td>
<td>3/13 = 23%</td>
<td>5/13 = 38%</td>
<td>13/13 = 100%</td>
</tr>
</tbody>
</table>

The results are exactly the same and consequently MaOP has no preference in this case, and cannot help the parser choose.
This means that if we calculate efficiency by the IC-to-word metric, then MiD will prefer the relative clause attachment, and this is not the desired result.

The IC-to-non-IC metric leads to the opposite result:

This means that if the IC-to-non-IC metric is chosen then we get the correct result, namely that MiD prefers the main clause attachment.

Here the decision has to be made at the point where he is parsed. The GP status of (36) shows that the parser chooses the complement clause attachment, and not the relative clause attachment, but is that what PTOC predicts?

The choice is between a VP-attachment and a NP-attachment, the relevant structures are seen here:
The S', S and lowest NP domains in both (37)a and (37)b are the same and consequently cannot help MiD decide between the structures. Thus the relevant domains in (37)a and (37)b are the VP domain and the highest NP domain; using the IC-to-word metric, we get this result:

(38) PCDs for (37)a: PCDs for (37)b:
     VP: 3 ICs, 4 words – 75%     VP: 2 ICs, 2 words – 100%
     NP: 2 ICs, 2 words – 100%    NP: 3 ICs, 3 words – 100%
     aggregate ratio: 88%         aggregate ratio: 100%

Again the IC-to-word metric yields the wrong result.
If we use the IC-to-non-IC calculation method then the result is as follows:

(39) PCDs for (37)a: PCDs for (37)b:
     VP: 3 ICs, 9 non-ICs – 33%   VP: 2 ICs, 3 non-ICs – 67%
     NP: 2 ICs, 2 non-ICs – 100%  NP: 3 ICs, 6 non-ICs – 50%
     aggregate ratio: 67%         aggregate ratio: 59%

So depending on which metric we use, MiD will give different predictions with regard to the attachment decisions.

The calculation of the LD for told depends on how much the parser is assumed to know. Tell followed by an animate object has perhaps only one possible subcategorization frame, and that involves two objects – tell someone something. Therefore, when patient is parsed,
and recognized as animate, the parser knows that the LD for *told* must involve another object and that will strongly favour the complement clause attachment of *he* over the relative-clause attachment. This assumption would predict that cases like (40) involve a silent object and should only be possible if it is clear from the context what was told:

(40) I told Jack right before he left.

This may be correct, but nevertheless MiD makes the wrong choice if the IC-to-word metric is used, because the PCD ratios are higher with the relative-clause attachment.

(41) After Susan drank the water evaporated.

When *the water* is parsed it is attached as the object since no other attachment site is available – the main clause will not be constructed until *evaporated* is parsed. Here PTOC makes the correct predictions regarding attachment decisions.

(42) Todd gave the boy the dog bit a bandage.

At the point where *the dog* is parsed, the parser has to decide whether to attach it as a second object, or as the subject of an embedded clause. PTOC predicts it to be attached as the second object, since the S' node has not been projected yet (neither *the* nor *dog* are PNCCs for S'). ICA, which basically states that if something can be attached, then it will be attached, ensures that *the dog* will not be left temporarily unattached. It is exactly the attachment of *the dog* as a second object that paves the way for the GP effect in (42), and PTOC makes the right prediction here.

(43) The old train the children.

When *train* is parsed the processor must decide whether to attach it as a noun or a verb. The two relevant structures are these:
The IC-to-word metric yields the following result:

(45) PCDs for (44)a:  PCDs for (44)b:  
NP: 3 ICs, 3 words – 100%  NP: 2 ICs, 2 words – 100%  
S: 2 ICs, 3 words – 67%  
aggregate ratio: 100%  aggregate ratio: 84%

If we use the IC-to-non-IC metric, we get the same result:

(46) PCDs for (44)a:  PCDs for (44)b:  
NP: 3 ICs, 3 non-ICs – 100%  NP: 2 ICs, 2 non-ICs – 100%  
S: 2 ICs, 6 non-ICs – 33%  
aggregate ratio: 100%  aggregate ratio: 67%

The VP domain is disregarded because train is a transitive verb, and the domain is not yet complete – notice that this is unimportant, because even if we included it in the calculations, the result would remain unchanged: (44)a is more efficient than (44)b.

PTOC predicts that the parser should prefer the NP-attachment, which is the right prediction, since this is exactly what leads to the GP effect.

Like Pritchett’s Generalized Theta Attachment principle, PTOC does predict the online attachments that we actually see, but only if the IC-to-non-IC metric is used. If the IC-to-word metric is used, then PTOC makes wrong predictions in two of the cases considered. Next we will test whether PTOC can make the right distinctions between costly and cost-free reanalysis.
3.3 PTOC’s misassignment metric and GPs

Hawkins (2004:51-55) introduces a method to measure the number of misassignments in a sentence. He compares the GP *the horse raced past the barn* and the unproblematic *I believe the boy knows the answer* to illustrate the metric. He reaches the result that the GP has 26 misassignment points and the unproblematic sentence has 11. This difference in misassignment scores is taken to resemble the processing difference between these sentences (Hawkins 2004:54-55). Even though this correctly predicts that the GP will be more problematic than the non-GP sentence in this case, I will try to demonstrate that the metric cannot account for certain other GP – non-GP pairs.

Hawkins (2004:53-54) posits the following factors as the relevant factors to measure misassignments:

(47) Misassignment factors

a. the number of words and phrases that undergo some temporary misassignment of properties on-line;
b. the number of any additional dominating nodes that must be introduced into the syntactic tree when correcting the misassignments in (a);
c. the number of any mother-daughter attachments that are temporarily misassigned to the words and phrases in (a);
d. the number of any relations of combination or dependency that are temporarily misassigned to the words in (a);
e. the number of mother-daughter attachments that replace those misassigned in (c);
f. the number of relations of combination or dependency that replace those misassigned in (d).

(Hawkins 2004:53-54, (3.21))

To test this metric let us apply it to a GP – non-GP sentence pair, and see if we get the correct result, namely that (48)a is less cumbersome than (48)b:
(48) a. I discovered my aunt from Peoria had left.
   b. ¿I warned my aunt from Peoria was wielding a knife.\(^{11}\)

When we compare (48)a’s initially assigned structure and ultimately assigned structure in (49) and count the misassignment factors we get the result 17.

\[
(49) \quad \begin{array}{c}
\text{S} \\
\text{NP} \quad \text{VP} \\
\text{I} \quad \text{V}
\end{array} \quad \begin{array}{c}
\text{S} \\
\text{NP} \quad \text{VP} \\
\text{I} \quad \text{V} \\
\text{S'}
\end{array}
\]

Misassignments:
- a. my, aunt, from, Peoria, NP 5
- b. S’, S 2
- c. VP [NP] 1
- d. NP = object of *discover*, NP = θ-object of *discover* 2
- e. VP [S’], S’ [S], S [NP] 3
- f. NP = subject of *leave*, NP = θ-object of *leave* 4
  - S’ = object of *discover*, S’ = θ-object of *discover* 4 3
  - total =17

The notation in (49)d is meant to indicate that the NP gets theta-role and case from *discover*, and in (49)f it gets them from *leave*. Now we can compare this measure with the same measure for (48)b shown in (50):

\[
(50) \quad \begin{array}{c}
\text{S} \\
\text{NP} \quad \text{VP} \\
\text{I} \quad \text{V}
\end{array}
\]

\[\text{NP} = \text{my...Peoria}, \text{VP} = \text{had left}\]

\(^{11}\) As Fodor & Inoue (1998) point out, (48)b is not completely grammatical for some speakers, but as they also point out, the same point can be made with the verb *promise* instead (as in (62)), and speakers find (62) grammatical.
Clearly this is not a valid result, since these two sentences are not processed with equal ease. And we can even increase the number of words in the NP in the non-GP sentence and decrease it in the GP sentence and consequently get a result predicting the non-GP sentence (51)a to be worse than the GP sentence (51)b:

(51) a. I discovered my old crazy aunt from Dallas, Texas had left.

b. ¿I warned my aunt was wielding an axe.

Here the calculations would be exactly the same as in (49) and (50) above except for (49)a and (50)a, where (49)a would now have 8 (my, crazy, old, aunt, from, Dallas, Texas and NP) and (50)b would only have 3 (my, aunt and NP). The total for (51)a would be 20, and the total for (51)b would be 15, which is definitely not the result we want, since this score predicts that the non-GP sentence is more difficult to parse than the actual GP sentence.
The conclusion is that the misassignment metric cannot account for the difference between sentences where processing breaks down, and sentences where it does not.

3.4 Explaining GPs

In his 1992 book, Pritchett attempts to explain the problematic cases of reanalysis (GPs) as a restriction on the distance between the source position and the target position of the XP that needs to be reanalyzed.

(52) On-Line Locality Constraint (OLLC): The target position (if any) assumed by a constituent must be governed or dominated by its source position (if any), otherwise attachment is impossible for the automatic Human Sentence Processor.

(Pritchett 1992:101, (286))

Pritchett assumes the following definitions of government and m-command:

(53) **Government**: \( \alpha \) governs \( \beta \) iff \( \alpha \) m-commands \( \beta \) and every \( \gamma \) dominating \( \beta \) dominates \( \alpha \), \( \gamma \) a maximal projection.

(Pritchett 1992:173, (1))

(54) **M-command**: \( \alpha \) m-commands \( \beta \) iff \( \alpha \) does not dominate \( \beta \) and every \( \gamma \) that dominates \( \alpha \) dominates \( \beta \), \( \gamma \) a maximal projection.

(Pritchett 1992:173, (2))

Furthermore, he states that if a source position governs an XP, then it governs the head position, but not the specifier, adjunct or complement positions (Pritchett 1992:173).

Both the target and the source positions are defined as the highest node which dominates all relevant lexical material (Pritchett 1992:101), and in the following examples the target position will be encircled and the source position will be marked in bold print.
Consider (55):\(^{12}\)

\[(55)\]

At the point where *fell* is parsed, *the horse* must be reanalyzed from the lower position in IP-spec (where the XP in bold is situated) to the higher IP-spec position in the clause headed by *fell*. The source position does not m-command and thus does not govern the target position; consequently, the OLLC predicts this reanalysis to cause processing breakdown, and it does.

This example illustrates how the OLLC works – I refer to Pritchett (1992: chapter 4) for more examples and illustrations.

### 3.4.1 Problems with the OLLC

A problem is that the OLLC does not actually work if DPs are assumed. Consider an example like (56) from Pritchett (1992:98, (282b)), but with DPs and VP-shells instead of the structure assumed by Pritchett with NPs and tertiary branching (here, as elsewhere, intermediate irrelevant structure is disregarded):

---

\(^{12}\) Pritchett's structures differ from Hawkins' structures, and from the structures I will assume later: Pritchett allows adjunction to bar-levels and also multiple branching nodes.
The source position (XP) does not govern the target position (NP). It does m-command and governs the DP, but *gifts* cannot be attached in the head position of DP, so the OLLC falsely predicts (56) to be a GP if a DP analysis is adopted, since Pritchett assumes that if X governs Y, then it governs the head of Y, but not the complement or specifier positions.

The conclusion is that the OLLC as formulated in Pritchett (1992) needs updating, and in the next section I will attempt to reformulate it.

### 3.4.2 Reformulation of the OLLC

The basic insights from Pritchett (1992) can be captured if the OLLC is reformulated slightly making use of Grimshaw's Extended Projection Theory (Grimshaw 2005). One aspect of the theory is the idea that only lexical heads select their complements, whereas functional heads are projected by the lexical heads. In this way PP+DP+NP is the extended projection (EP) of N°, and CP+IP+VP is the EP of V° (Grimshaw 2005:6). An EP is constituted by the maximal projections and the heads. The specifier positions, adjoined positions and complement positions (if any) contain distinct EPs (Grimshaw 2005:6). To illustrate this, V°'s EP is marked with a line in (57):
Remember that Pritchett's OLLC states that reanalysis is possible if the source position governs the target position. If we reformulate this in terms of EPs then we can say that reanalysis is possible if the source position governs the EP containing the target position – i.e. if X m-commands DP, then D's complement, NP, is a valid target position, since both DP and NP are part of the same EP. This makes the right prediction for (56) repeated here as (58):

The source position, XP, m-commands the EP in VP-spec, and consequently the required reanalysis is possible.

We can now get rid of government in the formulation, and simply refer to the positions contained in the EP:
(59) Reformulated OLLC: Reanalysis is possible if the source position (if any)
m-commands the EP containing the target position or
dominates the target position.

This reformulated version of OLLC has the same empirical coverage as Pritchett's
version has, but with the crucial difference, that (59) applies to structures with DPs and binary
branching, and it does not make reference to government.

Notice that if the EP is dominated, then the specifier position is a valid target position as
well, but when the EP is m-commanded then only the head positions and maximal projections
in the EP are available target positions. This can be seen from the possibility of (60):

(60) The spaceship destroyed in battle the giant Kzinti cruiser.

(adapted from Pritchett 1992:95, (273))

Here we must assume that destroyed initially is attached as a finite verb, but then
reanalyzed as a participle (presumably in a reduced relative clause) when in battle is parsed,
yielding this structure:

(61) \[
\begin{array}{c}
\text{DP} \\
\text{the} \\
\text{NP} \\
\text{NP} \\
\text{spaceship}_{i} \\
\text{CP} \\
\text{O}_{i} \\
\text{IP} \\
\text{spec} \\
\text{VP} \\
\text{VP} \\
\text{destroyed}_{i} \\
\text{in} \\
\text{battle} \\
\text{(the giant Kzinti cruiser)}
\end{array}
\]

When the giant Kzinti cruiser is parsed we return to the initial assumption, namely that
destroyed is a finite verb, and this requires that we reanalyze the DP the spaceship as the
subject. In other words: we have to move the DP down into the specifier of IP, which is a
legal reanalysis according to the OLLC.
The source position (the DP node) dominates the EP containing the target position (IP-spec) and reanalysis does not lead to a GP effect. If the EP was simply m-commanded and not dominated, then IP-spec would not be available and the sentence would be a GP, like (62) from Pritchett (1992:82, (250)):

(62) The teacher promised the students could leave.

\[
\begin{array}{c}
\text{IP} \\
\text{DP} \quad \text{vP} \\
\text{The teacher} \quad \text{promised} \quad \text{VP} \\
\text{DP} \quad \text{V'} \\
\text{the students} \quad \text{CP} \\
\text{IP} \\
\text{spec} \quad \text{VP} \\
\text{could leave}
\end{array}
\]

*The students* is initially attached as a goal argument and when *could leave* turns out to be illicit as a complement clause, reanalysis is forced. Now the DP, *the students*, has to move down into the specifier of IP.

In (62) the source position (VP-spec) m-commands CP but not the EP containing the target position (IP-spec), since specifier positions contain separate EPs, and reanalysis causes processing breakdown as predicted.

Reanalysis is more complicated if the parser has to look up the tree (m-command), and when it looks down the tree (domination), reanalysis is easier.

### 3.4.3 Further problems and summary

Hawkins cites experimental evidence for the interesting phenomenon that in the sequence *the evidence examined* no ambiguity exists, and only the relative clause reading is available.
(Hawkins 1994:243 citing Tannenhaus and Carlson 1989 and Trueswell, Tannenhaus and Guernsey 1992). This suggests that Pritchett's Generalized Theta Attachment principle can be overridden by lexical information (the fact that examine requires an animate agent), and Hawkins' conclusion is that the parser will only choose between two (or more) alternatives using MiD when there is a real choice – and this choice can be limited by lexical requirements or pragmatic information (Hawkins 1994:243).

Fodor & Inoue (1998:116-118) demonstrate that even though the OLLC can predict when processing breaks down in a number of cases, it cannot be the whole story. They show that with the following sentence the parser actually performs a reanalysis which violates the OLLC:

(63) While the boy scratched the little cat and the big hairy dog yawned loudly.

Clearly in (63) the little cat and the big hairy dog is attached as the direct object of scratched, and yawned forces reanalysis. The correct structure of (63), i.e. (64)a, is not reached, but the incomplete (64)c with coordinated IPs is reached, and the step from the initial wrong parse (64)b to the final (but still wrong) parse in (64)c violates the OLLC.

(64) a. [While [the boy scratched]] [[the little cat and the big hairy dog] yawned loudly].

b. While [the boy scratched [the little cat and the big hairy dog]] yawned loudly.

c. While [[the boy scratched the little cat] and [the big hairy dog yawned]] loudly.

(Fodor & Inoue 1998:117-118, (22), (21) and (19))

The step from (64)b to (64)c involves moving the second part of the conjunct upwards in the tree, much higher than predicted possible by the OLLC (i.e. higher than m-command can reach).

In this section, we have seen that PTOC’s misassignment metric cannot account for the difference between GPs and non-GPs, and that the observed directionality of GPs follows from PTOC's parser if the appropriate metric is used.
Pritchett's OLLC was presented as a rather elegant explanation for the GP/non-GP difference. The discussion in this section is meant as a motivation for the following adaptation of PTOC to generative grammar, since the GP facts are better explained if more elaborate syntactic structures are assumed (the problems pointed out by Fodor & Inoue (1998) aside).

4. Modifications of PTOC

In this section, PTOC is adapted to fit a more elaborate syntactic system, with strict binary branching and more functional projections (e.g. DP and vP).

First, in 4.1, an alternative to the IC-to-word metric is suggested. The new metric allows a more precise measurement than the IC-to-word metric, and at the same time it is simple enough to use when analyzing large quantities of data. The IC-to-word metric was introduced by Hawkins (1994) as a simplification of the IC-to-non-IC metric in order to facilitate analyses of large amounts of data, but since it leads to wrong attachment decisions (as demonstrated above in section 3.2), a new metric would be desirable. The new metric that I suggest is, however, not meant as an alternative to the IC-to-non-IC metric, but simply as an alternative way to simplify the IC-to-non-IC metric.

In 4.2, the notion of phrasal combination domains is considered.

In 4.3, it is demonstrated that the new metric makes PTOC's parser make correct attachment decisions, like the IC-to-non-IC metric.

In 4.4, the construction principles are reconsidered to fit the more complicated syntax.

4.1 The IC-to-XP metric

All words must be the head of their own phrase, if the X-bar schema is assumed. And in all phrases there is a head, an intermediate projection and a maximal projection. There are phrases that are not headed by a word (e.g. IP in non-modal English sentences, DP in bare plurals), and this means that if we count all the parts of a phrase, then there are minimally three parts $X^0$, $X'$ and XP, and if one of them is present, then all of them are present. This makes it superfluous to count all three when we try to compare complexity or syntactic
weight, because counting all three levels makes the numbers that we compare larger without adding any information to the calculation.

The fact that there are phrases not headed by words makes the IC-to-word metric imprecise. The idea that the phrases *the man* and *men* involve an equal amount of structure is lost if words are taken to be a measure of complexity.

Which of the three bar levels should be used, then? The intermediate X-bar level is sometimes assumed not to project, unless there is evidence for it (e.g. an intransitive verb does not have a complement and consequently does not need the V' projection in its phrase)\(^{13}\)\(^{14}\), and in the Bare Phrase Structure system of Chomsky (1995a), it is eliminated. Though I do not assume the Bare Phrase Structure system, it should be possible to formulate complexity and efficiency based on it rather than on X-bar Theory, and more so if we do not consider the intermediate nodes in the definitions. The choice is then between the heads and the XPs.

XPs play an important role in the stress system developed by Cinque (1993), where (simplifying somewhat) nuclear stress is taken to be assigned to the phrase containing the most XPs. This would mean that the number of XPs is registered at some level, and that is similar to the idea of a complexity metric. Essentially, what a complexity metric entails is that at some level it is noted how complex the different units are. The number of XPs is already taken to be registered by some linguists, so the choice of XPs as a measure for complexity seems the least controversial.

Thus the new metric calculates the ratio between the number of ICs and the number of XPs:

\[(65) \text{ IC-to-XP metric} \]

In a given domain, count all the XPs and divide the number of ICs in the domain with this number.

A reason to assume the XP-definition is that if complexity equals number of words, then a simple pronoun like *her* and a single word noun phrase like *men* have equal complexities and should pattern together in cases where weight/complexity may play a role. There are, however, data that suggest that pronominal DPs and lexical DPs do not behave the

\(^{13}\) This would e.g. follow from Gorrell's *Simplicity Principle*: no vacuous structure building (Gorrell 1998).

\(^{14}\) Chomsky (1986:4) assumes that X’ only projects when needed.
same. Consider the particle construction in English, where an unstressed pronoun can only occur in one order, whereas a one-word lexical DP can occur in both orders:

(66) a. He let her down
    b. *He let down her

(67) a. He let men down
    b. He let down men

And consider Danish object shift as well:

(68) a. Han hørte hende, ikke
    *he heard her not
    "He didn't hear her"

    b. *Han hørte ikke hende,

(69) a. *Han hørte telefonen ikke
    *he heard telephone.the not
    "He didn't hear the phone"

    b. Han hørte ikke telefonen

Full DPs and pronominal DPs do not have the same syntactic behaviour in these cases, and the Danish data has been linked to weight (≈ complexity) in a number of studies (e.g. Diderichsen 1946, Jørgensen 2001, Vikner 2005), so we would like for our complexity metric to be able to distinguish between these.

If we count the maximal projections in the phrase, then the pronominal DP has only one XP, and the nominal DP has two, reflecting their different complexities:
In two studies of the dative alternation in English, Bresnan et al. (2007) and Bresnan (2007), a range of factors that influence the choice of word order are suggested (the choice is between the double object construction and the alternative with a DP and a PP). Both weight (measured in number of words) and pronominality of the DPs are reported to be statistically significant factors (Bresnan et al. 2007:80, Bresnan 2007:89), which is interesting in this context, because if weight instead was measured as number of XPs then the pronominality factor would be subsumed under weight and thus simplify the model. A special pronominality factor is needed precisely because the word-metric cannot discern between single word pronominal DPs and single word lexical DPs.

The differences between pronominal DPs and single word nominal DPs are one reason to choose the IC-to-XP metric over the IC-to-word metric, and the fact that PTOC makes the wrong attachment decisions with regards to GPs when the IC-to-word metric is used as the basis for MiD is a second reason (see section 3.2 above). A third reason to choose the IC-to-XP metric over the IC-to-word metric is that the first allows us to differentiate different types of DPs based on how many XPs dominate the PNCC for the DP-node (see chapter 3, section 2.4.8). These different types would all be collapsed as identical if we use the IC-to-word metric.

Notice that the IC-to-non-IC metric also allows us to discern between pronominal DPs and single word nominal DPs, and that MiD makes the correct attachment decisions when the IC-to-non-IC metric is used, and finally that the different DP-types are not collapsed if the IC-to-non-IC metric is used. The IC-to-XP metric is not supposed to be a replacement for the IC-to-non-IC metric; it is however intended as a simplification of the IC-to-non-IC metric which can be used when large quantities of data are to be analyzed; as such, the IC-to-XP metric is meant as an alternative to the simplification suggested in Hawkins (1994), namely the IC-to-word metric.  

---

15 There is a conceptual difference between the IC-to-non-IC metric and the two simplifications, the IC-to-word metric and the IC-to-XP metric. When the IC-to-non-IC metric is used, only non-ICs are counted, suggesting that the IC-nodes themselves are not part of the complexity of the domain. This could be interpreted as if the IC-nodes are cost free with
To summarize: The IC-to-non-IC metric has some advantages (pronominal DPs and nominal DPs are teased apart, MiD makes correct attachment decisions regarding GPs, DPs can be divided into types), but it is time consuming and therefore a simplified metric is needed when working with data. In Hawkins (1994) a simplified metric is suggested, the IC-to-word metric, but this metric has none of the advantages that the IC-to-non-IC metric has. Therefore I suggest a new simplified metric, the IC-to-XP metric, which is simple and at the same time retains the advantages of the IC-to-non-IC metric.

4.2 Phrasal Combination Domains

As defined above (in 2.4.1), a PCD runs from the first PNCC to the PNCC that projects the last IC in the domain. When strict binary branching is assumed, more phrases are assumed than if tertiary branching or more is assumed. In fact, a phrase can have at most three ICs in a system with binary branching: the specifier, the head and the complement are all ICs in one phrase. Any adjoined phrases are ICs in new phrases. Let us look at (71) for illustration:

\[ \text{(71)} \]

As regards to processing. When the simplified metrics (the IC-to-word metric and the IC-to-XP metric) are used, a portion of the structure is disregarded, so when the IC-to-word metric is applied, all nodes are disregarded, and when the IC-to-XP metric is applied all intermediate nodes are disregarded. But no cost free nodes have to be assumed as such. I do not think that much hinges on this, nor have I found much evidence for or against cost free nodes, but it does seem to be the case that even the slightest added complexity adds to the reading time of a sentence. See e.g. Frazier & Rayner (1982:189-194), where a statistically significant difference in overall reading time per letter is found between sentences like i and ii, and between sentences like iii and iv:

i. Since Jay always jogs a mile this seems like a short distance to him.
ii. Since Jay always jogs a mile seems like a short distance to him.
iii. The lawyers think his second wife will claim the inheritance.
iv. The lawyers think his second wife will claim the inheritance belongs to her.

This may indicate that cost free nodes are unlikely (see also Mitchell 1987).
There are five phrases in (71): XP1, XP2, AP, ZP and YP, and consequently there must be five PCDs. The PCD for XP2 stretches from whatever word projects its first IC, AP, to whatever word projects its last IC, XP1.

The PCD for XP1 runs from the word that projects ZP to the word that constructs YP, and the head X⁰ is an IC in XP1.

Empty heads are not included when PCDs are considered. Remember that a PCD reflects the parser's concentration on one phrase at the time, and the parser projects all and only the structure that it can infer on the basis of the incoming words. So whatever the I⁰ (or T⁰) head contains in an English sentence without an auxiliary (and without to be as a main verb), then the parser infers this not on the basis of some phonologically silent element in I⁰, but on the basis of the inflected verb, and hence the I⁰ head itself does not allow the parser to construct IP, only phonologically realized elements can do this.

Following the same logic, traces are not PNCCs. A trace is not heard or read and instead of providing the parser with a signal, it is inferred on the basis of visible items.

4.3. GPs and the new metric

Above (in 3) we saw that PTOC's parser was not successful with regards to attachment decisions in the on-line parsing of GPs such as (72) when the IC-to-word metric was used:

(72) The horse raced past the barn fell

The problem for PTOC’s parser was that the relative clause attachment of raced resulted in higher efficiency ratios than the observed main clause attachment. Given strict binary branching, and the new IC-to-XP metric, this is no longer the case. Let us look at the structure for the two attachment possibilities at the point where raced is parsed:
In the relative clause reading (73)a, we have six phrases and thus six PCDs. In the main clause attachment structure (73)b there are four phrases and four PCDs. In (74) they are listed with number of ICs, number of XPs and the ratios:

(74) PCDs for (73)a: PCDs for (73)b:

<table>
<thead>
<tr>
<th></th>
<th>(73)a</th>
<th>(73)b</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP</td>
<td>DP: 2 ICs, 3 XPs – 67%</td>
<td>IP: 2 ICs, 4 XPs – 50%</td>
</tr>
<tr>
<td>NP2</td>
<td>NP2: 2 ICs, 5 XPs – 40%</td>
<td>DP: 2 ICs, 2 XPs – 100%</td>
</tr>
<tr>
<td>NP1</td>
<td>NP1: 1 IC, 1 XP – 100%</td>
<td>VP: 1 IC, 1 XP – 100%</td>
</tr>
<tr>
<td>CP</td>
<td>CP: 1 IC, 3 XPs – 33%</td>
<td>NP: 1 IC, 1 XP – 100%</td>
</tr>
<tr>
<td>IP</td>
<td>IP: 1 IC, 2 XPs – 50%</td>
<td>VP: 1 IC, 1 XP – 100%</td>
</tr>
<tr>
<td>VP</td>
<td>VP: 1 IC, 1 XP – 100%</td>
<td></td>
</tr>
<tr>
<td>aggregate</td>
<td>aggregate ratio = 65%</td>
<td>aggregate ratio = 87.5%</td>
</tr>
</tbody>
</table>

The main clause attachment yields a higher ratio, and is thus preferred by MiD in the on-line parse.

The other type of GP that PTOC had a problem with is complement clause/relative clause ambiguity, as in (75):

(75) ¿The doctor told the patient he was having trouble with to leave.

If there really is a choice to be made when he is parsed, then MiD made the wrong choice when the IC-to-word metric was used as shown above. But with the new metric we get a different result.
Note however that the idea that the parser actually has a choice requires that we assume that *tell* has different possible subcategorization frames, and that one of these is as a transitive verb with an animate goal object, so that (40) above does not involve VP-shells and an empty theme object.

The structures that MiD has to choose between are these:

(76)  
\[
\begin{align*}
\text{a.} & & \text{b.} \\
\text{IP} & & \text{IP} \\
\text{DP} & & \text{DP} \\
\text{the doctor} & & \text{the doctor} \\
\text{V}^o & & \text{v}^o \\
told & & \text{told} \\
\text{DP} & & \text{VP} \\
\text{the} & & \text{the patient} \\
\text{NP2} & & \text{NP1} \\
\text{NP1} & & \text{IP} \\
\text{CP} & & \text{IP} \\
\text{patient} & & \text{DP} \\
\text{A} & & \text{A} \\
\text{he} & & \text{he} \\
\end{align*}
\]

Assuming, as we do, that the parser initially projects the simplest structure, then all that is added in (76)a, when *he* is parsed, is the PCD for NP2, and the PCD for the DP *the patient* is altered – the rest of the structure is already built and remains unaltered.

If the second object attachment is chosen as in (76)b, then the parser has to add a vP phrase and alter the VP phrase. The PCDs for the two alternatives have the following ratios:

(77)  
\[
\begin{align*}
\text{PCDs for (76)a:} & & \text{PCDs for (76)b:} \\
\text{NP2: 2 ICs, 5 XPs – 40%} & & \text{vP: 2 ICs, 2 XPs – 100%} \\
\text{DP: 2 ICs, 3 XPs – 67%} & & \text{VP: 2 ICs, 6 XPs – 33%} \\
\text{aggregate ratio = 54%} & & \text{aggregate ratio = 67%} \\
\end{align*}
\]

So the relative clause attachment gives an efficiency of 54%, whereas the complement clause attachment adds two PCDs with an average efficiency ratio of 67%, and consequently MiD will choose the complement clause attachment.
The rest of the GPs, where PTOC made the correct attachment decisions, are unaffected by the new metric and binary branching.

4.4 Construction principles

The general idea behind the construction principles is that the parser constructs all that can be inferred, and only what can be inferred. The adoption of generative syntax alters the formulation of some of the principles, but the general idea remains the same. The parser builds/projects structure on the basis of the incoming words, and all that can be inferred is inferred.

4.4.1 MNC, GNC and AgP

The number of phrases is multiplied in a system that only allows binary branching, and whereas the notions mother and grandmother are adequate in a system with flatter structures, we would have to refer not only to grandmothers, but also to great-grandmothers and great-great-grandmothers.

Consider the simple case of a finite transitive verb:

(78) Ripley shot the alien

When Ripley is parsed, a DP is projected, and when the finite verb is parsed, a VP and an IP are projected, and maybe also a V' node. Which one is the mother, then? The V'-node? But that would make the VP the grandmother node, and consequently we would have to introduce something like great-grandmother node construction to account for the IP being constructed.

Instead I suggest that the three principles, MNC, GNC and AgP, are subsumed under a principle of Dominating Node Construction (DNC):
(79) DNC

If a given lexical item is unexceptionally dominated by one or more nodes at some point in the derivation, then construct these nodes above it (or at the appropriate places below it).

A finite verb always involves VP and IP, and in languages where there is V₀-to-I₀ movement, the finite verb allows the parser to construct VP and IP with the verb placed in I₀, whereas in languages where the verb stays in V₀, the parser will project these XPs with the verb in V₀.

If the verb moves to C₀ in main clauses as in Danish, then the parser can construct CP, IP and VP at the point where the finite verb is encountered with the verb in C₀.

All words head their own phrases and these phrases can obviously be inferred. If a DP is a wh-word, and the language fronts wh-words to CP-spec, then the wh-word allows the parser to construct CP. This must be true for PPs containing a wh-word as well.

Assuming that adjectives in Russian are adjoined to NP, and assuming that there is a DP projection in Russian (see Bošković 2005, Pereltsvaig 2007 for discussion), then the parser can and will construct AP, NP and DP when a non-predicative adjective is parsed. The complement DP in (80) is therefore projected when the adjective krasivye "beautiful" is parsed, because an adjective in this position is only possible as a part of a DP:

(80) Ja znaju krasivye cvety

"I know the/some beautiful flowers"

The structure assumed for the DP krasivye cvety "beautiful flowers" is as shown in (81):

(81)
```
     DP
    /   |
  NP2  |
     / `|
    AP   |
        / |
     NP1 |
        / `|
     krasivye
     beautiful
```

\[ \text{krasivye } \text{cvety} \]
4.4.2 ICA and SNC

Immediate Constituent Attachment (see 2.3.4 above) remains the same: Any incoming word will be attached if it can and if not its attachment will be delayed until further structure has been projected. Whether there is a buffer where the non-attachable items are stored or whether they are attached and then later reattached is unimportant in this context, because what PTOC aims to measure is processing efficiency, as defined above. And this is defined on the basis of the ultimate structure and not on potential adjustments along the way.

Whether Sister Node Construction really exists is not completely clear, and it seems that there are two phenomena that could be understood as sister node construction. First, one could imagine the situation that Hawkins argues for, namely that e.g. the complementizer that allows inference, not only of its own phrase, CP, but also of its complement phrase, IP. Second, one could imagine that the necessary presence of some XP can be inferred, but that the exact category of this XP is at the time unclear. An example of this could be adjectives. Above we claimed that in (81) the adjective *krasivye* "beautiful" allows the parser to infer AP, NP2 and DP, and the questions are: Can the parser infer NP1 as well, or at least that there is an XP in this position? And can the parser really be sure that NP2 is an NP?

If we assume that quantifiers such as *pjat' "five"* project their own QP and that this projection is positioned between DP and NP, being a complement of DP, and taking NP as its complement, then we would have to assume that the adjective *poslednie "last"* is adjoined not to NP, but to QP in (82):

(82)
This means that when poslednie "last" is parsed, we can infer the DP node, the AP node and the necessary presence of some XP between these, but not until pjat’ is parsed can we be sure of the identity of this XP, because poslednie "last" can be followed either by a numeral as in (82) or by a noun as in poslednie bilety "last tickets".

We can also infer the presence of a sister node to AP, but again we cannot be sure of its category until pjat’ "five" is parsed.

The important thing is, however, that we can infer the DP-node, because this means that whether a DP begins with an adjective, a determiner or a noun, it will be constructed as soon as the first word is parsed.

5. The syntax

The primary goal is to test whether PTOC’s predictions seem to be on the right track or not. This means that the expectancy is not that the predictions are completely precise – both the definition of complexity and the syntactic structures assumed are of course approximations. Future research may discover that structures, trees, are radically different from the ones assumed here, and maybe that other factors than the number of XPs influence complexity. Nevertheless an attempt is made to choose analyses that are as basic and uncontroversial as possible in order to get as clear a picture as possible of the correlation between efficiency and frequency.

The syntactic framework assumed in the rest of the dissertation is based as much as possible on standard presentations of the generative framework, presentations such as Haegeman and Guéron (1999) and Radford (1997). There are however many unresolved points, controversies and sometimes radically different views on how syntax is constrained, so some choices must be made.

In chapter 3, there is a short syntax paragraph before each test, where the syntactic structure of the construction tested is presented, and if any special assumptions about syntax are made in the particular test, then those assumptions are presented there.

This section is not meant as a thorough introduction to generative grammar, but as an overview of which standard analyses are assumed here if no special mention is made.
Before presenting which analyses have been chosen, it is worth mentioning that since efficiency is measured using the IC-to-XP metric, then the number of XPs is important for PTOC, and the labels of the XPs are unimportant. So whether we call it IP, TP or FinP changes nothing, and whether we call it vP or PredP is not important.

Sometimes analyses are different, but do not change the efficiency calculation. This is the case with two of the suggested analyses of attributive adjectives: the adjunction analyses (e.g. Bailyn 1998, Hankamer and Mikkelsen 2002), and the functional specifier analyses (e.g. Cinque 1994). The resulting structures of the two analyses are seen in (83) with heads and bar-levels disregarded:

(83)  
(a. DP  
     |  
     NP  
   AP  NP  
   AP  NP  

(b. DP  
     |  
     FP  
   AP  NP  
   AP  NP  

Clearly these structures contain the same number of domains and the same number of XPs, and consequently PTOC cannot see the difference between them. This does not mean, however, that different analyses never make a difference to PTOC, far from it. It is usually the case that different analyses will lead PTOC to make different predictions, and the adjective analyses where AP takes NP as a complement (e.g. Abney 1987, Pereltsvaig 2007) result in the DP containing one XP less than the two analyses in (83).

I assume the adjunction analyses in the tests in chapter 3, but the results would be the same if the functional specifier analyses were chosen instead.

The linear correspondence axiom in Kayne (1994) is not assumed. Practically no work done in Russian syntax follows the LCA, and since I use existing analyses wherever possible, it would be impractical to assume the LCA.

I adopt the version of X’ Theory from Chomsky (1986:2-4) and consequently adjunction to X’ is banned and so are multiple specifiers.

---

16 Notice that the two NP-segments are considered as two XPs. Alternatively, one could count segments as parts of just one XP, but in the tests presented in chapter 2, segments are counted as individual XPs.
5.1 The determiner phrase

Following Abney (1987), Progovac (1998) and Pereltsvaig (2006), any N^o is taken to project NP and DP. An intermediate QP is only projected when a Q^o is actually present. Pronouns and demonstratives are generated in D^o, as in Abney (1987:176-182), and when they co-occur (something which is possible in Russian with some ordering preferences) I simply assume a second DP taking a DP complement:

\[
\begin{align*}
\text{DP} & \\
\text{D}^o & \quad \text{DP} \\
\text{êti} & \quad \text{D}^o \\
\text{these} & \quad \text{NP} \\
\text{moi} & \quad \text{knigi} \\
\text{my} & \quad \text{books}
\end{align*}
\]

Giusti (1997:107-113) argues that demonstratives occupy a position different from D^o. This would mean that demonstratives project their own projection and not a DP, which would lead to a tree similar to (84) but with a different label for the higher DP-node. As far as the complexity calculation is concerned this changes nothing.

5.1.1 QP

Quantifiers, and the fact that they occur in two distinct case-patterns, called the homogenous and the heterogeneous pattern in Babby (1987), have been the subject of much research (see e.g. Babby 1987, Franks 1994, Bailyn 2004b, Bošković 2006). Some of the most interesting problems with Russian quantifiers are the following:

---

17 I ignore the so-called small nominals, which are NPs without a DP-layer, argued for in Pereltsvaig (2006). If they exist, then they are quite rare and the corpus-analyses would consequently only be affected minimally if small nominals were assumed.
Three facts about quantifier constructions in Russian

A. If the DP containing Q° is assigned nominative or accusative, then elements following Q° are in the genitive (heterogeneous pattern) – if the DP is assigned an oblique case, all elements are in this case (homogeneous pattern).

B. Adjectives preceding Q° do not get genitive case, with the exception of a certain set of adjectives that seem to modify Q°.

C. When Q° is a numeral it can consist of several words and even contain a PP, suggesting that it is not a head, but a phrase.

Franks (1994:669) argues that a numeral phrase in Russian is sometimes a bare QP and sometimes dominated by a DP, but here I will assume that QP is an intermediate projection between DP and NP as in (86) and never a bare QP, because this makes it easier to analyze corpus data.

The two case patterns, the heterogeneous and homogeneous, can be illustrated with these examples:

(87) a. On znaet pjat' jazykov = heterogeneous pattern
   "He knows five languages"

b. On zanimaetsja pjat'ju jazykami = homogeneous pattern
   "He works with five languages"

Babby (1987:116) explains these patterns by assuming a case-hierarchy, where oblique cases are more important than the quantificational genitive, which in turn is more important than nominative and accusative. Bailyn (2004b) argues that the heterogeneous pattern
emerges when the numeral is merged in the specifier of QP, and the homogeneous pattern emerges when the numeral is merged in the \( Q^0 \) head. Franks (1994) accounts for the different patterns by assuming that some cases are assigned at D-structure, and others at S-structure, and Bošković (2006) redefines this idea in modern minimalist terms.

As far as I can see, all these accounts are compatible with the structure assumed here (ignoring as already mentioned that Franks (1994) does not believe that QP is always dominated by a DP).

I assume that the numeral is generated in the \( Q^0 \) head, which is a problem, because then we have to say (as Bailyn 2004b does for the homogeneous pattern) that e.g. šest'ju tysjačami tremstam soroka s polovinoj "six thousand three hundred and a half" is a head in (88):

(88) Ivan zanimaetsja [šest'ju tysjač'ju tremstam soroka s polovinoj] jazykami

Ivan occupies.self six thousand three.hundred forty with half languages

"Ivan works with six thousand three hundred and a half languages"

Compound numerals of this sort are very rare in the data, so the exact analysis of these elements is of less importance.

Babby’s (1987) analysis depends crucially on tertiary branching to explain cases where the adjective preceding the quantifier appears in the genitive case and presumably does not modify the noun, but only the quantifier:

(89)  
\[
\begin{array}{c}
\text{NP} \\
\text{N'4} \\
\text{N'3} \\
\text{AP} & \downarrow & \text{QP} & \text{N'2} \\
\text{dobryx} & \text{p'jat'} & \text{AP} & \text{N'1} \\
(a) \text{good} & \text{big} & \text{N^o} & \text{NP} \\
\text{bol'six} & \text{butylok} & \text{vina} & \text{(of) wine} \\
\text{bottles} & \text{wine} & & \\
\end{array}
\]  

(Babby 1987:123, (63))
Since I do not adopt tertiary branching, this analysis is unavailable, and instead I follow Franks (1994:653) and assume that adjectives like dobryj "good" can adjoin to QP.

5.1.2 all/both and other pre-nominal elements

I follow Giusti’s (1997:114-119) division of quantifiers into two types. In Russian, quantifiers such as the higher numerals take a complement in the genitive (as mentioned above in 5.1.1), whereas quantifiers such as all and both behave more like adjectives.

For those quantifiers that take a genitive complement, I assume an analysis as in (86) above, where the QP is an intermediate projection between DP and NP:

\[
\begin{array}{c}
\text{DP} \\
\text{D}^0 \\
\text{éti} \\
\text{these} \\
\text{QP} \\
\text{pjat’} \\
\text{five} \\
\text{NP} \\
\text{N}^0 \\
\text{domov} \\
\text{houses}
\end{array}
\]

For e.g. all on the other hand I assume that it projects a QP (or an XP with a different label) that is adjoined to DP, or marginally to NP.

The ordering of demonstratives, possessive pronouns and all/both does not seem completely fixed, but there are some ordering preferences observed. Consider the frequency data in table 1\textsuperscript{18}:

<table>
<thead>
<tr>
<th>Table 1: Frequency data for demonstratives, possessive pronouns and all</th>
</tr>
</thead>
<tbody>
<tr>
<td>vsex moix</td>
</tr>
<tr>
<td>all my</td>
</tr>
<tr>
<td>No. of hits</td>
</tr>
</tbody>
</table>

\textsuperscript{18} The data are from a Google search on January 15, 2008 – of course a Google search does not yield a precise result, but I simply want to demonstrate that there is a tendency for the order: all/both > demonstrative > (possessive) pronoun. The genitive forms were used to avoid confusion between the nominative plural and the neuter nominative/accusative singular of all.
There appears to be a strong tendency for the ordering: all > demonstrative > possessive pronoun, and in fact this could support the suggestion in Pereltsvaig (2006:435) where generalized quantifiers like all/both are assumed to head their own functional projection situated above DP and having DP as its complement. Sentences such as (91) are, however, more easily analyzed if all/both are adjoined to DP or NP:

(91) On moix oboix synovej nenauidit
    he my both sons hate
    "He hates both my sons"

    (from ruscorpora.ru: N.S. Leskov, Zimnij Den')

If all/both are adjoined to DP (or marginally NP) then (91) is simply a case where both is adjoined to NP, but if we assumed both to be generated in a functional projection higher than DP, then the analyses of (91) would be difficult. Maybe my has moved to an even higher head, or maybe there are two DPs in (91) and both is in a functional XP between them? Here the adjunction-analysis is assumed.

As mentioned above (in section 4.4.1), adjectives are adjoined to NP, while participles are assumed to be APs and are also adjoined to NP.

5.1.3 Post-nominal elements

Post-nominal elements can be either complements of N° or right adjoined to NP, and I assume following Rappaport (2000:6) that this can be tested using a predication test. If the post-nominal element can be used as a predicate, then it is a modifier and hence adjoined, and if it cannot, then we are no wiser. It can be a modifier or it can be a complement:

(92) a. Vino wysokogo kačestva → vino bylo wysokogo kačestva
    wine high.GEN quality.GEN        wine was high.GEN quality.GEN
    "Wine of high quality"             "The wine was of a high quality"
b. Kniga bez smysla → kniga byla bez smysla

*book without meaning*  
"The book without meaning"

b. Penie pesen → *penie bylo pesen

*singing songs.GEN*  
"Singing of songs"

The reason why the test only provides us with information when it has a positive outcome is that some modifiers do not allow predication:

(93) a. The girl with the hat →*the girl is with the hat

b. Žitel' Moskvy → *žitel' byl Moskvy

*citizen Moscow.GEN*  
"An inhabitant of Moscow"

Postnominal phrases that express possession taken as broadly as possible are assumed to be right-adjoined to NP:

(94)  
```
      DP
     / | |
    NP  NP
   /   /|
  NP  DP |
 /   /  |
N  N  N  |
  o  o  o
  door  doma  house
```

"The door of the house"

Postnominal possessor phrases can co-occur with postnominal complements where they have to follow the complement, and they can co-occur with other postnominal modifiers. Both these facts provide arguments for right-adjoining them to NP.
Relative clauses are adjoined to NP or DP. The reason why adjunction to DP is assumed is that pronouns, in my view, are generated in $D^0$, and therefore any relative clause attached to a pronoun can only be adjoined to DP – there are no other XPs to adjoin it to:

(96) Ja znaju [DP_k] [CP kto priexali]
    I know those who came
    "I know those who came"

This must also be the case in English and Danish:

(97) a. I know him who just left
    b. Jeg kender hende der gik
       I know her who left
       "I know her who left"

This follows from the assumption that pronouns are in $D^0$.

This adds up to the following structural possibilities for the DP (intermediate levels disregarded):

19 There may be a meaning difference dependent on which adjunction point is chosen as in Hankamer & Mikkelsen (2002) on Danish, but since this does not alter the efficiency calculation, it is not important here.
Other post-nominal modifiers would also be right adjoined to NP, and adjectives above QP would be adjoined to QP.

5.2 The sentence

Main clauses are IPs and embedded clauses are CPs (as in Haegeman & Guéron 1999). A vP projection is only present if needed – that is in double object constructions, which are assumed to have the structure in (99) taken from Vikner (1987:148, (36)), supposedly a rather standard analysis of double object constructions (see Emonds & Whitney 2005 for an overview of the different analyses suggested):
Prepositional objects occupy the same positions – viz. the specifier and the complement position of the VP.

Adverbials are adjoined to the left or to the right, and as mentioned above in the discussion of adjectives (in section 5) a functional specifier analysis would give the same results with regards to the efficiency calculation.

If the sentence is negated, a NegP is assumed to be present, following Bailyn (1995) and Christensen (2005).

The auxiliary verb *budet* "to become" used to form future tense of imperfective verbs is assumed to be generated in I⁰, following King (1995:4203). So the structure of a sentence amounts to this:

(100) on skazal,  

\[
\begin{array}{c}
\text{he said} \\
\text{CP} \\
\text{C⁰} \\
\text{IP} \\
\text{čto} \quad \text{that} \\
\text{AP} \\
\text{IP} \\
\text{utrom} \quad \text{in the morning} \\
\text{DP} \\
\text{I⁰} \quad \text{Ivan} \quad \text{John} \\
\text{I⁰} \quad \text{NegP} \\
\text{N⁰} \quad \text{VP} \\
\text{AP} \quad \text{vnimatel'no} \quad \text{carefully} \\
\text{VP} \\
\text{V⁰} \\
\text{čitat'} \quad \text{read} \\
\text{VP} \\
\text{gazetu} \quad \text{the paper} \\
\text{DP} \\
\text{doma} \quad \text{at home} \\
\text{VP} \\
\text{AP} \\
\end{array}
\]

"He said, that John won't read the paper carefully at home in the morning"

If the sentence is not embedded, the structure is exactly the same except that the CP-layer is not projected in a non-embedded clause.
5.3 Coordination, category of state and modal words

Since strict binary branching is assumed, conjoined phrases must be hierarchical as well, so *and* projects an &P with the conjoined elements in the specifier and in the complement positions (as in Kayne 1994:12):

(101) $\&P$
    $\quad$ Tom $\quad$ &'
    $\quad$ $\&^o$ Dick
    and

And when more than two elements are conjoined, I assume a repetition of the &P, again following Kayne (1994:57-60):

(102) $\&P$
    $\quad$ Tom $\quad$ &'
    $\quad$ $\&^o$ &P
    $\quad$ Dick $\quad$ &'
    $\quad$ $\&^o$ and
    $\quad$ Harry

Some traditional Russian grammars assume a special part of speech called *category of state* "kategorija sostojanija", which contains many adverbs, a few nouns and the modal words (see Ward 1965:107-110, Isačenko 1968:194-205, Vinogradov 1972:319-335, Christensen 1992:155). The main reason why these words are packed together and given a common name is the fact that they can be used as predicates with a dative subject, but apart from this there is much variation. Most can take an infinitive complement (103), some can take an accusative complement (104), and some have to take an infinitive complement (105):

(103) Mne xolodno (plavat' zimoj)
    $me.DAT$ cold $to.svim$ vinter.INST
"I am cold"/"Swimming in the winter is cold for me"

(104) Mne žal’ ego

me.DAT shame him.ACC

"I am sorry for him"

(105) Mne nada ??(spat’)

me.DAT have.to to.sleep

"I have to sleep"

These examples are all in the present tense, and in the past tense a past tense form of the copula has to be added:

(106) Mne nada bylo ??(spat’)

me.DAT have.to was.3pers.neuter to.sleep

"I had to sleep"

Let us assume that the present tense versions have a null copula (the present tense copula is a null element in Russian), and let us assume with Schoorlemmer (1994:131-132) that the category of state word is simply an adjective in the short form with default agreement (which happens to look like the adverbial form in Russian). The analysis of a typical example is given here:

(107)

```
(107)  
         IP
            
            DP
            mne

me.DAT
            
            I'
            
            I°

            VP

            V°
            Ø
            is

            AP

            xolodno
            cold
```
In Schoorlemmer (1994:150) and in Bailyn (1995:351) some of the modal words are analyzed as verbs. These are exceedingly rare in the data, so I disregard this here.

I follow Bailyn (1995:347) and assume that the dative case is assigned to the complement of the adjective and that the order is derived by moving the dative argument to IP-spec. Alternatively I could follow Schoorlemmer (1994) and assume a K-phrase with a dative assigning capacity, but this seems more controversial.

6. Summary

In this chapter, PTOC was presented thoroughly and a new metric to measure complexity was introduced instead of the IC-to-word metric used in Hawkins (1994, 2004). The new IC-to-XP metric is motivated by the fact that pronominal DPs and single word non-pronominal DPs behave differently syntactically in e.g. Danish object shift and the English particle construction, and this difference in behavior has been attributed to a complexity difference. The new metric captures this difference, whereas the old metric did not.

Another motivation is that the attachment decisions in the on-line parsing of garden path sentences follow from PTOC's parsing principle Minimize Domains if the new metric is assumed, but do not follow if the IC-to-word metric is used.

The discussion of garden path sentences leads to a digression introducing Pritchett's on-line locality constraint, which is very successful in determining when a reanalysis will cause processing breakdown, and when a reanalysis is unproblematic. The OLLC crucially relies on a more elaborate syntactic framework than the one deployed in Hawkins (1994, 2004) and this digression was thus used as a motivation for the adaptation of PTOC to a generative framework.

The final section of this chapter contains a presentation of the syntactic assumptions that are used when the data to be tested is analyzed. The leading principle was to choose uncontroversial and widely accepted analyses over controversial analyses, because the focus here is not to discuss details in syntactic analyses, but to test the performance predictions of PTOC.

In the next chapter, PTOC is tested mainly on Russian data, but also on Danish data, and results are compared to results from English data, analyzed in Hawkins (2000).
3

Testing the predictions of PTOC

1. Introduction

In this chapter, tests of the performance predictions of PTOC are presented. The precise formulation of the predictions depends on the structure tested, but the general idea is that the orders with the highest efficiency ratio should be the most frequent orders in the data examined.

The tests are performed following this procedure:

First, a structure is found that allows variation without, in any clear and unambiguous way, altering the meaning. Thus the difference between the progressive tense and the present tense in English is not a viable candidate to test PTOC, since the meaning difference is clear, whereas the particle construction in English appears to be a matter of free variation (see Svenonius 1996 for arguments for this).

Second, a syntactic analysis of the structure is found, and when none is available, or when the analysis is inconsistent with the syntactic framework assumed here, an analysis is provided.

Third, the data is sorted so that the examples are as clear as possible, i.e. if the order of the elements S, V and O in transitive sentences is considered, then all transitive sentences with more constituents are filtered out.

Fourth, the data is analyzed using the IC-to-XP metric and the definitions of domains, efficiency and complexity given above to locate the most efficient orders.

Fifth, the most efficient orders are cross-referenced with the most frequent ones, resulting in a percentage expressing the correlation between these.
Three tests on Russian data are presented in sections 2, 3 and 4, followed by a test of postverbal PPs in section 5. The chapter ends with a conclusion in 6.

In relevant places the idea that word order is determined by the information structure status of the constituents is reviewed and the predictions that follow from this are tested on relevant subparts of the data and compared with PTOC's predictions. The hypothesis that given, thematic or accessible elements precede new, rhematic or salient elements is a simplification of information structure theories, but is definitely a leading thought in those theories (see chapter 4 for thorough discussion of information structure). The claim is that PTOC gives a better account of the word order patterns that we see in performance data than information structure theories can, and the comparisons made are attempts to test this claim.

2. Transitive sentences

In all tests of Russian performance data, the on-line corpus Nacional'nyj korpus russkogo jazyka (The Russian National Corpus) available at <ruscorpora.ru> has been used, unless stated otherwise. The corpus is compiled of literary texts, newspaper and journal texts and transcripts of spoken text, and contains more than 140 million words (see the ruscorpora.ru homepage for detailed information). This ensures that the corpus covers a wide range of different stylistic levels and genres, but unfortunately a part of the texts (roughly a third), especially the literary ones, are fairly old – the oldest of them date back to the middle of the 19th century.

This may actually not be a very serious problem, since major changes in word order are unlikely to have happened in this relatively short period of time. We do not find for example that the possibility to use any of the six possible orderings of S, V and O was unavailable in 1850, or that the internal order in the DP was different. Mostly the changes have to do with words becoming obsolete, and that has no impact on the efficiency calculations.
2.1 The order of S, V and O in transitive main clauses

In Russian we find the six possible orders SVO, SOV, VSO, OSV, OVS and VOS, and traditionally it is claimed that the different orders reflect differences in information structure (see e.g. Kovtunova 1976, Christensen 1992).

If this is true, then we would expect not to see any correlation between efficiency and frequency of use, because if the speaker chooses e.g. OSV solely to express some meaning relevant for information structure (see discussion of information structure in chapter 4), then the speaker's choice is not affected by efficiency concerns.

To illustrate let us look at these two sentences:

(1)  a. I gave him some coffee
    b. I gave her some coffee

Clearly (1)a involves the same amount of processing as (1)b, since the choice the speaker makes is not connected to processing, but to whether the goal DP refers to a man or a woman. Since the efficiency is the same for these variants, PTOC would predict an equal frequency in performance data, but that would obviously not be fulfilled unless by chance. Efficiency is not involved when the speaker chooses, and consequently the prediction has few chances of success.

If the motivation behind the choice of word order in Russian is information structure, then efficiency is not involved and the predictions should have no chances of being met.

This means that this test actually tests two things:
1) Do we see efficiency effects in the data, in the form of a correlation between efficiency and frequency?
2) Are the findings compatible with the idea that word order variation in Russian is based entirely on information structure?
2.2 The syntax of SVO, SOV, OVS, OSV, VSO and VOS

Bailyn (2004a) provides analyses for all the six possible word orders, and in this test his structures are assumed, except his controversial analyses of OVS\(^{20}\), where I instead derive the order by shifting the object (adjoining it to vP) and right- adjoining the subject to IP.

Bailyn (2004a) assumes a PredP (following Bowers 1993), taking the VP as a complement and with obligatory movement of V\(^0\) to Pred\(^0\), but since vP is more often assumed above VP than PredP is, I re-label it vP, and since PTOC counts XPs and does not pay attention to labels, this changes nothing\(^{21}\), except making the trees look more familiar.

His structures are depicted below (ignoring bar-levels and traces):

\(^{20}\) Bailyn (2004a) assumes that O in OVS-structures has A'-moved, whereas O in OSV-structures has A'-moved, but Slioussar (2007:162-179) argues at length against this analysis, pointing out two main weaknesses: First, often Bailyn (2004a) does not provide examples that really contrast OSV and OVS, but instead compares OVS with other orders, and second, Slioussar’s 20 informants do not agree with his judgements, and no systematic difference in the judgements of OSV and OVS orders can be seen in her data.

\(^{21}\) The analyses of secondary predication and small clauses exploiting the PredP is irrelevant here (see Bowers 1993, Madariaga 2006), since only transitive main clauses with no other constituents than S, V and O are analyzed.
And my suggestion for OVS is as follows:

(7) **OVS**  
\[
\begin{array}{c}
\text{IP} \\
\text{vP} \\
\text{v}
\end{array}
\quad \text{Object shift + extraposition (i.e. (3) + (6))}
\]

Both the subject-final orders, OVS and VOS, could instead be derived using VP-topicalization, which would change the efficiency calculation for these orders marginally, but in the data there are only three examples with these orders, so this would not affect the overall results.

VSO-orders could alternatively be derived by assuming Vo to Co movement, and then the subject could move to IP-spec as usual. This would change the efficiency calculation for VSO-orders slightly, so that the efficiency would be somewhat lower, but since VSO is not the most efficient order in any of the cases, this change would not be visible in the analysis.
2.3 The data

From the corpus I extracted 588 sentences using the criteria that the sentences had to be main clauses, that they had to contain S, V and O and no other constituents, and that only the indicative mood was allowed. The data thus only consists of sentences with the structures shown in (2) to (7). No adverbials, complementizers or negation are present in the data.

I then reduced the data so that no author is represented with more than one example. I generated random numbers from 1 to 2000 next to each of the 588 sentences in the original data using the RANDBETWEEN Excel function, and then I simply chose the examples with the highest numbers. So if there were three examples authored by I.S. Turgenev, the one with the highest number next to it would be picked to remain in the data set and the other two examples were deleted. This procedure ensured that the examples were chosen randomly.

In all the sentences the verb is nenavidet’ "to hate", because this verb was very frequent, and thus yielded many examples, and it was used without adverbs more often than other verbs, which was one of my criteria (no adverbs allowed). Ideally data with other verbs should be gathered and the results compared to mine, in order to avoid any unfortunate lexical effects\(^{22}\). But I think that this concern is mostly academic, since neither efficiency nor information structure is expected to be affected by the choice of verb.

The verb nenavidet’ “to hate” is like its English equivalent a psych verb with an experiencer subject according to the classification in Levin (1993:191-192). Even though transitive psych verbs are not part of Levin’s (1999:223-225) so-called core transitive verbs, they share a number of properties with this class. One such property is that they do not allow unspecified objects (see Levin 2006:12-13), and nenavidet’ “to hate” shares this property, just like its Danish and English equivalents:

\[
\begin{align*}
(8) & \quad \text{a. *On nenavidit } & \text{(Russian)} \\
& \quad \text{he hates} \\
& \quad \text{b. *He hates } & \text{(English)} \\
& \quad \text{c. *Han hader } & \text{(Danish)} \\
& \quad \text{he hates}
\end{align*}
\]

\(^{22}\) It is not uncommon to perform corpus data tests based on a single verb, cf. e.g. in Bresnan & Hay (2008) which analyzes the double object construction and compares New Zealand and American English. All the data considered there involves the verb give.
This suggests that nenavidet’ “to hate” is not an atypical transitive verb.

The historical link between the two first letters in nenavidet’ “to hate” and the negation ne “not” has no relevance in modern Russian, where the segment ne- is clearly part of the single morpheme nenavid’ forming the root of the verb. This is illustrated by the fact that nenavidet’ “to hate” cannot take a genitive object unless a negation is present:

(9) On nenavidit kapustu
    he hates cabbage.AKK
    “He hates cabbage”

(10) *On nenavidit kapusty
    he hates cabbage.GEN
    “He hates cabbage”

(11) On ne nenavidit kapusty
    he not hates cabbage.GEN
    “He does not hate cabbage”

If the segment ne- in nenavidet’ “to hate” had been a syntactically active negation, (10) would have been expected to be grammatical.

The only variation between the data sentences (apart from their word order) has to do with the complexity of the subject and object DPs. In the slots in the structures in (2) to (7) where it says DP_{acc} or DP_{nom}, we find complexities in the data ranging from 1 to more than 50.

In some of the DPs, relative clauses are attached, and in these cases Bailyn’s structures are also assumed. In one clause inside a DP a modal occurs, and this was simply analyzed as a head in I’, but the DP it is located in is an object DP with a complexity of 46, and the subject in the sentence has a complexity of just 1, so the SVO-order is greatly preferred by PTOC, and changing the analyses of the modal cannot change the prediction.
2.4 The efficiency calculation

Every time a speaker utters a transitive clause, he faces a six-way choice: SVO, SOV, OVS, OSV, VSO or VOS. PTOC predicts that in each case he will tend to choose the most efficient variant. Which of the six orders is the most efficient varies depending on the complexity of the subject and object DPs, so for each sentence in the data, all six orders must be calculated in order to compare efficiencies and state the prediction.

To demonstrate how this works, let us take one of the sample sentences and put it through the test.

(12) Ja nenavižu ovošči

I hate vegetables

"I hate vegetables"

(ruscorpora.ru: Aleksandr Mel'nikov, Tot ešče frukt, Izvestija 2002 2/12)

We have to take the subject DP and insert it in the structures from (2) to (7) in the slots designated for the subject, and take the object DP from (12) and insert it in the structures from (2) to (7) in the slots designated for the object, and the verb goes in as well. This gives us these structures:

(13) SVO

```
IP
  |--- DP
    |--- (D° v° VP)
      |--- (D° v° VP)
          |--- ja nenavižu
            |--- I hate
                 |--- DP
                      |--- (NP)
                           |--- N°
                                |--- ovošči vegetables
```
Now we have to calculate the efficiency of all PCDs in all the six structures, and then compare the aggregate ratios.

### 2.4.1 Efficiency calculation – SVO-order

First we look at the SVO-order. The word *ja* “I” is parsed and the DP is constructed by the parser. Then the finite verb is parsed and now the IP, vP and VP nodes are constructed and the IP-domain is thus completed (the dotted line and question mark indicates that the parser still cannot be certain of what follows):

The IP-domain stretches from its first IC, DP, to its last IC, vP, and contains three XPs and two ICs, so the ratio is $2/3 = 67\%$.\(^{23}\)

It could be argued that the word *ja* “I” being nominative in Russian is enough to infer the existence of the IP-node and that we consequently do not have to wait for the finite verb to construct IP. Furthermore it could be argued that the vP-node is inferable as well on the basis

\(^{23}\) I avoid decimals, and instead reduce to 0 when the decimal is .4 or lower, and raise to 1 when the decimal is .5 or higher.
of a nominative because even in nominal sentences we need the vP (or the PredP as Bailyn calls it) according to Bailyn (1995:344):

(20)

```
(0) IP
   /\  \\
  /   \  \\
 DP   I'  \\
    \   \\
  he   I''  \\
     \ \\
     PredP  \\
        \ \\
        DP  \\
          \ \\
          Pred''  \\
            \\
            muzykant  \\
              \\
              musician  \\
```

“He is a musician”

(adapted from Bailyn 1995:344, his 43b)

I assume that the nominative can construct IP, but I think it is less certain that the vP can be inferred as well, because the second nominative in a nominal sentence can be moved to the left, topicalized, in which case there are two IP-domains and the first is completed not by a vP-node, but by an IP-node:

(21)

```
(0) IP
   /\  \\
  /   \  \\
 DP   IP  \\
    \   \\
 muzykant  \\
    \\
 musician  \\
    \\
    DP  \\
    \ \\
    vP?  \\
```

“A musician is what he is”

It seems as if a nominative DP is necessarily accompanied by an IP-node, but that we can have a nominative DP without a vP. In other words, the parser can safely construct the IP-node when a nominative is parsed, but it has to wait until it gets more information before the vP-node is constructed. In the assumed structures for transitive sentences (see (13) through (18)) the nominative DP is dominated by an IP-node, except in the VSO-order where the DP_{nom} is in the vP-specifier. This one exceptional case is signalled by the immediate

---

24 The topicalization of the second DP in a nominal sentence may be odd if nothing else follows, but if an adjective follows as in the following example from <ruscorpora.ru>, topicalization is perfectly possible:

   i. Muzykant on xorošij, avtor talantlivyj.
      musician be good author talented
   “He is a good musician, (and) a talented author” (Makar Sviřepyj, Bajda: Muzyka, 2004)
postverbal position of the DP\textsubscript{nom}\textsuperscript{25}. So the parser can safely assume that the DP\textsubscript{nom} is dominated by an IP-node when it encounters a nominative\textsuperscript{26}, unless it is in the immediate postverbal position.

Notice that in (19) it so happens that it makes no difference whether DP\textsubscript{nom} could really construct both IP and vP, since it would not change the efficiency of the domain. It would still contain three XPs and two ICs and the ratio would still be $2/3 = 67\%$.

The next domain is the vP-domain. This domain has two ICs, v\textsuperscript{0} and VP, which are both constructed when the finite verb is parsed. The domain contains just two XPs, so the domain is highly efficient with a ratio of $2/2 = 100\%$.

(22) SVO

\begin{center}
\begin{tikzpicture}[level distance=1.5cm,
  level 1/.style={sibling distance=3cm},
  level 2/.style={sibling distance=1.5cm},
]
  \node {SVO} child {node {IP} child {node {DP} child {node {D\textsuperscript{0}} child {node {ja}} parent {node {I}} edge from parent node [below] {hate}} child {node {nenavižu}} edge from parent node [below] {?}} child {node {v\textsuperscript{0}} parent {node {VP}}}};
\end{tikzpicture}
\end{center}

The final domain in the SVO-order is the VP-domain. This domain has just one IC, DP, and in this case the DP is constructed when the word ovošči “vegetables” is parsed:

\begin{center}

\textbf{25} According to the informants Anna Borisovna, Svetlana Šuvalova and Julja Vaštalova, adverbials are not allowed between the verb and the subject in a VSO-order, and therefore the following sentence is judged to be ungrammatical:
\begin{itemize}
  \item * Znaet xorošo Ivan Natašu
\end{itemize}

\begin{itemize}
  \item knows well Ivan Natasha
\end{itemize}

“Ivan knows Natasha well”

This is interesting because there are very few limits in Russian as to where adjectives can be placed (see Bailyn 2004a: footnote 8 for discussion), and so it is perhaps not a coincidence that adverbs are disallowed in this position where the parser needs the subject to signal that the relevant construction is the VSO-order. In other words: Processing is facilitated if the subject follows the verb immediately, and perhaps that is why the verb and the subject cannot be separated by adverbs.

\textbf{26} It is not always possible to identify a DP as nominative in Russian, since neuter nouns are identical in nominative and accusative. It is however true of most nouns and I will assume here that nominatives can be recognized by the parser, even though this cannot always be the case.
The VP-domain contains one IC and three XPs – $1/3 = 33\%$.

The aggregate ratio for the SVO-order is $67+100+33:3 = 67\%$

### 2.4.2 Efficiency calculation – SOV-order

The SOV-order has the verb as the last word, so if only the finite verb can construct IP and vP, then the first domain, the IP-domain, would contain almost the entire sentence since it would stretch from the first DP and all the way to the finite verb:
As mentioned above there are reasons to think that a nominative DP cannot construct vP, but it seems plausible on the other hand that an accusative DP following a nominative DP allows the parser to infer the vP-node. The question is where else could we see an accusative following a nominative if not in the SOV-order?

Accusative in Russian can have three sources: It can be assigned by a preposition, which is out of the question since no preposition has been parsed yet and since preposition stranding is ungrammatical in Russian (postpositions might be stranded though, see Podobryaev 2007 for some discussion). Accusative is also found on temporal expressions as in:

(25) Ja rabotal nedelju

*I worked week.*<sub>ACC</sub>

“I worked for a week”

But with a word like *ovošči* “vegetables” this is not an option. Finally accusative can be assigned by a transitive verb in v<sup>ø</sup>. This third option is the only plausible option in (24) and so I assume the parser will construct vP when the DP<sub>acc</sub> is parsed in an SOV-order.

I therefore suggest that an accusative DP following a nominative can construct vP, which means that the IP-domain contains two ICs and five XPs: 2/5 = 40%.

(26) SOV

\[
\begin{array}{c}
 \text{SOV} \\
 \text{IP} \\
 \text{DP} \\
 \text{D}^0 \text{DP} \\
 \text{ja} \text{NP} \\
 \text{I} \\
 \end{array}
\]

\[
\begin{array}{c}
 \text{vP2} \\
 \text{vP1} \\
 \text{nenavižu} \\
 \text{v}^0 \\
 \text{nepožili} \\
 \end{array}
\]

\[
\begin{array}{c}
 \text{N}^0 \\
 \text{hate} \\
 \text{ovošči} \\
 \text{vegetables} \\
 \end{array}
\]

---

27 In this case we cannot be sure that *ovošči* is really accusative, since it has the same ending in genitive, dative and locative, but locative is only used after prepositions and is thus ruled out and both a dative and a genitive in this position after a nominative would have to come from a verb as well, so no matter which of the three cases *ovošči* turns out to have, the parser has only one option, namely the SOV-order (with an accusative assigning verb or a verb that assigns dative or genitive).
The vP2-domain has two ICs as well, is initiated by the word *ovošči* “vegetables” and completed when the verb is parsed:

(27) **SOV**

```
(27) SOV
    IP
     |
    vP2
     |
    DP
     |
    Dº
     |
    DP
     |
    vP1
     |
    I
     |
    NP
     |
    nenavižu
     |
    Nº
    hate
    ovošči
    vegetables
```

So the ratio for the vP2-domain is $2/4 = 50\%$.

The last domain in the SOV-order is the vP1-domain, which is initiated and completed when the verb is parsed, and which has two ICs and contains two XPs:

(28) **SOV**

```
(28) SOV
    IP
     |
    vP2
     |
    DP
     |
    Dº
     |
    DP
     |
    vP1
     |
    I
     |
    NP
     |
    nenavižu
     |
    Nº
    hate
    ovošči
    vegetables
```

The ratio for the vP1-domain is thus $2/2 = 100\%$.

The aggregate ratio for the SOV-order is $40+50+100:3 = 63\%$. 
2.4.3 Efficiency calculation – OSV-order

The OSV-order begins with an accusative DP, but since it does not follow a nominative it is not enough to allow the parser to construct vP. Notice that in the assumed structures for transitive sentences ((13) through (18)) the DP_{acc} is not uniquely dominated by just one type of XP. On the contrary, it is dominated by three different XPs (vP, VP or IP). This means that it cannot be used as a PNCC for vP in this case, and therefore the parser will only construct the DP at this point:

(29) **OSV**

```
  DP
   | NP
   |  N°
  ovošči
  vegetables
```

When the parsing continues the parser can construct yet another DP and since this second DP is a nominative, the IP-node can be inferred as well:

(30) **OSV**

```
  ?
 /   |
/   |
 DP   IP
 |
 NP   DP
 |
 N°   D°
 ovošči ja
 vegetables I
```

The IP-domain cannot yet be completed since the parser does not know what will follow before the verb is parsed, and the higher domain immediately dominating DP_{acc} and IP is not determined at this point in the parse. All the parser knows for sure at the time when the DP_{norm} is parsed is what we see in (30).

When the verb is parsed, everything falls into place:
All three domains are completed when the verb is parsed, and the IP2-domain stretches from \textit{ovošči} \textit{“vegetables”} to the verb:

The IP2-domain has two ICs (DP\textsubscript{acc} and IP1) and contains six XPs: \(2/6 = 33\%\).

The IP1-domain stretches from the word \textit{ja} \textit{“I”} to the verb:

The IP1-domain has two ICs (DP\textsubscript{nom} and vP) and contains three XPs: \(2/3 = 67\%\).

The final domain, the vP-domain, has two ICs (v\textsuperscript{o} and VP) and contains two XPs:
2.4.4 Efficiency calculation – VSO-order

The VSO-order begins with the verb and the parser must construct the following structure:

The vP-domain has a perfect ratio of $2/2 = 100\%$, and the aggregate ratio for the OSV-order is $33+67+100:3 = 67\%$. 

Whether the verb is in $v^o$ or in $I^o$ is, however, not certain at this point, but the default position must be $v^o$ and if a nominative should then follow, the parser would have to reanalyze the vP-domain. Since this is the VSO-order, a nominative does follow and the parser then alters the structure into the one shown in (36), where two domains are completed, the IP-domain and the vP-domain. We begin with the IP-domain:
The IP-domain has two ICs (\(v^o\) and vP) and contains three XPs, so the ratio is \(2/3 = 67\%\).

The vP-domain is completed simultaneously:

\[
\begin{array}{c}
\text{(37) VSO} \\
\text{nenavižu} \\
\text{hate} \\
\text{ja} \\
\text{I}
\end{array}
\]

The vP-domain stretches from the word constructing the first IC, DP, which is the word \(ja\) "I" and all the way to the word constructing the second IC, VP, namely the verb. This leaves us with a domain with two ICs and four XPs – \(2/4 = 50\%\).

The last domain, the VP-domain, is completed when the DP\(_{\text{acc}}\) is constructed:

\[
\begin{array}{c}
\text{(38) VSO} \\
\text{nenavižu} \\
\text{hate} \\
\text{ja} \\
\text{I} \\
\text{NP} \\
\text{ovošči} \\
\text{vegetables}
\end{array}
\]

The VP-domain has one IC, DP, and three XPs – \(1/3 = 33\%\). The aggregate ratio for the VSO-order is \(67+50+33:3 = 50\%\).
2.4.5 Efficiency calculation – VOS-order

The VOS-order also begins with the verb, but in this case no reanalysis of the initially assumed structure is necessary and so the vP-domain and the IP-domain are completed immediately:

(39) **VOS**

```
   IP
    /\  
vP  v
  \   /
vö  VP
nenavižu hate
  ?
```

The vP-domain has two ICs and two XPs and a perfect ratio of $2/2 = 100\%$. The IP-domain has just one IC, the vP, and contains two XPs:

(40) **VOS**

```
   IP
    /\  
vP  v
  \   /
vö  VP
nenavižu hate
  ?
```

The IP-domain has a ratio of $1/2 = 50\%$.

When the DP$_{acc}$ follows in the on-line parsing, the VP-domain is completed:
The VP-domain has one IC, DP, and contains three XPs. 1/3 = 33%.

When we finally reach the DP\textsubscript{nom} the higher IP is added to the structure and this domain, which stretches from the verb (the PNCC for IP\textsubscript{1}) to the DP\textsubscript{nom} (the PNCC for IP\textsubscript{2}), has two ICs and contains 7 XPs:

The IP\textsubscript{2}-domain has a ratio of 2/7 = 29%. The aggregate ratio for the VOS-order is 100+50+33+29:4 = 53%.
2.4.6 Efficiency calculation – OVS-order

The final order is the OVS-order. When the first word, *ovošči* “vegetables”, is parsed, the only structure that can be inferred is this:

(43) OVS  
    DP  
    |  
    NP  
    |  
    N°  
    ovošči  
    vegetables

The parsing continues with the verb, and this allows the parser to infer IP, vP and VP, and it is now obvious that the DP$_{acc}$ must have object-shifted; therefore, the parser can infer the existence of yet another vP:

(44) OVS  
    IP  
    |  
    vP2  
    |  
    DP  
    |  
    vP1  
    |  
    NP  
    |  
    v°  
    VP  
    |  
    nenavižu  
    N°  
    hate  
    ovošči  
    vegetables

Three domains are completed when the verb is parsed: The IP-domain, the vP2-domain and the vP1-domain. We begin with the IP-domain:
The IP-domain has just one IC, but this IC, the vP2-node, is inferred on the basis of both the DP_{acc} and the verb, so the domain contains 5 XPs – 1/5 = 20%.

The next domain is the vP2-domain, which stretches from the DP_{acc} to the verb:

The vP2-domain has two ICs and contains 4 XPs – 2/4 = 50%.

The third domain, the vP1-domain, has two ICs and two XPs and a perfect ratio of 2/2 = 100%:
Finally the DP$_{nom}$ is parsed, and another IP-domain is added, which stretches from the verb, which is the PNCC for the IP1-node, to the DP$_{nom}$:

(48) **OVS**

\[
\begin{array}{c}
\text{IP2} \\
\text{IP1} \\
\text{vP2} \\
\text{DP} \\
\text{ja} \\
\text{DP} \\
\text{vP1} \\
\text{I} \\
\text{NP} \\
\text{nenavižu} \\
\text{nenošči} \\
\text{ovosči} \\
\text{vegetables} \\
\text{VP}
\end{array}
\]

The IP2-domain has two ICs and contains 5 XPs – 2/5 = 40%.

The aggregate ratio for the OVS-order is 20+50+100+40:4 = 53%.

### 2.4.7 Summary of the calculation results

When this calculation is carried out for all the structures from (13) to (18) we get these efficiency ratios:

(49)  

<table>
<thead>
<tr>
<th>Order</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO</td>
<td>67%</td>
</tr>
<tr>
<td>SOV</td>
<td>63%</td>
</tr>
<tr>
<td>OSV</td>
<td>67%</td>
</tr>
<tr>
<td>VSO</td>
<td>50%</td>
</tr>
<tr>
<td>VOS</td>
<td>53%</td>
</tr>
<tr>
<td>OVS</td>
<td>53%</td>
</tr>
</tbody>
</table>

In this particular instance we can rank the orders by their efficiency like this:

(50)  

1. SVO and OSV  
2. SOV  
3. VOS and OVS  
4. VSO
We can now compare the efficiency ranking in (50) with the actual word order of our sample sentence (12), and check whether the prediction goes through. In this case it does. The sample sentence has SVO word order, and SVO is ranked as the highest.

We notice that in the ranking in (50) two orders share the first rank, and there is nothing that precludes more than one order having the same efficiency rank. This could potentially make the predictions vacuous: If all orders always share the highest rank, then it is not impressive to predict that the actually occurring order will be the most efficient order. This is however not the case.

Of the 317 examples in the data, PTOC predicts two orders to be ranked as the highest in 162 cases (51%), and in the remaining 155 cases (49%) PTOC predicts a single order to be the highest.

2.4.8 A note on DPs

Russian is in general a left-headed language, which means that the phrasal-node-construction –categories (PNCCs) will typically be found at the left of the phrases:

\[(51)\]

a. \([\text{DP} \text{ moj drug}]\)
   
   \text{my friend}
   
   "my friend"

b. \([\text{VP skazat' pravdu}]\)
   
   \text{tell truth}
   
   "(to) tell the truth"

c. \([\text{PP v novom klube}]\)
   
   \text{in new club}
   
   "in the new club"

In these three cases it is the first word that constructs the phrase, and this is also typical for the DPs in the data, but sometimes the first word in the DP is only dominated by the DP-phrase, and sometimes it is dominated by more XPs within the DP. There are three different types of DPs found in the data, depending on the number of XPs that dominate the PNCC:
Three types of DPs

a. Leftmost word dominated by 1 XP:

```
DP
  D^0    NP
  moj my
```

b. Leftmost word dominated by 2 XPs:

```
DP    DP
  NP   QP  DP
  N^o  Q^o NP
  drug ves' N^o
  friend whole dom house
```

c. Leftmost word dominated by 3 XPs:

```
DP
  NP
  AP   NP
  A^o  N^o
  belyj dom
  white house
```

In a type-a DP, the PNCC (moj "my") is dominated by a single phrase, in a type-b DP the PNCC (drug "friend", ves' "whole") is dominated by two XPs, and in a type-c DP the PNCC (belyj "white") is dominated by three XPs.

This is relevant because the type of DP can potentially affect the efficiency calculation. Consider these two SVO-sentences:
(53)  a. Ivan nenavidit moj belyj dom

*Ivan hates my white house*

"Ivan hates my white house"

b. Ivan nenavidit belyj dom

*Ivan hates white house*

"Ivan hates a/the white house"

The three relevant domains in the SVO-sentences are the IP-domain, the vP-domain and the VP-domain, and it is the calculation of the VP-domain that is affected if the type of DP is altered, as can be seen here:

(54)  \( (a) \)  \( \begin{array}{c}
\text{IP} \\
\text{vP} \\
\text{DP} \\
\text{NP} \\
\text{Ivan} \\
\text{nenavidit} \\
\text{NP} \\
\text{moj} \\
\text{NP} \\
\text{belyj dom} \\
\end{array} \) \hspace{1cm} \( (b) \)  \( \begin{array}{c}
\text{IP} \\
\text{vP} \\
\text{DP} \\
\text{NP} \\
\text{Ivan} \\
\text{nenavidit} \\
\text{NP} \\
\text{belyj} \\
\text{NP} \\
\text{dom} \\
\end{array} \) 

In (54)a the VP-domain has one IC (DP) and contains only two XPs (VP and DP) and the efficiency is thus 1/2 – 50%.

In (54)b the VP-domain has the same number of ICs, namely one (DP), but it now contains more XPs – four to be precise (VP, DP, NP, AP), yielding an efficiency of 1/4 – 25%.

2.5 The result of the test of transitive sentences

Of the 317 sentences extracted from the corpus, PTOC made an unambiguous prediction in 155 cases; in the remaining 162 cases, two word orders were tied for the first place. Of the 155 cases where there was a single prediction, 122 (79%) had the word order predicted by
PTOC. This is significantly more than expected under a null hypothesis of random allocation, which would lead to $1/6^{28}$ (16.7%) correct predictions ($successes = 122, n = 155, p < 0.0001$, exact binomial test).$^{29}$

For the 162 cases where two orders were equally efficient, the observed word order was one of these in 150 cases (93%). This is also significantly more than a null expectation of $2/6$ (33.3%) correct predictions ($successes = 150, n = 162, p < 0.0001$, exact binomial test).

In Table 2 the distribution of the data is presented. Notice that some of the cells contain decimals, because in the 162 cases where two orders are equally efficient, both are expected. So if an SVO-order is observed, and both SVO and SOV are expected, 0.5 are added both under SVO and SOV in the table.

Table 2: Distribution of transitive sentences data

<table>
<thead>
<tr>
<th>Observed</th>
<th>Expected</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SVO</td>
</tr>
<tr>
<td>SVO</td>
<td>149.5</td>
</tr>
<tr>
<td>SOV</td>
<td>35.5</td>
</tr>
<tr>
<td>OSV</td>
<td>15</td>
</tr>
<tr>
<td>OVS</td>
<td>1</td>
</tr>
<tr>
<td>VSO</td>
<td>5</td>
</tr>
<tr>
<td>VOS</td>
<td></td>
</tr>
</tbody>
</table>

$^{28}$ There are 6 different possible permutations of the subject-verb-object position: SVO, SOV, VSO, VOS, OSV and OVS. Thus, the probability of picking the correct word order by random has a probability of 1/6. Similarly, the probability of picking the correct word order k times in n trials is described by the binomial distribution of n with $p = 1/6$. For the 162 cases where two orders are equally efficient, the probability of picking a correct word order by random has a probability of 2/6.

$^{29}$ Calculated using R software, R Development Core Team (2009). All subsequent calculations are also calculated using R software, R Development Core Team (2009). The exact binomial test was chosen following the advice of statistician Michael Krabbe Borregaard, Department of Biology, University of Copenhagen.

2.5.1 Complexity and variation

Two things could be interesting to look at more closely: The possible connection between the degree of variation and the complexity of the DPs, and the possible correlation between information structure and complexity.

First, in this section we will look at complexity and variation. In Russian all six different orders are logically possible in transitive sentences, but the question is whether
speakers actually use all six orders to the same extent. It is also an interesting question to see whether there is a tendency to use the non-SVO orders more when the DPs are less complex as PTOC would predict, or whether the variation is the same independent of complexity.

Second, in 2.5.2 the idea that information structure and complexity are correlated is explored.

In Russian all the six orders are theoretically possible, and we could imagine that the distribution of the orders is the same for the total data set and for the part of the data where the subject and object DP are both very complex and for the part of the data where the DPs are very short. This is indeed what we would expect to see if information structure status is what determines word order choice, because we expect the order theme-rheme both when the DPs are both short and when the the DPs are both long.

If on the other hand PTOC is right in claiming that word order is influenced by processing efficiency, then we should expect to see greater variation when the DPs are short, than when they are complex, because the more complex the DPs are, the more there is to be gained from reordering. A sentence with just a verb and two pronouns will be quickly processed no matter how the words are ordered. This does not mean that MiD is not relevant for transitive sentences with short DPs, but the point is simply that if a speaker should decide to use a non-optimal order, then the processing cost is relatively small if the DPs are very short, compared to cases where the DPs are very complex.

To address this question let us look at the distribution of the different orders in the data shown in table 3:

<table>
<thead>
<tr>
<th></th>
<th>SVO</th>
<th>SOV</th>
<th>OSV</th>
<th>OVS</th>
<th>VSO</th>
<th>VOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of occurrences</td>
<td>205</td>
<td>79</td>
<td>23</td>
<td>3</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

SVO is the most frequent order, and VOS is the only order that does not occur at all in the data. SVO is usually considered the unmarked or basic order in Russian (see e.g. Holden & Krupp 1987, Kovtunova 1976, Bailyn 2004a, Slioussar 2007), and a way of measuring variation could be to calculate the percentage of non-SVO orders – the higher the percentage, the greater the variation. In the collected data, the percentage of non-SVO orders is 35%.
I expect that there will be less variation when the DPs are more complex and more variation when the DPs are short, because the processing advantage of choosing the most efficient order will be greater when the DPs are more complex and smaller when the DPs are less complex. The reason is that if the sentence is very short, then it will be easy to process no matter what the order is, but if one or both of the DPs are complex, the efficiency could decrease drastically if a non-efficient order is used. SVO is almost exclusively preferred when the complexities of the DPs rise, which is why I expect little variation when DPs are complex.

Let us first look at the part of the data where one of the DPs has a complexity of more than five XPs, and at the part of the data where both DPs have a complexity of three XPs or more (see table 4 below). Clearly there is less variation when the complexity of one of the DPs has five or more XPs, compared to the ratio of non-SVO orders in the collected data. The non-SVO orders thus only comprise 10%. In the small part of the data where both DPs have a complexity of three or more XPs, we see only one non-SVO order. The exception is in fact an example where both the subject DP and the object DP have complexities of precisely three XPs, so it is the least complex example among the 11 examples.

<table>
<thead>
<tr>
<th></th>
<th>One DP</th>
<th>Both DPs</th>
<th>Both pronominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO</td>
<td>205</td>
<td>66</td>
<td>10</td>
</tr>
<tr>
<td>non-SVO</td>
<td>112</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Ratio of non-SVO</td>
<td>35%</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Totals</td>
<td>317</td>
<td>73</td>
<td>11</td>
</tr>
</tbody>
</table>

It seems to be correct that when the DPs are more complex, we find less variation.

When we look at the cases where both DPs are pronominal, we see that the percentage of non-SVO orders is 71%, which is much higher than the percentage of non-SVO orders in the data taken as a whole (non-SVO – 35%), and also higher than the percentage in the part of the data where one DP is more than five XPs long (non-SVO – 10%), and in the part of the data where both DPs have a complexity of three XPs or more (non-SVO – 9%). It seems reasonable to conclude that word order variation in Russian transitive sentences is a phenomenon that is mainly observed in the cases where both the subject DP and the object
DP are very short, which is exactly what we would expect if processing efficiency influences word order.

2.5.2 Complexity and information structure

It has been suggested that the correlation between efficiency and word order that Hawkins (1994) finds could actually be a correlation between information structure and word order, because the more complex an element is the more likely it is to be rhematic (or salient) and the more likely it is to be further to the right in the sentence (see e.g. Gries 2003a:157 and Arnold et al. 2000:34). Without going into details about what exactly is meant by rheme or salience (we return to this in chapter 4), it will suffice to say that the prediction must be that we should typically see the order more complex follows less complex according to information structure theories, because the more complex element is more likely to be the rheme, and thus to follow the less complex element.

It should be underlined that I do not wish to say that information structure theories rely on complexity in their descriptions of word order (see chapter 4 for thorough discussion), but it is a potential argument against PTOC to reduce the correlations we find to a simple link between complexity and information structure status. This is why some time is spent demonstrating that the correlation between efficiency and frequency is found even in the cases where no complexity difference is found.

The data that bears on this are the cases where the DPs have equal complexities. PTOC has word order preferences in all these cases, and we thus expect, if PTOC is on the right track, that the most efficient orders are the most frequent orders even among the cases where there is no complexity difference.

If information structure is really what determines the word order choices, then we should expect that the predictions of PTOC were not borne out in the 103 cases where the complexity of the two objects is equal. However, PTOC predictions are more accurate than random even for cases where the complexities of both DPs are equal. Of the 9 cases where there was a single prediction, 7 (78%) had the word order predicted by PTOC. The number of sentences is very limited, but this still is significantly more than expected under a null
hypothesis of random allocation, which would lead to 1/6 (16.7%) correct predictions ($successes = 7, n = 9, p < 0.0001$, exact binomial test).

For the 94 cases where two orders were equally efficient, the observed word order was one of these in 88 cases (94%). This is also significantly more than a null expectation of 2/6 (33.3%) correct predictions ($successes = 88, n = 94, p < 0.0001$, exact binomial test).

A final note on the link between complexity and information structure is that it is not necessarily true that more complex phrases are newer or more rhematic/dynamic. As discussed below (see chapter 4, section 5.2), Firbas (1992) argues that there is no connection between weight and information structure status. Kovtunova (1976) writes that there is no necessary connection between being theme and being given information or being rhyme and being new information (Kovtunova 1976:54). In King (1995:94) we learn that the focus can be either new or given material, Svedstedt (1981:17-18) argues that the given information element par excellence, the pronoun, can be rhematic, and finally in Jaeger & Wasow (2008:174-175) the point is made that pronouns can be used with impersonal reference, and consequently pronouns can be non-given.

In short, we see that PTOC's predictions are borne out even for the part of the data where the DPs have equal lengths, which demonstrates that the efficiency effects we see cannot simply be reduced to a correlation between length and givenness. Furthermore it is pointed out that in the literature on information structure and word order, givenness is not necessarily associated with rhematicity or focus.

3. Word order in adversity impersonal sentences

The data used in this test have been collected by Arto Mustajoki and Michail Kopotev and the former kindly made the entire dataset available to me electronically. Their data, analyzed and commented in Mustajoki and Kopotev (2005), consist of over 2000 examples, 799 of which match my criteria: The sentence must contain a verb and the two relevant arguments (the accusative argument and the instrumental argument), no other phrase must intervene between these three constituents, no coordinated verbs are allowed, no negations are allowed.

Using the Microsoft Excel function RANDBETWEEN, I generated random numbers next to all 799 examples and then chose only the highest numbered example from each
author, so that no author is represented in the data with more than one example. A large part of the data is from newspapers and in these cases I used the newspaper’s name as the author (so no paper is represented with more than one example). This procedure reduced the data to 177 examples.

Some examples are given here:

(55) Rabočix vzorvalo ognetušitelem

workers.ACC blew.up.3. PERSON.SINGULAR.NEUTER fire extinguisher.INST

“The workers were blown up by a fire extinguisher”

(56) Ee sbilo kranom

She.ACC crushed.3. PERSON.SINGULAR.NEUTER crane.INST

“She was crushed by a crane”

Notice that there is no subject DP and that the verb is not passive, but active with the default third person singular, neuter form.

The fact that the data were available made it worth while to look at the adversity impersonals, but otherwise this is not the most obvious choice for this kind of testing. The problem is that the structure of adversity impersonals is not clear at all. Several suggestions have been put forth (Babby 1994, Lavine 1998, Lavine & Freidin 2002, Bailyn 2004a, Szucich 2007), but it would be premature to claim that all has been said about the adversity impersonals, or that any real consensus exists as to how the structures are. However, since the data is already there, I will assume some not too controversial structures and perform the analysis.

In adversity impersonal constructions there are, just as in transitive sentences, six possible orders, so this test is very similar to the test of transitive sentences above.

3.1 The syntax of adversity impersonals

Following Babby (1994) and Lavine & Freidin (2002) I assume that both the accusative argument and the instrumental argument are internal arguments, and further I will assume that
one of them must move to IP-spec. In Lavine (1998) the accusative moves to TP-spec to satisfy a D-feature and he speculates that a lexical case argument possibly can too (Lavine 1998:219). In Bailyn (2004a) a non-nominative argument can check IP's EPP-feature – and he argues that it must be checked (Bailyn 2004a:22). Since only the structure is relevant for the efficiency calculations, I will not go into a discussion of which features are involved, or whether IP consist of a TP and an AgrP – for the present purpose all that is needed is that one of the internal arguments moves to IP-spec.


With these assumptions, all the six different orders of adversity impersonals can be derived, if we accept the possibility of two additional movements: Object shift, which is needed anyway in Russian to derive e.g. SOV-order in transitive sentences, and verb-movement to C⁰. The structures assumed are the following:

(57) **OVI**

```
       IP
         .acc vP
             v₀
               VP
                 inst
```

(58) **IVO**

```
       IP
          inst vP
             v₀
               VP
                 acc
```

(59) **OIV**

```
       IP
          acc vP
             inst vP
                 v₀
                   VP
```
Traces and bar-levels are disregarded in all the trees. The verb always moves to $v^o$, and in the verb initial structures (VOI and VIO) the verb continues to $C^o$. Both the arguments are internal and one has to move to IP-spec. In the OIV- and IOV-orders, one of the arguments has undergone object-shift.

The verb-initial orders could be derived instead by moving the verb to $I^o$, and then leaving both the arguments inside the VP. Then the EPP-feature on $I^o$ would have to be satisfied by the finite verb as in Bailyn (2004a:43). An argument in favor of this alternative analysis is that if the VOI and VIO were derived by $V^o$ to $C^o$-movement, then we should expect that these orders cannot be embedded, which is wrong. In the present context it does not however matter much since the efficiency calculation will rank the VIO- and VOI-orders as the lowest in either case.
3.1.1 A note on the semantics of adversity impersonals

Smith (1994:20-22) points out that the exact role of the DP-inst and its possible subjecthood is a much discussed topic in the literature on Russian adversity impersonals. Janda (1993:162) refers to the instrumental as a type of agent, and Mustajoki & Kopotev (2005:17-31) discuss the various uses of the DP-inst in adversity impersonals as different types of causers. Smith himself (1994:45) concludes that the DP-inst is not a subject, nor an agent, but is the regular instrumental which is an essential part of the typical construal of an event. Smith (1998:420) however, uses an adversity impersonal construction to exemplify a nonprototypical instrument, so this seems to go against his earlier idea that the DP-inst in adversity impersonals is the regular instrumental.

Whether we call the DP-inst agent, causer, regular instrumental or nonprototypical instrumental has on one hand no bearing on the topic at hand, because the discussion of the exact type of role is not related to word order: In any of the six possible orders, the roles are the same for the DP-inst.

On the other hand, I have assumed a syntactic analysis where both the DP-inst and the DPacc are VP-internal arguments of the verb, and the relevant question is whether we are dealing with a subject and an object, two objects or an adverbial and an object? As mentioned in section 3.1 above, I follow Babby (1994) and Lavine & Freidin (2002) in assuming that both DPs are arguments, which seems to be supported by Smith (1994:45) because he analyzes the DP-inst as being part of the typical construal of an event. I understand this to mean that the instrumental-role is subcategorized by the verb, and so could potentially be an argument of the verb (see however Grimshaw & Vikner 1993 for examples of obligatory adverbials).

There seem to be some limitations to which verbs can be used as the predicate in the adversity impersonal construction. Smith (1994:31), citing Green (1980), states that only a certain set of verbs seem to be used in this construction and Mustajoki & Kopotev (2005:1) mention that the predicates found in the adversity impersonal construction are of the type:

(63) Zalit’, zamesti, sžeč’, udarit’.
* flood * cover *(up)* burn *(up)* strike

(adapted from Mustajoki & Kopotev 2005:1)
A look through the 2303 examples collected by Mustajoki & Kopotev gives the same impression, namely that only a quite limited set of verbs appear in the adversity impersonal construction.

3.2 Efficiency calculation for adversity impersonals

In the efficiency calculation of transitive sentences the type of DP was a factor. In the calculation for adversity impersonals, I have chosen to disregard whether the DPs are projected immediately by a PNCC dominated only by one XP, or whether they are projected by a PNCC dominated by more than one XP (see 2.4.8 above). Instead all DPs are assumed to be projected by the first word appearing in them, and this first word is assumed to be dominated by only one XP. This is obviously not true, and introduces some extra imprecision in the data. The reason why this is justified is that the structures for the adversity impersonals are much more controversial than the structures for the transitive sentences, and since we cannot be sure that the structures are precise, there is less reason to make a fine-grained efficiency calculation.

The analysis should however tell us something about the correlation between efficiency and frequency, in spite of this kind of imprecision.

To exemplify how the calculation is carried out, let us look at the orders in turn, each time assuming that both DPs are pronominal and contain only one XP.

3.2.1 Efficiency calculation – OVI-order

The first word is the DP\textsubscript{acc}, and this allows the parser to construct the following:

\begin{equation}
\text{OVI} \quad \text{DP}_{\text{acc}} \quad D^0
\end{equation}
Then the verb follows and now the parser can either assume that it is dealing with an OVS-order and proceed as described above in subsection 2.4.6, or it can use the verb type and the third person singular (and neuter, if it is past tense) morphology to grasp that the current structure is an adversity impersonal.

As described in Mustajoki & Kopotev (2005:1) the verbs that they find in adversity impersonal structures usually belong to a rather limited class, and this observation is also made in Smith (1994:31, citing Green 1980). The third person singular (and neuter in past tense) morphology combined with a verb belonging to this relatively small set could give the parser the necessary clue. In Smith (1994) it is one of the major points that the third person singular morphology has a specific meaning, and that the third person singular morphology in adversity impersonals is different (i.e. has a different meaning) from the personal use of the third person singular morphology (see Smith 1994:42). This supports the idea that the third person singular morphology can provide the parser with the information that it is dealing with an adversity impersonal construction as soon as the verb is encountered.

So when the verb is parsed, I assume that the parser realizes what it is dealing with, attaches the DPacc in IP-spec, and completes the IP-domain and the vP-domain. First we look at the IP-domain (I remind the reader that both DPs are assumed to be single word pronominal DPs):

(65) OVI

The IP-domain has two ICs and contains three XPs – 2/3 = 67%.

The vP-domain has two ICs and contains two XPs and has a perfect ratio of 2/2 = 100%:
Then the DP\textsubscript{inst} is parsed and the VP-domain is completed:

The VP-domain has one IC and contains two XPs, so the ratio is $1/2 = 50\%$.
The aggregate ratio for the OVI-order is $67+100+50:3 = 72\%$.

3.2.2 Efficiency calculation – IVO-order

The IVO-order is parallel to the OVI-order, and again I assume that the morphology on the verb allows the parser to realize that it is dealing with an adversity impersonal construction. First the DP\textsubscript{inst} is parsed and constructed and then the IP- and VP-domains are completed when the verb is parsed:

The IP-domain has two ICs and contains three XPs – $2/3 = 67\%$. 
The vP-domain has two ICs and contains two XPs and has a perfect ratio of $2/2 = 100\%$:

(69) \[ \text{IVO} \quad \text{IP} \]
\[ \text{DP}_{\text{inst}} \quad \text{vP} \quad \text{D}^0 \quad \text{v}^0 \quad \text{VP} \]

Then the DP$_{\text{acc}}$ is parsed and the VP-domain is completed:

(70) \[ \text{IVO} \quad \text{IP} \]
\[ \text{DP}_{\text{inst}} \quad \text{vP} \quad \text{VP} \quad \text{D}^0 \quad \text{v}^0 \quad \text{DP}_{\text{acc}} \]

The VP-domain has one IC and contains two XPs, so the ratio is $1/2 = 50\%$.

The aggregate ratio for the IVO-order is $67+100+50:3 = 72\%$.

3.2.3 Efficiency calculation – OIV-order

First the DP$_{\text{acc}}$ is parsed and at this point all that can be inferred is the DP itself. Then the DP$_{\text{inst}}$ comes along, but at this point the parser cannot know whether it is parsing a regular transitive sentence with an adverbial instrumental phrase or whether it is the beginning of an adversity impersonal construction, so both DPs are simply constructed and left unattached (or alternatively attached to unspecified XPs and then reanalyzed when the verb appears). Only when we encounter the verb can the parser be certain that it is dealing with an adversity impersonal with an OIV-order, and all domains are completed. First we look at the IP-domain:
The first IC in the IP-domain is constructed by the PNCC for DPacc, and the last IC in the domain, the vP2-node, is constructed by the verb. The domain has two ICs and contains 5 XPs. $2/5 = 40\%$.

The next domain is the vP2-domain:

The vP2-domain has two ICs and contain 3 XPs, so the ratio is $2/3 = 67\%$.

The final domain, the vP1-domain, has two ICs and contains two XPs, so the ratio is $2/2 = 100\%$:

The aggregate ratio for the OIV-order is $40 + 67 + 100 : 3 = 69\%$. 
3.2.4 Efficiency calculation – IOV-order

The calculation for the IOV-order is parallel to the calculation for the OIV-order. Again the parser cannot be sure that it is dealing with an adversity impersonal construction until it reaches the verb. When the verb is parsed all three domains are completed.

The IP-domain:

(74) IOV
     /\  \
    IP / \  \
   /  \ vP2 \
  /    \  \
 DP_inst DP_acc vP1
  |     |
  \    \|
   \   \v
    \  VP

The first IC in the IP-domain is constructed by the PNCC for DP_inst and the last IC in the domain, the vP2-node, is constructed by the verb. The domain has two ICs and contains 5 XPs. 2/5 = 40%.

The next domain is the vP2-domain:

(75) IOV
     /\  \
    IP / \  \
   /  \ vP2 \
  /    \  \
 DP_inst DP_acc vP1
  |     |
  \    \|
   \   \v
    \  VP

The vP2-domain has two ICs and contains 3 XPs, so the ratio is 2/3 = 67%.

The final domain, the vP1-domain, has two ICs and contains two XPs, so the ratio is 2/2 = 100%:

(76) IOV
     /\  \
    IP / \  \
   /  \ vP2 \
  /    \  \
 DP_inst DP_acc vP1
  |     |
  \    \|
   \   \v
    \  VP
The aggregate ratio for the IOV-order is 40+67+100:3 = 69%.

### 3.2.5 Efficiency calculation – VOI-order

As mentioned above in 3.2.1, I assume that verb type and third person singular (and possibly neuter) morphology is enough to make the parser realize that the current structure is an adversity impersonal. Thus when the sentence is initiated by the verb, the parser knows that the verb must be in C₀ and that farther down will follow an IP, a vP and a VP:

\[
\begin{align*}
\text{VOI} & \\
\rightarrow & \text{CP} \\
\rightarrow & \text{IP} \\
\rightarrow & \text{vP} \\
\rightarrow & \text{VP} \\
\rightarrow & \\
\end{align*}
\]

The parser does not yet know which DPs it will encounter, nor does it know the exact location of them. But the CP-domain is completed as soon as the verb is parsed, and that domain has two ICs and contains two XPs, so the ratio is 2/2 = 100%.

\[
\begin{align*}
\text{VOI} & \\
\rightarrow & \text{CP} \\
\rightarrow & \text{IP} \\
\rightarrow & \text{vP} \\
\rightarrow & \text{VP} \\
\rightarrow & \\
\end{align*}
\]

The vP-domain is completed as well, and this domain has just one IC, the VP-node, and contains four XPs (at this point in the parse there are no XPs in IP-spec). 1/4 = 25%:
When the DP$_{acc}$ is parsed next, the IP-domain is completed:

The first IC in the IP-domain is constructed by whatever word allows the parser to infer the DP$_{acc}$-node, and the second IC in the domain, the vP-node, is constructed by the verb. The IP-domain has two ICs and contains four XPs – 2/4 = 50%.

When the DP$_{inst}$ is constructed the VP-domain is completed. The VP-domain has one IC and contains two XPs, 1/2 = 25%:

The aggregate ratio for the VOI-order is thus 100+25+50+25:4 = 50%.
3.2.6 Efficiency calculation – VIO-order

The efficiency calculation for the VIO-order is parallel to the calculation for the VOI-order. The verb signals to the parser that it is dealing with an adversity impersonal, and the CP- and vP-domains are completed immediately. The IP- and VP-domains are completed as the DPs are inferred.

The CP-domain is completed as soon as the verb is parsed, and that domain has two ICs and contains two XPs, so the ratio is $2/2 = 100\%$:

\[ \text{(82) VIO} \]

\[
\begin{array}{c}
\text{CP} \\
V^{o+c^o} IP \\
\text{vP} \\
\text{VP} \\
\end{array}
\]

The vP-domain is completed as well, and this domain has just one IC, the VP-node, and contains four XPs (at this point in the parse there are no XPs in IP-spec). $1/4 = 25\%$:

\[ \text{(83) VIO} \]

\[
\begin{array}{c}
\text{CP} \\
V^{o+c^o} IP \\
\text{vP} \\
\text{VP} \\
\end{array}
\]

When the DP\text{inst} is parsed next, the IP-domain is completed:
The first IC in the IP-domain is constructed by whatever word allows the parser to infer the DP\text{inst}-node, and the second IC in the domain, the vP-node, is constructed by the verb. The IP-domain has two ICs and contains four XPs – 2/4 = 50%.

When the DP\text{acc} is constructed the VP-domain is completed. The VP-domain has one IC and contains two XPs, 1/2 = 25%:

The aggregate ratio for the VOI-order is thus 100+25+50+25:4 = 50%.

3.2.7 Summary of the efficiency calculations

When the calculation is carried out assuming that both DPs are single word pronominal DPs, the aggregate ratios for all six orders are:
The result can be seen as a ranking showing which order is the most efficient, which is the second most efficient and so on:

1. OVI and IVO
3. OIV and IOV
5. VOI and VIO

3.3 Results of the adversity impersonals test

Of the 177 sentences, PTOC made an unambiguous prediction in 127 cases; in the remaining 50 cases, two word orders were tied for the first place. Of the 127 cases where there was a single prediction, 85 (67%) had the word order predicted by PTOC. This is significantly more than expected under a null hypothesis of random allocation, which would lead to 1/6 (16.7%) correct predictions ($successes = 85, n = 127, p < 0.0001$, exact binomial test).

For the 50 cases where two orders were equally efficient, the observed word order was one of these in 35 cases (70%). This is also significantly more than a null expectation of 2/6 (33.3%) correct predictions ($successes = 35, n = 50, p < 0.0001$, exact binomial test).

In Table 5 the distribution of the data is presented. Notice that some of the cells contain decimals, because in the 50 cases where two orders are equally efficient, both are expected. So if an IVO-order is observed, and both IVO and OVI are expected, 0.5 are added both under IVO and OVI in the table.
Table 5: Distribution of adversity impersonals data

<table>
<thead>
<tr>
<th>Observed</th>
<th>IVO</th>
<th>OVI</th>
<th>Expected</th>
<th>IOV</th>
<th>OIV</th>
<th>VIO</th>
<th>VOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVO</td>
<td>29</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OVI</td>
<td>29.5</td>
<td>73.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IOV</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OIV</td>
<td>5.5</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIO</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOI</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.3.1 Complexity and variation

PTOC always predicts either the OVI-order or the IVO-order, or both. The efficiency advantage of these orders is greater when the DPs are very complex than when they are short, because when the DPs are short processing will be rapid and efficient with any order. According to this logic we should expect to see a higher ratio of non-OVI/IVO orders when the DPs are short and a lower ratio of non-OVI/IVO orders when the DPs are complex.

In the collected data the ratio of non-OVI/IVO orders is 18%, and as expected this ratio is lower when complexity increases, with 7% for cases where one DP has a complexity of five or more, and 11% for the cases where both DPs have a complexity of three or more (the data is shown in table 6 below). No examples in the data had both arguments as pronominal, but for the part of the data where both DPs had a complexity of two, we find a 29% ratio of non-OVI/IVO orders, which is higher than in the collected data as expected.

The conclusion is that variation is mainly found in the cases where the efficiency cost of non-OVI/IVO orders is minimal, and variation is much less in cases where the processing cost of non-OVI/IVO orders is high.

Table 6: Distribution of OVI/IVO and non-OVI/IVO orders

<table>
<thead>
<tr>
<th></th>
<th>One DP All</th>
<th>One DP 5+</th>
<th>Both DPs 3+</th>
<th>Both DPs 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>OVI/IVO</td>
<td>146</td>
<td>50</td>
<td>24</td>
<td>32</td>
</tr>
<tr>
<td>non-OVI/IVO</td>
<td>31</td>
<td>4</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Ratio of non-OVI/IVO</td>
<td>18%</td>
<td>7%</td>
<td>11%</td>
<td>29%</td>
</tr>
<tr>
<td>Totals</td>
<td>177</td>
<td>54</td>
<td>27</td>
<td>45</td>
</tr>
</tbody>
</table>
3.3.2 Complexity and information structure

As discussed in section 2.5.2 above, it is interesting to see whether PTOC is successful for the subpart of the data where the DPs have equal complexities. The reason is that complexity and givenness could be correlated in the sense that new items are typically longer and given items are typically shorter, and it is then difficult to determine whether efficiency effects are by-products of givenness effects (or vice versa). If efficiency effects were simply a by-product of givenness effects, then we should expect PTOC to be unsuccessful in the data where the DPs are of equal complexity.

PTOC’s predictions are more accurate than random even for cases where the complexities of both DPs are equal. As above in 3.3 I divide the data into two groups depending on whether PTOC makes a single prediction or predicts two orders to be equally efficient. As it happens we only find examples with equal DPs in the group where PTOC predicts two orders to be equally efficient, and none in the other group. For the 50 cases where two orders were equally efficient, the observed word order was one of these in 35 cases (70%). This is significantly more than a null expectation of 2/6 (33.3%) correct predictions \( \text{successes} = 35, n = 50, p < 0.0001, \text{exact binomial test}. \)

So PTOC is successful even in the cases where the DPs have equal complexities.

4. The double object construction

The data is from the on-line corpus available at ruscorpora.ru. The examples were found by searching for the verb dat”to give” followed by an accusative and a dative DP – no pronouns were allowed to ensure that the two arguments are treated the same by information structure theories. If pronouns are special with regards to ordering as Slioussar (2007:110-118) suggests, then this possible extra factor could affect the result in the double object test, because only postverbal elements are examined and only two orderings are possible: \( \text{DP}_{\text{dat}} - \text{DP}_{\text{acc}} \) and \( \text{DP}_{\text{acc}} - \text{DP}_{\text{dat}} \). The elimination of pronouns from the data in this test rules out the

\[ \text{All cases where PTOC predicts two orders to be equally efficient have DPs with equal complexities. The IVO-order and the OVI-order have equivalent structures, so when the DPs are equal they are equally preferred (see the efficiency calculations in 3.2.1 and 3.2.2 above).} \]
possibility that the result reflects some special discourse status of pronouns. In the data no words intervene between the verb, the DP_{dat} and the DP_{acc}.

This procedure left me with 228 examples. To avoid having multiple examples from a single author, I randomly choose one example per author and thus ended up with 147 examples (as above the random method was to generate a random number next to each example using the Excel function RANDBETWEEN and then consistently pick only the highest numbers when there was a choice to be made).

PTOC predicts that we should find a correlation between the processing efficiency of the orders and the frequency, so that the most efficient orders should be most frequent.

If on the other hand information structure status is responsible for the order of the DPs in the double object construction, then we do not expect to find a correlation between efficiency and frequency.

### 4.1 The syntax of the double object construction

Much has been written on the double object construction (see Emonds & Whitney 2005 for an overview), and many analyses have been suggested. Here I will assume the analysis in Bailyn (1995), where the order verb- DP_{acc} - DP_{dat} is the basic order:

(88) Basic order:

```
  vP
 / \  
 v'  VP
 / \  
 DP_{acc} V'
 / \  
 t_i DP_{dat}
```

(adapted from Bailyn 1995:37, (41))

The alternative order, verb- DP_{acc} - DP_{dat}, must be derived by scrambling, and this is what I assume here:
The assumption that the accusative DP is base-generated in the specifier of the VP is inspired by Bowers (1993), but it is controversial and both Slioussar (2007) and Dyakonova (2007) argue against this analysis. For the moment we will assume Bailyn's analysis, but in chapter 6 we return to the alternative analyses and look at how the efficiency calculations are affected when the analysis is altered.

4.2 Calculation

The verb in all examples is dat' "to give". The parser will construct all the structure that can be inferred as soon as possible, so if Bailyn's structures for double objects are assumed, then the parser knows that at least a VP-shells structure will ensue when the verb dat' "to give" is encountered. The parser cannot know yet whether it is the derived or the basic order that will follow:

At this particular point in the on-line parsing the vP-domain is completed, since both its ICs (v₀ and VP) are constructed by the verb. The dotted lines and the question marks indicate that we still do not know for sure what will come. The next word in the on-line parsing could
be an adverb and then the DPs must come later in the parse. But whatever the next word may be, adverb, DP_{dat} or DP_{acc}, the parser has to assume a VP-node as a complement to v^o.

If the sentence continues with the DP_{dat}, then the parser can be sure that we are dealing with the derived order and not the basic order. This means that there must be at least two VP-nodes and consequently the parser will construct VP1:

\[ (91) \]

\[
\begin{array}{c}
\text{vP} \\
\text{v}^o \\
\text{VP2} \\
\text{VP1} \\
\text{DP_{dat}} \\
\text{DP_{acc}} \\
\text{VP10domain} \\
\text{vP1} \\
\text{v'} \\
\text{t_i, t_j} \\
\end{array}
\]

At this point the parser does not know for sure whether VP1 will have a DP in its specifier, or whether an adverbial is adjoined. Only when the DP_{acc} is encountered, is the parsing of the VP1-domain complete.

The basic order and the derived order have identical vP-domains, so this can be disregarded in the calculation. The difference between the two orders is that one of them has two VP-domains while the other has only one VP-domain (traces and bar-levels are disregarded as usual):

\[ (92) \]

\[
\begin{array}{c}
a. \text{Basic order:} \\
vP \\
v^o \\
\text{VP} \\
\text{DP_{acc}} \\
\text{DP_{dat}} \\
\text{VP10domain} \\
\text{vP1} \\
\end{array}
\]

\[
\begin{array}{c}
b. \text{Derived order:} \\
vP \\
v^o \\
\text{VP2} \\
\text{DP_{dat}} \\
\text{VP1} \\
\text{DP_{acc}} \\
\end{array}
\]

To demonstrate how the calculation is performed, I will calculate the efficiency of both orders using the noun devuška “girl” for the DP_{dat} and using the noun podarok “gift” for the DP_{acc}.

The single VP-domain in the basic order (58)a has two ICs, the DP_{acc} and the DP_{dat}. The DP_{acc} is constructed when the first constructing word in the DP_{acc} is parsed and the final
constituent in the domain, the \( \text{DP}_{\text{dat}} \), is constructed when the first constructing word in the \( \text{DP}_{\text{dat}} \) is parsed. In this case the PNCC for the last constituent is also the only word in the constituent, namely \textit{devuška} “girl”. So the VP-domain stretches from the first word in the \( \text{DP}_{\text{acc}} \) to the PNCC in the \( \text{DP}_{\text{dat}} \) including all material between these two points:

\[
(93) \quad \begin{array}{c}
\text{vP} \\
| \\
\text{v} \\
| \\
\text{dal} \\
| \\
\text{gave} \\
| \\
\text{DP} \\
| \\
\text{NP} \\
| \\
\text{podarok} \\
| \\
\text{gift} \\
| \\
\text{DP} \\
| \\
\text{NP} \\
| \\
\text{devuške} \\
| \\
\text{girl} \\
\end{array}
\]

The VP-domain contains 5 XPs and has two ICs, so the ratio is \( 2/5 = 40\% \).

In the derived order (58)b we find not one, but two VP-domains. The first VP-domain, the VP2-domain, has two ICs, \( \text{DP}_{\text{dat}} \) and VP1. The \( \text{DP}_{\text{dat}} \) is constructed by the first constructing word (which is also the only word in this case) and I assume that the VP1-node is constructed by the finite verb, so the VP2-domain stretches from the finite verb to the VP1-node:

\[
(94) \quad \begin{array}{c}
\text{vP} \\
| \\
\text{v} \\
| \\
\text{dal} \\
| \\
\text{gave} \\
| \\
\text{DP} \\
| \\
\text{NP} \\
| \\
\text{devuške} \\
| \\
\text{girl} \\
| \\
\text{NP} \\
| \\
\text{podarok} \\
| \\
\text{gift} \\
| \\
\text{VP1} \\
| \\
\text{DP} \\
| \\
\text{DP} \\
\end{array}
\]

This VP2-domain has 5 XPs and two ICs, and the ratio is \( 2/5 = 40\% \).

The VP1-domain has only one IC, \( \text{DP}_{\text{acc}} \), and this DP is constructed when the first constructing word is parsed. This VP1-domain thus contains only the mother node itself and the part of the \( \text{DP}_{\text{acc}} \) that dominates the PNCC (which in this case is the entire DP):
I then add the ratios for the two domains in the derived order (IO DO) and divide the result with two to get the average ratio: \(33+40:2 = 36.5\%\).

This average ratio of 36.5\% is lower than the ratio for the basic order, which was 40\%, and this means that in this particular case (where both DPs have complexities of 2 XPs) PTOC predicts that the basic order should be preferred.

### 4.2.1 DP type and the double object construction

As mentioned in 2.4.8 above, DPs can be divided into different types depending on how many XPs dominate the PNCC. If the DP is pronominal there will be only one XP dominating the PNCC, because the PNCC is the pronoun itself and above the D\(^o\) position there is only one XP. If the DP has a noun or an adjective as the first word, then there will be 2 or 3 XPs dominating the PNCC.

This is relevant with respect to the efficiency calculation of double object constructions, because in the basic order the VP-domain is complete when the DP\(_{\text{dat}}\) is constructed and in the derived order the VP1-domain is complete when the DP\(_{\text{acc}}\) is constructed. Depending on the DP type, the VP-domain in the basic order and the VP1-domain in the derived order will be more or less complex.

I will demonstrate this by showing how the VP1-domain is affected in the derived order depending on DP type. The lower VP-domain has one constituent, DP\(_{\text{acc}}\), and depending on the type of this DP, the domain will contain two, three or four XPs as shown in (96), (97) and (98) (the XPs inside the domain are marked with bold):
(96) Lower VP-domain of the derived order with a type-a DP (leftmost word dominated by 1 XP):

```
  VP
  /\  
 DP  
 /   
 D\o  NP
    /   
  moegu NP
     /    
  my.ACC friend.ACC
```

(97) Lower VP-domain of the derived order with a type-b DP (leftmost word dominated by 2 XPs):

```
  VP
  /\  
 DP  
 /   
 NP  
 /   
 N\o  NP
     /   
 Ivana Ivan.ACC
```

(98) Lower VP-domain of the derived order with a type-c DP (leftmost word dominated by 3 XPs):

```
  VP
  /\  
 DP  
 /   
 NP  
 /   
 AP  NP  
 /     
 A\o  NP
    /    
 novogo druga
     /    
 new.ACC friend.ACC
```

The type of the DPs will affect the efficiency calculations, because depending on the DP-type a different number of XPs will be contained in the domain.
4.3 Results

For each of the 147 examples, the efficiency was calculated for the two possible orders. In all cases, efficiency depended on word order, so PTOC made a prediction in all 147 cases. PTOC predicts that the most efficient order should be most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 88% of cases, refuting the null hypothesis ($successes = 129, n = 147, p < 0.0001$, exact binomial test).

4.3.1 Complexity and information structure

As mentioned above (2.5.2) it has been suggested that information structure status and length are correlated, and that this is the reason why PTOC is successful (see Gries 2003a:157, Arnold et al. 2000:34). If this was true then we should expect that PTOC is unsuccessful in cases where both the DPs are of equal complexity, and also when the complexity difference is minimal, since length and information structure status cannot be correlated in these cases (the raw data can be seen in table 7).

If frequency is simply correlated with the length of the DPs, then we would not expect efficiency to be able to predict word order in the cases where the DPs have equal lengths. In the 46 cases where both the DPs have equal complexities, the expected order is observed in 72% of cases, refuting the null hypothesis ($successes = 33, n = 46, p = 0.004$, exact binomial test).

Table 7: Double object data

<table>
<thead>
<tr>
<th></th>
<th>All</th>
<th>DPs equal</th>
<th>Difference 1-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected</td>
<td>129</td>
<td>33</td>
<td>45</td>
</tr>
<tr>
<td>Unexpected</td>
<td>18</td>
<td>13</td>
<td>4</td>
</tr>
</tbody>
</table>

Consider the data where the complexity difference between the two DPs is only 1 to 3 XPs. In these cases we have little reason to assume that the longer DP is much more likely to
be more salient (to be the rheme/focus), since the information encoded in the DPs are almost at the same detail level:

(99) Gazeta, napečatavšaja "Otkrytoe pismo", dala_DPacc nedvusmyslenuju ocenku
     paper printed open letter gave unambiguous evaluation
     DPdat ētomu volplju generalskogo bezumija.
     this cry general madness
     "The paper that printed "the open letter" gave an unambiguous evaluation of the
general’s cry of madness"

(100) Dolžno priznati'sja, čto on dal_DPacc iskusnoe napravlenie DPdat dvīženijam svoej armii.
     have.to admit that he gave clever direction movements his army
     "One has to admit, that he gave a clever direction to his army's movements"

These examples are from the data and are typical for the examples with small complexity differences.

For the part of the data where the complexity difference is 1-3 XPs, the expected order is observed in 92% of cases, refuting the null hypothesis (successes = 45, n = 49, p < 0.0001, exact binomial test).

What we see is that PTOC is successful in the cases where the DPs have equal complexities and where the DPs differ minimally in complexity. This shows that efficiency cannot be reduced to a correlation between weight and information structure.

### 4.3.2 Other factors that could influence the order of the objects

In Primus (1998) three factors are mentioned that could influence word order choice apart from complexity. The factors are case, theta-role and animacy. The idea is that a DP whose case is higher on the case-hierarchy is more likely to precede a DP with a case that is lower on the case hierarchy (Primus 1998:437-438, see Dowty 1991 on proto-roles). According to this view the DP_accc should precede the DP_dat.
The theta-role of the DP can, however, also play a role, and this actually counters the case ordering preference, because (proto-)recipients prefer to precede (proto-)patients (Primus 1998:432, 438). This means that for a language like Russian we are left with one factor – animacy. The preferred order is that the animate DP precedes the inanimate (Primus 1998:458).

To test this hypothesis I have coded the double object data for animacy, by which I refer to the subgender found in Russian (see Corbett 1991:42). In most cases it is quite clear how to discern between animate nouns and inanimate nouns, since the category animate simply contains nouns that denote humans and animals (so plants are inanimate). Nouns denoting groups of people (like narod “people” or polk “regiment”) are not considered animate, and polysemous words like universitet “university” which can mean “the institution”, “the people in this institution” or “the building in which the institution is situated” are not considered animate even if it is clear that it is used in the group-of-people sense (see e.g. Christensen 1996).

In Corbett (1991:42), Ward (1965:206-207) and Christensen (1996:21) a few exceptions are mentioned: Mikrob “microbe” and bakterija “bacteria” are usually animate, but also used as inanimate, korol’ “king” is animate even when used in connection with playing cards or chess, tip “type” is animate when used about a person, pokojnik “deceased” is surprisingly an animate noun and kukla “doll” is animate too.

In the data there are a few cases where it is not immediately obvious whether the noun should be considered animate or not. This concerns the following three nouns: Zarodyš “fetus”, slatej “?” and pauk “spider”.

I performed a Google-search for the strings “vidit zarodyš” and “vidit zarodyša” which both mean: “see fetus” but with the difference that in the first string zarodyš “fetus” is inanimate (the form is identical with the nominative) and in the second string zarodyša “fetus” is animate (the form is identical with the accusative). There were only 5 hits for the string “vidit zarodyša” and all had a negation, which would explain the genitive case form.

For the string “vidit zarodyš” I found 385 hits. This suggests that the word zarodyš “fetus” is considered inanimate in Russian, and consequently I coded it as such in the data.

---

31 In the morphological system animacy is expressed as a syncretism between accusative and genitive seen in the singular for first declension nouns, and for all animate nouns in the plural.
32 This search and the pauk-search were both carried out on November 12, 2009. Google was used instead of Nacional’nyj Korpus Russkogo Jazyka because of too few hits (especially with the word zarodyš “fetus”).
The word *slatej* “?” is impossible to find in dictionaries and even on the internet, but when example sentence 64 in appendix E is scrutinized more closely, we see that all the words are spelled as if the speaker cannot pronounce voiced obstruents. If the sounds in *slatej* are voiced, then we get *zlodej* which means “evil-doer, villain” and this word is clearly animate.

To see whether *pauk* "spider" is animate in Russian, I performed another Google-search for the strings “on vidit pauk” and “on vidit pauka”, which both are intended to mean “he saw (the) spider”, but with the difference that the first suggests inanimacy and the latter animacy.

One hit was found for “on vidit pauk”, but in this example *pauk* "spider" was not the object:

(101) On vidit, pauk sidit…

*he sees* *spider sits*

“He is watching, the spider is sitting…”

For the string that suggests animacy 1450 hits were found and only a subpart of the examples contains a negation so the accusative/genitive morphology cannot be explained by the genitive of negation. This suggests that *pauk* "spider" is animate in Russian.

Now let us turn to the result. For 85 cases, one DP was animate and the other inanimate. In these cases, the animate-first hypothesis predicts that the animate DP should be first. This order is observed in 49% of cases, supporting the null hypothesis of equal probability (*successes* = 42, *n* = 85, *p* = 1, exact binomial test).

The animate-first hypothesis has no predictions for more than a third of the data, and for the remaining 85 cases, the animate first hypothesis is not a better predictor than random guesswork, suggesting that animacy is not a relevant factor for the order of double objects in Russian.

Jaeger & Norcliffe (*in press*) sum up the results gathered from cross-linguistic studies in language production, and in this context it is interesting that they mention how animacy-effects have been demonstrated for English (and a few other languages), but it is even more interesting that there are language differences with regards to animacy. So when left-dislocation is considered, we see an animacy effect in Spanish, but an anti-animacy effect in English (Jaeger & Norcliffe *in press*: 880-884). Their point is that it is important to test
hypotheses on multiple languages, because you might not find the same effects in Spanish as you do in English.

Their point is well-taken here, because even though animacy-effects are well-documented for the English double object construction (see Bresnan 2007, Bresnan et al. 2007 and Jaeger & Norcliffe in press), it does not seem to be the case that animacy plays a role for the order of double objects in Russian.

5. The order of postverbal PPs

If two PPs headed by na "at" and čerez "through" occur after the verb smotret' "to look" in Russian, then both orders are grammatical:

(102) a. Katja smotrela na dom čerez okno

Katya looked at house through window
"Katya looked at the house through the window"

b. Katja smotrela čerez okno na dom

"Katya looked through the window at the house"

Both orders are possible as well when PPs headed by k "to" and s "with" occur after the verb idti "to walk":

(103) a. Jegor šel k domu s bratom

Jegor walked to house with brother
"Jegor walked to the house with his brother"

b. Jegor šel s bratom k domu

"Jegor walked with brother to house"

"Jegor walked with his brother to the house"
This also goes for two PPs headed by *u* "at" and *v* "in" after the verb *sidet* "to sit":

(104) a. Julja sidela *u* okna *v* dome
   
   *Julia sat* at window in house
   "Julia sat by the window in the house"

   b. Julja sidela *v* dome *u* okna
   
   *Julia sat* in house by window
   "Julia sat in the house by the window"

In other words, the speaker has to make a word order choice in these cases, and PTOC claims that the choice is influenced by processing considerations. The order of the two PPs that result in the highest processing efficiency is predicted to be chosen more frequently than the order that results in the lowest processing efficiency.

If on the other hand information structure is what decides the choice between the two alternative orders of the postverbal PPs, then we do not expect to find a correlation between efficiency and frequency.

5.1 The syntax of postverbal PPs

One possible analysis of postverbal PPs is to assume that they are right-adjoined to VP:

(105)  

```
            VP
            /\  
           /  \  
          /    \  
         /      \  
        /        \  
       /          \  
      /            \  
     /              \  
    /                \  
   /                  \  
  /                    \  
 /                      \  
V'                     P'   P'
\                      /  \  /  
\                     /    \ /    \  
\                    /      \      \  
\                   /        \        \  
\                  /          \          \  
\                 /            \            \  
\                /              \              \  
\               /                \                \  
\              /                  \                  \  
\             /                    \                    \  
\            /                      \                      \  
\           /                        \                        \  
\          /                          \                          \  
\         /                            \                            \  
\        /                              \                              \  
\      /                                \                                \  
\     /                                  \                                  \  
\    /                                    \                                    \  
\   /                                      \                                      \  
\  /                                        \                                        \  
\ /                                          \                                          \  
V°                                         P°  XP  P°  XP
```

Another possibility is to base-generate the PPs in a VP-shell structure in the specifier and complement position of VP and then derive the order by moving the verb to $v^0$: 

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A third possible analysis is to adjoin both PPs to VP, but to the left, and then move the verb to $v^0$ to derive the order:

(107)

Fortunately, we do not have to choose between these alternative analyses, because whichever we choose the efficiency calculation will yield the same result. This is because the VP domain in all three cases will extend until the second preposition is parsed, so the complement of the second preposition will in all cases be excluded from the VP domain (traces are inferred, not parsed). In effect this has the result that the efficiency difference between the two alternative orderings is affected solely by the complexity difference between the two complements of the prepositions: If they differ in complexity, then the highest efficiency is achieved by excluding the most complex complement. If they do not differ, then either order is equally efficient.

To illustrate this, the three alternative analyses are repeated here with the beginning and completion of the VP domain marked by vertical lines:
In all cases the finite verb allows the parser to infer the existence of the VP node, and in (110) the VP containing the trace is inferred immediately when the finite verb is parsed, so it is already there when the final preposition is parsed, and hence only the complement of the second preposition is excluded from the relevant parsing domain.

In this test I will assume that both PPs are adjoined, which is not unreasonable regarding the verbs *idi* "to walk" and *sidet'"to sit" since they are considered intransitive in the grammars that I am aware of, and the PPs must thus be adjoined in these cases. But the PP with *na* "at" could be an argument of the verb *smotret'"to look", and in that case the
efficiency calculation would be altered for these cases. The difference would be that when both the PPs are of an equal complexity, then the order PP-*na* precedes PP-čerez would actually be preferred, and when PP-*na* is more complex than PP-čerez by 1 XP the efficiency of the two orders would be equal.

### 5.2 The data

The examples are from the electronic corpus found at <ruscorpora.ru>; 529 examples were extracted by searching first for certain verbs, relevant prepositions and relevant case forms\(^\text{33}\), then the data were checked in order to eliminate examples where material intervenes between the verb and the two prepositional phrases. Thus in all 529 examples the verb was followed immediately by the first PP, which was in turn followed by the second PP. To make sure that no author is represented more than once I generated random numbers next to the 529 examples using the RANDBETWEEN function in Excel, and then picked the example with the highest number in all cases where there were multiple examples from a single author. After this procedure I ended up with 293 example sentences.

As mentioned above (section 5) the verbs and prepositions were chosen because they allow both orders, but to make sure, I looked through the data and checked for idioms and possible effects of the size of the referent.

I found the following phrases\(^\text{34}\) which could be argued to be idiomatic:

\[(111)\]

<table>
<thead>
<tr>
<th>Arabic</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. sidet’ u kogo-to v golove</td>
<td>&quot;Be stuck in someone’s head&quot;</td>
</tr>
<tr>
<td>b. sidet’ u kogo-to v nogax</td>
<td>&quot;Be placed next to legs of a lying person&quot;</td>
</tr>
<tr>
<td>c. sidet’ u kogo-to v pečenkax</td>
<td>&quot;Be fed up with somebody/something&quot;</td>
</tr>
<tr>
<td>d. sidet’ u kogo-to v gostjàx</td>
<td>&quot;Be a guest in someone’s home&quot;</td>
</tr>
<tr>
<td>e. sidet’ v gorle u kogo-to</td>
<td>&quot;Be fed up with somebody/something&quot;</td>
</tr>
<tr>
<td>f. idti k čertu c čem-to</td>
<td>“Got to hell with something”</td>
</tr>
<tr>
<td>g. idti k komu-libo s perom za uxom</td>
<td>“Have an intent to trick/cheat someone”</td>
</tr>
</tbody>
</table>

---

\(^{33}\) In example 7 (see appendix F) the preposition *v* “in” would seem to assign accusative instead of locative as in the remaining examples, but both orders are grammatical in this case as well, so this makes no difference for the test: The aim is to see whether processing efficiency influences word order choice in cases where the postverbal PPs can be ordered both ways, and example 7 is exactly such a case.

\(^{34}\) These phrases are used in examples 1, 13, 44, 49, 52, 114, 135, 155, 163 and 260 (see appendix F).
The question is whether these phrases are possible in both orders or not. To check this, I first looked through the data to see if they actually occurred in both orders, which was the case for (111)a, b, c, d and h.\textsuperscript{35} Then I sent examples to two informants\textsuperscript{36} and asked them whether both orders were possible and this was the case in all eight cases. I concluded that the idioms were not a problem for the test, because the only thing I wanted to test was whether efficiency is correlated with frequency in cases where speakers have a choice, and they do in these cases.

The size of the referent might influence the word order choice if e.g. small objects are mentioned before large objects or vice versa. A look at the data reveals two facts. First, in part of the data it is not obvious how to determine the size of the referent (this goes for abstract nouns like \textit{posul} “vow”, and for parts of idiomatic phrases like \textit{v gostjax} “as a guest”). Second, there are plenty of examples with large following small and with small following large\textsuperscript{37}, so neither is ungrammatical, and I conclude that this is not a problem for the test for the same reason that idioms are not a problem.

### 5.3 Results of the postverbal PPs test

For each of the 293 examples, the efficiency was calculated for the two possible orders. PTOC makes a prediction in 218 cases, and in the remaining 75 cases both orders are equally efficient. PTOC predicts that the most efficient order should be the most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The order expected under PTOC is observed in 89\% of cases, refuting the null hypothesis ($successes = 193, n = 218, p < 0.0001$, exact binomial test).

Several studies claim that it has no impact on the results how complexity is quantified (see e.g. Wasow 1997, Gómez Gallo, Jaeger & Smyth 2008 and Jaeger & Norcliffe \textit{in press}), but as argued in chapter 2, section 4.1, the IC-to-XP metric is superior to the IC-to-words

\textsuperscript{35} Examples number 79, 95, 97, 127 and 283 in appendix F.
\textsuperscript{36} The sentences were judged by Julja Vaštalova and Lena Vaštalova, Russians living in St. Petersburg.
\textsuperscript{37} See e.g. examples 4, 10, 12, 19, 67, 69, 287 and 293 for small preceding large, and see e.g. 82, 83, 84, 91, 93, 111, 113 and 120 for large preceding small (in appendix F).
metric in that it takes into account the difference between single word pronominal DPs and single word lexical DPs. If this indeed is an advantage, then we expect PTOC to be more successful when complexity is measured in terms of XPs than when it is measured in terms of words.

To check this I went through the data again, but this time assuming that complexity equals number of words. Of the 293 cases, PTOC makes a prediction in 158 cases, and in the remaining 135 cases both orders are equally efficient. PTOC predicts that the most efficient order should be most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 82% of cases, refuting the null hypothesis (successes = 129, n = 158, p < 0.0001, exact binomial test).

Two things can be said about these results. First, it is clear that with either metric PTOC is successful, supporting the view that the precise quantification is not crucial. Second, it is clear that PTOC is more successful when complexity is measured as XPs, both because the number of successes is higher (89% successes compared to 82% when complexity is measured as words), but also because PTOC makes predictions for a larger portion of the data (74% of the data, compared to only 54% of the data, when complexity is measured as words).

In short, PTOC is a successful predictor either way, but the XP-metric adds precision and strength.

In Hawkins (2000:237) English postverbal PP data are analyzed using the IC-to-word metric and it is interesting to compare the results to mine.

Hawkins analyzes 394 cases with multiple postverbal preposition phrases and the results are as shown here:

(112) Complexity and word order of postverbal PPs – English

<table>
<thead>
<tr>
<th>n= 394</th>
<th>PP1 = PP2</th>
<th>PP2 &gt; PP1 by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2-4</td>
</tr>
<tr>
<td>[v PP1 PP2]</td>
<td>71</td>
<td>60% (58)</td>
</tr>
<tr>
<td>[v PP2 PP1]</td>
<td>-</td>
<td>40% (38)</td>
</tr>
</tbody>
</table>

(Hawkins 2000:237, table 2)

Of the 394 cases, PTOC makes a prediction in 323 cases, and in the remaining 71 cases both orders are equally efficient. PTOC predicts that the most efficient order should be the most frequent order. The null hypothesis is that the positions are equivalent, so the expected
distribution is 50/50. The expected order is observed in 82% of cases, refuting the null hypothesis \( \text{successes} = 265, n = 323, p < 0.0001, \) exact binomial test).

The percentage of successes is the same as in the Russian data when the IC-to-word metric was used, and it would be interesting to see whether the success rate could be raised for the English data by using the IC-to-XP metric instead.

### 5.4 Danish postverbal PPs

219 examples were collected from DK87-90 (an electronic corpus of modern written Danish documented in Bergenholtz 1992). The examples were found by searching for til "to" and fra "from" and filtering out cases where the PPs are not grammatical in both orders, and the cases where the PPs are not postverbal. The strings found were thus of the following type:

\[
(113) \text{Der er ikke langt fra det brede fortov til rendestenen}
\]

\[
\begin{array}{ll}
\text{there is not} & \text{ far from the broad sidewalk to gutter}.\\
\end{array}
\]

\[
\text{“There is not far from the broad sidewalk to the gutter”}
\]

For each of the 219 examples, the efficiency was calculated for the two possible orders. PTOC makes a prediction in 111 cases, and in the remaining 108 cases both orders are equally efficient. PTOC predicts that the most efficient order should be the most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 70% of cases, refuting the null hypothesis \( \text{successes} = 78, n = 111, p < 0.0001, \) exact binomial test).

The percentage of successes (70%) is lower than compared to the Russian data and the English data from Hawkins (2000) (with 89% and 82% respectively). This could reflect an ordering preference not associated with efficiency, but with the semantics of the adverbial PPs. In order to determine whether the semantic function of the adverbials might influence the word order, I coded the 219 examples according to their semantics. As it turned out, almost all the PPs with til "to" denote a place or a goal, and almost all examples with fra "from" denote a source location, as in this example:

\[
\text{(38) Only seven examples have semantic functions different from source or goal, so they are ignored here.}
\]
In the data there are many more examples with PP-fra preceding PP-til than the other way around, so there may be an ordering preference in Danish for having the source before the goal. In order to shed more on this topic, more tests would have to be made with different prepositions.

6. Conclusion

In general the tests show that there is a strong correlation between processing efficiency and frequency. The most efficient order is chosen in most cases in all the data. A summary of the results can be seen in table 8.

<table>
<thead>
<tr>
<th></th>
<th>successes</th>
<th>critical cases</th>
<th>% successes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russian</td>
<td>Transitive sentences - 1 order predicted</td>
<td>122</td>
<td>155</td>
</tr>
<tr>
<td></td>
<td>Transitive sentences - 2 orders predicted</td>
<td>150</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td>Adversity impersonals - 1 order predicted</td>
<td>85</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>Adversity impersonals - 2 orders predicted</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Double object construction</td>
<td>129</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>Postverbal PPs</td>
<td>193</td>
<td>218</td>
</tr>
<tr>
<td>Danish</td>
<td>Postverbal PPs</td>
<td>78</td>
<td>111</td>
</tr>
</tbody>
</table>

The transitive sentence data and the adversity impersonal data show that word order variation (here understood as number of non-SVO orders and number of non-OVI/IVO orders, respectively) is mainly seen in cases where the DPs have low complexities, whereas when the DPs are more complex, variation is very limited. This is expected from a processing perspective, because when the DPs are very short, then the processing cost of using an
inefficient word order is smaller than when the DPs are complex (when the DPs are very small, processing time for the whole sentence is also small regardless of word order).

In several cases the data with equal DPs were considered in order to see whether PTOC's predictions were born out even in these cases. It could be argued that the efficiency effects are merely a reflex of the fact that new items are longer than given items, but clearly the data is not compatible with the idea that efficiency effects are simply a by-product of a link between information structure status and complexity.

In the Danish postverbal PP data, we observed a preference for the source PP to precede the goal/place PP, suggesting that semantic factors could be relevant, but more data and especially a broader variety of prepositions should be considered before any conclusions are drawn.

The conclusion is quite clearly that it is very promising to consider Russian word order from a processing perspective, and that the traditional idea that word order in Russian is driven by information structure should be reconsidered.
4

Information structure theories

1. Introduction

Traditionally Russian word order has been linked with the concepts of theme and rheme, or more generally with information structure. The dominant idea is that the so called free word order in Russian allows the speakers to organize the words in an order that reflects their information structure status (see Kovtunova 1976, Daneš 1986, Firbas 1964, 1971, 1992, Rozental’ 1979, Švedova 1970, 1980, Sgall, Hajičová & Panevová 1986, King 1995 and Slioussar 2007, and see Keijesper 1985 for an overview).

This idea that word order reflects information structure was developed in the Linguistic Circle of Prague and presented in an article by Mathesius (1927), the founder of the Prague School. The scholars, whose works are presented and discussed below, all build directly or indirectly on the works of the Prague School linguists (see Keijesper 1985:3-17 or Newmeyer 2001 for an overview of the Prague School history).

Simplifying somewhat one can say that two lines of research exist in this field. The first line assumes a bipartition of the sentence into a theme part (the topic, or given information) and a rheme part (the focus, or new information) (e.g. Kovtunova 1976, Rozental’ 1979). The other line assumes a more fine grained system with either three parts (e.g. King 1995) or with a continuum of information structural salience (e.g. Sgall, Hajičová & Panevová 1986, Firbas 1992, Slioussar 2007).

The different views unite, however, on the following point: Word order is driven by information structure.
The information structure theories suffer from some serious deficits, which I will discuss below, but let me quickly summarize the major points of criticism.

First, the concepts of theme and rheme are vaguely defined, and often word order is used in the definitions. So rheme is defined as the element that follows the verb, but this definition makes it circular to state that the rheme follows the verb because it is the rheme.

Second, it is claimed that word order sometimes works backwards – i.e. sometimes information structure is encoded in the opposite way. This effectively eliminates any possible counterexample to information structure theories, and potentially makes them vacuous.

Third, information structure theories have little to say about the order of the verb relative to the arguments, so if the order S before O is predicted by information structure theories (if e.g. the subject is given, and the object is new), then we still have no reason to choose SVO over SOV or VSO.

Below a representative collection of the more important works on information structure in Slavic is presented, followed by a discussion of the critical points (sections 3 to 7 below). But first (in section 2) the so-called question test is presented and discussed, because this is the primary tool used to locate the theme and rheme independently of word order. Section 8 below contains the concluding remarks.

2. The question test

To illustrate how the question test works, let us look at these sentences taken from Lambrecht (1994:121, (4.2)):

(1) a. (What did the children do next?) The children went to SCHOOL.
   b. (Who went to school?) The CHILDREN went to school.
   c. (What happened?) The CHILDREN went to SCHOOL.
   d. (John was very busy that morning.) After the children went to SCHOOL, he had to clean the house and go shopping for the party.

The observation is that different stress patterns are compatible with different pragmatic structures. In (1)b where the stress is on the word children, the sentence is perceived as an
answer to a question like who went to school? The stress patterns in (1)a and (1)c would be odd following the question who went to school?

In the unmarked variant (1)a the children are the topic as can be seen from the fact that this stress pattern is the most natural one to use as an answer to what did the children do next? But according to Lambrecht (1994:122) the unmarked intonation is compatible with pragmatic construals where the subject phrase is not the topic. This means that the question test can reveal the cases where the children cannot possibly be the topic ((1)b and c), but the question test cannot with absolute certainty identify when the children is the topic ((1)a).

Focus can also be identified to some extent via the question test. Lambrecht (1994:297) demonstrates how with the following examples (his (5.58):

(2) a. Who saw Bill? - JOHN saw Bill.
   b. Who did Bill see? - Bill/he saw JOHN.
   c. What did Bill do? - Bill/he went straight HOME.
   d. What happened? - BILL went straight HOME.

The question test suggests that John is the focus in (2)a and (2)b, went straight home is the focus in (2)c and Bill went straight home is the focus in (2)d. But as Lambrecht (1994:297-298) points out, it is only in (2)a that the focus is unambiguous. In the other three sentences the stress pattern is compatible with at least one other focus construal. (2)b could for example just as well be an answer to the question in (2)c (Lambrecht 1994:298). When the stress is on the last syllable, the focused constituent can be as small as the last word, but it could also be bigger, and this is the reason why end stress is compatible with several focus interpretations.

When the stress pattern is marked (i.e. if the sentence does not simply have stress on the last element) then the stress provides us with more information than when it is unmarked, and consequently the question test can pin point the position of the topic and the focus with more precision.

When the stress pattern is unmarked, then the question test yields less information. The subject can be the topic, but does not have to be so, and the focus can be the last element, but could include more material (it could be the entire VP).
This is how the question test works with topic and focus in English (ignoring contrastive focus and other possible types of focus), and as far as the so-called neutral focus goes, this seems to be similar in Russian. Zybatow and Mehlhorn (2000) identify three different kinds of focus in Russian, and the first variant, the neutral focus, behaves like the focus discussed in Lambrecht (1994:297-298). The neutral focus includes the last element in the sentence and possibly more material, which is determined by the context (Zybatow and Mehlhorn 2000:417-418, see also Junghanns and Zybatow 1997).

So far there is a correlation both in English and in Russian between word order and topic-focus structure when the stress pattern is unmarked, since the focus is the last element in the clause, and the topic can be (but does not have to be) the first element. Things are complicated in Russian by the existence of two other types of focus: Contrastive focus and verum-focus (Zybatow and Mehlhorn 2000:418-420).

Neither of these focus types corresponds to a fixed position in the sentence. Contrastive focus can be assigned to an element both before and after movement, and verum-focus is assigned to the finite verb and can be assigned in any position (Zybatow and Mehlhorn 2000:418-420).

To summarize: When the stress pattern is marked, then it is possible to identify both the topic and the focus using the question test and the stress. When the stress pattern is unmarked, then we can possibly locate the topic, and we can partially identify the focus. The question test is thus a useful tool and is especially effective when the stress pattern is marked, but it would be an exaggeration to claim that the question test in all cases is a reliable way of identifying topic and focus.

In Cinque (1993:257-260) we find a possible explanation for the reported difference between marked and unmarked stress. Cinque (1993:259) points to the same observation as Lambrecht (1994) does, namely that focus is ambiguous and stress can be on the subject or on the last element. According to Cinque (1993) this ambiguity arises because there are two kinds of stress: Syntactic stress or formally assigned stress which simply goes to the deepest embedded constituent, and discourse stress which has to do with topic and focus and is not limited to the deepest embedded element.

The result of this division is that the unmarked stress/formally assigned stress is not a marker of topic-focus structure/pragmatic structure, and only the marked stress patterns are associated with the topic-focus structure/pragmatic structure of the sentence. In other words,
the observation made in Lambrecht (1994), Zybatow and Mehlhorn (2000) and Cinque (1993) that the unmarked stress is compatible with more than one pragmatic construal, whereas the marked stress patterns reflect the pragmatic structure, is a result of two distinct stress assigning mechanisms: One formal stress assignment procedure and another discourse-related stress assignment.


Kovtunova's version of the theme-rheme theory is mainly presented in Kovtunova (1976), but some minor points and details are to be found in her contributions to the Russian Academy Grammars from 1970 and 1980 (Švedova 1970 and 1980).

The view on word order in Kovtunova (1976) is the classical idea that Russian word order is grammatically free, but fixed according to information structure, so that the word order reflects the pragmatic status of the constituents (Kovtunova 1976:23-25).

A sentence can be divided into a theme, defined as what the sentence is about, and the rheme, defined as what is said about the theme (Kovtunova 1976:7-8, 42-45). Multiple themes are possible, but no examples are given of multiple rhemes, so presumably this is not a possibility. When a sentence contains multiple themes, then the internal ordering of the themes are determined by their relative givenness and newness (Kovtunova 1976:54). That an element is given means that it has been mentioned in the previous context, and being new means to have not been mentioned in the previous context (Kovtunova 1976:42). A typical rheme is new, and a typical theme is given, but this is merely a tendency, not a necessity. The concepts given and new only play a role when multiple themes have to be ordered (Kovtunova 1976:54).

In the typical case, the subject is the theme and the VP is the rheme, and they are ordered with the subject preceding the VP. In the marked cases one or more of the following situations hold: The theme is not the subject, the rheme precedes the theme or the theme and rheme do not correspond directly to syntactic constituents (Kovtunova 1976:8-10, 12-15, 36-38).
3.1 Stress and theme-rheme structure

Since word order is thought to be the formal expression of the theme-rheme structure, something else is needed in the cases where the rheme precedes the theme. To this end Kovtunova (1976:57-59) introduces stress and intonation. She gives the following example:

(3) syn uexal
   son left
   "the son left"

This sentence can have three different theme-rheme structures depending on the stress and intonation. There are two kinds of stress according to Kovtunova (1970:596-598) – logical stress and phrasal stress. The definitions of the two kinds of stress are as follows (my translations):

(4) Logical stress – this is a forceful or dynamic stress (a strengthening of the voice), serving as a way to differentiate the different elements in the sentence.\(^{39}\)

   (Kovtunova 1970:596)

(5) Phrasal stress – this is the strongest stress in the speech unit or group of speech units (i.e. in the phrase), and it constitutes its dynamic centre.\(^{40}\)

   (Kovtunova 1970:596)

The logical stress falls on the rheme, the phrasal stress falls on the last constituent in the sentence. When the rheme is the first constituent, the logical stress falls on the first constituent, and the phrasal stress falls on the last constituent. When the sentence contains no theme, only the logical stress is pronounced (Kovtunova 1970:596-598).

The three possible stress patterns for (3) are the following:

\(^{39}\) Logičeskoe udarenie – ėto silovoe, ili dinamičeskoe udarenie (uveličenie sily golosa), služaščee dlja smyslovogo vydelenija otdel'nyx elementov v predloženii.

\(^{40}\) Frazovoe udarenie – ēto naibolee sil'noe udarenie v rečevom takte ili gruppe rečevyx taktov (t.e. vo fraze), obrazujuščee ix dinamičeskij centr.
(6)  a. syn (theme) uexal (rheme) logical and phrasal stress on rheme
    son              left
    "The son left"
  b. uexal syn (all rheme) logical stress on rheme, no phrasal stress
  c. uexal (theme) syn (rheme) logical and phrasal stress on rheme

All three variants are assumed to have unique stress-patterns. The different theme-rheme structures of the two sentences with identical word orders, sentences (6)b and (6)c, is marked solely by the difference in stress. Notice also that sentences (6)a and (6)c would still have distinct stress patterns even if the word order was the same, since the stress falls on the rheme. In other words, the different pragmatic structures associated with (6)a and (6)c do not need to be reflected in the word order.

3.2 The question test in Kovtunova (1976)

In Kovtunova (1976) the idea is, as already mentioned, that word order in Russian is not free, but is used to express the theme-rheme structure of the sentence. When the speakers wish to mark some element as the theme, they simply put it first in the sentence, and then place the rheme at the end. The picture is however more complicated, since sentences exist where the rheme precedes the theme or where there is no theme at all. In effect this means that word order by itself is not reliable, and as mentioned above, Kovtunova (1976) introduces stress and intonation to help express the theme-rheme structure.

Since we cannot rely solely on word order to identify the theme and the rheme, we need some independent way of locating theme and rheme – to do this Kovtunova (1976:39-42) suggests the question test. The basic mechanism is to formulate a question that fits the sentence under examination. Kovtunova (1976:39) gives the following examples:

(7) a. Osen’ my xoteli provesti v Moskve
    autumn we wanted to.spend in Moscow
    "We wanted to spend autumn in Moscow"
b. Question:
Gde my xoteli provesti osen’?

"Where did we want to spend autumn?"

In (7) the only constituent present in the sentence and not present in the question is the PP in Moscow, and according to the question test this means that in Moscow is the rheme of the sentence. But of course since the sentence is assumed to have unmarked end stress, the rheme/focus could be a larger constituent and thus include the embedded VP, the finite VP, the IP or indeed the entire sentence as pointed out by Zybatow and Mehlhorn (2000:417).

(8) a. Rabotal ja dolgo i uprjamo

"I worked long and persistently"

b. Question:
Kak ja rabotal?

"How did I work?"

In (8) it is the adverbial phrase dolgo i uprjamo "long and persistently" that is present in the answer and not in the question, making the adverbial phrase the rheme according to the question test.

In this case there is potentially no focus ambiguity. The stressed phrase is not the deepest embedded constituent in either the VP or in the IP and the stress can consequently not be the formally assigned stress discussed in Cinque (1993:259), and thus must be the discourse assigned stress, which marks the focus. This depends, however, on the syntactic analysis, because this determines which phrase is considered the deepest embedded one.
3.3 Problems

First let me point out that according to Kovtunova (1976) word order does not reflect theme-rheme structure in all cases, since sentences with rheme preceding theme exist. This actually means that what is claimed in Kovtunova (1976) is that there is a tendency to place the theme first, and that speakers make use of this tendency when expressing the theme-rheme structure. So what is claimed is that there is a link between word order and theme-rheme structure, namely that the typical sentence has theme first and rheme second. This claim is, however, not supported by any tests or statistics, but simply stated in Kovtunova (1976).

Interestingly, in Siewierska & Uhlířová (1998:112) it is suggested that the most typical theme-rheme structure in Russian transitive sentences is with a rheme flanked by two themes, theme-rheme-theme. This order is not mentioned in Kovtunova (1976), (1970) or (1980).

Another and much stronger claim that is made in Kovtunova (1976) is that stress marks the theme-rheme structure in cases where the word order is not enough on its own. But if we consider the example in (3) again and look at the three possible theme-rheme structures and their expressions in (6), then we notice that stress actually teases all three apart from each other. Stress falls on the rheme, no matter where it is placed in the sentence, and when the sentence is all rheme a special stress pattern is used. If this indeed is correct, then word order is not needed to express the theme-rheme structure in Russian since stress already does the job. It seems implausible that word order is used solely to express the theme-rheme structure, when stress already takes care of that same function.

Finally, there is a problem with Kovtunova’s use of the question test. The problem is that some sentences, as mentioned in section 2 above, are compatible with several pragmatic construals and therefore potentially can be appropriate answers to more than one question. This demonstrates that the question test cannot always unambiguously identify the rheme or the theme. To illustrate this consider these two sentences from Kovtunova (1976:38, 49) where what is considered to be the rheme by Kovtunova is marked in bold:

(9) a. VERBOSE ja ponjal, čto poet **ona**
   "And suddenly I understood that sang she"
   ^"And suddenly I understood that it was her who sang"
b. Priexal staršij brat

arrived older brother

"My older brother arrived"

In (9)a  *ona* "she" is marked as the rheme, but it is difficult to see how this result could be reached using the question test. We recall that the idea behind the question test is that everything that is not contained in the question, but contained in the target sentence is the rheme – so in order to get the result that Kovtunova gets, we would have to formulate a question matching (9)a in which only *ona* "she" is absent:

(10) I ja vdrug ponjal čto poet kto?  
*and I suddenly understood that sang who*  
"And I suddenly understood that who sang?"

This could work as an echo-question, but a far more natural question would be to ask about the complement of *understand*:

(11) Čto ja vdrug ponjal?  
*what I suddenly understood*  
"What did I suddenly understand?"

But if (11) is used as the relevant question for the question test, then the rheme is the entire embedded clause and not just the subject of the embedded clause. The sentence is thus compatible with at least two different pragmatic structures and the suggested correlation between word order and pragmatic structure obviously cannot be a one-to-one relation.

The problem is the same with sentence (9)b – how can we know that the relevant question for the question test is one that contains none of the words in (9)b? How can we be sure that the relevant question is not e.g. this one:

(12) Kakoj brat priexal?  
*which brother arrived*  
"Which brother arrived?"
If (12) reveals the relevant pragmatic structure, then it is the adjective *staršij* “older” which is the rheme. This illustrates that even a simple sentence is compatible with more than one pragmatic construal and it is therefore not satisfactory to say that the pragmatic structure is correlated with word order: This is only true for some of the possible interpretations, not for all interpretations.

So we observe that there is a one-to-many relation between a given word order and the possible pragmatic structures that can be associated with the word order. But as Siewierska & Uhlířová (1998) point out, the reverse relation is also a one-to-many relation: A question in Russian can often be answered naturally with several different word orders (Siewierska & Uhlířová 1998:111). Their example is the following:

(13) Kto napisal Jevgenija Onegina?

*who wrote Jevgenij Onegin*

"Who wrote Jevgenij Onegin?"

The question in (13) can, according to Siewierska & Uhlířová (1998:111), be answered with any of the following orders:

(14) a. Jevgenija Onegina napisal Puškin

*Jevgenij Onegin wrote Puškin*

"Puškin wrote Jevgenij Onegin"

b. Puškin Jevgenija Onegina napisal
c. Jevgenija Onegina Puškin napisal
d. Puškin napisal Jevgenija Onegina

The most natural response, according to Siewierska & Uhlířová (1998:112), would be (14)c with a theme-rheme-theme structure.

What is relevant here is that there seems to be no necessary correspondence between the final position of the sentence and the rheme, which is incompatible with the view in Kovtunova (1976) where word order is supposed to reflect theme-rheme structure in the typical case.
In short, the relation between a given word order and a given pragmatic interpretation is not a one-to-one relation. Instead a given word order can be associated with more than one pragmatic construal, and a pragmatic structure can be expressed with more than one word order.

3.4 Conclusion

The theory presented in Kovtunova (1976) makes the claim that word order reflects the theme-rheme structure of the sentence, but at the same time it is admitted that the rheme often precedes the theme, and that stress and intonation is needed to express the theme-rheme structure.

Theme and rheme are defined in such a way that it is difficult to determine precisely which elements are supposed to be considered thematic and which rhematic, and the suggested method to decide this, the question test, yields ambiguous results.

When we add these problems, we end up with the following theory: Rheme is marked by stress and intonation and there seems to be no necessary link between word order and theme-rheme structure.


In Sgall, Hajičová & Panevová (1986) the linguistic theory or framework Functional Generative Description (FGD) is formulated and presented. FGD is an elaborate theory encompassing syntax, morphology, pragmatics and semantics, but in this context focus will solely be on the aspects of FGD that deal with the theme-rheme structure of the sentence, or the topic-focus articulation as it is called in FGD.

Sgall, Hajičová & Panevová (1986) intend to reformulate the ideas of e.g. Firbas and Daneš in order to make the theories of information structure more precise and to get rid of the usual vagueness of the concepts topic and focus (Sgall, Hajičová & Panevová 1986: 3, 26-27, 182).
Sgall, Hajičová & Panevová (1986) is in no way, though, a departure from the concepts familiar from Prague School linguistics. Topic and focus are defined much like Kovtunova (1976) defined theme and rheme: **Topic** is what is talked about, and **focus** is what is said about the topic (Sgall, Hajičová & Panevová 1986:175-6). The idea of Communicative dynamism known from the works of Firbas (e.g. Firbas 1964, 1971, 1992) is assumed in Sgall, Hajičová and Panevová (1986). Communicative dynamism is the idea that the elements in the sentence are ordered according to their relative degree of topicality – so the further to the left an element is, the more topiclike it is (see 4.1 below). Sgall, Hajičová & Panevová (1986:177-184) assume that only the so called tectogrammatical representation of the sentence (reminiscent of the deep structure in early generative grammar) reflects communicative dynamism directly, whereas the surface structure might diverge from the precise topic-focus articulation (Sgall, Hajičová & Panevová 1986:275).

### 4.1 Contextually bound, non-bound and salience

In order to make the concepts topic and focus precise, Sgall, Hajičová & Panevová (1986) introduce the concept of **salience**. Salience is the measure of how activated an element is in the memory of the speakers, relative to the other elements in the sentence (Sgall, Hajičová & Panevová 1986:56). Clearly, it is no easy task to measure salience since the memory of speakers is not readily available for scrutiny, but here Sgall, Hajičová & Panevová (1986) introduce the concepts **contextually bound** (CB) and **non-bound** (NB). An element is CB if it has been mentioned or if it has been activated by association by the previous context (Sgall, Hajičová & Panevová 1986:56). If an element, on the other hand, is introduced without previous mention, then it is NB and consequently less salient.

The sentence can be divided into two parts, the part containing the CB elements, and the part containing the NB elements (Sgall, Hajičová & Panevová 1986:159). It is not stated specifically, but at various points it is clear that the CB part of the sentence is the topic, and the NB part is the focus (Sgall, Hajičová & Panevová 1986:209, 211, 221, 237). This is a major difference from Kovtunova (1976) where the view is that there is no necessary correlation between being given and being theme, or being new and being rheme.
To determine what is most salient and what is least salient, and hence to determine what is topic and what is focus, the question test is used (Sgall, Hajičová & Panevová 1986:208). The question test is inspired by work by e.g. Daneš and Kovtunova, but is more elaborate than the version employed in Kovtunova (1976). It is assumed that any sentence will inspire a native speaker to a unique set of questions, and if an element is repeated in all the questions, then it is the least salient element, and thus part of the topic, and if an element is not repeated in any of the questions then it is the most salient element and thus part of the focus (Sgall, Hajičová & Panevová 1986:210). To illustrate how the question test works, the following example is presented in Sgall, Hajičová & Panevová (1986:208), where (15) is the analyzed sentence, and (16) are the questions that a native speaker will suggest:

(15) The astronauts brought back lunar rocks from the MOON

(16) a. What did the astronauts do?
    b. What did the astronauts bring back from where?
    c. From where did the astronauts bring back lunar rocks?
    d. What did the astronauts do with lunar rocks?

In Sgall, Hajičová & Panevová (1986) and here capital letters indicate the main stress.

The result of the question test is that the astronauts is the core of the topic, from the moon is the core of the focus, and the remaining elements have intermediate degrees of salience (Sgall, Hajičová & Panevová 1986:210-11).

It is noted that not all questions are relevant for the question test, so for instance (17) is not to be used as part of the set of relevant questions, since (15) as an answer to (17) gives too much information (Sgall, Hajičová & Panevová 1986:209).

(17) Where did the astronauts come from?
4.2 Problems

There are two problems with the theory of topic and focus in Sgall, Hajičová & Panevová (1986). The first is their definition of salience, and the second problem is the fact that the question test is less powerful than they seem to think.

In Sgall, Hajičová & Panevová (1986) salience is based on previous mention and activation via association, so if an element can be inferred from the context or if it has been mentioned, then it is more salient than previously unmentioned elements. The problem with this is that salience or accessibility may be affected by more than just previous mention. In Jaeger & Norcliffe (in press:870) several factors are mentioned that all have been documented to influence accessibility: imageability, prototypicality, animacy/humanness, previous mention, semantic similarity to recently mentioned words and visual salience. This suggests that previous mention might be insufficient to decide an element’s salience, and it can thus be argued that the definition of salience in Sgall, Hajičová & Panevová (1986) is too narrow.

The second problem is the interpretation of the question test in Sgall, Hajičová & Panevová (1986). Supposedly, native speakers intuitively come up with a unique set of questions that can pinpoint the topic and focus for any sentence. Consider this sentence:

(18) Anna found flowers in the FOREST

In Sgall, Hajičová & Panevová (1986:210) an English sentence with unmarked stress (end stress) is assumed to be a proper response to a question with multiple wh-words, even though these questions probably require answers with a marked stress pattern. Here I use the test as described in Sgall, Hajičová & Panevová (1986:210-211) and therefore allow multiple wh-questions.

A set of questions associated with (18) could be the following:

(19) a. What did Anna do?
    b. Where did Anna find flowers?
    c. What did Anna find where?

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41 Firbas (1992:98-99) argues that the question word is not necessarily the rheme/focus of the sentence, and if he is right then the basic premise of the question test, namely that the wh-word substitutes for the focus, is problematic.
d. Where did who find what?
e. Where did who find flowers?

The question test then yields the following results. *Found* is the most salient element (mentioned four times in the questions) and so must be the core of the topic, *in the forest* is the least salient element (not mentioned) and is thus the focus, *Anna* is mentioned three times and is thus less salient than *found*, but more salient than *flowers* (mentioned twice).

So the questions lead us to assume that the most natural order for (18) is this:

(20) **Found Anna flowers in the FOREST**

The fact that the questions can lead us to assume that *Anna* is not the topic, is exactly why Nørgård-Sørensen (1992:152-3) concludes that the question test as described in Sgall, Hajičová & Panevová (1986) is unreliable. He writes:

(21) "The conclusion seems inescapable that the question test – even in this latest, most thorough formulation – does not provide any evidence for interpreting a single element as invariable topic or theme (irrespective of the various definitions applied to these notions)".

(Nørgård-Sørensen 1992:153)

Another objection against the question test comes from Daneš (1986), an author who is one of the developers of this same test. Daneš (1986:268-270) argues that the question test is incapable of determining which elements are CB and which are NB, since the idea behind the question test is flawed. The test presupposes that any sentence is naturally conceived as an answer to a question, but this is not so according to Daneš (1986:268-270, see Nørgård-Sørensen (1992:152) for the same point). He demonstrates his point with the following example (from Daneš 1986:267, (1)):

(22) **In this hospital Hemingway stayed for full seven weeks (sic!)**.

Using the question test Daneš is lead to believe that *in this hospital* is contextually bound (CB), showing that it is the most salient element and therefore the topic, and *for full*
seven weeks is non-bound (NB) and consequently the least salient element and therefore the focus, which makes us expect that hospital is mentioned in the preceding context, since this is what being contextually bound means. But in reality (22) is preceded by this sentence (from Daneš 1986:268, (2)):

(23) He could not sleep, so he only read a little and listened to the radio.

Clearly hospital is not part of the context in (23) and in fact hospital is not mentioned in the preceding five utterances in the text, suggesting that it is not the most salient element in (22) contrary to the result of the question test (Daneš 1986:268).

A final objection to the question test is that the test is only applicable to simple declarative sentences. It is obvious that interrogatives and imperatives cannot naturally be considered answers to a unique set of questions, but also non-simple declaratives cause problems for the question test:

(24) Anna sang a song about a small cat she knows

Some natural questions could be these:

(25) a. What did Anna sing?
   b. What did Anna do?
   c. Who sang what?
   d. What did Anna sing a song about?

The result is that Anna and sang are the topic and a small cat she knows is the focus, while a song has an intermediate degree of salience. This clearly matches the word order, but what about the elements inside the focus? Are they ordered according to their relative degree of salience, and if they are, how is their degree of salience determined having only the question test at our aid? In other words, it seems as if the question test has little to say about the order of elements in embedded sentences.
4.3 Conclusion

Sgall, Hajičová & Panevová (1986) attempt to add precision to the concepts topic and focus by introducing the notions CB and NB and salience. This does not however remove the vagueness, since neither CB/NB nor salience are clearly defined and precise concepts.

Whether elements are very salient (CB) or not (NB) are determined using the question test, which arguably cannot precisely determine the topic and focus of all declaratives, and the test clearly cannot determine the topic and focus of embedded sentences, imperatives or interrogatives.

5. Firbas (1992)

In the present chapter, theories that try to explain word order variation in terms of information structure status are discussed, but in fact Firbas (1992) does not subscribe completely to this point of view. He assumes that a number of principles govern word order, and just one of them is linked to information structure status. The four word order principles are: The principle of grammatical functions, the principle of functional sentence perspective, the principle of emphasis and finally the principle of sentence rhythm (Firbas 1992:118-9).

The reason why I nevertheless have included him here has to do with the second principle, the principle of functional sentence perspective, which states that the elements in a sentence are ordered according to their gradual rise in communicative dynamism (Firbas 1992:118), and that a language such as Czech has this principle as the most important word order principle (Firbas 1992:119).

5.1 Communicative Dynamism

The theory presented in Firbas (1992) called Functional Sentence Perspective, has as its focus the idea of communicative dynamism (CD). CD is a measure of how important an element is to the communication relative to the other elements in the sentence (Firbas 1992:8), and the
degree of CD is determined by three factors\textsuperscript{42}: The immediately relevant context, the semantics and the linear order.

The immediately relevant context, which is the preceding sentences (approximately 7 sentences, but it varies), is relevant in determining the CD, since elements that have been mentioned are much less dynamic than unmentioned elements (Firbas 1992:21-25). The elements that have been mentioned in the immediately relevant context are called context dependent and the unmentioned ones are called context independent (Firbas 1992:37-38). It is stressed that context dependence is not the same as being contextually bound as defined in Sgall, Hajičová & Paneová (1986), since context dependence only deals with actual previous mention and is not concerned with salience or activation via association (Firbas 1992:37-38), and it is also emphasized that context dependence is an objective fact, over which the speakers have no control (Firbas 1992:99).

The semantics of the element is relevant in determining the degree of CD as well, and with semantics Firbas (1992:66-69) has in mind the so-called dynamic functions of the elements as well as their meaning.

The direct object for instance, if context independent, has in the general case a function that ensures that it is more dynamic than the finite verb, irrespective of position (Firbas 1992:42).

Linear order is the final factor that influences the degree of CD, and it is important to notice that Firbas (1992:8, 12) does not assume that the linear order reflects the relative degrees of CD in a straightforward manner. If the gradual rise in CD and the linear order are aligned, Firbas (1992:40) speaks of a harmonic order, but often word order does not reflect the interpretive arrangement of the sentence.

The dynamic functions are ordered on a scale and the further to the right an element is, the more dynamic it is:

(26) Setting – Presentation of phenomenon – Phenomenon presented – Bearer of quality – 
Ascribing of quality – Quality – Specification – Further specification

(Firbas 1992:68)\textsuperscript{43}

\textsuperscript{42} In spoken language Firbas (1992:41) adds intonation as a fourth factor.

\textsuperscript{43} In fact Firbas (1992) presents three scales: The presentation scale, the quality scale and the combined scale. The one presented here is the combined scale which contains all the elements that the two other scales contain.
To illustrate how the different factors interact, let us look at two cases: Context independent direct objects and adverbials.

**Context independent direct objects.** The context independent object is more dynamic than the finite verb in the general case, but four situations can hold, where this is not so.

1. If the direct object is an indefinite or interrogative pronoun, then the object does not exceed the verb in CD (Firbas 1992:45).
2. If the object and the verb together fulfill the function of introducing a new phenomenon expressed by a context independent subject, then the object does not exceed the verb in CD (Firbas 1992:45).
3. If the object is initial and is contrasted with another element that is also initial, and if the verb is context independent, then the object does not exceed the verb in CD (Firbas 1992:45-6).
4. If the object is placed before a context independent subject, then the object can be less dynamic than the verb or be more dynamic (Firbas 1992:46).

**Adverbials.** If the adverb is context dependent, then it has the dynamic function of setting, and position is irrelevant.

If the adverb is context independent, then three different situations can be obtained:

1. If the adverb expresses an "obligatory amplification of the semantic content of the verb" or if it expresses an "amplification essential enough" then it functions as a specification and is thus very dynamic. This is so irrespective of position (Firbas 1992:50).
2. If the relation between the adverb and the verb is looser, then linear order determines the dynamic function and hence the degree of CD: initially it serves as the setting, and finally as a specification (Firbas 1992:50-51).
3. If the relation is loose and the adverb simply expresses background information, then it is a setting irrespective of position (Firbas 1992:51).

As can be seen from these two examples, the interaction of context, semantics and linear order is highly complex, and it is interesting to notice that word order only play a
marginal role in determining the CD of objects and adverbials. Only if the adverbial is context independent and has a loose relation to the verb then word order becomes relevant for adverbs.

5.2 Context dependence

Context dependence is essential in deciding how high the CD of an element is, and two points that Firbas (1992) makes about context dependence are interesting here. The first point is that weight is irrelevant for context dependence – it is the context dependence and the dynamic function of the element that determines its degree of CD and not its weight (Firbas 1992:91-92). The following example is presented to illustrate this fact:

(27)  a. *He* was a poor scholar
    b. *His youngest son* was a poor scholar
    c. *Joe's youngest son* was a poor scholar
    d. *My good old friend Joe's youngest son* was a poor scholar

(Firbas 1992:91)

The example illustrates that the subjects in (27)a, b, c and d all fulfill the same dynamic function (Bearer of quality) and the weight difference does not change this at all (Firbas 1992:91).

The second point is that in actual texts there is an overwhelming overrepresentation of context independent material compared to context dependent elements. In a text count Firbas (1992:30) finds that out of 1.167 words only 198 are context dependent, so a full 83% of the text is context independent.

This is an interesting observation when we keep in mind that some authors hold the view that the topic has to be given information (e.g. Sgall, Hajičová & Panevová 1986:180, King 1995:70). If given information is as scarce as Firbas (1992) claims, then topics must consequently be very rare.
5.3 Distributional fields

CD is the relative importance of the elements in a sentence, but also in other so-called distributional fields (Firbas 1992:15). Possible distributional fields are a sentence, an embedded sentence and a noun phrase. In each field the elements have a degree of CD in relation to the other elements in the same field. This means that a NP not only has a specific degree of CD in the sentence, but that the constituents of the NP also have their own individual degrees of CD. It is thus possible for an element with a high degree of CD, for instance a complement clause, to contain elements with a low degree of CD and elements with a high degree of CD.

Inside a noun phrase, an attributive adjective will have a higher degree of CD than the noun if the adjective is context independent, and the degree of CD is thus not affected by the actual linear order (Firbas 1992:84).

5.4 Problems with Firbas (1992)

The concepts context dependent and context independent are rather well-defined in Firbas (1992) since only previous mention in the immediately relevant context is taken as a sign of context dependence, unlike in Sgall, Hajičová & Panevová (1986) where context dependence is defined based on association and degree of activation in the memory. The precise delimitation of what constitutes the immediately relevant context is less well-defined, and the suggestion that it is approximately seven sentences, seems arbitrary, but in several studies where givenness (= context dependence) is tested, the authors use a definition of givenness relying on mention in the previous context and here we find anything from one sentence back to ten lines of text back (see Arnold et al. 2000, Gries 2003b and Bresnan et al. 2007), so the seven sentences would seem to be in accordance with standard practice.

The decision to reject association as a means to render an item context dependent is not without problems. As Firbas himself mentions, Sgall, Hajičová & Panevová (1986) see things differently (Firbas 1992:37-38), and so does Gries (2003a:166-167), who argues that an element is given not only if it is activated via association, but also if it e.g. is a co-member of
a superclass with a previously mentioned element. Given the immense importance context
dependence has in Firbas' theory, it would have dramatic consequences if e.g. Gries's (2003a)
definition of givenness was adopted instead (see chapter 5, section 2.3.1).

Another problem is the different semantic dynamic functions, which are so vaguely
defined that it is very difficult indeed to determine what category an element belongs to.
Consider the adverbial in the following sentence:

(28) Peter often ate soup

If we assume that *often* is context independent, then we have to choose between three
types. Does *often* amplify the semantic content of the verb in a way that is essential enough?
If the answer is yes, then *often* is a specification. Or is the relation between the verb and the
adverb loose? And if it is loose does *often* then express background information?

I am unable to answer these questions and it seems that the division of adverbs into
types is based on a subjective estimate.

The central concept of communicative dynamism is described in Holden & Krupp
(1987:255) as a "...somewhat confusing notion", and it is also difficult for me to see exactly
what CD is needed for. If the idea was that the interpretive arrangement (the relative degrees
of CD) decided the linear order, then CD would yield a prediction, but this is not so. Firbas
(1992:218) writes:

(29) "Is linear modification the consequence of degrees of CD? Are the semantic characters
of an element (its semantic character and the character of the semantic relations into
which it enters) the consequence of a degree of CD? Is the operation of the immediately
relevant context the consequence of a degree of CD? The answers are in the negative. It is
the outcome of the interplay of the three factors mentioned that determines the degree of
CD and their distribution over the written sentence, i.e. its FSP (= functional sentence
perspective)."

(Firbas 1992:218 – Explication of FSP added)
Linear order, semantics and context are not results of CD, but are the factors that determine the degrees of CD, and the question is then, why do we want to know the degree of CD? Why is it useful? I see no answer to this question.


Why does Russian have six different orders for transitive sentences? The answer provided in King (1995:63) is that "the different orders, in combination with intonation, encode discourse functions". All elements in a sentence have one of the three discourse functions, namely topic, focus or discourse neutral (King 1995:64). Each of the six orders have a unique distribution of topic, focus and discourse neutral material and therefore all six orders differ slightly in meaning, or in other words: Each of the six orders are appropriate in slightly different contexts.

6.1 Topic and focus

Following Yokoyama (1986), topic is defined in King (1995:67-70) as an element belonging to the set of the speaker and the listener's shared current concern, notated $C_a \cap C_b$, where $C_a$ is A's current matter of concern, and $C_b$ is B's current matter of concern (A and B being speaker and listener).

Examples of topics belonging to the set $C_a \cap C_b$ presented in King (1995:69-70) are deictic elements like *ona* "she", elements mentioned in the previous context, and elements that are associated with the previous context like *gotovit* "to cook" in a context where childcare is discussed.

Topic in King (1995) is thus defined much like topic was defined in Sgall, Hajičová & Panevová (1986), with the variation that instead of salience, the term shared current concern is used. So when an element has been mentioned or is activated by association, Sgall, Hajičová & Panevová (1986) call it salient and therefore topic, whereas when an element has been mentioned or is activated by association, King (1995) calls it a member of the set $C_a \cap C_b$ and therefore topic. There can be several topics in one sentence (King 1995:70).
There is a connection between being given information and being topic in King (1995:70), since topics are members of the set of the speaker and listener's shared current concern, and consequently topics are always given information.

The connection between being focus and being new is different. New material is always focused (King 1995:94), but focus does not always consist of new information.

King (1995:71, (9)) demonstrates this point with the following example:

(30)  Q: Who does John's mother like?
    A1: John's mother likes MARY
    A2: John's mother likes JOHN/HIM

Clearly Mary, the focus in A1, is new information, but John/him in A2 is focus without being new information.

King (1995:75-76) define three different kinds of focus. Contrastive focus, which is marked by the sentence stress and can appear in various positions, even though the usual position is immediately preverbal. New-information focus, which is determined using the question test, is clause final and has a neutral intonation. Presentational focus is clause final too, but has a non-neutral intonation.

An element in the clause does not automatically have to be either topic or focus; it can also be discourse neutral. In the typical case the order is topic – discourse neutral – focus, but stress and intonation make other orders possible (King 1995:64).

6.2 Word order, stress and emotive vs. non-emotive sentences

In order to understand how the interaction between word order and stress and intonation works in King (1995), it is crucial to introduce the notions emotive and non-emotive sentences. Non-emotive sentences have neutral intonation and no sentence stress, and the word order is completely dependent on the discourse functions, so topic always precedes focus (discourse neutral elements are situated between these) (King 1995:81-82). Non-emotive sentences are typical for written language, but are used in spoken language as well (King 1995:81).
In emotive sentences the focus can precede the topic, and both the topic and the focus can be discontinuous – this is possible because emotive sentences have sentence stress that marks the focus and therefore word order is not needed to mark the topic-focus organization of the clause (King 1995:85-93).

We thus get the following system in King (1995): If a sentence has neutral intonation and no sentence stress (i.e. if the sentence is non-emotive), then the word order expresses the topic-focus organization of the sentence in such a way that the order is topic – discourse neutral – focus, and the focus type is new-information focus. If the sentence on the other hand has a sentence stress and a non-neutral intonation (i.e. if the sentence is emotive), then word order does not reflect the topic-focus organization of the sentence, and the focus type is either contrastive or presentational, but cannot be new-information focus.

This means that it is vital for the correct interpretation of a sentence that the listener realize whether it is emotive or non-emotive. In order to decide this King (1995:81-82) introduces these diagnostics: If the sentence exhibits the order topic – discourse neutral – focus, and if the sentence has no sentence stress then it is non-emotive.

6.3 Problems

Topic and focus are still somewhat vaguely defined. The topic is the shared current concern between the speaker and the listener, and as mentioned above this is reminiscent of salience in Sgall, Hajičová & Panevová (1986). The point made above (see section 4.2) can be made here too, namely that it may be too simple to use only previous mention and association to determine how accessible an element is.

A second problem is that pronouns are treated as inherently belonging to the set of shared current concern (King 1995:69-70). This could be problematic because pronouns can be used with impersonal reference in which case they are non-given and probably not part of the set of shared current concern (see Jaeger & Wasow 2008:174-175). Svedsted (1981:15-17) even argues that pronouns are sometimes the theme of the sentence, which is not compatible with the idea that pronouns are inherently topical.

Finally there is the issue of emotive sentences. In emotive sentences we have no problem determining which element is the focus, because the focus carries sentence stress.
And in non-emotive sentences we have no problem either, because the focus is always sentence final in these sentences. If we ignore the fact mentioned in section 2 above that end stress is compatible with several focus interpretations, and if we ignore the fact that we have no method to locate the topic in emotive sentences, then this seems like a very clear and precise system, but there is a small problem: How do we determine whether the sentence is emotive or non-emotive? The method suggested in King (1995) is to look at two things: The word order and the stress. If the word order is topic – discourse neutral – focus and there is no sentence stress, then the sentence is non-emotive.

In spoken language we should quite easily be able to discern between emotive and non-emotive sentences because of the stress and intonation differences, but there is a hidden problem here: Say we have 100 sentences with neutral intonation and that we want to check whether King (1995) is right in claiming that in non-emotive sentences the order is always topic – discourse neutral – focus. How can we check this claim? How do we determine which element is topic, which is focus and which is discourse neutral?

It should be pointed out here that the claim in King (1995) that non-emotive sentences lack a sentence stress is not uncontroversial. Rozental’ (1979:96) assumes that sentences without stress are either all topic or all focus sentences. Clearly these views are contradictory, and again we would need an independent way of establishing what element is the topic in order to decide which view is more likely.

Since the focus is expressed solely by stress in emotive sentences, it might seem logical if they only appear in spoken language, but King (1995) is not explicit about this. In Russian literature on the subject theme and rheme, emotive and non-emotive sentences are both assumed to occur in written language. In Rozental’ (1979:98-101) emotive sentences (or backward sentences as they are called there) have a marked intonation and stress marks the focus, so Rozental’ (1979) and King (1995) clearly speak about the same kinds of sentences, and in Rozental’ (1979) emotive sentences are said to be frequent in written language and several examples are given. Two of them are given here:

(31) a. Sonliv i miren byl tusklyj oktjabr’skij den’.

> sleepy and peaceful was dim October day

“The dim October day was sleepy and peaceful”
If both emotive and non-emotive sentences occur side by side in written language, and if emotive sentences can have focus preceding topic and even discontinuous focus and topic, then the order topic – discourse neutral – focus cannot be more than a tendency.

6.4 Conclusion

Topic and focus are not precise and well defined concepts in King (1995). In emotive sentences focus is marked by stress, but can be positioned anywhere in the sentence. In non-emotive sentences the order is claimed to be topic – discourse neutral – focus, but since sentences with end stress do not necessarily have the subject as the topic as mentioned in section 2 above (pointed out in Lambrecht 1994), and since unmarked stress is compatible with more than one focus interpretation, then we have no way of determining which element is topic and which is focus independently of the word order in non-emotive sentences, and consequently the claim remains unverifiable.

It seems as if topic is what causes problems in King (1995). Focus is marked by stress and is not linked to any specific position. In non-emotive sentences focus is sentence final, but the only kind of evidence that supports this is produced using the question test, which is less effective when the stress pattern is unmarked (as discussed in section 2 above) because precisely then focus is ambiguous. Topic is not marked consistently by any means and it remains difficult to decide whether an element is topic or discourse neutral.

7. Slioussar (2007)

In Slioussar (2007) a configurational account of information structure in Russian is suggested. Theoretically based on Minimalism (see Chomsky 1995), Slioussar (2007) presents a model where both information structure and prosody are derived from the syntax.
The exact details of the syntactic framework assumed by Slioussar are unimportant in this context, but a few general remarks are in order. Kayne’s LCA (Kayne 1994) is adopted and consequently remnant movement is assumed (Slioussar 2007:45-47). Movement (or internal merge) targets the specifiers of heads with edge features (only a fixed set of heads have these), and can be driven either by agreement, or by information structure, in which case there is no agreement (Slioussar 2007:36, 55-56). The two kinds of internal merge have different effects on prosody, and this is used in deriving prosody from syntax (Slioussar 2007:101-104). The linear order in the sentences that Slioussar's grammar generates thus reflects the hierarchical order.

Instead of assuming discrete categories as topic or focus, Slioussar (2007) introduces accessibility and salience as two separate hierarchies expressing relative notions (Slioussar 2007:9). It is not the case that a phrase is either a topic or not a topic, but instead it is more topical relative to some other phrase if it is higher in the syntactic tree – i.e. further to the left in the sentence (Slioussar 2007:14-15, 26, 30). Slioussar (2007:4-5) follows the definition of topic in Lambrecht (1994) as aboutness, but since this term is considered vague, the accessibility hierarchy is introduced instead.

Salience and accessibility are supposed to be encoded directly in the tree such that elements lower down are more salient and elements higher up are more accessible – this is technically expressed by the following rule:

(32) If X is (re)merged above Y, the discourse entity corresponding to X is at least as accessible and at most as salient as the one corresponding to Y. If there are no independent reasons to remerge X above Y, the discourse entity corresponding to X is more accessible and less salient than the one corresponding to Y.

(Slioussar 2007:31, (2.2))

The definitions of both salience and accessibility are in this way based on word order; the most salient element is always the rightmost, and the most accessible is always the leftmost element, which is demonstrated with example sentences such as these:
These sentences mean the same thing, but whereas (33)a is used in a context where the programmer is given, (33)b is used in contexts where the coffee machine is given (Slioussar 2007:1-2).

Verbs and pronouns have a special status though, since they do not necessarily occupy a position that reflects their relative degree of salience or accessibility. Pronouns are marked as highly accessible because of their meaning, and because they are not highly salient, they have to move out of the most embedded position – the result is that pronouns often occur in the middle of the sentence (Slioussar 110-118).

Verbs are typically the least accessible element in the sentence, but this does not result in a reordering, and so the position of the verb does not reflect its relative degree of salience or accessibility. Only if the verb is anaphorically given or if it is the most salient element in the sentence does it become obligatory to mark its degree of salience by its position (Slioussar 2007:118).

All other elements are, however, assumed to occupy a position that reflects their unique placement on the salience and accessibility hierarchies, so the adverb in (34) has reordered into the second last position because it is more salient than the object and the verb, but less salient than the subject:

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44 A radically different view on the information structure status of pronouns and their placement in the sentence is presented in Svedstedt (1981:15-17) where it is assumed that sentence final pronouns can be either thematic (accessible) or rhematic (salient).

45 The movements assumed for this example in Slioussar (2007) involve remnant movement, since she does not accept right adjunction following Kayne (1994).
The elegant model developed in Slioussar 2007 has the advantage that the information structure is clearly readable from the syntactic structure, since salience and accessibility is simply a matter of relative position in the tree. The disadvantage of this approach is that the appeal to information structure as a trigger for movement is impossible to verify when the same information structure is defined in terms of word order. There are two problems with this, the first is an empirical problem, and the second is a theoretical problem.

The empirical problem has to do with the fact that some other authors who have worked on information structure in Slavic assume that sometimes the word order is reversed in the sense that the most salient element suddenly appears to the left, and at the same time the most accessible element occurs to the right (Mathesius 1947, Rozental’ 1979, King 1995). An example of an emotive sentence is given here (taken from King 1995:84, (20) stress marked with capital letters):

(35) Nad Krakovom DOŽDIČEK nakrapyval.

Over Krakow rain drizzled

“It was drizzling over Krakow”

This should not be possible if both salience and accessibility is encoded in the hierarchical order (which is the same as the linear order to Slioussar 2007 because of the LCA).

Furthermore, it has been suggested that rhematic elements (roughly the same as salient elements) can be surrounded by thematic elements (roughly the same as accessible elements), and that, indeed, the most common order in Russian is theme-rheme-theme (Siewierska & Uhlířová 1998:112). Again this is not compatible with Slioussar (2007).
The theoretical problem is that there is no independent way of determining what element is the most salient or most accessible – it all depends on word order. We have, of course, the question test, but as pointed out in Cinque (1993), Lambrecht (1994) and in Zybatow and Mehlhorn (2000) (discussed in section 2 above) this test is not always enough to identify the topic and the focus precisely. How can it then be demonstrated that information structure triggers movement?

Another potential problem is that all categories are supposed to be ordered according to their relative degree of salience (verbs and pronouns being special though). The problem with this is that it may be difficult to compare adverbs and DPs, because the DPs have the potential to refer to some previously mentioned entity in the discourse and thus to be accessible, whereas this is rarely the case with adverbs, since they are non-referential. In other words, we should expect that adverbs typically follow DPs in a Russian sentence, since adverbs in the majority of cases are the lowest on the accessibility hierarchy (together with the verbs), and clearly this is a wrong expectation.

Pronouns are non-salient as part of their meaning in Slioussar (2007:111) and this is part of the explanation why they do not behave like lexical DPs in Slioussar’s system (2007:110-118). But Jaeger & Wasow (2008:174-175) point out that pronouns can be used with impersonal reference and in these cases they are not given. In Slioussar's system, this should actually lead to the expectation that pronouns with impersonal reference should be ordered differently from referring pronouns. This is an empirical question (which as far as I know has not been looked into), but it is not mentioned in Slioussar’s discussion of pronouns (Slioussar 2007:110-118) nor is it mentioned as a possibility in any of the works on Russian word order cited in this thesis.

7.2 Conclusion

The framework in Slioussar (2007) is attractive since salience and topicality are both clearly defined as relative notions: The further to the right in the sentence an element is, the more salient it is. And the further to the left an element is, the more topical it is. It is, however, not clear how the so-called emotive word order can be incorporated into this model, since the emotive order is characterized by not having the topic to the left and the focus to the right.
The question test can in some cases (especially in cases with a marked stress pattern) reveal the topic and focus, but in the cases where it cannot, we still need some method to identify the topic and the focus independently of word order. In Slioussar (2007) it is assumed that the more to the right in the sentence an element is, the more salient it is. And the more to the left an element is, the more topical it is. But these definitions crucially rely on word order, and we lack independent definitions of salience and accessibility.

8. Concluding remarks to chapter 4

The notion of topic is somewhat vague despite the variety of definitions and attempts to define it in terms of e.g. aboutness, shared concern, contextually boundedness or accessibility. A topic need not be in the leftmost position and there is no specific stress that marks it – the result is that it is often very difficult to identify the topic.

Focus on the other hand is marked by stress. Either focus is marked in a potentially unambiguous manner – that is when the sentence has a marked stress (not on the last element). Or focus can be marked in an ambiguous manner – that is when the sentence has an unmarked stress (end stress).

The question test can to some extent locate topic and focus, but not in all cases. In the works referred to above there seems to be a general exaggeration of the power of the question test, so I will repeat here that it can only narrow down the opportunities, it cannot always determine precisely what is topic and focus. Furthermore, the question test is only applicable to (simple) declarative main clauses, has only limited use in embedded clauses and is not applicable in interrogatives or imperatives.

In a question it is the *wh*-word that is the focus, and this fact is what is exploited in the question test. But it is interesting to notice that even in a question, marked stress can change the focus:

(36) What did ANNA buy?

The question in (36) focuses (contrastively) on Anna, even though the *wh*-word substitutes for the complement of *buy*, which would normally be the focus.
The generalization seems to be this: Focus is connected with stress, not with position. Topic is not directly connected with stress or with position and is therefore a more elusive and vague concept.

Another point that should be mentioned here is the role that the so-called emotive word order plays. In some of the information structure theories, where the connection between word order and pragmatic structure is looser (Kovtunova 1976, Firbas 1992 and King 1995), the option of doing the opposite of the tendency (i.e. to place focus before topic) is not particularly problematic, precisely because the suggested connection between word order and pragmatic structure is presented as a tendency rather than as a strict system.

In the stricter theories (Sgall, Hajičová & Panevová 1986 and Slioussar 2007) the possibility of bypassing the rule is more problematic. If the word order is a reflection of the salience and/or of the accessibility of the elements, then we should not expect that speakers frequently choose to arrange the words in the opposite order.

Surprisingly little is said about the position of the verb in information structure theories. Firbas (1992:41-42) assigns the verb a degree of CD like all other elements in the clause, and Slioussar (2007:118) claims that the position of the verb does not reflect its position on the accessibility hierarchy, except when it is anaphorically given.

Apart from these comments little is said of the position of the verb, and since Kovtunova (1976), Sgall, Hajičová & Panevová (1986) and King (1995) refer to the previous context (either as aboutness, CB vs. NB or shared concern) then they probably are mostly concerned with referring expressions like DPs, and less concerned with the verb. But the result is that they have little to say about the difference between e.g. SVO, SOV and VSO, which all have the same order of the subject and the object.

To summarize: The information structure theories deal with the vague notions topic and focus, which can be located only to some extent via the question test. The claim is that topic precedes focus, but the opposite order is frequent as well, and in fact some researchers suggest that the focus can be surrounded by topics (Siewierska & Uhliřová 1998).
5

Testing information structure theories

1. Introduction

In the previous chapter, some of the major information structure theories were discussed and evaluated from a theoretical point of view. In the present chapter, four studies that aim to test the influence of information structure on word order are presented and discussed.

The four studies are interesting in this context because they address exactly the issues that concern us here: Word order and information structure, but unlike the works cited in the previous chapter, these studies all approach information structure from an empirical angle. Arnold et al. (2000) compare the effects of complexity and information structure on constituent order in English, and Holden & Krupp (1987) test the effects of discourse status on word order choice in Russian. Gries (2003a, 2003b) examines the influence of several factors on word order in English based on a corpus study, and Hawkins (1994) tests an operationalization of information structure status in a corpus test on English, German and Hungarian data.

In section 6, after discussing the four studies, the results of a pilot study are presented and discussed. In section 7 the chapter ends with concluding remarks.

Arnold et al. (2000) present a corpus study and a psycholinguistic experiment that compare the effects of information structure and structural complexity. The aim is to determine whether both these factors play a role in word order, whether only information structure (newness) is relevant or whether only structural complexity is relevant (Arnold et al. 2000:28).

Arnold et al. (2000) focus on the following two English constructions:

(1) Heavy NP Shift
   a. The waiter brought the wine we had ordered to the table.
   b. The waiter brought to the table the wine we had ordered.

(2) Dative Alternation
   a. Chris gave a bowl of Mom's traditional cranberry sauce to Terry.
   b. Chris gave Terry a bowl of Mom's traditional cranberry sauce.

   (Arnold et al. 2000:28, (1) and (2))

In order to investigate whether or not correlations can be observed between word order, information structure and structural complexity, Arnold et al. (2000) need to operationalize the concepts structural complexity and information structure.

Following Hawkins (1994), complexity is defined as the relative size of the constituents in question, using number of words as a measure.

After discussing various approaches to information structure, Arnold et al. (2000:30) decide to follow Prince (1992) and assume a distinction between NPs as discourse-given, inferable or discourse new. **Discourse-given** means that the NP has been mentioned before, **inferable** means that the NP is activated by association, and **discourse-new** means that the NP has not been mentioned nor can be inferred. In the actual test Arnold et al. (2000) collapse the two categories discourse-given and inferable, so in effect they operate with a two way distinction between given and new.
2.1 The corpus study

In the Aligned-Hansard corpus, Arnold et al. (2000:35) searched for the strings *bring...to...* and *take... into account...* to find examples of Heavy NP Shift structures, and searched for strings containing *give* to find Dative Alternation structures.

The 659 examples were coded for complexity by dividing the data into categories depending on the relative complexity of the NPs and PPs involved. So for instance, the Dative Alternation data was divided in the following way:

(3) Categories of heaviness for dative alternation

a) theme < goal \( \text{theme NP length minus goal NP length} = -2 \text{ or less} \)
b) theme = goal \( \text{theme NP length minus goal NP length} = \text{between -1 and 1} \)
c) theme > goal \( \text{theme NP length minus goal NP length} = 2 \text{ or more} \)

(Arnold et al. 2000:36, table 2)

The Aligned-Hansard corpus consists of transcriptions from the Canadian parliament, and is divided into agenda items. This division was used by Arnold et al. (2000:36) to code the NPs and PPs as *given, inferable* or *new* based on previous mention within the same agenda item.

The statistical analysis of the data (logistic regression) shows that both complexity and information structure are significantly correlated with word order, which Arnold et al. (2000:39) take as evidence for their conclusion that both complexity and information structure influence constituent ordering.

2.2 The experiment

The aim of the experiment was to investigate the effects of complexity and information structure on word order in structures with the verb *give*. To create a fairly natural situation where the use of *give* would be facilitated, the experiment was designed as a matching task with a fixed set of characters and a fixed set of objects. One participant then issues commands of giving to a second participant using the characters as the goals and the objects as themes.
So the experiment was meant to elicit commands like: *Give the yellow duck the small green crayon* or *Give the small green crayon to the yellow duck*, allowing Arnold et al. (2000) to analyze the correlations between complexity, newness/givenness and word order.

The 48 participants worked together in pairs, and in front of each pair was a selection of nine characters: Three kinds of animals in three different colors each, and 106 objects. The objects consisted of three different types:

Type 1: Objects that varied in two dimensions, for instance size and color and appeared in six varieties each (e.g. small green crayon, big green crayon, small yellow crayon, big yellow crayon, small red crayon, big red crayon) – there were 11 of this type, so with the six different variations of each, these 11 objects constitute 66 of the objects.

Type 2: One object that appeared in four different color combinations – the varieties of this object constitute 4 of the objects.

Type 3: Simple items that were all unique in the setting and therefore no mention of color, size or any other quality would be necessary to identify them – there were 36 of this type.

The different types of objects were used to manipulate the length of the constituents (since some of the objects would require adjectives to identify and others would not).

Each pair of participants were given a set of 24 cue cards for the director, the one who issues commands, and 24 cue cards for the actor, the one who carries out the commands. All cue cards were graphic and not textual. Each pair performed the experiment twice, shifting the roles of director and actor after 24 runs. So each pair performed the small dialogues and tasks 48 times.

Each time the actor began with his cue card containing a question about either three objects or three characters, for instance: *What about the yellow duck, the orange duck and the magenta duck?* The actor was instructed to ask about all three elements at once to avoid the use of pronouns. The actor’s prompt was supposed to establish a set of characters or objects as given.

The director then gave his instructions, and the data analyzed consists of all the cases where the director used *give* and both a goal and a theme. Information structure was coded according to the actor’s prompts, so that the characters or objects mentioned in the actor's
question were considered discourse-given and all other elements were considered discourse-
new\textsuperscript{46}.

The themes and goals were divided into three categories according to their relative 
complexity: (a) theme length shorter than goal length, (b) theme length equal to goal length, 
and (c) theme length longer than goal length (Arnold et al. 2000:39-43).

Again the statistical analysis of the data (logistic regression) demonstrated that both 
complexity and information structure are correlated with word order (Arnold et al. 2000:45).

\section*{2.3 Problems with Arnold et al. (2000)}

The analyses presented in Arnold et al. (2000) clearly demonstrate two correlations: One 
between complexity and word order, and one between newness and word order. In this 
section I will have a closer look at how structural complexity and information structure status 
are quantified in Arnold et al. (2000), and try to demonstrate that the quantification of 
information structure status is problematic.

The definition of complexity used in Arnold et al. (2000:31-32) is, as they point out, 
taken from Hawkins (1994) and reflects the relative size of the goal and theme measured in 
words. This is a simplification of Hawkins' method, since the structure that the goals and 
themes occur in is not taken into account. Arnold et al. (2000) furthermore collapse the data 
into large categories depending on the relative complexity difference between the goal and the 
theme, which also makes the measure somewhat less fine grained. Nevertheless, since the 
relative size of the constituents affects the efficiency calculation, we would still expect the 
complexity difference as measured in Arnold et al. (2000) to reflect the efficiency difference 
as measured in this dissertation, and so their result regarding complexity is expected.

The correlation between information structure and constituent order is an interesting 
finding, and givenness effects are reported in several studies of English word order (e.g. Gries 
Gómez Gallo et al. 2008, Jaeger & Wasow 2008, and Jaeger & Norcliffe \textit{in press}). I will, 
however, try to show that it is not a straightforward matter to quantify information structure 
and that there are some problems with this in Arnold et al. (2000).

\textsuperscript{46}In some cases the director mentioned the objects or characters that were supposed to be new, just before giving 
his instruction. In these cases both the themes and the goals were coded as given (Arnold et al. 2000:43).
2.3.1 The corpus study

In the corpus study an NP (or PP) is considered given if it has been mentioned previously within the same agenda item, and as Arnold et al. (2000:49) point out themselves, this means that an NP could be coded as given even if the previous mention was many sentences ago, and in fact even if it was mentioned by a different speaker and in a slightly different context – as long as it is within the same agenda item.

In other words, the class of given elements in the corpus study is a very heterogeneous class potentially containing elements that have been mentioned only once 50 sentences ago, together with elements that have been mentioned 16 times in the past 5 utterances. This is not a problem if givenness is a property that phrases acquire simply by being mentioned once. However, if givenness is not a binary property but a gradient property as Prat-Sala & Branigan (2000:180) conclude (and which is supported by the findings in Jaeger & Wasow 2008:171), then it is problematic not to distinguish the different degrees of givenness between the elements in the highly heterogeneous class that Arnold et al. (2000) call given elements.

Arnold et al. (2000:35) searched for the string take...into account... and examples with these words constitute 25% of their data. The second time this string appears within the same agenda item, Arnold et al. (2000) must classify the PP into account as discourse-given. The question is whether this is a meaningful claim. Can we say that into account refers to a discourse element that is under discussion, comparable to elements like the labour market?

Arnold et al. (2000:36) note that the number of referents that are inferable was too small, so they collapse the given and the inferable ones. I will simply note that what is and what is not inferable is not a trivial question and that in a context, for example, where members of parliament discuss agenda items, there could be many cases where referents are in fact inferable, but where outsiders might not grasp this. At any rate: To determine what is inferable is not a straightforward matter, and this adds insecurity to the definition of newness in Arnold et al. (2000).

In other studies of English word order other definitions of givenness can be found. In Gries (2003a:166-167) the number of ways an element can be considered given via inference is impressive. He mentions coreference, sharing of semantic features, antonyms, part-whole relationship, co-membership of a superclass, being a subclass, and contrast (Gries 2003a:167).
An element can be considered given if one of these relations holds between itself and a previously mentioned element.

In Gómez Gallo, Jaeger & Smyth (2008:847) and in Gómez Gallo et al. (2008) four distinct levels of givenness are acknowledged: New, given, implied and set-of, where an element is considered implied if it can be inferred using world knowledge. So we see that determining what is given is not an easy and obvious task.

It follows from the definition of newness in Arnold et al. (2000) that the first time an NP like *the parliament* is mentioned within an agenda item, it must be coded as discourse-new. This goes for NPs like *Canada, the prime minister* and *politics* as well. This could be problematic for a couple of reasons.

First, it could be argued that using their world knowledge Canadian politicians must be able to infer NPs such as *the parliament, Canada* etc. and consequently these NPs should not be coded as new.

Second, as pointed out in Lyons (1999:232-233) there is a significant overlap between givenness and definiteness, even though these notions are not synonyms. A topic marker and a definite article seldom co-occur in languages, which Lyons (1999:233) take as an indication of the closeness of these notions. In relation to Arnold et al. (2000) this casts doubt on the coding of definite NPs as new when they are encountered the first time, because definite NPs are very rarely new according to Lyons (1999).

In Jaeger & Wasow (2008:169) a distinction is made between derived accessibility and inherent accessibility, and it is demonstrated that both play a role in processing. Givenness is a derived property in their wording, because it is based on the context. But the inherent accessibility is equally important for ordering and involves phenomena like number, referentiality and animacy (Jaeger & Wasow 2008:174). In short: Arnold et al. (2000) do not take factors relating to inherent accessibility into account in their study.

### 2.3.2 The experiment

In the experiment Arnold et al. (2000) use a different definition of information structure status than they do in the corpus study, so instead of coding goals and themes as given when they

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47 Cf. the discussion of *into account* above in this same section (2.3.1).
have been mentioned before, they code them as given when they are mentioned in the actor’s question.

Halfway through the experiment the participants switch roles and go through the experiment again – so they repeat all the questions and all the instructions a second time. Clearly, if Arnold et al. (2000) kept the definition of information structure that relied on previous mention, then all elements would be given in the second pass. This actually means that whatever they test in the corpus study and whatever they test in the experiment cannot really both be "information structure" since they are incompatible. The results would be dramatically changed if we used the experiment definition of information structure in the corpus study or vice versa.

The experiment consists of 48 short dialogues all beginning with the actor’s question and followed by the director’s instructions. The only things that are coded as given in the experiment are the characters or objects mentioned in the actor’s question. It seems as if this definition is too narrow, because it rules out the possibility that a character or object mentioned in the previous small dialogue can be considered given.

It is interesting to compare with the givenness level called set-of assumed in Gómez Gallo, Jaeger & Smyth (2008) and Gómez Gallo et al. (2008). Set-of is used when speakers refer to a set of items, where one individual item is given, so if we have already talked about a yellow key, then the keys are to some degree given, even though no prior reference has been made to the keys as a group/set (see Gallo, Jaeger & Smyth 2008:847). If the set-of idea is applied to the small dialogues in the experiment, then clearly Arnold et al. (2000) would have to code much more material as given than just the characters or objects mentioned in the actor’s question.

A final problem with the definition of givenness in Arnold et al. (2000) is that all the characters and all the items lie in front of the participants throughout the duration of the experiment, and it seems likely that some of the participants will look at some of the items, and maybe they will even focus on some items in unpredictable and idiosyncratic ways. The result will be that a percentage of the 106 items and 9 characters might be familiar to the participants before the experiment begins, or maybe during the experiment, so that when the dialogue begins that was supposed to establish the monkeys as given and the tic tacs as new, then the tic tacs have already been thought of, touched, moved or mentioned several times. The fact that visual salience affects accessibility has been documented in several studies (see
Jaeger & Norcliffe *in press*:870 and references cited therein), and this could affect the level of
givenness of the items in the experiment.

So the correlation demonstrated in the experiment in Arnold et al. (2000) is between
constituent order and being mentioned in the immediately preceding question. To say that this
is a correlation between constituent order and information structure is perhaps not completely
accurate, because there are reasons to expand the notion givenness further than to the previous
question.

A final comment is that the discourse advantage of having specific sentence positions
designated for new material and others for given material (Arnold et al. 2000:32) is probably
only a real advantage if this is always the case (or if the exceptions are systematic). If new
material sometimes appears in the position designated for new material and sometimes in the
position designated for given material according to the whims of the speaker, then the listener
is hardly able to rely on position as a clue to the discourse status of the constituent.

2.4 Conclusion

In Arnold et al. (2000) correlations are reported between word order and information
structure, both in the corpus study and in the experiment. However, the definitions of new and
given are somewhat problematic.

First, new and given in the corpus study is not the same as new and given in the
experiment, and furthermore, the results would be radically different if we performed the
experiment with the corpus definition of newness and vice versa.

Second, the definition of new and given used in the corpus study (based on previous
mention) groups elements that have been mentioned once many sentences ago together with
elements mentioned multiple times in the immediately preceding sentences, which has the
result that the class of given elements is highly heterogeneous. This raises the question of how
reasonable it is to use only the criteria of previous mention. As discussed above, there are
various definitions and methods to quantify givenness, and it could potentially change the
results considerably if the other suggested quantification methods were taken into account
Third, the definition of new and given used in the experiment (given = mentioned in the immediately preceding question) seems to ignore that the elements discussed by the participants all lie in front of them during the dialogues (i.e. are visually salient), and all elements are used at least twice: Once in the first run, and again when they go through the experiment the second time. To say that speakers are sensitive to whether elements have been mentioned previously, but that this is limited to the immediately preceding sentence, and does not extend even as little as two sentences back, would seem to be too narrow a definition of givenness.

The definitions of new and given used in Arnold et al. (2000) seem to be too narrow or too vague and it could be argued that the definitions used do not reflect the discourse status of the syntactic constituents, but rather reflect only some aspects of the discourse status. Previous mention is relevant, but might not be the whole story about discourse status.


The question that is raised in Holden & Krupp (1987) is, what influences the choice of word order in Russian? They try to answer this question by designing an experiment where different hypotheses on word order can be tested and compared. The different ideas that Holden & Krupp (1987:261-262) aim to test are these:

**The basic order hypothesis.** SVO should be chosen most frequently, simply because it is the basic order.

**The subject-object hypothesis.** Agents are more salient than patients, and therefore we expect S to precede O in the typical case.

**The given-new hypothesis.** Given elements precede new information in the typical case.

Holden & Krupp (1987) also test two hypotheses regarding pronouns, but they are disregarded here, since they are not directly relevant in this context.

In fact Holden & Krupp (1987) really want to test the idea that information structure is reflected by the word order in Russian, but since they find the definitions of theme/rheme, topic/comment, subject/focus and given/new problematic, and they find the concept communicative dynamism confusing (Holden & Krupp 1987:255,258), they abandon this
idea. Instead they use a simple definition of given-new and this is what they test. An element is given if it has been mentioned previously, and it is new if it has not been mentioned (Holden & Krupp 1987:262).

3.1 The experiment

Native speakers of Russian⁴⁸ were presented with a small context, establishing either the subject or the object as given, followed by a transitive sentence in all six logically possible orders. All the transitive sentences were declarative and positive and contained only S, V and O. The contexts plus the six versions of the transitive sentence were presented to the native speakers in written form, and they were instructed to read them out loud to themselves with neutral intonation (Holden & Krupp 1987:262). An example of a context plus sentences is given here:

(4)  **Context**  
Mama prigotovila obed  
*mother prepared dinner*  
“Mother prepared dinner”

**Target sentence**  
Deti s’eli obed  
*children ate dinner*  
“Children ate the dinner”

Deti obed s’eli  
S’eli obed deti  
S’eli deti obed  
Obed deti s’eli  
Obed s’eli deti

(Holden & Krupp 1987:262-263)

In this case *obed “dinner”* is considered given information, and *deti “children”* is considered new information, because *obed “dinner”* is mentioned in the context, and *deti “children”* is not.

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⁴⁸ 23 participated in the experiment; all were former citizens of the Soviet Union living in Canada (the investigation was carried out in the 80’s). All were fluent speakers of Russian, and had emigrated no more than 6 years prior to the experiment (Holden & Krupp 1987:263).
Seven different context types were constructed, in order to make sure that all combinations of given and new were present in the examples:

(5) Context types:
   a. Subject = new, Object = new
   b. Subject = new, Object = given
   c. Subject = given, Object = new
   d. Subject = given, Object = given
   e. Subject = new, Object = given (pronoun)
   f. Subject = given (pronoun), Object = new
   g. Subject = given (pronoun), Object = given (pronoun)

(Holden & Krupp 1987:263)

Each context type was replicated five times with different lexical items, so the total number of contexts was 35.

The subjects were asked to evaluate how suitable the orders were in the provided contexts, after reading them to themselves. The most suited order should be ranked 1, the worst 6, and the remaining orders were to be ranked between these – equal rankings were permitted (Holden & Krupp 1987:263).

3.2 The results

In six out of seven context types, SVO was the preferred order. In context type (5)g, where both arguments are pronominal, SOV was preferred, closely followed though by SVO. VOS was judged as the worst in all context types (Holden & Krupp 1987:264).

Holden & Krupp (1987:265-6) do find a correlation between context type and word order, despite the fact that SVO is overwhelmingly preferred, and their interpretation is that the ranking of the less favoured orders is to some extent dependent on context type.

Another correlation that Holden & Krupp (1987:266) find is between participant subject and word order, demonstrating that “not all participants react uniformly to the contextual stimuli”.

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The goal of the test was, as mentioned above, to investigate whether these three hypotheses influence word order: The basic order hypothesis, the subject-object hypothesis and the given-new hypothesis. The statistical analysis that calculates the relative importance of these factors shows that in the nominal contexts ((5)a-d) the basic order hypothesis is the strongest, the subject-object hypothesis is considerably weaker, and the given-new hypothesis is the weakest (it has one sixth the strength of the basic order hypothesis) (Holden & Krupp 1987:266).

In the pronominal contexts ((5)e-f) the subject-object hypothesis is the strongest, closely followed by the basic order hypothesis, and the given-new hypothesis is again the weakest (Holden & Krupp 1987:266-7).

The surprising result that the context type is the least influential factor, could in principle be an effect caused by the emotive/non-emotive word order distinction: The participants were asked to read the sentences out loud to themselves with neutral intonation, but one could speculate that they might have read them with marked intonation instead. This would mean that given should follow new in these cases. There are 12 cases where orders should be judged as acceptable if the participants assumed that the word order was emotive, but only 3 of these were judged as acceptable, and two of them were SVO-orders, so here the basic order hypothesis seems like a more reasonable explanation (Holden & Krupp 1987:267-9).

3.3 Holden & Krupp’s conclusion

The conclusion drawn from the experiment is that the order given precedes new is best regarded as stylistic, since it is optional, and since the participants are not equally consistent in using this strategy. In fact there seems to be a correlation between educational level and sensitivity to context type, suggesting that the order given precedes new is an acquired stylistic taste (the participant who was most loyal to the given-new order was a published writer of prose fiction) (Holden & Krupp 1987:270).

The given-new hypothesis was the weakest factor influencing word order, and Holden & Krupp (1987:270) conclude that: “the results of the experiment described here, despite their

49 For details about the statistics used I refer to Holden & Krupp (1987:264,266).
limited nature both in terms of subjects as well as theoretical scope, warrant serious reconsideration of the veracity of some of the unadorned Given-New or Theme-Rheme theories thought to underlie word order variability in Russian”.

3.4 Comments on Holden & Krupp (1987)

The first thing to mention is that Holden & Krupp (1987) use the same definition of given/new as Arnold et al. (2000) used in their experiment, namely that if an element has been mentioned in the immediately preceding sentence, then it is given. This definition was problematic in Arnold et al.’s (2000) experiment, because the participants were engaged in an ongoing discourse involving several objects and characters that all were placed right in front of them. This made it unlikely that the only factor determining the discourse status of the elements was the immediately preceding sentence – in principle the elements could have been mentioned a few sentences ago, and in fact the experiment was repeated, so that halfway through the session the participants went through the dialogues again, and this second time all elements were previously mentioned, but still Arnold et al. (2000) assumed that only the immediately preceding sentence determined whether or not an element was given.

In Holden & Krupp (1987) the contexts were not presented to the participants in an ongoing discourse, and the elements were not previously mentioned. This makes the idea that a sentence like mother made dinner establishes dinner and mother as given more likely. On the other hand it could be claimed that the participants in the experiment described in Holden & Krupp (1987) were not engaged in a natural situation, and therefore their judgements might not reflect real discourse situations. It seems likely, however, that a native speaker can decide which word orders would be possible after being presented with a single sentence context, so even if this is not a natural situation, it is not unreasonably unnatural either.

It is interesting that the results in Holden & Krupp (1987) fit so well with a processing explanation. The nominal contexts, where SVO is overwhelmingly preferred and VOS is by far the worst, are examples with transitive sentences with short nominal subjects and objects – in these cases SVO is the most efficient order, and VOS is the least efficient order according to MiD.
In the pronominal contexts, where either one or both of the arguments is pronominal, the subject-object hypothesis is the strongest factor. This is mainly because of the slight preference for SOV over SVO in context (5)g, where both arguments are pronominal – precisely in this case, both SVO and SOV are equally efficient according to MiD.

Holden & Krupp (1987) suggest that word order is only influenced by the discourse status of the elements in a very limited way, and that a preference for the order given precedes new should be regarded as a stylistic preference. The results in Holden & Krupp (1987) are compatible with the idea that processing efficiency influences word order choice and the results are incompatible with the idea that information structure alone determines word order choice.


The primary concern in Gries (2003a, 2003b) is to perform a so-called multifactorial analysis of the verb-particle construction (VPC):

(6) a. John looked the word up
    b. John looked up the word

In the VPC the speaker has a choice between the order in (6)b, which Gries (2003b:3) calls construction_a, and the order in (6)a, called construction_b, and it is the goal in Gries (2003a, 2003b) to determine which factors are relevant for this choice.

The idea that several factors influence the choice of order is formulated as the Processing Hypothesis:

(7) The Processing Hypothesis: by choosing one of the two constructions for an utterance U a speaker S adapts to the processing requirements of the two constructions in two respects, namely his own production of U and U's comprehension by the hearer H:
1 By choosing a construction, S indicates his assessment of the amount of the 
processing cost of U required for its comprehension by H and, thereby, simplifies 
H's comprehension.

2 By choosing a construction, S subordinates to different processing requirements 
of both constructions in that he formulates U in such a way as to communicate the 
intended message with as little processing effort as possible.

This means that the choice of word order will serve to facilitate processing; more 
specifically, for most variables at least, this means that construction 0 will be preferred 
for VPCs with direct objects requiring a lot of processing effort – construction 1 will be 
pREFERRED FOR VPCs WITH DIRECT OBJECTS REQUIRING LITTLE PROCESSING EFFORT.

(Gries 2003b:48)

Gries (2003b:148-149) refers to Hawkins (1994) as an example of an analysis that does 
not take all the relevant factors into account and therefore does not reach a satisfactory result. 
the following table:

<table>
<thead>
<tr>
<th></th>
<th>NP = 1</th>
<th>NP = 2</th>
<th>NP = 3</th>
<th>NP = 4</th>
<th>NP = 5 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb-particle-object ordering</td>
<td>51</td>
<td>21</td>
<td>3</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>(94.4%)</td>
<td>(31.8%)</td>
<td>(18.8%)</td>
<td>(7.1%)</td>
<td>(0%)</td>
</tr>
<tr>
<td>Verb-object-particle ordering</td>
<td>3</td>
<td>45</td>
<td>13</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>(5.6%)</td>
<td>(68.2%)</td>
<td>(81.2%)</td>
<td>(92.9%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Column totals</td>
<td>54</td>
<td>66</td>
<td>16</td>
<td>14</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

(Gries 2003b:148)

In the cases where the NP consists of a single word, Hawkins (1994) has no predictions, 
but in the 125 cases where the NP is longer than 1 word, Hawkins makes the correct 
prediction (namely that the order verb-object-particle should be chosen) in 100 (80%) of the 
cases. The objection in Gries (2003b:149-150) is that Hawkins (1994) disregards a whole set 
of factors that could potentially influence the word order choice and thus improve the number
of correct predictions from the 80% that is achieved using Early Immediate Constituents alone.

4.1 The variables

After a careful discussion of the literature, Gries (2003b:23) decides to test the influence of the following variables on the word order of the VPC:

(9) Variables that are argued to contribute to particle placement

<table>
<thead>
<tr>
<th>Value/Level for verb-particle-object ordering</th>
<th>Variable name</th>
<th>Value/Level for verb-particle-object ordering</th>
<th>Type of variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stressed direct object</td>
<td>Stress pattern of the verb phrase</td>
<td></td>
<td>Phonetic/ phonological</td>
</tr>
<tr>
<td></td>
<td>Phonetic shape of the verb</td>
<td>Verb has no initial stress</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NP type of the direct object</td>
<td>Pronominal</td>
<td>Morphonosyn- tactic</td>
</tr>
<tr>
<td>Definite</td>
<td>Determiner of the direct object</td>
<td>Indefinite/no one</td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>Length of the direct object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complex</td>
<td>Complexity of the direct object</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idiomatic</td>
<td>Meaning of the verb phrase$_1$</td>
<td></td>
<td>Semantic</td>
</tr>
<tr>
<td>Habitual</td>
<td>Meaning of the verb phrase$_2$</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semantic modification of the particle</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Cognitive entrenchment of the direct object's referent</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Direct object</td>
<td>Focus of the verb phrase</td>
<td>Particle</td>
<td></td>
</tr>
</tbody>
</table>

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50 Early Immediate Constituents (EIC) is essentially the same as MiD (see chapter 1, section 2.4.4), but it only deals with phrasal construction domains, and not with e.g. lexical domains. EIC is thus a processing principle that only focuses on the syntax, the actual tree-building process (see Hawkins 1994:57-106).
As seen in (9) Gries (2003b) assumes that 18 variables influence the word order choice in the VPC, and speakers keep track of all the variables and their relative importance in the on-line computation of language (Gries 2003b:6).

All the variables are presented in Gries (2003b:12-31), and I refer the interested reader to this work, but here we will look briefly at the discourse-functional variables, since these are the ones that are directly relevant in this context.

**News value of the direct object's referent.** If the referent of the direct object has been mentioned, then there is a preference for construction 1, which Gries (2003b:18) demonstrates with the following example:

(10)  a. We’ll make up a parcel for them… On the morning of Christmas Eve together we made up the parcel.

b. We’ll make up a parcel for them… On the morning of Christmas Eve together we made the parcel up.

(Gries 2003b:18, (28))
The variable is operationalized as previous mention of the referent (Gries 2003b:19).

The next two variables, **distance to last mention of the direct object's referent** and **times of preceding mention of the direct object's referent**, are both seen as operationalizations of the news value of the referent. The idea is that if the referent of the direct object has been mentioned in the immediately preceding sentence, then it has less news value than if it was only mentioned 9 sentences ago, and if it has been mentioned 10 times in the preceding 7 sentences, then clearly, the news value is lower than if it has not been mentioned at all (Gries 2003b:20).

The final two discourse-functional variables are inspired by Givon’s (1983) concept of importance (see section 5 below). The proposal is that an element, A, can be considered as more important in the discourse than another element, B, if A is mentioned more times or sooner after in the following sentences (Gries 2003b:20-21). A high score on the variable **distance to next mention of the direct object's referent** or **times of subsequent mention of the direct object's referent** both lead to a preference for construction\(_0\) (Gries 2003b:21).

### 4.2 The results

The data that Gries (2003b) analyzes consists of 403 examples of the VPC taken from the British National Corpus. The VPCs were found by searching for the ten most frequent particles and the ten most frequent verbs from a list compiled from several dictionaries (Gries 2003b:67-68).

After the multifactorial analysis of the data using advanced statistical procedures (I refer to Gries 2003b for a detailed discussion of the techniques), Gries (2003b:113) reaches the result that based on the 18 variables in (9), his processing hypothesis can predict the order correctly in 82.9% of the cases.

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51 The two variables both lead to a preference for construction\(_0\) when the value is high, if we judge by the overview table presented in (9) from Gries (2003b:23), but in the text where the variables are discussed, it actually says that the variable **distance to next mention of the direct object's referent** leads to a preference for construction\(_1\) if the value is high (Gries 2003b:21). I assume however that the table is correct, and that there is a typo in the text, since it seems most logical that the two variables lead to the same preference because they both measure importance.
This is an improvement of Hawkins’ (1994) results which were only successful in 80% of the cases; furthermore, Hawkins (1994) did not have a prediction in the cases where the direct object NP consisted of just one word.

An analysis of how the individual variables fare with regards to predictive power demonstrates that the most important variable is **complexity of the direct object**, and especially when the direct object is simple – in that case construction0 is typically found. The second most important variable is **NP type of the direct object**, because if the direct object is pronominal, then construction0 is preferred (Gries 2003b:110).

### 4.3 Comments on Gries (2003a, 2003b)

The discussions of the different factors that could potentially influence word order choice and the statistical methods employed in Gries (2003a, 2003b) are both interesting and very thorough. At the same time it is interesting that the introduction of 17 additional variables instead of Hawkins’ (1994) one variable increases the predictive power only slightly (2.9 percentage points – from 80% to 82.9%). I will discuss this fact in the section on multiple factors below (section 7).

The other case where Gries (2003b) is superior to Hawkins (1994) is where the direct object consists of just one word. Here Hawkins (1994) does not have a prediction – the metric does not discriminate between pronominal single word DPs and nominal single word DPs, so the second most important factor, according to Gries (2003b:110) is not captured by Hawkins (1994).

The need to differentiate between single word lexical DPs and single word pronominal DPs is real, and I have discussed this topic in chapter 2, section 4.1 above, so let me just repeat here that PTOC is able to distinguish these if the IC-to-XP metric is applied instead of the IC-to-word metric.

Where the particle construction is concerned, there is another point to be made about the single word pronominal DPs. Lohse, Hawkins & Wasow (2004:256-257) mention that when the DP is a pronoun, both orders are typically not available, so the one word examples do not necessarily express a performance preference.
The fact that examples with pronouns might not be cases where the speakers have an option, can be solved by excluding examples with pronouns from the data, which is how Lohse, Hawkins & Wasow (2004:242) solve it, and in my test of the particle construction using the IC-to-XP metric (see chapter 6, section 5 below) pronouns are excluded as well. Interestingly my test reveals that PTOC is an even stronger predictor than Gries’ multifactorial model (with 96% successes) even though just one factor is assumed.

In short: Gries (2003a, 2003b) is able to predict the order in the English particle construction with more precision than Hawkins (1994) was, but he includes cases among his correct predictions where there might not be an ordering choice, because the DP is pronominal, and even so his model has a weaker predictive power than a PTOC model based on the IC-to-XP metric (for further discussion of Gries (2003b) see Lohse, Hawkins & Wasow (2004)).


In Hawkins (1994) the principle of Task Urgency, developed by Givon (1983, 1988) is tested on corpus data from English, Hungarian and German. Task Urgency is the idea that the speaker will tend to deal with the most urgent task first (Hawkins 1994:215). This has the effect on word order that unpredictable material precedes predictable material, and important material precedes unimportant material (Hawkins 1994:215-216).

In Givon (1983:13-15, 1988:275) predictability is defined in terms of previous mention: The more recently an element has been mentioned in the preceding 20 clauses, the more predictable it is. Importance is defined as number of mentions in the following 10 clauses: The more often an element is mentioned, the more important it is (Hawkins 1994:216).

The data that Hawkins (1994) tests Task Urgency on is constructions where two elements can occur in either order: Two postverbal PPs (English), two postverbal DPs (Hungarian) and a DP and a PP in the middle field (German) (Hawkins 1994:220-223).

There are just two word order options in the data, and two parameters in Givon’s theory, predictability, P, and importance, I, so the predictions that Task Urgency makes for the data are these:
(11) **Givon’s predictions**

Given two phrases ordered \([XP_i \, XP_j]\), then:

**Single orders predicted:** either \(P_i > P_j\) (where \(I_i = I_j\))

- \(AB\) or \(I_i > I_j\) (where \(P_i = P_j\))
- or \(P_i > P_j\) and \(I_i > I_j\)

**Both orders predicted:** either \(P_i = P_j\) and \(I_i = I_j\) (all values can be \(\emptyset\))

- or \(P_i > P_j\) and \(I_i < I_j\)
- or \(I_i > I_j\) and \(P_i < P_j\)

**Counterexamples:** either \(P_i < P_j\) and \(I_i < I_j\)

- \(*BA\) or \(I_i < I_j\) (where \(P_i = P_j\))
- or \(P_i < P_j\) (where \(I_i = I_j\))

(adapted from Hawkins 1994:218, (4.36))

For any given example, the two relevant XPs will each have a P-score and an I-score, and this will determine whether the order is considered as a predicted order (AB) or as an unpredicted order (*BA). In cases where the P and I values are equal or make contradictory predictions, both orders are considered to be predicted, but the critical cases are of course the ones where Task Urgency unambiguously prefers one order (Hawkins 1994:218).

### 5.1 The results

As already mentioned, Hawkins (1994) tested Task Urgency on constructions from English, Hungarian and German. The English data is 69 examples with two postverbal PPs, the Hungarian data is 116 examples with two postverbal DPs, and the German data is 89 examples with a PP and a DP. Hawkins (1994) count 20 clauses back and 10 clauses ahead as Givon’s metric suggests, and Hawkins (1994:219) uses finite verbs as a measure for clauses. The results are presented here:
(12) Task Urgency – English
n – 69
Task Urgency status: Critical cases, ratio of correct – incorrect:
Incorrect (*BA): 13  52%
Either-or: 44
Correct (AB): 12  48%

(adapted from Hawkins 1994:220, table 4.31:III)

(13) Task Urgency – Hungarian
n – 116
Task Urgency status: Critical cases, ratio of correct – incorrect:
Incorrect (*BA): 53  78%
Either-or: 48
Correct (AB): 15  22%

(adapted from Hawkins 1994:222, table 4.32:II)

(14) Task Urgency – German
n – 89
Task Urgency status: Critical cases, ratio of correct – incorrect:
Incorrect (*BA): 18  49%
Either-or: 52
Correct (AB): 19  51%

(adapted from Hawkins 1994:223, table 4.33:II)

The distribution of correct and incorrect predictions is random for the English and German data, but for Hungarian Task Urgency is wrong in 78% of the critical cases. The data obviously does not support Task Urgency. Another thing that the results show is that the theory only makes critical predictions in a third of the cases – 90 cases out of a total of 274 cases.
5.2 Conclusion

The data do not support the idea that word order variation is dependent on givenness and importance, which is an interesting result especially because givenness has been demonstrated to influence word order choices in other studies (see e.g. Gries 2003a, 2003b, Bresnan et al. 2007, Bresnan 2007, Gómez Gallo, Jaeger & Smyth 2008, Gómez Gallo et al. 2008, Jaeger & Wasow 2008, and Jaeger & Norcliffe in press). I suspect that the reason might have to do with the particular operationalization of information structure status in terms of previous and subsequent mention used in Hawkins (1994). Counting 20 clauses back and 10 clauses forward includes a rather large part of the context (compare with the definitions of givenness in the studies cited above) and the inclusion of subsequent mention as a factor is less well-documented than the previous mention of the referent (but see Gries 2003a, 2003b for a test where subsequent mention is demonstrated to be a relevant factor).

6. The pilot study

The vagueness of the concepts in information structure theories makes it difficult to test the claim that word order is driven by the discourse status of the constituents. Attempts have been made, though, to quantify notions like new and given (Givon 1983, 1988, Arnold et al. 2000, Gries 2003a, 2003b) and a number of tests have been performed (Holden & Krupp 1987, Hawkins 1994, Siewierska 1993, Arnold et al. 2000, Gries 2003a, 2003b).

In all the tests some definition of givenness (typically in terms of previous mention) has been used, but here I would like to try a different approach. Instead of quantifying the notions new and given, I attempt to make the claims explicit and try to formulate predictions that seem to follow from information structure theories, and then test these predictions.

6.1 Two possible interpretations of information structure theories

The information structure theories all take as a premise the idea that in a given context there is a certain word order which is the appropriate one. It is not stated directly but if all elements in
the sentence are ordered according to their position on the salience hierarchy as Sgall, Hajičová & Panevová (1986) and Slioussar (2007) argue, then we must expect that only one order is appropriate and all alternative grammatical orders are less appropriate.

One could, however, also imagine that a given order of a transitive sentence in Russian will be the most appropriate one, and that other orders in principle could be acceptable and others again unacceptable, so that the speaker is not always forced to choose just one order in a certain context, but can sometimes choose between some of the logically possible orders.

We thus have two possible interpretations of the claim that Russian word order reflects information structure. One is the interpretation that in all contexts one and only one order will be the appropriate – let us call this the single order hypothesis.

The other possible interpretation is that in all contexts one or more orders are appropriate – let us call this the multiple orders hypothesis.

All the versions of the information structure theory discussed above are compatible with the single order hypothesis, but only Kovtunova (1976) is compatible with the multiple orders hypothesis as well, since she is the only one who does not assume a necessary connection between topic and factors independent of the speaker. Topic is not necessarily given information according to Kovtunova (1976) and this makes it possible for the speakers to decide for themselves which element to make the topic. This is not the case in Sgall, Hajičová & Panevová (1986), Firbas (1992), King (1995) or Slioussar (2007), where being topic and to some extent being focus is linked to the position of the elements on the salience hierarchy or the accessibility hierarchy or to their belonging to the set of shared current concerns or their being context dependent – all of which are practically independent of the speakers’ will, and it is thus difficult to see how these theories should be compatible with the idea that the speakers can choose between several word order options disregarding salience, accessibility and givenness. If word order is a reflection of the relative degrees of salience of the elements, then no freedom of word order choice should be possible.

It should be noted that if we assume that the link between information structure and word order is purely a stylistic one, as Holden & Krupp (1987) suggest, then all the versions of the theory are of course compatible with the multiple orders hypothesis.
6.2 Testing the two hypotheses

In principle it should be possible to test whether or not only one order is appropriate in a given context. A method could be to present native Russian speakers with a context and a transitive sentence in the six possible orders. The native speakers should then choose which order or orders they consider possible in the given context.

If the single order hypothesis is correct, then we should expect the speakers to prefer only one of the six possible orders in all cases. If the multiple orders hypothesis is correct then we expect the speaker to accept more than one order in some of the cases.

To test this I found contexts where a transitive sentence with only a verb, a subject and an object appeared. I chose 50 contexts from texts found in the on-line corpora available at '<ruscorpora.ru>' and then asked a native Russian speaker, Svetlana Šuvalova, former associate professor at the Slavic Department at the University of Aarhus, which orders she judged to be possible. The target sentence was written in all six orders in the texts that I showed her, and I did not indicate which of the orders actually occurred in the text. Svetlana Šuvalova gave me her judgements, but noted that 10 of the contexts had insufficient text to make a qualified judgement. I thus ended up with 40 different contexts, which typically contained a small bit of text, then the target sentence, and then again a small bit of text. An example of a context is given here:

(15) Страшна такая жизнь, какую он испытал сегодня. Он забыл физическую боль тела, лишь только в груди залегло что-то и мешало дышать. Отпустил он от страха, и неотразимо ясно представилось ему: "Отверженец!.

(1) все ненавидят тебя!
(2) тебя ненавидят все!
(3) тебя ненавидят все!
(4) тебя ненавидят все!
(5) ненавидят тебя все!
(6) ненавидят тебя все!

и даже предвидеть нельзя, что с тобой сделают! быть может, сейчас ударят в спину, вырвут клок волос из головы, плюнут в лицо.." [Н.Г. Помяловский. Очерки бурсы (1862)]
(16) English translation:

What a horrible life he had to live through today. He forgot about the physical pain as soon as his chest clogged up with something that disturbed his breathing. He froze with fear, and with irresistible clarity he imagined to hear: "Outcast! Everybody hates you! It's impossible to tell what they will do to you! They'll probably hit you in the back, pull out your hair, spit in your face..."

This particular example is from 1862, and all the 40 contexts are from the last 200 years. These 40 contexts were divided into four sets of ten and presented to informants. Svetlana Šuvalova had already judged all four sets, and the remaining four informants judged two each. This means that the data consists of 120 answers given to a total of 40 contexts. The number of informants is very limited and this test is only a pilot study, so the results should not be taken as more than an indication of which direction a more thorough study might take. The results were the following:

(17) Data from the pilot study

<table>
<thead>
<tr>
<th>no.</th>
<th>order in corpus</th>
<th>actual rank</th>
<th>highest rank</th>
<th>orders all informants agree on</th>
<th>Informant 1</th>
<th>Informant 2</th>
<th>Informant 3</th>
<th>Informant 4</th>
<th>Informant 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VSO</td>
<td>4</td>
<td>svo-osv</td>
<td>None</td>
<td>svo, vso</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>2</td>
<td>SOV</td>
<td>3</td>
<td>svo-osv</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
</tr>
<tr>
<td>3</td>
<td>OSV</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, osv</td>
<td>svo, osv</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
</tr>
<tr>
<td>4</td>
<td>SVO</td>
<td>1</td>
<td>svo-osv</td>
<td>svo, vso</td>
<td>svo, sov, osv, vso</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>5</td>
<td>SOV</td>
<td>3</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, osv</td>
<td>svo, osv</td>
<td>svo, sov</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>6</td>
<td>VSO</td>
<td>4</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
</tr>
<tr>
<td>7</td>
<td>SVO</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
</tr>
<tr>
<td>8</td>
<td>SVO</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, vso</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>9</td>
<td>OSV</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, osv</td>
<td>svo, vso</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, sov</td>
</tr>
<tr>
<td>10</td>
<td>SOV</td>
<td>3</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, vso</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>11</td>
<td>OSV</td>
<td>1</td>
<td>svo-osv</td>
<td>None</td>
<td>svo, sov, osv</td>
<td>svo, osv</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>12</td>
<td>SVO</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, osv</td>
<td>svo, osv</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>13</td>
<td>OSV</td>
<td>1</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov, osv</td>
<td>svo, osv</td>
<td>svo, osv</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
<tr>
<td>14</td>
<td>SOV</td>
<td>3</td>
<td>svo-osv</td>
<td>svo</td>
<td>svo, sov</td>
<td>svo, sov</td>
<td>svo, vso</td>
<td>svo, vso</td>
<td>svo, vso</td>
</tr>
</tbody>
</table>

The informants were university students or teachers and all native Russian speakers: Anna Borisovna, Nataša Gerasimova, Galina Orlova, Lena Kutsevolova and Svetlana Šuvalova. Galina Orlova and Svetlana Šuvalova live in Denmark, and the others all live in Russia.
In Table 1, we see the data collected from the informants. In the leftmost column, we have the number of the contexts (from 1 to 40), and then we see which order actually occurred in the corpus, which rank the actual order had, and then which order was calculated to be the most efficient order (or orders, in the cases where two orders share the first rank). In the next column, we see which orders the informants agree on. In the columns named informant 1,
informant 2...etc, the orders judged by the informants to be possible in the relevant context are shown.

We can look at the data in terms of individual answers, or in terms of contexts. There are 120 individual answers totally:

(18) The 120 individual answers
a. Average no. of possible orders per answer: 2.5 (305/120)
b. No. of cases where SVO is judged impossible: 18 (18/120 = 15%)
c. No. of cases where the actual order is judged as impossible: 17 (17/120 = 14%)
d. No. of cases where only one order is judged possible: 29 (29/120 = 24%)
e. No. of the above cases where the order judged possible coincides with the actual order found in the data: 17 (17/29 = 59%)
f. No. of cases where the most efficient order(s) are judged impossible: 46 (46/120 = 38%)

(19) The 40 contexts
a. Average no. of possible orders per context (all informants taken together): 3.7 (146/40)
b. No. of contexts where all informants agree that SVO is impossible: 1 (1/40 = 3%)
c. No. of contexts where all informants agree: 5 (5/40 = 13%)
d. No. of contexts where all informants agree that only one order is possible: 1 (1/40 = 3%)

It seems quite obvious that the single order hypothesis is incompatible with the data gathered here. If we look at the individual answers then the average is 2.5 possible orders per answer. And if we look at the contexts, then the group of informants accept 3.7 orders as possible on average for each context. This alone speaks quite clearly against the single order hypothesis, and it becomes more obvious that it is not the case that just one order is acceptable in each context when we see that in only 29 out of the 120 answers do the

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53 In contexts 29 and 30, the informants believe that only one order is possible, but they disagree with respect to which order the possible one is.
informants estimate that only one order is possible – in these 29 cases there is a mismatch between the informant’s intuition and the actually occurring order in 12 cases (41%).

There is only one context where the informants agree that only one order is possible (3%), and the one possible order is SVO.

The multiple orders hypothesis seems more promising, but this is a matter of interpretation. One version of the multiple orders hypothesis would predict that the informants should agree on which orders are possible, yet they do not: Only in 5 out of 40 contexts do all informants agree on what is possible and what is impossible (13%). This is only a problem if we assume that the set of possible orders in a given context is a fixed set – if the set of possible orders in a given context is not a fixed set, but rather a matter of style, then the multiple orders hypothesis is perfectly compatible with the data. This supports the idea presented in Holden & Krupp (1987) that context sensitivity is mainly a stylistic phenomenon.

Another thing to notice in the data is that SVO seems to be possible in almost all contexts – in only one context do the informants agree that SVO is impossible (1/40 – 3%), which means that SVO is judged as possible by at least one informant in 39 of the 40 contexts (98%). If we look at the individual answers (the 120 answers) then we see that in just 18 out of 120 answers (15%) is SVO judged to be impossible, and SVO is thus judged to be possible in 102 out of 120 cases (85%).

The efficiency calculation shows that SVO is the most efficient order in 35 out of 40 contexts (88%) which fits well with the overall preference for SVO observed among the informants.

Finally, we observe in the data the interesting and unexpected fact that the informants occasionally have judgements that go against the actual order. In (18)c we see that in 14% of the answers, the informants do not believe that the order actually occurring in the data is appropriate. This seems to be at odds with the view that word order is intimately linked with the context.
6.3 Conclusion

The pilot study would of course benefit from a larger number of informants and contexts, but the result is still interesting and it suggests that Russian speakers have limited word order options depending on the context, but the limitation is much weaker than expected.

The data presented here indicates that Russian speakers do not feel that only one order is possible in a given context. Furthermore the data shows that native speakers do not generally agree on which orders are possible and which are not. They do seem to agree on SVO though, since almost everybody finds SVO possible almost all the time (102 cases out of the 120 individual answers – 85%).

The data is completely incompatible with the single order hypothesis, and is only compatible with a version of the multiple orders hypothesis that reduces context influence on word order to a stylistic phenomenon.

The information structure theories referred to in this dissertation all postulate a connection between word order and information structure, but the concepts (topic/focus, given/new, theme/rheme) are defined in such a way that it is difficult to determine what exactly is meant. The connection between order and discourse status is also not explicitly defined, making it difficult to test the ideas. The single order hypothesis and the multiple orders hypothesis is not postulated in any of the works referred to, but is simply what I find to be the logical consequence if word order is determined by information structure. What else could possibly be meant by this, if not that a particular context forces a particular order? In fact Slioussar (2007:1) presents an example that illustrates how a context forces one particular word order and renders another infelicitous:

(20)  a. Naš novyj ofis bystro obustraivalsja.

    Our new office quickly equipped

    “Our new office was settled in very fast”

   b. Programmist kupil kofevarku.

    programmer.NOM bought [coffee machine.ACC]

    “The programmer bought a coffee machine”
The point is that in this context only (20)b is considered a possible word order, and this demonstrates that Slioussar (2007) seems to assume the single order hypothesis.

If the information structure theories do not assume something like the single order hypothesis or the multiple orders hypothesis, then the connection between word order and information structure is nothing more than the simple observation that speakers tend to utter sentences that in some way are connected to the current context, so that e.g. when people around me discuss what we should make for dinner, then a comment about my preferences for dinner is natural, whereas a philosophical comment on life in general is less expected. But surely this fact is already described as Grice’s Maxim of Relevance (Grice 1975) and is not directly related to topic and focus articulation. In sum: I think it is reasonable to assume that something along the lines of the single order or the multiple orders hypotheses underlie information structure theories of word order.

7. Discussion of multiple factors

As mentioned in the introduction, the aim of this thesis is to test whether processing efficiency influences word order. The traditional view (as discussed in detail in chapter 4) is that word order in Russian is determined exclusively by information structure. The tests reported in chapter 3 demonstrate that efficiency is a variable that influences word order in Russian at least for the constructions tested there. This is obviously a challenge for the traditional view and this is the main point of this dissertation.

There are however several studies which demonstrate how multifactorial models can predict word order choices with a very high accuracy (see e.g. Gries 2003a, 2003b, Bresnan et al. 2007, Bresnan 2007 and Jaeger & Wasow 2008), and it would be interesting to see if it is possible to achieve a higher predictive power by adding more variables to the efficiency variable, and so this would be an obvious topic for future research. The goal of this
dissertation is simply to make a case for the idea that information structure alone is not all that can be said about word order in Russian.

In the tests in chapter 3, PTOC is able to predict word order choices with an accuracy ranging from of 67% to 93%, and this is based on a single variable. In two of the studies referred to above, the predictive powers of the multifactorial models are reported to be 82.9% (Gries 2003b:113) and 92% respectively (Bresnan et al. 2007:78-79). I would like to outline why PTOC can make comparably strong predictions with just a single variable.

One reason has to do with the fact that complexity is usually quantified as number of words (as in Gries 2003a, 2003b, Bresnan et al. 2007, Bresnan 2007 and Jaeger & Wasow 2008 and Bresnan & Hay 2008) and not as number of XPs. This has two consequences.

First, complexity is a more precise and stronger predictor when the XP-metric is used instead of the word-metric as we saw above in chapter 3, section 5.3.

Second, the use of a word-metric for complexity necessitates an additional pronominality or DP-type variable, because the word-metric cannot discern between single word pronominal DPs and single word lexical DPs.

Gries (2003b:110) reports that the two most influential variables are the complexity of the DP and the type of DP (and by type he means whether the DP is pronominal or not). Both these factors are subsumed under efficiency when the IC-to-XP metric is used, so the one variable used in PTOC includes the type of DP variable and is even stronger than the complexity variable based on number of words.

Another factor that has repeatedly been shown to influence word order choice is givenness (see e.g. Gries 2003a, 2003b, Bresnan et al. 2007, Bresnan 2007, Gómez Gallo, Jaeger & Smyth 2008, Gómez Gallo et al. 2008, Jaeger & Wasow 2008, and Jaeger & Norcliffe in press). As already mentioned this is not one of the strongest variables in Gries (2003b), but what is more interesting is that givenness occasionally turns out to be a non-significant variable as in Bresnan (2007:89) and Bresnan & Hay (2008:253).\footnote{Both these studies (Bresnan 2007 and Bresnan & Hay 2008) do find givenness effects in some of the tests reported.} This surely does not show that givenness is irrelevant, but it does offer some explanation as to why PTOC can disregard givenness and still make precise predictions: Givenness seems to have only limited influence.

There is also the potential problem with givenness that it is much less straightforward to quantify as discussed above in chapter 5, section 2.3, and this means that it is defined...
differently in the different studies, with the result that very unlike phenomena are all
nevertheless called givenness.

The last factor that I will mention here is animacy. Studies have shown its relevance for
English (see e.g. Bresnan 2007 and Bresnan et al. 2007), but perhaps it is not relevant for
Russian as the double object test suggested (see chapter 3, section 4). It would be premature
to decide this conclusively at this point, but at least for the double object data no effect was
found and perhaps this is another reason why PTOC can make successful predictions even
though a seemingly important variable like animacy is ignored.

Another reason why PTOC fares rather well with just one variable has to do with the
fact that many of the suggested variables have been demonstrated to be in harmonic
alignment (see Bresnan et al. 2007: 80 and Bresnan & Ford 2009:21-26). This means that e.g.
complexity, givenness and animacy tend to predict the same, in the sense that short, given and
animate elements precede long, new and inanimate elements. So when PTOC sticks to just
one variable, then this does not have the consequence that the predictions are very weak,
precisely because adding extra harmonically aligned variables would only support the
prediction already made. This is probably part of the explanation why PTOC can be so
successful with only one variable.

The discussion in this section was not intended as an argument against multifactorial
models, but I wanted to address the interesting fact that PTOC can be relatively successful
with just one variable – namely processing efficiency. I suggest that the reason for this is that
two of the strongest, most influential variables in the multifactorial models are complexity
interpreted as number of words and pronominality, both of which are subsumed under
efficiency. Furthermore the two variables animacy and givenness seem to be irrelevant for
Russian and quite weak respectively. And finally, the variables suggested in the multifactorial
models tend to be aligned, so the prediction made by one variable is usually backed up by the
other variables. PTOC can thus achieve results with just one variable, simply because this one
variable can do what the strongest variables in e.g. Gries' (2003b) model do, and because the
variables that are disregarded in PTOC have little impact on the result.

In this discussion, focus has been on the four variables complexity, pronominality,
animacy and givenness because many of the suggested variables in the multifactorial models
can be subsumed under these headings (especially when it is considered that definiteness is
irrelevant for Russian, since there are no articles). Consider e.g. the 14 variables in Bresnan et
al. (2007:77-78): semantic class, accessibility of recipient, accessibility of theme, pronominality of recipient, pronominality of theme, definiteness of recipient, definiteness of theme, animacy of recipient, person of recipient, number of recipient, number of theme, concreteness of theme, structural parallelism in dialogue, length difference. Some of these are specific for the English dative alternation (semantic class of the verb) and some are specific for the data used (structural parallelism in dialogue), but the most salient variables are related to complexity, pronominality, animacy and givenness.

8. Concluding remarks

The connection between information structure status and word order is tested in the four studies mentioned (Holden & Krupp 1987, Hawkins 1994, Arnold et al. 2000, Gries 2003b), and the results reached are very different, ranging from Hawkins (1994) who finds that givenness is a very poor predictor of word order to Gries (2003b) who finds a correlation between givenness and word order, even though the correlation is stronger between complexity and word order even in Gries (2003b). Holden & Krupp (1987) find a weak correlation between discourse status and word order, but the preference for SVO (and SOV) is much clearer and seems to be the primary strategy employed by speakers. Arnold et al. (2000) find correlations between information structure and word order in both the corpus test and in the experiment, but as discussed above in section 2.3 the ways that information structure is operationalized are not only different in the corpus study and in the experiment, but they are also incompatible. Both of the suggested operationalizations are problematic as discussed above.

This pilot study test shows that the basic premise of the idea that word order is driven by information structure, namely that for each context there is one appropriate order, is uncertain. In fact several orders are possible in almost all the contexts examined, and the informants demonstrate a remarkable heterogeneity in what they consider possible and impossible.
6

PTOC and Syntax

1. Introduction

Different syntactic analyses of a construction can change the efficiency calculation, so two analyses will typically lead to slightly different results – one analysis might lead to the result that the most efficient orders are chosen in 50% of the cases, and an alternative analysis may lead to the result that the most efficient orders constitute 85% of the orders. There could also be more subtle differences in the predictions depending on which analysis the calculation is based on.

If it is a fact about language that the most efficient orders are preferred in cases where there is a word order choice, then this fact could potentially be used to choose between the alternative analyses: The one that is compatible with a correlation between frequency and efficiency is preferred over the one that is not compatible with a correlation between frequency and efficiency.

In this chapter, I will assume that the correlation between efficiency and frequency is a fact, and then try to use this as a way to compare different analyses.

Although the correlation is quite well-established, it is probably rather premature to call it a fact about language, and so this chapter is speculative and is simply meant as an exploration of how PTOC could be used in syntax if the correlation between efficiency and frequency becomes more generally accepted.

In section 2, two analyses of generalized quantifiers are examined and the different predictions that these analyses make with regards to frequency data is explored.
In section 3, we return to transitive sentences and see how the results are affected, when the analysis in King (1994) is used as a basis for efficiency calculations instead of the analysis in Bailyn (2004).

In section 4, we look at alternative analyses of the double object construction and the impact they have on the efficiency calculations.

In section 5, the particle construction in English is revisited and data is analyzed using two different analyses as the basis for the efficiency calculation, to see whether any of the analyses are compatible with the hypothesis that the most efficient orders are correlated with the most frequent orders.

Finally section 6 contains the conclusion.

2. Russian generalized quantifiers all/both

2.1 Discussion

In chapter 2, section 5.1.2, I argued that an adjunction analysis of all/both was superior to the suggestion by Pereltsvaig (2006:435) that all/both head a separate functional projection taking DP as its complement. The argument was that sentences like (1)a and b pose a problem for the functional projection analysis, because all/both is lower than the pronoun:

(1) a. On moix oboix synovej nenavidit

    he my both sons hate

    "He hates both my sons"

    (ruscorpora.ru: N.S.Leskov, Zimnij Den')

b. No oni vse orientirujutsja na sovetskuju ēstradu

    but they all orientate.self at Soviet platform

    “But they all orientate themselves towards a Soviet platform”


One could of course derive this order by movement somehow, but there does not seem to be any obvious reason for this movement except to make the analysis work.
There is another reason, however, which is linked to the fact that *all/both* are free to modify personal pronouns, while neither possessive pronouns nor demonstratives are:

(2) Ja znaju...  
*a. ix vsex*  
*I know them all* 

*b. vsex ix*  
*all them* 

*c. *etogo ego*  
*this him* 

*d. *ego etogo*  
*him this* 

*e. *moix ix*  
*my them* 

*f. *ix moix*  
*them my* 

This of course makes sense if we follow Pereltsvaig (2006) and assume that *all/both* are in a functional phrase taking DP as its complement, but then we would expect either that only the order *all/both>*personal pronoun was grammatical, or that there is at least an ordering preference for *all/both* before the personal pronoun, because this order would not involve extra movement, but this is not what we find as seen in table 9\(^5\): 

<table>
<thead>
<tr>
<th></th>
<th>vsex ix</th>
<th>ix vsex</th>
<th>all them</th>
<th>them all</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of hits</td>
<td>569,000</td>
<td>1,250,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^5\) These numbers are from a Google search (January 15, 2008) – again I don't claim that this gives precise data, but it shows the tendency to prefer the order pronoun>*all/both* over *all/both>*pronoun. There is a question about constituency here, because the words *ix “they” and vsex “all” do not have to form a constituent – they could be two separate objects in a sentence with a ditransitive verb taking an accusative and a genitive object (like *lišit’ “deprive”). Probably some portion of the examples is in fact of this type (i.e. not a single constituent, but two objects). This does not affect the result, because it is equally possible with both orders – they can be either a single constituent or two objects. In other words: The total number of examples is too high, but the overweight of *ix vsex* orders is unaffected by this fact.
Clearly the order personal pronoun > all/both is preferred, and this is unexpected given the functional projection analysis in Pereltsvaig (2006).

The order personal pronoun > all/both is expected in an adjunction analysis, in case the DP is a complement and is in a postverbal (or post-prepositional) position, because this order ensures a higher efficiency for the VP domain.

The PCD for VP in a transitive sentence with a complement consisting of the two words vsex "all" and ix "them" is more efficient with the order ix vsex "them all" than with the order vsex ix "all them". To see this, consider the structures of these variant orders at the point in the parse where the VP’s complement is projected i.e. at the time where the parsing of the PCD for VP is complete:

\[
\begin{array}{ll}
\text{(3) a.} & \text{VP} \\
V^o & \text{DP} \\
zna & \begin{array}{l}
(I)know \\
ix\ldots
\end{array} \\
\end{array}
\]

In (3)a the PCD for VP has two ICs (V and DP) and contains two XPs, so the efficiency ratio is 100%.

In (3)b on the other hand the second constituent, DP, is constructed when vsex "all" is parsed, and since the parser knows that such an element is a QP adjoined to DP, then it projects both these XPs. Consequently, the PCD for VP will contain one more XP in (3)b than in (3)a yielding the efficiency ratio 67%.

If we calculate the efficiency of the alternative orders ix vsex "them all" and vsex ix "all them", but instead assume the functional projection analysis, then the orders are equally efficient:
In both (4)a and (4)b, the VP-domain is complete when the first word of the complement phrase is parsed, and both *ix "them"* and *vsex "all"* are dominated by just a single XP, DP and FP respectively, so the VP has an efficiency in each case of 2 ICS divided by 2 XPs: 100%.

This means that if the functional projection analysis is chosen, then PTOC predicts that the distribution of the two orders, *ix vsex "them all"* and *vsex ix "all them"*, should be random. If the adjunction analysis is chosen instead, then PTOC predicts that the order *ix vsex "them all"* should be more frequent in complement position, and that is what we saw to be the case (see table 9 above).

We cannot, however, be sure that all the examples actually are cases where the DP is postverbal, and since the prediction only goes for postverbal DPs, then let us test these specific cases. This can be done by searching for a string with a high frequency verb, like *ubit' "to kill"* and then the DP with either the order *ix vsex "them all"* or the order *vsex ix "all them"*. The result of this search is seen in table 10:

| Table 10: Frequency data for pronouns and *all* in postverbal position |
|----------------------|----------------------|----------------------|
| ubit' | vsex | ix | ubit' | vsex |
| killed all them | killed them all |
| No. of hits | 264 | 6,540 |

Clearly there is a preference for the order *ix vsex "them all"*, which is what PTOC predicts if we assume the adjunction analysis, but is not what is predicted if we assume the functional projection analysis.

---

56 Google search on December 12, 2008 – the masculine 3. person singular form is shown in the main text, but all the forms show the same pattern. The imperative form of *ubit' "to kill"* was by far the most frequent with 396 *vsex ix* orders and 27,200 *ix vsex* orders, but the imperative could be formulaic and therefore the pattern is demonstrated with a declarative.
Interestingly, PTOC makes a different prediction regarding the order of a personal pronoun and all/both in subject position, since in this case no efficiency advantage is gained by altering the order. No matter which of the two analyses is chosen, the entire DP will be contained in the IP-domain, irrespective of the order of all and the personal pronoun.

If PTOC and the adjunction analyses of all/both are on the right track then we expect to find that both the orders vse oni "all they" and oni vse "they all" (personal pronoun/all in nominative) are equally frequent as can be seen in table 1157:

**Table 11: Frequency data for pronouns and all in nominative**

<table>
<thead>
<tr>
<th></th>
<th>vse oni</th>
<th>oni vse</th>
</tr>
</thead>
<tbody>
<tr>
<td>all they</td>
<td>307,000</td>
<td>252,000</td>
</tr>
<tr>
<td>they all</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This distribution is close to random, fulfilling PTOC’s prediction. Both analyses predict this random distribution, but only the adjunction analysis predicts that different patterns should be found in accusative as opposed to nominative, and this supports the adjunction analyses of all/both.

Let me stress the fact that the frequency data only works if we assume that nominative phrases typically are subjects, and that accusative phrases typically are complements, which is quite uncontroversial, but nevertheless I looked through the first 30 examples of the four Google searches (shown in table 10 and 11 above) to see whether the accusatives were actually complements, and whether the nominatives were actually subjects, and this was the case in 115 examples out of 120.

---

57 Google search on January 15, 2008. Again there is a problem with constituency. In principle both forms (vse “all” and oni “they”) are marked as nominative plural and therefore they must form a constituent together unless they happen to be in two separate sentences as in: …tak skazali vse, oni vsegda igrali… (so said all, they always played). This is not a big problem because both orders (vse oni and oni vse) could be of this kind. The real problem is that sometimes the neuter singular form vsë is written without the umlaut and so becomes indistinguishable from the nominative plural form vse. This means that the examples with the order vse oni “all they” could contain examples where the two words do not form a constituent, but where the object is topicalized. And the examples with the order oni vse “they all” could contain examples with SOV-order instead of examples where the quantifier and the pronoun form a constituent. A check of the first 200 examples of each demonstrated that there were approximately the same number of non-constituent examples for both orders (12 and 16) and I therefore assume that this does not skew the results.
2.2 Conclusion

The fact that the order *ix vsex "them all" is massively preferred in complement position, and that there seemingly is no preference in subject position (see table 10 and 11 above), is predicted if we assume the adjunction analysis, but this pattern is simply a mystery if we assume the functional specifier analysis.

In other words, the frequency data presented here can be given a principled explanation in terms of a preference for the most efficient word order as suggested by PTOC if we assume the adjunction analysis.

3. Transitive sentences revisited

The test of the transitive sentence data showed a strong correlation between frequency and efficiency (see chapter 3, section 2) and in this section we will try to look at the data again. In the test presented earlier, we used Bailyn’s (2004a) analysis of the six different word orders, but this time we will use the analysis in King (1995) as the basis for the efficiency calculations.

The idea is that the analysis that provides the strongest correlation between efficiency and frequency is the superior analysis. Of course this is not a real tool to choose between alternative analyses unless the correlation between efficiency and frequency is established as an indisputable fact. This is not so, but in this chapter we assume that it is so in order to demonstrate what PTOC potentially has to offer syntax.

3.1 The structures of transitive sentences according to King (1995)

King (1995:96) argues that the basic order in Russian is VSO, and consequently all other orders are derived by scrambling. The verb is assumed to move from V° to I°, and the subject is base-generated in the specifier of VP:
(5) **VSO**

Both the subject and the object can adjoin to IP (for discourse reasons, but that is irrelevant here), and this is all we need to derive SVO, OVS, SOV and OSV:

(6) **SVO**

Notice that the subject is not in IP-spec, but is adjoined to IP.

(7) **OVS**
The VOS-order is not discussed in King (1995), but the most obvious way to derive this order from the basic VSO-order is to simply right-adjoin the subject DP to IP, and this is what I will assume here:
3.2 The efficiency calculation using King’s (1995) structures

3.2.1 Efficiency calculation – VSO-order

The first word that the parser encounters is the finite verb, and it is thus immediately clear that it is dealing with a verb initial order. In both the VSO- and in the VOS-order the verb is in I₁, and the VP-node is its complement. This part of the structure can be inferred and the first domain, the IP-domain, is completed immediately (traces and bar-levels are disregarded as usual):

(11) \[ \text{IP} \]
    \[ \text{I}^{0} + \text{V}^{0} \]
    \[ \text{VP} \]

The IP-domain has two ICs and contains two XPs, so the ratio is 2/2 = 100%.

When the DPnom is parsed, the first constituent in the VP-domain is constructed, and the VP-domain is complete when the DPacc is parsed (in the calculations here I assume that both DPs are single word pronominal DPs):

(12) \[ \text{IP} \]
    \[ \text{I}^{0} + \text{V}^{0} \]
    \[ \text{VP} \]
    \[ \text{DP}_{\text{nom}} \]
    \[ \text{DP}_{\text{acc}} \]

The VP-domain has two ICs and contains three XPs. 2/3 = 67%

The aggregate ratio for the VSO-order is 100 + 67/2 = 84%

3.2.2 Efficiency calculation – SVO-order

Earlier I suggested (see chapter 3, section 2.4.1 above) that a nominative DP allows the parser to construct an IP-node, and since the subject is adjoined to IP in both the SOV- and the SVO-order according to King (1994), both the IP-nodes can be inferred as soon as we see the DPnom. The IP2-domain is thus complete when the DPnom is parsed:
The IP2-domain has two ICs and contains three XPs. $2/3 = 67\%$.
The next word that the parser encounters is the verb, and this allows the construction of the VP-node, so at this point the IP-domain is complete:

The IP1-domain has two ICs and contains two XPs. $2/2 = 100\%$.
Finally the DPacc is parsed and the VP-domain is thus completed:

The VP-domain has one IC and contains two XPs. $1/2 = 50\%$.
The aggregate ratio for the SVO-order is $67 + 100 + 50 : 3 = 72\%$

### 3.2.3 Efficiency calculation – OVS-order

When the DPacc is parsed only the DPacc itself can be constructed. When the verb is reached the parser can construct the IP-nodes and the VP-node and both IP-domains are completed. The IP2-domain has two ICs and contains three XPs, and the ratio is thus $2/3 = 67\%$: 
The IP1-domain has two ICs as well and contains two XPs. $2/2 = 100\%$:

Finally the DPnom is parsed and the VP-domain is completed:

The ratio for the VP-domain is $1/2 = 50\%$.

The aggregate ratio for the OVS-order is $67+100+50:3 = 72\%$

### 3.2.4 Efficiency calculation – SOV-order

When the DPnom is parsed the DP- and the IP3-nodes are constructed; furthermore, the second IP2-node is inferable as well, because we know that the subject has to be adjoined to IP in King’s (1994) system. Even if adverbials were to follow, the sister to DPnom would still have to be another IP-node. So the IP3-domain is complete once the DPnom is constructed:
The IP3-domain has two ICs and contains three XPs. $2/3 = 67\%$

The next phrase that is parsed is the DPacc, and since the verb has not been encountered at this point, the parser will have no choice but to assume that the DPacc is adjoined to IP as well, and we thus get another IP-node and simultaneously the IP2-domain is completed:

Like the IP3-domain, the IP2-domain has two ICs and contains three XPs – $2/3 = 67\%$.

When the verb is finally parsed the VP-node is constructed and the IP1-domain is completed:

The IP1-domain has two ICs and contains two XPs – $2/2 = 100\%$.

The aggregate ratio for the SOV-order is $67+67+100:3 = 78\%$. 

3.2.5 Efficiency calculation – OSV-order

The OSV-order is different from the SOV-order, because the DPacc cannot construct IP. This means that the completion of the IP3-domain is delayed until the DPnom is parsed and this makes the OSV-order less efficient than the SOV-order. When the DPnom is parsed all three IP-nodes can be inferred and both the IP3- and the IP2-domains are completed. First the IP3-domain:

The IP3-domain stretches from the PNCC for the first IC, DPacc, to the PNCC for the last IC, IP2. And since the PNCC for IP2 is DPnom, the domain has to include the part of the subject that contains the PNCC (see chapter 3, section 2.4.3). The IP3-domain has two ICs and contains 4 XPs – 2/4 = 50%.

The IP2-domain is more efficient with two ICs and just three XPs: 2/3 = 67%.

When the verb is parsed the IP1-domain is completed:
The IP1-domain has two ICs and contains two XPs – 2/2 = 100%.
The aggregate ratio for the OSV-order is 50+67+100 = 72%.

3.2.6 Efficiency calculation – VOS-order

Parallel to the VSO-order, the first word that the parser encounters is the finite verb. In both the VSO- and in the VOS-order the verb is in I°, and the VP-node is its complement. This part of the structure can be inferred and the first domain, the IP-domain, is completed immediately:

(25) \[ \text{IP1} \]
\[ \text{I}^o + V^o \]
\[ \text{VP} \]
\[ \text{DPacc} \]

The IP1-domain has two ICs and contains two XPs – 2/2 = 100%.
Next the accusative DP is parsed and this completes the VP-domain, because in the structures assumed here the DPnom cannot be inside the VP if it follows the DPacc:

(26) \[ \text{IP1} \]
\[ \text{I}^o + V^o \]
\[ \text{VP} \]
\[ \text{DPacc} \]

The VP-domain has one IC and contains two XPs. 1/2 = 50%.
Finally the DPnom is parsed, and this completes the IP2-domain, which extends from the PNCC for the first IC (the verb constructs the IP1-node) and all the way to the PNCC for the last IC, which is the DPnom:
The IP2-domain has two ICs and contains five XPs – 2/5 = 40%.
The aggregate ratio for the VOS-order is 100+50+40:3 = 63%.

3.2.7 Summary of the efficiency calculation

When both DPs are assumed to be single word pronominal DPs, we get the following aggregate ratios for the six possible orders:

(28) Aggregate ratios

<table>
<thead>
<tr>
<th>Order</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>VSO</td>
<td>84%</td>
</tr>
<tr>
<td>SVO</td>
<td>72%</td>
</tr>
<tr>
<td>OVS</td>
<td>72%</td>
</tr>
<tr>
<td>SOV</td>
<td>78%</td>
</tr>
<tr>
<td>OSV</td>
<td>72%</td>
</tr>
<tr>
<td>VOS</td>
<td>63%</td>
</tr>
</tbody>
</table>

The VSO-order is the most efficient order when King’s structures are used as the basis for the calculation in this case, but the size and type of the DPs affects the calculation (because more complex DPs will add complexity to some domains and not to others, and thus the hierarchy can change when the DPs are changed).

For each of the 317 sentences in the data I have calculated the efficiencies of the six different orders and compared the efficiency hierarchy with the actual order. The results are found in the next section.
3.3 Results and comparisons

When the structures suggested in King (1995) are used as the basis for the efficiency calculation, PTOC makes a single prediction in all 317 cases. Of the 317 cases, only 7 (2%) have the order predicted by PTOC. This is significantly less than expected under a null hypothesis of random allocation, which would lead to 1/6 (16.7%) correct predictions ($successes = 7, n = 317, p < 0.0001$, exact binomial test).

PTOC is unsuccessful when the calculations are made on the basis of King (1995).

When the calculations were based on the structures suggested in Bailyn (2004a), we saw a strong correlation between the most efficient orders and the most frequent orders, with 79% successes for the 155 cases where there was a single prediction, and 93% successes in the 162 cases where two orders were tied for the first place (see chapter 3, section 2.5 above).

3.4 Conclusion

It seems quite clear that the analysis in Bailyn (2004a) is compatible with the hypothesis that there is a correlation between the most efficient and the most frequent orders, as suggested in Hawkins (1994).

It is equally clear that the analysis in King (1995) is not compatible with this hypothesis, and if we assume that such a correlation is a fact of language (as we do in this chapter), then we must conclude that the data supports the structures suggested by Bailyn (2004a), and not the structures suggested by King (1995).

4. Double object construction

In the test of the double object construction data (where all DPs were non-pronominal and both DPs were postverbal), the structures assumed for the DP_{acc} – DP_{dat} and the DP_{dat} – DP_{acc} orders were the ones suggested by Bailyn (1995):
(29) Basic order:
\[ \text{vP} \]
\[ \text{v}_i^o \]
\[ \text{VP} \]
\[ \text{DP}_{\text{acc}} \]
\[ \text{V'} \]
\[ t_i \]
\[ \text{DP}_{\text{dat}} \]

(adapted from Bailyn 1995:37, (41))

(30) Derived order:
\[ \text{vP} \]
\[ \text{v}_i^o \]
\[ \text{VP} \]
\[ \text{DP}_{\text{dat}, j} \]
\[ \text{VP} \]
\[ \text{DP}_{\text{acc}} \]
\[ \text{V'} \]
\[ t_i \]
\[ t_j \]

In the efficiency calculation I disregard traces and bar-levels, and thus end up with these two alternative structures to base the calculations on:

(31) \[ \text{vP} \]
\[ \text{v}_i^o \]
\[ \text{VP} \]
\[ \text{DP}_{\text{acc}} \]
\[ \text{DP}_{\text{dat}} \]

(32) \[ \text{vP} \]
\[ \text{v}_i^o \]
\[ \text{VP}_2 \]
\[ \text{DP}_{\text{dat}} \]
\[ \text{VP}_1 \]
\[ \text{DP}_{\text{acc}} \]

I repeat the calculation here for convenience (described above in chapter 3, section 4.2).

The vP-domain is identical in the two structures and therefore I do not include it in the calculation. That leaves one VP-domain in (31) and two VP-domains in (32). To demonstrate
how the calculation is performed I will calculate the efficiency of both orders using the noun *devuška* “girl” for the DP\textsubscript{dat} and using the noun *podarok* “gift” for the DP\textsubscript{acc}.

The single VP-domain in the basic order (DO IO) has two ICs, the DP\textsubscript{acc} and the DP\textsubscript{dat}. The DP\textsubscript{acc} is constructed when the first constructing word in the DP\textsubscript{acc} is parsed, and the final constituent in the domain, the DP\textsubscript{dat}, is constructed when the first constructing word in the DP\textsubscript{dat} is parsed. In this case the PNCC for the last constituent is also the only word in the constituent, namely *devuška* “girl”. So the VP-domain stretches from the first word in the DP\textsubscript{acc} to the PNCC in the DP\textsubscript{dat} including all material between these two points:

(33) \[
\begin{array}{c}
\text{vP} \\
\text{v} \\
\text{gave} \\
\text{DP} \\
\text{NP} \\
\text{podarok} \\
\text{girl} \\
\text{DP} \\
\text{NP} \\
\text{devuška} \\
\text{girl} \\
\text{VP} \\
\text{dal} \\
\text{vP} \\
\end{array}
\]

The VP-domain contains 5 XPs and has two ICs, so the ratio is \(2/5 = 40\%\).

In the derived order we find not one, but two domains. The first VP-domain, the VP2-domain, has two ICs, DP\textsubscript{dat} and VP1. The DP\textsubscript{dat} is constructed by the first constructing word (which is also the only word in this case) and I assume that VP1 is constructed by the finite verb, so the VP2-domain stretches from the finite verb to the VP1-node:

(34) \[
\begin{array}{c}
\text{vP} \\
\text{v} \\
\text{gave} \\
\text{DP} \\
\text{NP} \\
\text{devuška} \\
\text{girl} \\
\text{VP2} \\
\text{dal} \\
\text{vP} \\
\end{array}
\]

This VP2-domain has 5 XPs and two ICs, and the ratio is \(2/5 = 40\%\).
The VP1-domain has only one IC, DP_{acc}, and this DP is constructed when the first constructing word is parsed. The VP1-domain thus contains only the mother node itself and the part of the DP_{acc} that dominates the PNCC (which in this case is the entire DP):

\[(35)\]

The second VP-domain has 3 XPs and one IC, and the ratio is $1/3 = 33\%$.

I then add the ratios for the two domains in the derived order (IO DO) and divide the result with two to get the average ratio: $33+40/2 = 36.5$.

This average ratio of 36.5% is lower that the ratio for the basic order, which was 40%, and this means that in this particular case (where both DPs have complexities of 2 XPs) PTOC predicts that the basic order should be preferred.

When processing efficiency is calculated on the basis of these structures, the result is that PTOC predicts the order in 88% of the cases.\[^{58}\]

The structure suggested by Bailyn (1995) has been criticized both in Slioussar (2007) and in Dyakonova (2007), who both suggest alternative structures for the double object construction. We will now see how the results look if we instead calculate efficiency based on Slioussar (2007) or on Dyakonova (2007).

4.1 Double object data analyzed using the structures from Slioussar (2007)

Slioussar (2007: 182) argues for the opposite of Bailyn's (1995) structure. According to her, the basic structure is verb - DP_{dat} - DP_{acc}. The trees look as follows, more or less like the mirror image of Bailyn's trees:

\[^{58}\] The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 88% of cases, refuting the null hypothesis ($successes = 129, n = 147, p < 0.0001$, exact binomial test).
(36) Basic order:

```
(\text{vP})
  \(v^o_i\)  \(\text{VP}\)
    \(\text{DP}_{\text{dat}}\)  \(v'\)
      \(t_j\)  \(\text{DP}_{\text{acc}}\)
```

(37) Derived order:

```
(\text{vP})
  \(v^o_i\)  \(\text{VP}\)
    \(\text{DP}_{\text{acc}j}\)  \(\text{VP}\)
      \(\text{DP}_{\text{dat}}\)  \(v'\)
        \(t_i\)  \(t_j\)
```

(adapted from Slioussar 2007:185, (5.1))

The efficiency calculation is parallel to the procedure followed when Bailyn's structures were used, only this time the order with two VP-domains is now the \(\text{DP}_{\text{acc}} - \text{DP}_{\text{dat}}\) order.

For each of the 147 examples the efficiency was calculated for the two possible orders using these structures as the basis for the calculation. In all cases, efficiency depended on word order, so PTOC makes a prediction in all 147 cases. PTOC predicts that the most efficient order should be the most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 114 (78\%) of cases, refuting the null hypothesis (\textit{successes} = 114, \(n = 147\), \(p < 0.0001\), exact binomial test).

PTOC is still successful, but clearly the preference for the optimal orders is weaker when the efficiency calculations are based on the structures suggested by Slioussar (2007), with 78\% expected orders compared to 88\% expected orders when the calculations are based on Bailyn (1995).
4.2 Double object data analyzed using the structures from Dyakonova (2007)

Dyakonova (2007) argues against Bailyn (1995) and suggests a different analysis. The DP$_{\text{dat}}$ is assumed to c-command the DP$_{\text{acc}}$, and is thus base-generated higher in tree, but not in the specifier of VP as Slioussar (2007) assumes. The dative argument is found in the specifier of an applicative phrase, which is the complement of vP and takes VP as its complement. The accusative phrase is located in the specifier of VP, as it is in Bailyn's (1995) analysis. The basic order thus looks like this:

(38) Basic order – Dyakonova (2007)

```
      vP  \\
     / \  \\
    v'  vP\_APPL  \\
       / |          \\
      v  V'\_APPL  \\
       /   \        \\
     DP$_{\text{dat}}$ V'\_APPL
       /     \      \\
      V\_APPL\_ o VP
         /     \  \\
        DP$_{\text{acc}}$ V'  \\
           /     \   \\
          V\_ o Complement
```

(39) Basic order – Dyakonova (2007)

Which elements are to be considered complements is not entirely clear, but whether the accusative DP is the specifier of VP or the complement of V$^o$ does not affect the efficiency calculation: The VP has just one IC in either case.

The structure of the derived order, verb - DP$_{\text{acc}}$ - DP$_{\text{dat}}$, is not illustrated in Dyakonova (2007), but let us assume that the accusative object can shift and adjoin to the applicative VP:
The efficiency calculation for the basic order is similar to the calculation for the derived order using Bailyn’s structures, but Dyakonova’s derived order is not similar to any of Bailyn’s orders.

Let us first go through the basic order, where there are two VP-domains each containing one DP (there is also a vP domain, but since the vP domains in the two orders are identical, I do not include them in the efficiency calculation). When the verb is reached in the on-line parsing, the parser constructs all that it can. Given Dyakonova’s structure for double objects that amounts to this (traces and bar levels are disregarded):

Since the verb is *dat* “to give” then the parser can infer that a double object construction will come, and in Dyakonova’s analysis this means that $v^o$ will have a $V_{APPL}$ as a complement and somewhere further down the structure (possibly with adverbials intervening) there must be a VP. At this point in the on-line parsing we do not yet know precisely which of the DPs will come first, and we do not yet know whether there will be any intervening adverbial phrases.
If the sentence continues with a dative DP, then the parser can be certain that it is dealing with the basic order and can construct a little more of the structure, and thus complete the \( \text{VP}_{\text{APPL}} \)-domain (the VP-node is constructed by the verb):

(41)\[
\begin{array}{c}
vP \\
v \\
dal \\
gave \\
\text{DP}_{\text{dat}} \\
\text{VP} \\
\end{array}
\]

The \( \text{VP}_{\text{APPL}} \)-domain contains two ICs and three XPs (\( \text{vP}, \text{VP}_{\text{APPL}} \) and \( \text{VP} \)) plus all XPs contained in the \( \text{DP}_{\text{dat}} \). So if the DP is a single noun (with two XPs: DP and NP) then the ratio would be \( \frac{2}{5} = 40\% \).

When the sentence then continues with an accusative DP (and when no complement follows)\(^{59}\) then the VP-domain is completed:

(42)\[
\begin{array}{c}
vP \\
v \\
dal \\
gave \\
\text{DP}_{\text{dat}} \\
\text{VP} \\
\text{DP}_{\text{acc}} \\
\end{array}
\]

The VP-domain has one IC and, if the DP is a single noun, contains three XPs (\( \text{VP}, \text{DP} \) and \( \text{NP} \)). The ratio is thus \( \frac{1}{3} = 33\% \).

The average ratio for these two domains is \( \frac{33+40}{2} = 36.5\% \).

So the basic order contains two domains, the \( \text{VP}_{\text{APPL}} \)-domain and the VP-domain. The \( \text{VP}_{\text{APPL}} \)-domain contains two ICs, \( \text{DP}_{\text{dat}} \) and \( \text{VP} \), and the smaller the complexity is of the \( \text{DP}_{\text{dat}} \), the more efficient is the domain.

---

\(^{59}\) I cannot think of any material that could possibly fill this extra complement position in Dyakonova's tree, but perhaps the accusative DP was generated/merged in this position and then subsequently moved to the specifier of VP. If that is the case, then the position contains a trace and then I ignore it in the calculation, and the VP-domain is thus completed when the accusative DP is constructed. If the position is simply unfilled, then the VP-domain is also completed when the accusative DP is parsed.
The VP-domain contains just one IC, DP$_{acc}$, and depending on the type of this DP, the domain will have a complexity of 2, 3 or 4 XPs.

The calculation for Dyakonova’s basic order is thus parallel to the calculation for Bailyn’s derived order.

When we look at Dyakonova’s derived order, there is one major difference, namely that in this structure none of the DPs are inside the VP. One is in the specifier of VP$_{APPL}$ and the other is adjoined to VP$_{APPL}$. When the first DP, the accusative DP, is encountered in the online parsing, the parser can infer that it is dealing with the derived order and can construct the following structure (bar levels and traces are still disregarded):

(43)

\[
\begin{array}{c}
\text{vP} \\
\text{v} \\
\text{dal} \\
gave \\
\text{DP$_{acc}$} \\
\text{VP$_{APPL}$} \\
? \\
\text{VP$_{APPL}$} \\
\end{array}
\]

The VP$_{APPL}$-domain is completed, because the accusative DP is adjoined to VP$_{APPL}$ and consequently there must be another VP$_{APPL}$-node. Notice that the VP$_{APPL}$-node must be constructed by the finite verb, so the VP$_{APPL}$-domain extends from the verb to the VP$_{APPL}$-node. The type of DP is not important here, because all XPs contained in the accusative DP will be contained in the VP$_{APPL}$-domain.

If we assume that the DP is a single noun, then the VP$_{APPL}$-domain has two ICs and five XPs (vP, VP$_{APPL}$, VP$_{APPL}$, DP and NP). $2/5 = 40\%$.

When the next DP is parsed, DP$_{dat}$ is constructed:

(44)

\[
\begin{array}{c}
\text{vP} \\
\text{v} \\
\text{dal} \\
gave \\
\text{DP$_{acc}$} \\
\text{VP$_{APPL}$} \\
\text{DP$_{dat}$} \\
\text{VP} \\
\end{array}
\]
There are two possibilities to choose from now. The first option is that the parser needs to reactivate the finite verb to construct VP in which case the VP1\textsubscript{APPL} domain would include all material between the verb and the VP-node as shown here:

(45) \[
\begin{array}{c}
vP \\
\downarrow \\
v' \\
da\bar{l} \\
gave \\
\downarrow \\
DP\textsubscript{acc} \\
\downarrow \\
\text{VP1\textsubscript{APPL}} \\
\downarrow \\
\text{DP}\textsubscript{dat} \\
\downarrow \\
\text{VP} \\
\end{array}
\]

If we continue to assume that the DPs are single nouns, then this domain would have two ICs and eight XPs with a ratio of $2/8 = 25\%$.

The second option is that the parser does not need to reactivate the verb in order to construct VP, because when the verb was parsed earlier, the existence of a VP was already inferred. The exact location of the VP could not be determined at the earlier stage in the parsing, but at the time when DP\textsubscript{dat} is constructed the parser can actually be absolutely sure that the next XP must be a VP-node. Consider the VP1\textsubscript{APPL}-phrase with bar-levels included to make it clearer:

(46) \[
\begin{array}{c}
\text{VP}\textsubscript{APPL} \\
\downarrow \\
\text{DP}\textsubscript{dat} \\
\downarrow \\
\text{V'}\textsubscript{APPL} \\
\downarrow \\
\text{V}\textsubscript{APPL} \\
\downarrow \\
\text{VP} \\
\end{array}
\]

The DP\textsubscript{dat} is in the specifier position, and we know from the grammar that a V\textsubscript{APPL} can take only one type of complement, namely VP, and we also know that it has to have a complement (remember that we assume Dyakonova's structure for double objects, where VP\textsubscript{appl} is a functional layer between vP and VP), so this suggests that the parser constructs VP without reactivating the verb. Notice that if the sentence should continue with an adverbial adjoined to VP, then the parser would still need to assume a VP-node as the complement of V\textsubscript{APPL}.
The second option results in a much less complex $\text{VP}_{1\text{APPL}}$-domain, where only the material between $\text{DP}_{\text{dat}}$ and VP is included.

\begin{equation}
(47) \quad \text{VP}
\end{equation}

\begin{equation}
\text{vP}
\end{equation}

\begin{equation}
\text{v}^\prime
\end{equation}

\begin{equation}
\text{VP}_{2\text{APPL}}
\end{equation}

\begin{equation}
\text{dal}
\end{equation}

\begin{equation}
\text{gave}
\end{equation}

\begin{equation}
\text{DP}_{\text{acc}}
\end{equation}

\begin{equation}
\text{VP}_{1\text{APPL}}
\end{equation}

\begin{equation}
\text{DP}_{\text{dat}}
\end{equation}

\begin{equation}
\text{VP}
\end{equation}

The $\text{VP}_{1\text{APPL}}$-domain would then have two ICs and contain four XPs (assuming that $\text{DP}_{\text{dat}}$ is a single noun). $2/4 = 50\%$.

I think that the first option is the most consistent solution, but there is a practical problem with the first option. If the $\text{VP}_{1\text{APPL}}$-domain is as large as in (45) then PTOC will never expect the order $\text{DP}_{\text{acc}} \rightarrow \text{DP}_{\text{dat}}$, because the order $\text{DP}_{\text{dat}} \rightarrow \text{DP}_{\text{acc}}$ will always be more efficient. This prediction is clearly not consistent with the data, since both orders are frequent.

Thus I have chosen to calculate the efficiency based on the second option, even though this introduces some inconsistency in the parsing assumptions.

For each of the 147 examples the efficiency was calculated for the two possible orders using these structures as the basis for the calculation. In all cases, efficiency depended on word order, so PTOC makes a prediction in all 147 cases. PTOC predicts that the most efficient order should be the most frequent order. The null hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 112 (76\%) of cases, refuting the null hypothesis ($\text{successes} = 112, n = 147, p < 0.0001$, exact binomial test).

The result is comparable to the result we got using Slioussar's (2007) structures, but does not reach the same high percentage of expected orders as we do when Bailyn's (1995) structures are used – namely 88\%.
4.3 Conclusion

The three different analyses suggested by Bailyn (1995), Slioussar (2007) and Dyakonova (2007) all give different results – 88%, 78% and 76% expected orders respectively. The data thus offer a certain amount of support for Bailyn’s (1995) analysis over the other two.

5. The particle construction

The construction known as the particle construction or particle shift is exemplified here:

(48) a. John took the garbage out
    b. John took out the garbage

The order of the particle and the object DP is free and there is apparently no clear meaning difference between the two orders (see Svenonius 1996), so the particle construction is a case where processing efficiency could possibly be relevant.

In Hawkins (1994) results of a test are presented, showing that in 80% of 125 critical cases, the order that ensures the most efficient processing is the one found in the data (Hawkins 1994:180-181). As mentioned in chapter 5, section 4.2, Gries (2003b) is able to achieve a higher ratio of expected orders in his test, namely 82.9% expected orders, by adding 18 variables and including cases with pronominal DPs among the correct predictions.

Both Hawkins (1994) and Gries (2003b) code complexity as number of words, and both allow examples with pronouns in their data. Here I will measure complexity as number of XPs, and will only look at examples with non-pronominal DPs. The reason for this is that the alternative orders are in fact not both grammatical when the DP is an unstressed pronoun:

(49) a. John took it out
    b. *John took out it

The stressed pronoun can appear in both pre-particle and post-particle position, but the unstressed cannot. Examples with a pronoun following the particle must be cases where the
pronoun is stressed, and in these cases the speaker has a genuine choice – both orders are grammatical. But in cases where the pronoun precedes the particle, we have no way of knowing whether the pronoun is stressed, and if it is not, then there is no real word order choice and consequently processing efficiency is not directly involved. We avoid this ambiguity by limiting the investigation to non-pronominal DPs only. In Lohse, Hawkins & Wasow (2004:242) examples with pronouns are excluded from the data for this same reason.

In the following, two different analyses of the particle construction are presented, namely Svenonius (1996) and Haegeman & Guéron (1999), and we try to see which of the analyses leads to the result most compatible with the hypothesis that processing efficiency is correlated with frequency of use.

5.1 Svenonius (1996)

Svenonius (1996:65) assumes that the verb in a particle construction takes a PredP as its complement, which in turn takes a PP as its complement. The PP has the particle as the head, and the DP is generated in the specifier of the PP. Both the order particle-DP and the order DP-particle are derived by movement:

(50) DP-particle order – Svenonius (1996)
The efficiency calculation involves three domains in each case: The VP-domain, the PredP-domain and the PP-domain. I assume that the PredP is projected when the particle is parsed, because neither the verb nor the object seems to force a PredP:

(52) I took the garbage…

(52) could simply be a transitive sentence, and not until the particle appears do we understand that we are dealing with the particle construction and hence a PredP.

This means that the PCD for VP includes all material between the verb and the particle i.e. it includes the DP in the DP-particle order, making the VP-domain less efficient in that order. In fact, the order particle-DP is always the most efficient order, even when the DP is a pronoun.

To illustrate, the calculations for the case where the DP is a pronoun are given here:

(53) DP-particle  (DP = pronoun)
    VP-domain:  2 ICs (V, PredP), 4 XPs (VP, PredP, DP, PP)  50%
    PredP-domain: 2 ICs (DP, PP), 3 XPs (PredP, DP, PP)   67%
    PP-domain:  1 IC (P), 1 XP (PP)     100%
    Aggregate efficiency ratio:       72%
The prediction that PTOC makes based on these calculations is that the order Particle-DP should be most frequent no matter how complex the DP is, and the fact that an unstressed pronoun is ungrammatical in this order is simply a surprise – the order DP-particle is never preferred so the fact that it is the only grammatical order in this one case is surprising.

5.2 Haegeman & Guéron (1999)

Instead of assuming that the particle is the head of a PP as Svenonius (1996) does, Haegeman & Guéron (1999) take the particle to head its own phrase, a Particle Phrase. They do not assume a PredP, but as in Svenonius (1996) both orders are derived by movement. The DP-particle order involves moving the DP from the complement position of PrtP to the specifier position:

(55) DP-particle order – Haegeman & Guéron (1999)

\[
\text{VP} \\
\text{V}^o \\
\text{PrtP} \\
\text{DP}_i \\
\text{Prt}^o \\
\text{t}_i
\]

In the Particle-DP order the DP does not move, but instead the particle incorporates into the verb:
The actual status of V* is not entirely clear, but it is at any rate not a VP, and so it is not counted in the IC-to-XP metric.

The efficiency calculation involves just the two domains VP and PrtP, and in the DP-particle order the DP is included in the VP-domain, making it more complex, which is the primary difference between the two orders.

The calculations for the orders when the DP is a pronoun can be seen here:

(57) DP-particle  (DP = pronoun)
    VP-domain:  2 ICs (V, PrtP), 3 XPs (VP, PrtP, DP)  67%
    PrtP-domain: 2 ICs (DP, Prt), 2 XPs (PrtP, DP)  100%
    Aggregate efficiency ratio:  83%

(58) Particle-DP  (DP = pronoun)
    VP-domain:  2 ICs (V, PrtP), 2 XPs (VP, PrtP)  100%
    PrtP-domain: 1 IC (DP), 2 XPs (PrtP, DP)  50%
    Aggregate efficiency ratio:  75%

When the DP is a pronoun, then the most efficient order is actually the DP-particle order, contrary to what we saw above when Svenonius (1996) was used to calculate efficiency.

As soon as the DP is more than a pronoun, then the order particle-DP is preferred:

(59) DP-particle  (DP with complexity of 2 XPs)
    VP-domain:  2 ICs (V, PrtP), 4 XPs (VP, PrtP, DP, NP)  50%
    PrtP-domain: 2 ICs (DP, Prt), 3 XPs (DP, NP, PrtP)  67%
    Aggregate efficiency ratio:  58.5%

246
Notice that the PrtP-domain will be less efficient if the leftmost word in the DP is dominated by more than just one XP (in the calculation in (60) I assume that the leftmost word is dominated by a single XP), because extra XPs will then be added to the domain. This will, however, never change the fact that the order particle-DP is preferred whenever the DP is larger than a single pronoun.

The prediction that PTOC makes based on these calculations is that the order particle-DP should be most frequent in all cases, except when the DP is pronominal, in which case the alternative DP-particle order is preferred.

5.3 The data and results

In order to test the predictions, data was gathered from the on-line corpus VISL available at <visl.sdu.dk>. I searched in the English Wikipedia A corpus with 35.3 million words, and the search was run on December 10, 2008. I searched for a verb plus a particle plus a or the to get the particle-DP orders, and then searched for the same verb plus a or the followed by one or more words and then the particle; this was done to get the DP-particle orders.

The verb-particle combinations used were these: take out, look up, give away, work out. All searches were conducted with the verb in the infinitive form and in the simple past tense form.

Both analyses lead to the prediction that the order particle-DP should be preferred in the data. Only in case the DP is pronominal does the Haegeman & Guéron (1999) analysis lead to the opposite prediction, but the data only contains examples with full DPs.

For each of the 247 examples the efficiency was calculated for the two possible orders. In all cases, efficiency depended on word order, so PTOC makes a prediction in all 247 cases. PTOC predicts that the most efficient order should be the most frequent order. The null
hypothesis is that the positions are equivalent, so the expected distribution is 50/50. The expected order is observed in 237 (96%) of cases, refuting the null hypothesis (successes = 237, n = 247, p < 0.0001, exact binomial test).

The prediction is borne out. The order particle-DP is massively preferred. In 9 of the 10 examples with the unexpected word order, the DP has a complexity of 2, which is the smallest possible non-pronominal DP (the DP in the last example has a complexity of 4). This shows that exceptions are primarily seen in cases where the efficiency cost is minimal.

5.3.1 A note on single word DPs

Lohse, Hawkins & Wasow (2004:257) reports the finding that among examples with a single word non-pronominal DP, 46% show the order DP-particle. If we base the calculation on Svenonius (1996) or Haegeman & Guéron (1999) and use the IC-to-XP metric, then the expected order for these cases would be the particle-DP order and the reported percentage is thus unexpected.

Even though the thorough test in Lohse, Hawkins & Wasow (2004) is too different from my simple one to make direct comparisons possible, it is nevertheless interesting to see how comparable examples behave in my data. In my data I have no single word DPs (because my DPs all contain a determiner as well as a noun), but when the XP-to-IC metric is used there is no complexity difference between a DP with a determiner and a noun compared to a DP with only a noun – they both contain 2 XPs. So the examples in my data with two word DPs (where one word is a determiner) are, at least from my perspective, comparable to Lohse, Hawkins & Wasow’s (2004) examples with single word non-pronominal DPs.

There are 52 examples with two word DPs. Among these, 85% have the order particle-DP and only 15% have the order DP-particle. These differences suggest that one word DPs behave differently than two word DPs, which is unexpected if complexity is measured as number of XPs. Lohse, Hawkins & Wasow (2004:255-6) point out that referentially vague nouns like *things* or *people* tend to occur in the DP-particle order more often than other nouns, and suggest that referentiality might be a factor in measuring complexity.

Whether their data with one word DPs contains a large amount of referentially vague nouns is not reported, so we do not, however, know whether this could explain the
unexpected lack of preference for the order particle-DP among their data with single word non-pronominal DPs.

5.4 Conclusion of the particle construction test

In chapter 5, section 4.3, the results achieved by Gries (2003b) were discussed and we saw that his multifactorial model could predict 82.9% of the orders in particle constructions, thus performing more successfully than Hawkins (1994) where 80% of the orders were predicted. The extra precision was achieved by increasing the parameters responsible for word order choice from one, namely processing considerations, to 18 various parameters (see chapter 5, section 4) and by including examples with pronominal DPs among the successes.

Here the precision has been raised even further to 96% and this without adding any extra parameters or including examples with pronouns: All that is needed is processing efficiency and the IC-to-XP metric.

The two analyses make the same predictions regarding the data examined, but the fact that unstressed pronouns are only grammatical in the pre-particle position makes sense if we assume the analysis in Haegeman & Guéron (1999), because then the order DP-particle is the most efficient in case the DP is pronominal. If we assume the analysis in Svenonius (1996) then the ungrammaticality of an unstressed pronoun in post particle position is surprising, since this would be the most optimal order.

The conclusion must be that PTOC prefers the analysis in Haegeman & Guéron (1999).

6. Conclusion

In this final chapter, we have tried to investigate how PTOC could be used to support one analysis over another. The idea is that if one analysis leads to results compatible with frequency data and compatible with the hypothesis that efficiency is correlated with frequency, then that analysis is superior to an alternative analysis that does not lead to this result.
First we saw that the adjunction analysis of the Russian generalized quantifiers all/both correctly predicts that the order personal pronoun-all should be preferred in complement position, but that no order should be preferred in subject position. This is in line with the data, contrary to the functional specifier analysis which predicts that both orders are equally efficient, irrespective of syntactic position.

The transitive sentences data showed that depending on which analysis we choose, we get either 79% and 93% expected orders (using Bailyn 2004a) or just 2% expected orders (using King 1995). Only one of these analyses is compatible with the hypothesis that efficiency is correlated with frequency.

The three different analyses of the double object construction all lead to different ratios of expected orders with Bailyn’s (1995) analysis as the most successful (88%), followed by Slioussar’s (2007) analysis (78%) and as the weakest we saw Dyakonova’s (2007) analysis (76%).

The final section dealt with the particle construction where both the considered analyses, Haegeman & Guéron (1999) and Svenonius (1996), correctly predicted 96% of the orders in the data. The analysis in Haegeman & Guéron (1999) was, however, preferred slightly because only under this analysis is the order DP-particle most optimal when the DP is a pronoun.

The tests and discussions in this chapter demonstrate the potential usefulness that PTOC could have as a method to select between alternative syntactic analyses, assuming, of course, that it really is a fact about language that word order is linked with processing efficiency.
Summary and conclusion

1. Summary

Chapter 1 briefly presents the two alternative approaches to word order, the information structure approach and the processing efficiency approach, and formulates the main questions that the dissertation attempts to answer.

In chapter 2, the Performance Theory of Order and Constituency (PTOC) is presented and some changes are suggested. PTOC is adapted to a more elaborate syntactic framework where more functional projections are assumed than is the case in Hawkins (1994, 2000, 2004), binary branching is assumed and finally an alternative simplification of the complexity metric is proposed. The simplified metric used to measure complexity is based on number of words or number of nodes in Hawkins (1994, 2004), but the new metric is based on number of XPs. The new metric has two advantages. First, it allows PTOC to distinguish between the complexities of single word pronominal DPs and single word nominal DPs, since the former contains only one XP and the latter two:

(1)

\[
\begin{array}{c}
\text{DP} \\
\text{D}^o \\
\text{she} \\
\end{array}
\quad \text{DP} \\
\quad \text{D}^o \\
\quad \text{NP} \\
\quad \text{N}^o \\
\quad \text{men}
\end{array}
\]
This is an advantage because pronouns seem to behave syntactically as if they were lighter than full nominal DPs, as observed in the Danish object shift construction and in the English particle construction.

The second advantage is that the new metric in combination with the more elaborate syntactic system allows PTOC to effectively predict when processing will break down (garden path phenomena).

The syntactic framework used in the analyses is presented in the last part of the chapter.

In chapter 3, PTOC is tested on Russian data (and to some extent also on Danish data). The constructions tested are transitive sentences, adversity impersonal constructions, the double object construction and finally postverbal prepositional phrases. All tests demonstrate a strong (statistically significant) correlation between frequency and efficiency, so the conclusion is very clearly that speakers have a strong tendency to choose the most efficient order in cases where they have a choice.

Some effort is put into investigating the claim that efficiency effects are simply a side effect of a correlation between newness/givenness and length. This is a classic question of the chicken or the egg: If new material is typically expressed with more complex phrases, then how can we be sure that the complexity/efficiency effects are not simply related to newness and givenness, and thus to discourse phenomena?

The way to test this is to isolate cases where there are no or small complexity differences and then see whether we still observe a correlation between efficiency and frequency in these cases. If we do, then we cannot reduce the efficiency-frequency correlation to a side effect of discourse effects. The tests demonstrate that efficiency effects are observed and cannot be reduced to a side effect of other factors.

Chapter 4 is devoted to information structure theories. The tradition in Slavic linguistics is to emphasize the importance of pragmatic status with regards to ordering. The popular view is that the theme (given material, topic) is placed before the rheme (new material, focus) and this is the most important factor in word order choice. The comparison of the different theories shows that there is no real consensus on how to define theme and rheme, and the only method offered to locate the theme and the rheme is the question test. This test is, however, not always useful. In interrogatives, in imperatives and possibly in embedded clauses, this test has no use. In sentences with unmarked stress it has limited use and only in (simple) declarative sentences with marked stress is the test completely reliable.
Discourse status is a primary concern in information structure theories and most attention is focused on referential expressions (DPs), whereas little is offered regarding the position of verbs. Some ignore them completely, some claim that they are exempt from the rule that given material precedes new material and some treat verbs on a par with any other type of word. As a result it is not obvious whether discourse status is supposed to have any influence on the position of verbs, and the difference between SVO, SOV and VSO is unclear.

On the contrary PTOC has clear predictions concerning when we should expect SVO, SOV or VSO, since they have different degrees of efficiency.

In chapter 5, we look at different attempts to test the correlation between information structure status and word order. The evidence for a correlation is perhaps problematic due to the fact that the definitions used of new and given are unsatisfactory, and there seems to be good reason to believe that information structure status plays only a small role in determining word order.

The pilot study demonstrates that no matter which context a transitive sentence is embedded in, SVO is almost always a possible choice. Other than that, there seems to be very little agreement among informants as to which orders are possible and which are not.

In chapter 6, we explore how PTOC could be used to decide between alternative syntactic analyses. If we assume it to be a fact of language that frequency is correlated with efficiency, then a syntactic analysis that is compatible with this should be considered more adequate than a syntactic analysis which is not compatible with this.

First two different analyses of generalized quantifiers are discussed: An adjunction analysis and a functional phrase analysis. They lead to slightly different expectations regarding frequency and the data supports the adjunction analysis.

The results reached for transitive sentences were based on the analysis in Bailyn (2004a), and when we base the calculation on King (1995) instead, then no correlation is found. This demonstrates how PTOC effectively can be used to argue for Bailyn’s (2004a) analysis and against King’s (1995) analysis.

The double object construction data are reanalyzed using Slioussar’s (2007) analysis and Dyakonova’s (2007) analysis. Both of these analyses yield poorer results than Bailyn’s (1995) analysis. This can be taken as support for Bailyn’s (1995) analysis, if we accept the premise that frequency and efficiency are correlated.
The final construction analyzed in chapter 6 is the particle construction. Two different analyses are tested, Haegeman & Guéron (1999) and Svenonius (1996). No matter which analysis the calculation is based on, PTOC yields the impressive result of 96% expected orders. The only difference between the analyses is that when the calculation is based on Svenonius (1996), then it is never efficient to have the order DP-particle, whereas when the calculation is based on Haegeman & Guéron (1999), then the order DP-particle is preferred just in case the DP is a pronoun (I remind the reader that pronouns were excluded from the data). Since examples with the order DP-particle are grammatical in English (in fact this is the only grammatical order when the DP is an unstressed pronoun), the analysis in Haegeman & Guéron (1999) is preferred.

2. Conclusion

PTOC benefits from being adapted to generative syntax in three ways.

First, the more elaborate structure allows the complexity metric to distinguish single word pronouns from single word nouns.

Second, the parsing principle, Minimize Domains, can successfully predict processing breakdown (garden path sentences) when more elaborate structure is assumed.

Third, PTOC achieves a better percentage of expected orders in the particle construction data (96%), than Hawkins (1994) achieved (80%). This could very well be a result of the increased precision that is caused by the adaptation of a more elaborate syntax.

The main idea in PTOC is that word order is determined by processing efficiency. Whenever speakers have a choice, the expectation is that they should choose the most efficient order, and this is clearly the case in the data examined, since we see the same result in all the tests. The most efficient order is preferred in all cases (see summary of results in table 8, repeated below for convenience).
According to the traditional view on Russian word order, its function is to reflect the pragmatic status of the constituents and this is what determines where speakers place the words. Theme (topic) supposedly precedes rheme (focus).

The fact that there is a strong correlation between efficiency and frequency sheds doubt on the traditional idea that word order is used to express the pragmatic structure of the sentence in Russian, and when the information structure theories are investigated it turns out that it does not seem to be a fundamental fact about Russian that theme precedes rheme.

The order theme precedes rheme is not expected for all sentences, but only for simple declarative clauses with unmarked stress. Interrogatives, imperatives and sentences with marked stress (the so-called emotive sentences) are not expected to reflect pragmatic structure via word order, and it is not completely clear whether embedded sentences can or should be divided into theme and rheme.

Givenness has been shown to influence word order choice in English in several studies (see e.g. Bresnan et al. 2007, Bresnan 2007, Gómez Gallo, Jaeger & Smyth 2008, Gómez Gallo et al. 2008, Jaeger & Wasow 2008, and Jaeger & Norcliffe in press), but the tests discussed in this dissertation that deal with Russian (Holden & Krupp 1987 and the pilot test) do not suggest that givenness is an important factor for Russian word order.

In the test found in Gries (2003a, 2003b) 18 factors that influence word order are suggested – 5 of these are related to discourse status, but the most influential factors are related to length. Using these factors, Gries (2003a, 2003b) is able to predict the order of the particle and the nominal in the particle construction in 82.9% of the cases. As mentioned above, PTOC (in the version adapted to generative syntax) achieves a better result, 96% expected orders, relying simply on one principle: Minimize Domains.

<table>
<thead>
<tr>
<th></th>
<th>successes</th>
<th>critical cases</th>
<th>% successes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transitive sentences - 1 order predicted</td>
<td>122</td>
<td>155</td>
<td>79%</td>
</tr>
<tr>
<td>Transitive sentences - 2 orders predicted</td>
<td>150</td>
<td>162</td>
<td>93%</td>
</tr>
<tr>
<td>Adversity impersonals - 1 order predicted</td>
<td>85</td>
<td>127</td>
<td>67%</td>
</tr>
<tr>
<td>Adversity impersonals - 2 orders predicted</td>
<td>35</td>
<td>50</td>
<td>70%</td>
</tr>
<tr>
<td>Double object construction</td>
<td>129</td>
<td>147</td>
<td>88%</td>
</tr>
<tr>
<td>Postverbal PPs</td>
<td>193</td>
<td>218</td>
<td>89%</td>
</tr>
<tr>
<td>Danish Postverbal PPs</td>
<td>78</td>
<td>111</td>
<td>70%</td>
</tr>
</tbody>
</table>
In sum, information structure theories have predictions concerning only a subset of the possible sentences, and givenness seems to have limited relevance for Russian (if any). PTOC on the other hand has predictions in all cases where there is a word order choice, and has massive success in the tests performed.

PTOC benefits from generative syntax, and perhaps generative syntax can benefit from PTOC as well: If word order is highly influenced by processing efficiency, then this fact provides us with a method to choose between alternative syntactic analyses.

When efficiency is calculated it can potentially change the result if the analysis is changed, and this means that we may find a correlation between frequency and efficiency when using one analysis, but may not find it using another analysis. The idea is then that the analysis which reveals the correlation is preferred over the analysis that does not reveal the correlation.

In chapter 6, I tried to apply this logic to the analysis of generalized quantifiers, to the transitive sentences data, to the double object data and to the particle construction data. In all cases the different analyses lead to different results, and it thus seems to be a promising method to choose between analyses.

As mentioned in the introduction the central questions of the dissertation were:

- Is there a correlation between frequency and efficiency in Russian (and Danish) performance data?
- What exactly is claimed about word order by information structure theories, and is there any evidence that they are right?
- Can processing facts be of any benefit to syntax, especially as a method to choose between alternative analyses?

I hope to have shown that PTOC is highly relevant for Russian, that information structure is less relevant than widely assumed and that PTOC, potentially, could be used to choose between alternative analyses.
Appendix

A. English summary

In many cases speakers can order words in more than one way. Here, they have to make choices and the question is why they choose the way that they choose? In Slavic linguistics, it is traditionally assumed that words are ordered according to their information structure status, so that given elements (theme, topic) precede new elements (rheme, focus).

Alternatively word order could be influenced by processing, as Hawkins (1994) suggests. It might be that speakers simply choose the order that ensures the most efficient processing in the cases where they have a choice. If this is true, then we should see a correlation between efficiency and frequency in performance data.

Chapter 1 briefly presents the two alternative views on word order, the information structure idea and the processing efficiency idea, and formulates the main questions that the dissertation attempts to answer:

- Is there a correlation between frequency and efficiency in Russian (and Danish) performance data?
- What exactly is claimed about word order by information structure theories, and is there any evidence that they are right?
- Can processing facts be of any benefit to syntax, especially as a method of choosing between alternative analyses?

Chapter 2 presents the Performance Theory of Order and Constituency (PTOC). PTOC is basically a method to calculate processing efficiency based on a specific syntactic analysis,
a tree structure. In Hawkins (1994, 2000, 2004) the syntactic analyses that the calculations are based on are all rather simple with multiple branching nodes (flat, non-hierarchical structures) and furthermore complexity is calculated using a simple metric based on number of words.

The simple complexity metric together with the simple syntactic analyses have the undesired result that PTOC fails to predict when processing breaks down (garden path phenomena) which a processing theory should be able to do. To mend this problem an alternative simplified complexity metric (the IC-to-XP metric) is suggested and the theory is adapted to the more elaborate generative syntax. These modifications ensure that PTOC now can predict when processing will break down (garden path phenomena) and on top of that it has the advantage that PTOC now regards single word pronominal DPs as less complex than single word nominal DPs (which their different syntactic behaviour suggests is correct).

In section 5, the syntactic framework is presented. The version of generative grammar adopted is a pre-minimalist non-Kaynian version, with strict binary branching, left and right adjunction and DPs. The concrete analyses of Russian constructions are based as much as possible on already posited analyses.

Chapter 3 is devoted to testing PTOC. Two Russian constructions are tested, where the speakers face a six-way choice: Transitive sentences and adversity impersonal constructions. In both cases we find a strong correlation between frequency and efficiency.

It is observed that in cases where the subject and object have equal complexities, we still find a strong correlation between efficiency and frequency and this demonstrates that efficiency effects cannot be reduced to a side effect of a possible correlation between length and newness.

Two Russian constructions where the choice is between just two orders are tested as well: The double object construction and the order of postverbal prepositional phrases. Again a strong correlation is found between frequency and efficiency.

In section 5.4, the order of Danish postverbal prepositional phrases is examined, and a correlation is found here as well.

Chapter 4 discusses information structure theories. The central concepts theme (topic, given material) and rheme (focus, new material) are vaguely defined and the different theories disagree on whether the sentence should simply be divided into two parts or whether all phrases in the sentence are ordered according to their degree of topichood.
The main tool employed to identify topic and focus is the so-called question test. This test is, however, not always accurate. In declarative main clauses with a marked stress pattern the question test is fine, but in other cases it is either imprecise or non-applicable.

The central idea is that word order is determined by the information structure status of the words, but it is not completely clear how order reflects this. Are all the words ordered according to their degree of topichood (accessibility)? Does this ordering principle account for the internal order in embedded clauses as well? The answers to these questions are not entirely clear, partly because it is suggested that it is possible to reverse the order of topic and focus, so that the first element in a sentence can in effect be either topic or focus, and partly because some claim that the position of pronouns does not reflect their information structure status and others claim that the position of verbs does not.

Chapter 5 presents four studies and a pilot study that all aim to test whether information structure really has an influence on word order. Two studies show that information structure has either no relevance or very limited relevance, respectively. One study where both an experiment and a corpus study is carried out does find a correlation between information structure status and word order, but the definitions of new and given used in the experiment are incompatible with the definitions used in the corpus study, and it is thus not clear how the correlation is supposed to be interpreted. The final study does find that information structure has some influence on word order choice, but length/weight is argued to be the most important factor.

The pilot study suggests that Russian speakers do not feel that only one order is possible in a given context. It also demonstrates that Russian speakers do not agree on which orders are possible, except that they almost always allow SVO.

Chapter 6 reanalyzes the transitive sentences data and the double object data tested in chapter 3, but this time using alternative syntactic analyses. When the efficiency calculation is based on other analyses, the results change and more specifically, the correlation between frequency and efficiency disappears. If we assume that the correlation is a fact of language, then we can use this to choose between alternative analyses – the analyses that obscure the correlation must be imprecise.

Two alternative analyses of generalized quantifiers are evaluated based on how they fare with regards to predicting performance data, and finally a corpus test of the English
particle construction is carried out using two alternative analyses as the basis for the efficiency calculation. Again, the results can be used to argue for one over the other.

Chapter 7 concludes that there is a correlation between efficiency and frequency in the Russian (and Danish) performance data, that information structure theories have only vague claims about word order and there is little if any evidence for these claims, and finally that processing patterns can be used to choose between alternative syntactic analyses.
**B. Dansk resumé**

I mange tilfælde kan talere placere ord på mere end én måde. Her må de så foretage valg, og spørgsmålet er hvorfor de vælger som de gør? Inden for den slaviske lingvistik er det traditionelt antaget at ordene er arrangeret således at de afspejler den pragmatiske struktur – givne elementer (tema, topic) står før nye elementer (rema, fokus).

Alternativt kunne ordstillingen være påvirket af processering som Hawkins (1994) foreslår. Det kan være at talerne simpelthen vælger den rækkefølge som sikrer den mest effektive processering i de tilfælde hvor de har et valg. Hvis det er sandt, så forventer vi at se en korrelation mellem effektivitet og hyppighed i korpus data.

Kapitel 1 gør kort rede for de to alternative synspunkter på ordstilling, informationsstrukturidéen og effektivitetsidéen, og formulerer de vigtigste spørgsmål som afhandlingen forsøger at besvare:

- Er der en korrelation mellem frekvens og effektivitet i de russiske (og danske) data?
- Hvad hævder informationstrukturteorierne egentlig om ordstillingen, og er der nogen beviser for at de har ret?
- Kan processeringsdata være til nogen gavn for syntaks som en metode til at vælge mellem alternative analyser?


Den enkle kompleksitetsberegningsmetode sammen med de enkle syntaktiske analyser har det uønskede resultat at PTOC ikke kan forudsige hvornår processeringen bryder sammen (garden path fænomener), hvilket en processeringsteori burde være i stand til. For at løse dette problem foreslås en alternativ enkel kompleksitetsberegningsmetode og teorien tilpasses den mere detaljerede generative
syntaks. Disse ændringer sikrer at PTOC nu kan forudsige hvornår processeringen bryder sammen (garden path fænomener) og oven i købet har de den fordel at PTOC nu anser en pronominal DP med kun ét ord som mindre kompleks end en nominal DP med kun ét ord (som deres forskellige syntaktiske adfærd indikerer er korrekt).

I afsnit 5 præsenteres det syntaktiske system. Den version af generativ grammatik som er anvendt er en præ-minimalistisk, ikke-Kayniansk version med binær forgrening, venstre og højre adjunktion og DPer. De konkrete analyser af russiske konstruktioner er baseret på allerede foreslåede analyser i alle tilfælde hvor det har været muligt.

Kapitel 3 omhandler testning af PTOC. To russiske konstruktioner hvor talere står over for et seksvejs valg, er testet: Transitive sætninger og de såkaldte adversative upersonlige konstruktioner. I begge tilfælde finder vi en stærk korrelation mellem frekvens og effektivitet.

Vi ser at i de tilfælde hvor subjekt og objekt er lige komplekse, finder vi også en stærk korrelation mellem effektivitet og frekvens, og det ser således ud som om effektivitetseffekten ikke kan reduceres til en bivirkning af en mulig sammenhæng mellem længde og pragmatisk status.

To russiske konstruktioner hvor valget står mellem bare to ordstilling er også testet: Dobbeltojektkonstruktionen og rækkefølgen af postverbale præpositionelle fraser. Igen finder vi en stærk korrelation mellem frekvens og effektivitet.

I afsnit 5.4 undersøges rækkefølgen af danske postverbale præpositionelle fraser, og en korrelation findes også her.

Kapitel 4 diskuterer informationsstrukturteorier. De centrale begreber tema (topic, givet materiale) og rema (fokus, nyt materiale) er vagt definerede og de forskellige teorier er uenige om hvorvidt sætningen skal være opdelt i blot to dele, eller om alle ord i sætningen er ordnet efter deres grad af topikalitet.

Det vigtigste redskab til at lokalisere tema og rema er den såkaldte spørgsmåltest. Denne test er dog ikke altid nøjagtig. I deklarative hovedsætninger med et markeret intonationsmønster fungerer spørgsmåltesten fint, men i andre tilfælde er den enten upræcis eller uanvendelig.

Den centrale idé er, at ordstillingen bestemmes af ordenes pragmatiske status, men det er ikke helt klart hvordan ordstillingen egentlig afspejler dette. Er alle de ord placeret i forhold til deres grad af topikalitet? Er ordene i indlejrede sætninger også placeret i
forhold til deres pragmatiske status? Svarene på disse spørgsmål er ikke helt klare, dels fordi det antydes at det er muligt at bytte om på rækkefølgen af tema og rema, så det første element i en sætning i realiteten kan være enten tema eller rema, og dels fordi nogle hævder at placeringen af pronominer ikke afspejler deres pragmatiske status, og andre hævder at placeringen af verber ikke afspejler deres pragmatiske status.

Kapitel 5 indeholder fire undersøgelser og en pilottest der alle har til formål at teste om informationsstrukturen virkelig har indflydelse på ordstillingen. To undersøgelser viser at informationsstrukturen hhv. ingen relevans har og har meget begrænset relevans. En undersøgelse hvor både et eksperiment og en korpusundersøgelse foretages, formår at finde en sammenhæng mellem pragmatiske status og ordstilling, men de definitioner af ny information og gammel information der anvendes i eksperimentet er uforenelige med de definitioner der anvendes i korpusundersøgelsen, og det er således ikke klart hvordan sammenhængen formodes at skulle fortolkes. Den sidste undersøgelse finder at informationsstrukturen har en vis indflydelse på ordstillingen, men længde og vægt er de vigtigste faktorer.

Pilottesten indikerer at russisktalende ikke føler at der i en given kontekst kun er én mulig ordstilling. Den viser også at russisktalende ikke er enige om hvilke ordstillinger er mulige, bortset fra at SVO næsten altid er mulig.

Kapitel 6 reanalyserer data med transitive sætninger og data med dobbeltobjektkonstruktionen som blev testet i kapitel 3, men denne gang ved hjælp af alternative syntaktiske analyser. Når effektivitetsberegningen er baseret på andre analyser, forandrer resultaterne sig og, mere specifikt, så forsvinder korrelationen mellem frekvens og effektivitet. Hvis vi antager at denne korrelation er en egenskab ved sprog, så kan vi bruge processeringsdata til at vælge mellem alternative analyser – de analyser der gør at vi ikke kan se korrelationen mellem effektivitet og frekvens må så regnes for at være upræcise.

To alternative analyser af generaliserede kvantifikatorer vurderes ud fra hvordan de klarer sig med hensyn til at forudsige mønstre i korpusdata, og endelig udføres en korpusforskning af den engelske partikelkonstruktion hvor effektivitetsberegningen udføres med to alternative analyser som grundlag. Også her kan resultaterne bruges til at argumentere for én analyse frem for en anden.
Kapitel 7 konkluderer at der er en sammenhæng mellem effektivitet og hyppighed i de russiske (og danske) data, at informationsstrukturteorierne kun har vage påstande om ordstilling og der er meget lidt, hvis nogen dokumentation for disse påstande, og endelig at processeringsdata kan bruges til at vælge mellem alternative syntaktiske analyser.
C. Transitive sentences data – Russian

2. Даже в том случае, если детишки теперь будут лупить друг друга ногами с криком "Я ненавижу овощи..." вместо японского — "Кия!" [Александр Мельников. Борьба с беспризорностью безнадежна, но прибыльна // "Известия", 2002.10.11]
3. Они ненавидят Запад и завидуют ему за его силу и свободу личности, равно как и Израилю — за то, что эта маленькая страна смогла преобразовать сухую и бесплодную землю и создать на ней цветущее и преуспевающее государство, показав тем самым всему миру, на что способны энергичные, образованные люди. [Сай Фрумкин. Политнекорректная статистика // "Вестник США", 2003.11.26]
4. Управляя людьми в духе "теории X" и не давая им проявлять свои лучшие качества, руководители получают вполне предсказуемое поведение: люди работу ненавидят, нуждаются в контроле и т. д. [Михаил Попов. Призыв к труду. Как заставить мужика работать? // "Бизнес0журнал", 2004.08.17]
5. Я ненавидел трамваи и хотел прогнать их из города, — промямлил тот. [Лев Черняев. Говорящие буквы // "Трамвай", №9, 1990]
6. А Волошин ненавидит Касьянова. [Я думаю, что... // "Вслух о.", №10, 2003]
26. Мы не в состоянии, не умудряясь это делать, потому что нам страшно, так же как, встречая врага, ненавидящего нас человек, мы не умеем видеть, что он человек и что он в большей опасности, чем ты, потому что ты его не ненавидишь, а он тебя ненавидит. [Антоний (Блум), митрополит Сурожский. О молитве Господней (1987)]
27. Мы не в состоянии, не умудряемся это делать, потому что нам страшно, так же как, встречая врага, ненавидящего нас человека, мы не
умеем видеть, что он человек и что он в большей опасности, чем ты, потому что ты его не ненавидишь, а он тебя ненавидит. [Антоний (Блум), митрополит Сурожский. О молитве Господней (1987)]
28. Ненавижу я это НАТО! [Светлана Бабаева, Андрей Лебедев, Александр Шумилин. Россия и НАТО начинают строить новый мир // "Известия", 2001.11.22]
29. Ненавижу я это НАТО! [Светлана Бабаева, Андрей Лебедев, Александр Шумилин. Россия и НАТО начинают строить новый мир // "Известия", 2001.11.22]
30. Ненавижу я это НАТО! [Светлана Бабаева, Андрей Лебедев, Александр Шумилин. Россия и НАТО начинают строить новый мир // "Известия", 2001.11.22]
31. Ненавижу я это НАТО! [Светлана Бабаева, Андрей Лебедев, Александр Шумилин. Россия и НАТО начинают строить новый мир // "Известия", 2001.11.22]
55. Кстати, только в начале 90-х так открыто повторялось смердяковское "я всю Россию ненавижу". [Александр Ципко. Россия к диалогу не готова (2001)]

56. И они ненавидели этот свет, похищавший их сокровище. [В.М. Гаршин. Заметки о художественных выставках (1887)]

57. Народ меня ненавидит!" [Алексей Щеглов. Фаина Раневская: вся жизнь (2003)]

58. Мы оба ненавидим центральное отопление и предпочитаем спать распахнув окна настежь." [Яна Зубцова. Частная коллекция. Лица Estee Lauder // "Домовой", 2002.03.04]

59. Я ненавижу капитализм, он несет в себе зло. [Валерий Кичин. "Меня не надо думать. Меня надо чувствовать". Вацлав Нижинский глазами его дочери, внучки и автора нового фильма по его дневникам // "Известия", 2001.10.17]

60. Мохаммад ненавидел все западное и страстно желал избавить силуэты египетских городов от возведенных на американский манер небоскребов, чуждых, по его мнению, самому духу многотысячелетней египетской культуры. [Михаил Карпов. Перл0Харбург // "Совершенно секретно", 2003.08.09]

61. Майя ненавидела его восторги. [Дарья Симонова. Сердце колибри (2002)]

62. Я отношусь к разряду идиотизма специфического / я ненавижу планы. [Вячеслав Глазычев. Мастер0класс В. Глазычева "Проектное воображение и проектная готовность" (2001.10.11)]

63. "Отверженец!. тебя все ненавидят! и даже предвидеть нельзя, что с тобой сделают! быть может, сейчас ударят в спину, вырвут клок волос из головы, плюнут в лицо.." [Н.Г. Помяловский. Очерки бурсы (1862)]

64. Я ненавижу их! [Н.А. Тэффи. Забытый путь (1910)]

65. Позвольте, это, кажется, получается маленькое отступление, а Пепко ненавидел лиризм, и я не буду оскорблять его памяти. [Д.Н. Мамин0Сибиряк. Черты из жизни Пепко (1894)]

66. Дюмурье ненавидел солдат0волонтеров; недоверчиво относился к ним и Бонапарт.. [Марк Алданов. Убийство Урицкого (1923)]

67. Собака ненавидит учителя, ей запрещают лаять на него, она глядит, не лает, но плачет от злобы. [А.П. Чехов. Записные книжки (1891–1904)]

68. Он ненавидел долгие прощания, объятия и трепетную слезливость. [Кира Суркович. Толю из Жуковки знаешь? (2003)]

69. Я ненавидела Петербург. [Мария (Скобцова), монахиня. Встречи с Блоком (1936)]

70. Долго, пристально, с завистью разглядывал различные предметы, — и, опомнившись, с глубоким вздохом и стоической твердостью продолжал свой путь; — самые же ужасные мучители его были извозчики, — и он ненавидел извозчиков; "барин! куда изволите? — прикажите подавать? — подавать0с!" — это была пытка Тантала, и он в душе глубоко ненавидел извозчиков. [М.Ю. Лермонтов. Княгиня Лиговская (1838)]

71. Витька ненавидел сытого врача и одно время подумывал, не поджечь ли его большой дом. [Василий Шукшин. Племянник главбуха (1958)]

72. Он ненавидел отношение между людьми, основанные лишь на контракте. [В.Д. Смирнов. Аксаковы. Их жизнь и литературная деятельность (1895)]

73. Родину я ненавижу, [Владислав Ходасевич. Брюсов (1924)]

74. "Я ненавидел советскую власть" (221), — и следом перечисления. [Лариса Володимерова. Похороны великана // "Лебедь" (Бостон), 2003.10.05]

75. Кровавый фарс, разыгранный революцией, ее "иммо0рализм" меня мало трогают: я ненавижу руссоистский морализм революции, ее так на0зываемые "истины", благодаря которым она все еще действенна и способна сманивать на свою сторону всю посредственность и пошлость. [Фёдор Крахоткин. Фридрих Ницше. Критика просветительской концепции // "Лебедь" (Бостон), 2003.10.19]

76. "Черкесы нас ненавидят (и русские в долгу не остаются) — Мы вытеснили их из привольных пастбищ — аулы их разрушены — целые племена уничтожены" (ВIII, 2, 1034), [Ю. М. Лотман. Русская культура послепетровской эпохи и христианская традиция]
83. Я сумел избежать комсомола, что было неправдоподобно по тем временам, я ненавидел строй, уничтоживший моего отца, сломавший хребет отчиму, отказавший мне в праве умереть за него, но с алым цветом у меня обстояло не так просто. [Юрий Нагибин. Тьма в конце туннеля (1994)]
84. Ему стало жалко себя, он ненавидел торжествующие физиономии жены, соседей. [Вадим Месяц. Лечение электричеством // "Урал, 2002, №2, 2002]
86. Я сам себя ненавижу. [Григорий Сабуров. Пецком по волкам // "Звезда", № 9, 2002]
87. Его ненавидел. [Вера Белоусова. Второй выстрел (2000)]
88. Я тебя ненавижу. [И. Грекова. В вагоне (1983)]
89. Он ненавидел Илюшу, но знал, что это потом пройдет, и он опять будет его любить — такой тот был нежный, когда хотел. [Юрий Казаков. Ночлег (1963)]
90. Их общежитская комната в девять квадратных метров постепенно превратилась для нее в камеру пыток, она ненавидела ее вечно мокрые стены, всегда лютый холод в январе-феврале, когда нужно куда-то (куда?!) ставить, и тогда сразу становилось невыносимо жарко, даже просыпалась муха и жужжала: ж0ж0ж. [Нина Горланова. Филологический амур (1980)]
91. Он ненавидел слово раб. [Владимир Соловьев. Три еврея, или Утечение в слезах. Роман с эпиграфами (1975–1998)]
92. Именно плоть делала их слабыми, немощными, именно она не выдерживала первая, заставляла оговаривать других, предавать, и они ее ненавидят. [Владимир Шаров. Воскрешение Лазаря (1997–2002)]
93. Острые крики он ненавидел. [Ф.М. Решетников. Никола Знаменский (1866)]
94. Да понимает ли вы, он меня мучил... он запирал... требовал моей любви, а я его ненавижу.. [А.А. Потехин. Виноватая (1868)]
118. Надеюсь на победу локомотива в последнем матче)) ЦСКА...Москва....я ненавижу тебя...твоим фанатам пши** и ты не клуб, а просто х** [Футбол-4 // Форум forumsport.ru, 2005]
119. Многих и много ненавидел дьявол; много и много он страшился, но так и не узнала его душа образа более ненавистного и страшного, нежели образ ничтожной муки, золящей по лицу. [Л.Н. Андреев. Правила добра (1911)]
120. Все, что здесь, я ненавижу!" [Елена Чижова. Лавра // "Звезды", № 7–9, 2002]
121. ...и ты не клуб, а просто х** 

122. . Многих и много ненавидел дьявол; много и много он страшился, но так и не узнала ее душа образа более ненавистного и страшного, нежели образ ничтожной мухи, ползающей по лицу. [Л.Н. Андреев. Правила добра (1911)]
123. Все, что здесь, я ненавижу!" [Елена Чижова. Лавра // "Звезды", № 7–9, 2002]
124. . Людей, которые меня не любят, я ненавижу. [Анатолий Найман. Жизнь и смерть поэта Шварца // "Октябрь", №10, 2001]
125. Да! — жарко и яростно произнесла Агния. — Я ненавижу его. [Андрей Ефремов. Любовь и доблест Неохима Тишбейна // "Октябрь", №12, 2002]
127. . Да какая религия / он ненавидит всех. [Беседа В. Жириновского с журналистами в эфире радиостанции "Эхо Москвы", Москва (2003–2004)]
128. . Я ненавижу попов, и мне очень горько, что их лживые сказки оказались правдой. [Аркадий Стругацкий, Борис Стругацкий. Трудно быть богом (1963)]
129. . Уходи, я тебя ненавижу, [Светлана Васильева. Триптих с тремя неизвестными // "Октябрь", №12, 2001]
130. . Но я ненавижу подражателей, маленьких, крикливых эпигонов, претендующих на то, что это они все изобрели.. [Юрий Анненков. Дневник моих встреч (1966)]
131. . Но я ненавижу тот жалкий тип грубой необразованности, который встречается и между дворянами, и между мещанами, и между купцами и который я называю потому вотвое неточным именем чиновника. [В.А. Соллогуб. Тарантас (1845)]
132. . Но я ненавижу красивость. [Павел Мейлахс. Избранник // "Звезда", № 6, 2001]
133. Оперную диву они ненавидели, месть норовили удовлетворять диковинными способами, спать с нами хотели только на кровати, такой широкой, что на ней уместился бы весь кордебалет. [Анатолий Азольский. Диверсант // "Новый Мир", №3–4, 2002]
134. Они друг друга ненавидят и властию господина влекутся на казнь, к алтарю отца всех благ, подателя нежных чувствований и веселий, зиждителя истинного блаженства, творца вселенной. [А.Н. Радищев. Путешествие из Петербурга в Москву (1779–1790)]
135. . Но я ненавижу подражателей, маленьких, крикливых эпигонов, претендующих на то, что это они все изобрели.. [Юрий Анненков. Дневник моих встреч (1966)]
136. . Черкесы нас ненавидят. [А.С. Пушкин. Путешествие в Арзрум во время похода 1829 года (1835)]
137. . Но я ненавижу песок, покорность песка, равнодушие песка, его беспамятность, его мертвость. [Даниил Гранин. Месяц вверх ногами (1966)]
138. . Воровки их ненавидят, а "жёны" недолюбливают и сторонятся. [Василий Гроссман. Все течет (1955–1963)]
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146. "Всякий, делающий зло, ненавидит Свет, и не идет к Свету" (Ин. [Игнатий (Брянчанинов). Понятие о ереси и расколе]
147. Жизнь, которую я никогда не узнаю, и я почти влюбился в эту случайную женщину, в ее смех и поворот головы, хотя эта любовь была сродни жалости к самому себе, а уж что-что, а такую жалость я ненавидел. [Владимир Березин. Свидетель // "Знамя", № 7, 1998]
148. Отец ненавидел такие дела.. [Фазиль Искандер. Чик чтит обычан (1967)]
149. Я ненавижу человечество.. [И. Анненский. Книга отражений (1906)]
150. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
151. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
153. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
154. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
155. Жизнь, которую я никогда не узнаю, и я почти влюбился в эту случайную женщину, в ее смех и поворот головы, хотя эта любовь была сродни жалости к самому себе, а уж что-что, а такую жалость я ненавидел. [Владимир Березин. Свидетель // "Знамя", № 7, 1998]
156. Отец ненавидел такие дела.. [Фазиль Искандер. Чик чтит обычан (1967)]
157. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
159. Отец ненавидел такие дела.. [Фазиль Искандер. Чик чтит обычан (1967)]
160. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
161. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
163. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
164. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
165. Жизнь, которую я никогда не узнаю, и я почти влюбился в эту случайную женщину, в ее смех и поворот головы, хотя эта любовь была сродни жалости к самому себе, а уж что-что, а такую жалость я ненавидел. [Владимир Березин. Свидетель // "Знамя", № 7, 1998]
166. Отец ненавидел такие дела.. [Фазиль Искандер. Чик чтит обычан (1967)]
167. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
169. Отец ненавидел такие дела.. [Фазиль Искандер. Чик чтит обычан (1967)]
170. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
171. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
173. Они оба ненавидели западную буржуазную цивилизацию. [Г.И. Чулков. Императоры: Психологические портреты (1928)]
174. Болото он ненавидел, ягод не собирал. [Василь Быков. Болото (2001)]
175. Жизнь, которую я никогда не узнаю, и я почти влюбился в эту случайную женщину, в ее смех и поворот головы, хотя эта любовь была сродни жалости к самому себе, а уж что-что, а такую жалость я ненавидел. [Владимир Березин. Свидетель // "Знамя", № 7, 1998]
177. Коммунистические газеты ненавидят то, что сегодня происходит в плане земельной реформы. [Борис Немцов. Проявился в Москве (1999)]

178. Я ненавидел мальчишку, сына столяра, который на веревочке давал мясо собаке. [Юрий Никулин. Как я учился ходить (1979)]

179. У меня вдруг надежда, что сюда они не доберутся, гуцулы ненавидят Советскую власть, и они побоятся подниматься в горы... [Татьяна Окуневская. Татьянин день (1998)]

180. Здесь все по-прежнему: полумрак, теснота, спертый воздух, брюзжащая больная свекровь с иссохшей, порабощенной няней, и обе ненавидят меня. [Ольга Чехова. Мои часы идут иначе (1973)]

181. Я ненавижу всех. [Максим Милованов. Естественный отбор (2000)]

182. "Я, — говорил, — морду и черок ненавижу!" [Виктор Пелевин. Generation "П" (1999)]

183. Я тебе скажу... ненавижу я всех! [Максим Горький. На дне (1902)]

184. Да, он ненавидит этот круг явлений — но он их не связал в своей душе с именем своего деда. [Светлана Аллилуева. Двадцать писем другу (1963)]

185. Он нас ненавидит. [Анатолий Гладилин. Большой беговой день (1976–1981)]

186. Мы ненавидели Небабу и презирали себя, но мы утешали себя, что бродячие кошки подлежат истреблению. [Феликс Кривин. Притчи о жизни (1981–1985)]

187. Нет, нет, он ненавидел нацистов, нет, нет, не надеялся он на свое немецкое происхождение, не связывал с ним свою судьбу, нет, нет, нет! [Семен Липкин. Записки жильца (1962–1976)]

188. Она ненавидит евреев, которые рвутся в Израиль. [Марк Поповский. Семидесятые. Записки максималиста (1971)]

189. Я ненавижу расизм. [Ирина Муравьева. Документальные съемки (1997–1998)]

190. О, ты моя девочка, — говорил я. [Александр Кабаков. Последний герой (1994–1995)]

191. Но я ненавидел этого Балобана! [Андрей Битов. Колесо (записки новичка) (1969–1970)]

192. Я тебя ненавижу. [Светлана Василенко. Шамара (1994)]

193. "Я ненавижу политиков. 

194. Я ненавидел этого Балобана! [Андрей Битов. Колесо (записки новичка) (1969–1970)]

195. Я ненавижу тебя! [Дмитрий Липскеров. Сорок лет Чанчжоэ (1998)]

196. и Женю, и тут дверь хлопнула, я вскочил, никого нет, квартира пустая, во все окна солнце шпарит, шторы раздернуты, я это ненавижу, и в свете пыль танцует, смотрю, рядом с диваном на полу бумажка, опять, думаю, мы в переписку с Женей вступаем, точно, записка от нее, вот, слушай: [Александр Кабаков. Последний герой (1994–1995)]

197. Но я ненавидел этого Балобана! [Андрей Битов. Колесо (записки новичка) (1969–1970)]

198. Я тебя ненавижу. [Светлана Василенко. Шамара (1994)]

199. "Я ненавижу политиков. [Владимир Молчанов, Консуэло Сегура. И дольше века... (1999–2003)]

200. Он ненавидит мягкое, но все же, яко удивляюсь самому себе, признается (все в том же длинном письме-отчете Дмитреву, который мы только что цитировали): [Натан Эйдельман. Последний летописец (1983)]
213. Он ненавидел их! [Георгий Жженов. Прожитое (2002)]
214. Там женщины страдали от несчастной любви и мужчины ненавидели неверных женщин. [Карен Шахназаров. Курьер (1986)]
215. Я ненавижу женщин, — глухо сказал Гельмут. — "Исчадие ада" — это про вас. [Юлиан Семенов. Семнадцать мгновений весны (1968)]
216. Люди ненавидели тебя и считали злодеем. [Роберт Штильмарк. Наследник из Калькутты (1950–1951)]
218. Я ненавижу эту пьесу. [Владимир Набоков. Лолита (1955)]
219. Они ненавидели Прожженного и, не одеваясь, в одних рубахах, толпой человек в семьдесят кинулись к дому. [П.И. Мельников-Печерский. На горах. Книга вторая (1875–1881)]
220. А маленький человек ненавидит большие фирмы. [Игорь Ефимов. Суд да дело // "Звезда", № 7–9, 2001]
221. "Я ненавижу Японию".— И замолчал надолго. [Карен Шахназаров. Курьер (1986)]
222. Я ненавижу эту пьесу. [Владимир Набоков. Лолита (1955)]
223. Они ненавидели Прожженного и, не одеваясь, в одних рубахах, толпой человек в семьдесят кинулись к дому. [П.И. Мельников-Печерский. На горах. Книга вторая (1875–1881)]
224. "Я ненавижу Японию". — И замолчал надолго. [Сергей Юрский. Вспышки. Заключительная глава книги // "Октябрь", №10, 2001]
225. "Я ее ненавижу, — несколько раз повторил он про себя. — Я ее убью! [Борис Пастернак. Доктор Живаго (1945–1955)]
226. "Я ее ненавижу, — несколько раз повторил он про себя. — Я ее убью! [Борис Пастернак. Доктор Живаго (1945–1955)]
227. Большинству людей непонятен смысл нашей работы, — говорил майор Фигурин, рассеянно водя мизинцем по Капиным кудряшкам. — Они нас боятся, они нас ненавидят, они втихомолку над нами смеются, они перед нами заискивают, но не понимают. [Владимир Войнович. Жизнь и необычайные приключения солдата Ивана Чонкина (1969–1975)]
228. "Я ее ненавижу, — несколько раз повторил он про себя. — Я ее убью! [Борис Пастернак. Доктор Живаго (1945–1955)]
231. "Я его ненавижу! [Алексей Иванов. Сердце Пармы (2000)]
232. "Я его ненавижу! [Алексей Иванов. Сердце Пармы (2000)]
235. "Я его ненавижу! [Алексей Иванов. Сердце Пармы (2000)]
236. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
238. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
239. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
240. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
244. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
245. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
246. "Я него ненавижу, — казал Александр. [И.А. Гончаров. Об известных всем (2002–2004)]
Я это ненавижу. [Людмила Гурченко. Аплодисменты (1994–2003)]

Я ненавижу Предателей и Провокаторов, Пилипенко и Ваську, этих убийц в серых гнусных халатах, пахнущих смертью. [Владимир Кунин. Кыся (1998–2003)]

Я ненавижу Предателей и Провокаторов, Пилипенко и Ваську, этих убийц в серых гнусных халатах, пахнущих смертью. [Владимир Кунин. Кыся (1998–2003)]

Мангасы ненавидят крыс. [Андрей Лазарчук, Михаил Успенский. Посмотри в глаза чудовищ (1996)]

Я ненавидел всех и вся! [Андрей Белянин. Свирепый ландграф (1999)]

Нужда загнала меня сюда, но я ненавижу эту работу. [Андрей Белянин. Человек-амфибия (1928)]

Я ненавидел всех и вся! [Андрей Белянин. Свирепый ландграф (1999)]

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Я ненавидел всех и вся! [Андрей Белянин. Свирепый ландграф (1999)]

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Мангасы ненавидят крыс. [Андрей Лазарчук, Михаил Успенский. Посмотри в глаза чудовищ (1996)]

Я ненавидел всех и вся! [Андрей Белянин. Свирепый ландграф (1999)]
А театры ненавидят Станиславского. [Самуил Алешин. Встречи на грешной земле (2001)]

У меня было серое шерстяное платье, пышно собранное на груди в сборки, я эти сборки ненавидела. [Наталия Гершензон-Чегодеева. Воспоминания (1952–1971)]

Тебя, твой трон я ненавижу [Владислав и Быков Деркач Ольга. Книга века (2000)]

Он ненавидел нас, юнкеров, которым не только что в рыло заехать, но еще "вы" должен был говорить. [Владимир Гиляровский. Мои скитания (1927)]

Я ненавижу вас! [А.И. Куприн. Поединок (1905)]

Ни в коем случае, — ответил он, — я ненавижу этот строй. [Виктор Баранец. Генштаб без тайн. Книга 2 (1999)]

А я ненавижу эту страну, ненавижу жить здесь! [Владимир Голяховский. Русский доктор в Америке (1984–2001)]

Он ненавидел Керенского и не верил в его правительство. [Дмитрий Быков. Орфография (2002)]

Это Россия, и я ненавижу ее. [Юрий Олеша. Книга прощания (1930–1959)]

Мы ненавидим эти солнечные, ясные дни, этот застывший в своей голубизне воздух. [Виктор Некрасов. В окопах Сталинграда (1946)]

господа, спасите меня от этого негодяя! я его ненавижу! я никогда его не любила, он меня обманул! (франц.) [Н.А. Дурова. Кавалерист-девица (1835)]

Они меня ненавидят и работать не дадут. [Борис Ефимов. Десять десятилетий (2000)]

Она нас ненавидит... [Юрий Герман. Дорогой мой человек (1961)]
D. Adversity impersonals data – Russian

1. И вихрем чувств пожар души задуло, И я не смел или забыл дышать.
2. . . Дало так, что звоном уши заложило. 00
3. . . Паром уши заложило? 0
4. . . Даруй же ты мне его и хоть единого сего сына погибельного", и опять в уме "мечты мои безумны"... И так много раз это, просто как удар помещества, и я, с жаром повторивши, вдруг упал лицом на пол и потерял сознание, но вдруг новым страшным ударом грома меня опрокинуло, и я увидел в окне: весь в аду синий скатает на паре коней самый настоящий и форменный потрясатель весь в плаще и в цилиндр земли греческой, а поза роки разбойничья!
5. . . Они его прикололили к кресту и выставили на крыше, видно, взрывом его опрокинуло, поэтому мы и не сразу заметили, — начал объяснять Пикассо, почему-то ему было неловко, что не сразу обнаружили парня. —
6. . . Осколком ствол перебило. -
7. . . Я уже писал, что из всей прессы как метлой вымело крупные портреты "ельцина", на которых можно рассмотреть детали лица.
8. . . Если грозою зажгло избу, гасить пожар можно, лишь перебросив через неборожденное пламя пасхальное яичко».
9. . . Например: о каком бы несчастье при нем ни говорили 0 рассказывали ли ему, что громом зажгло деревню, что вода прорвала мельницу, что мужик себе топором руку отрубил, 0 он всякий раз с сосредоточенной ожесточением спрашивал: "А как ее зовут?" - то есть как зовут женщину, от которой произошло то несчастье, потому что, по его уверениям, всякому несчастию причиной женщина, сто'т только хорошою вникнуть в дело.
10. . . После того, как минувшей весной небывалым паводком захлестнуло города Якутск и Ленск, другие населенные пункты Якутии, многие регионы России оказали пострадавшим посильную поддержку.
11. . . Льдом обломало конец гребного вала, и он вместе с винтом ушел на дно.
12. . . Дверь обложили зарядом "ключ" (такое "говорящее" название имеет специальное взрывное устройство - O. C.), взрывной волной выбило дверь и оглушило террористов.
13. . . Вдруг новым светом озарило господина Голядкина; в кармане ощупал он письмо, переданное ему утром писарем.
14. . . Весьма неприятный "подарок" преподнес колхозу и недавний ураган, ветром повалило водонапорную башню.
15. . . Бурей повалило то самое заморское дерево во дворе, вот теперь его пилят, колют и сносят в сарайчик.
16. . . Поспредали несколько повозок, осколками убило 6 лошадей, бомбой повредило одну машину.
17. . . Взрывной волной подпалила стены квартиры и обожгла хозяйку — 29-летнюю N. Стену вскоре потушили, а на женщине врачи насчитали 6 процентов обожженного кожного покрова.
18. . . Осколками стекол порезало почти всех.
19. . . Ударной волной выбило 27 оконных стекол, здание штаба сильно посекло осколками, но все остались живы.
20. . . Взрывной волной посшибал крыши, повалило перегородки в домах.
21. . . В Волгодонске плитой придавило асфальтировщика Ивана Конюдо.
22. . . Днем на шахте в мокрой дудке обвалом придавило безродного рудокопщика.
23. . . В репортажах из горячих точек это, конечно, понятно 0 нарушены коммуникации, бомбой разбило камеру, сам еле дышит, дайте сказать, пока живой - но телефонные звонки из Минска и Санкт-Петербурга без видеоряда, хотя бы и архивного, очень странны.
24. . . Во время войны на Эльбрусе бомбой разворотило подстанцию, восстановить которую почему-то не смогли.
25. . . Взрывами разворотило всю крепкую часть.
26. . . Патруки выпилили: лицо дервиша перекосилось, пулей выбило зубы, разворотило подбородок и щеку.
27. . . На ул. Аллея Смелых упавшим деревом раздавило автомобиль "БМВ", два человека, находившиеся в машине, погибли.
28. . . И, может, не надо Марфе фыркающих белым паром вахрамеевских рысаков, а вот сесть бы на эту лихо загнувшую голову деревянную лошадь 0 и за кого-то держаться 0 и чтоб ветром раздувало платье, ледком обжигало колени, а из плеча в плечо - как искра...
29. . . Прошло около часа ожидания, как вдруг в нескольких метрах от него роскошным лимузином сбило какого-то парня.
30. . . Утром бабушка жаловалась, что в саду ночью ветром посбивало все яблоки и сломало одну старую сливу.
31. . . В горных районах водой смывало линии передачи.
32. . . Грязевыми потоками смывало целые селения. . .
33. . . И первым же ночным заморозком опалило пышную зелень, сожгло ботву огородных грядок.
34. … Обычно в таком случае говорят: "Навозом сожгло [всходы картофеля]".
35. … Электроника его яхты "Современный гуманитарный университет" не выдержала ураганных ветров в районе Азорских островов - вышли из строя бортовой компьютер, автопилот, а главная беда - сильной волной сорвало двигатель.
36. … Пятеро, они все перехворели цынгой; они не выходили из дома, потому что каждый боялся, что другой его подстрелит, и они сидели по углам и спали с винтовками, - они, из углов, уговоривались итти из дому без оружия, когда метелями срывало антенны и всем пятерым надо было выходить на работу; все пятеро были сумасшедшими. -- -
37. … Порывом ветра донесло смолистый запах дыма.
38. … Жаром обдало Николая: неужели она?
39. … 14/12/2001 НА ПОБЕРЕЖЬЕ ПРИМОРСКОГО КРАЯ ШТОРМОМ ВЫБРОСИЛО ТЕПЛОХОД АРКТИЧЕСКОГО МОРСКОГО ПАРОХОДСТВА.
40. … Взрывной волной раскидало всю шамовку.
41. … На одной из городских строек рухнувшим башенным краном убило ребенка.
42. … Падающими обломками убило проходившую мимо 790летнюю старушку.
43. … В Володарском районе молнией убило десятиклассника.
44. … В Стокгольме льдом убило мальчика.
45. … В Воронежской области молнией убило двоих - мужчину и четырнадцатилетнюю девочку.
46. … Наступал на Харьков, командуя взводом, а уже через три недели выводил из окружения батальон, потому что, когда одной бомбой убило всех, кто был на командном пункте, именно он, несмотря на единственный кубарь в петлице, вдруг оказался самым старшим из всех оставшихся в живых лейтенантов…
47. … Тогда же погиб смертью героя наш общий любимец Павлуша Риперт, льдистая бомба угодила в самую траншею и искалечила его до неузнаваемости; кровью и мозгами забрызгало рядом лежащих товарищей его…
48. … Во многих местах, среди гор, вырывалось пламя и пеплом заволокло небо. ... 49. … Еще на подъезде к Гайдамакскому судоремонтному заводу теплой волной всколыхнуло душу.
50. … Не иначе как голову луной напекло.
51. … Тех, которым было худо, белым счастьем обожгло.
52. … Царь же Алексей Михайлович писал сестрам: «Наши ратные люди зело храбро приступали и на башню и на стену взошли, и бой был великий; и по грехам под башню польские люди подкатили порох, и наши ратные люди сошли со стены многие, а иных порохом опалило; литовских людей убито больше двухсот человек, а наших ратных людей убито с триста человек да ранено с тысячую».
53. … Чтоб его, одноглазого черта, возом переехало!
54. … Все снежком позамело.
55. … Чтоб вас всех Ветром разорвало! - вскричал старик. -
56. … Лежебоки, чтоб их громом расшибло!
57. … Это раньше Матрен поездами резало.
58. … Вот до нынешнего лета фотография здесь была - так стекло разбили, фотографию дождем смыло.
59. … Нижняя Дуся так и слетела с крыльца, как будто ее ветром сшибло.
60. … Неожиданно ЗСУ озарилась яркой вспышкой, вечернюю тишину взорвало грохотом выстрелов.
61. … Едкий газ задуло сквозняком в одну из квартир.
62. … Рая бежала рядом с сибирячкой Катей Мазур, когда их оглушило взрывом, залепило глаза и уши липкой кашей из земли и снега.
63. … Женщину оглушило взрывом и засыпало землей.
64. … МАЛЬЧИКА ЗАСЫПАЛО СНЕГОМ
65. … СОЛТОЛЕЙК0СИТИ ЗАСЫПАЛО СНЕГОМ…
66. … Собираясь по праздникам, вспоминают труднейшие рейсы, где их суда затирало льдами, сплющивало иногда в лепешки, но не сплющило их самих.
67. … Четыре дома затопило дерьмом -- эка невидаль в неспокойной нынешней жизни!
68. … Эстонию захлестнуло волной некачественного бензина.
69. … 20-метровую шхуну японской постройки захлестнуло волнами двухметровой высоты.
70. … Московский политический бомонд захлестнуло очередной волной слухов о скорой смене премьер-министра, а также о возможных перестановках в администрации президента.
На Корсике прошлой осенью, когда ни с того ни с сего задул страшный ветер с моря, меня захлестнуло волной, перехватило дыхание — ни вздохнуть, ни выдохнуть, — и потерял сознание и пошел ко дну.

Почти на середине реки лодку захлестнуло волной и привставший мужчина перевернул ее.

Драккар накренило внезапным порывом ветра.

Хагена накрыло черной волной, сшибло с ног, он удержал меч лишь отчаянным усилием, почти разорвавшим мышцы; тот Диск, к которому тянулся жрец, остался на месте.

Нас обожгло горем и мы слышали счастливый смех.

И когда я смотрю на женщину, которую любил — а ей было почти столько, как мне — то думаю: "Боже мой, хотя бы она меня не узнала!" Мы вспоминаем, какой она была тогда, как я будто случайно касался рукой ее колена и нас обожгло огнем…

Некоторых из них обожгло кипящим маслом, другие были ранены железными частями двигателя.

Одного из виновников взрыва поразило осколками стекла и оглушило.

Председатель ГТРК "Саратов" Андрей Россошанский поблагодарил Добродеева за поддержку идеи фестиваля и вспомнил, как все начиналось: "Нас ведь немного было, мы, кажется, в гостищнице втроем сидели, когда губернатор это предложил". Губернатор Дмитрий Аяцков, как ему показалось, процитировал Ленина ("Важнейшим из искусств является телекино!"), объявил фестиваль открытым, и всех осыпало мишурой и конфетти.

В тот день сильно громыхнуло в доме напротив, превратив его в груду дымящихся кирпичей, а их окна осыпало градом смертоносного металла...

Ее поволокло ветром, но потом оболочка зацепилась за дерево и распоролась.

Тосио уже вскочил, словно его подбросило пружинами, и первым делом раздвинул створки седзи — деревянные рамы, затянутые матовой бумагой, и в его жилище ворвался поток прохладного бриза.

Печи храбрецов осыпались раскаленным пеплом. 

Предосторожность, однако, на этот раз вышла наказанием: в дом штаба и смежное с ним помещение лазарета ударило несколько гранат и нас осыпало известкой, но не тронуло, убило и переранило вновь нескольких человек в лазарете.

Бревно повело водой.

Ее поволокло ветром, но потом оболочка зацепилась за дерево и распоролась.

Однажды веревка оборвалась, мой баллон подхватило ураганом и он помчался неведомо куда.

Металлические двери квартиры Тупицыной покорежило взрывом.

А! это Лобов корчится на горячих углях, его придавило бревном, глаз его лопнул, почернели губы, трескается зверское лицо…"

В результате взрыва погиб 40-летний рабочий — его придавило рухнувшей стеной.

Мир стал однополярным, а Россию присыпало пеплом великой державы.

В результате взрыва погиб 40-летний рабочий — его придавило рухнувшей стеной.

Его, мертвого, придавило кирпичами.

Наконец ставшую дорогу прихватило морозом.

... Ее переехал следующей машинкой и протащил по рельсам.
106. … В сорок первом году ее разбило снарядом.
107. … Впенившись, Сергей вытянул руку, ища, за что уцепиться, его развернуло плотным многолоктевым, многоплечевым, многотуловищным движением, он сопротивлялся, чтобы повернуться к Тане и опять смотреться с нею - лицо в лицо.
108. … Говорили, что его раздавило колесами, лицо превратилось в кусок мяса и уцелели только усы.
109. … Тучи разогнало ветром, солнцем выглянуло, обогрело…
110. … Самолет сбило ветром
111. … Ее сбило проходящей машиной.
112. … Начштаба, шедшего за Васевым, контузило взрывной волной, а меня оглушило и сбросило в канаву.
113. … Все смыло мутной волной.
114. … Кто-то положил газеты, их смыло дождем, но остались целые строчки и заголовки на дереве; один я прочитал: <Все выше, и выше, и выше стремим мы полет наших птиц!>- и крепко задумался.
115. … Он все сделал разумно и правильно, этот бородач, он все прекрасно рассчитал — только впопыхах плохо привязал плот, и этот плот уволокло на несколько километров вниз — проносило под мостом, а впрочем, не было уже и никакого моста — его смыло наводнением и затопило лежавшие внизу поселки, и наутро над ним будут кружить вертолеты и не понимать, куда подевались люди, как будто сидевший на плоту мужчина, словно бастард Стенька Разин, выкинул женщину в реку — не то потому, что она ему мешала, не то потому, что хотел так умиротворить реку, а потом, когда понял, что сделал, бросился за ней следом.
116. … Посмотрел - полезли смыло волной.
117. … Разряды в рации, стреляющий треск в эфире ворвались в теплый и сырой воздух блиндажа - радист перешел на прием, мягкой шерстистой змейкой вплелась в электрический треск быстрая румынская речь и пропала, наплыла и юркнула жесткая немецкая команда, произнесенная речитативом, точно диктовали радиограмму, ее заглушило атмосферными разрядами, смыло писком торопящейся морзянки - велись чужие переговоры, где-то в штабах и на командных пунктах слишком много работало в этот час немецких и румынских радиостанций, чего не бывало обычно перед серьезной подготовкой к наступлению, когда рации молчат и в эфире кажущийся мир и спокойствие.
118. … По дорогам была непролазная грязь; две мельницы снесло паводком, и погода все становилась хуже и хуже.
119. … Их сожгло непрерывным палящим зноем нынешнего лета, и они списаны как непригодные к жатве.
120. … Его сожгло трамвайным током.
121. … Одну ловушку смыло волной, она застряла во второй и застопорила всю машину.
122. … Еще одна дама стояла на остановке - ее сшибло оторвавшейся дверью "Газели".
123. … Погнали, а его телка сшибло водой.
124. … ЛАЙМА ВАЙКУЛЕ Один раз меня ударило током.
125. … Соседка нашего Юрка Крынина ударило током, когда он починял телевизор.
126. … Очутив ногу, он вдруг дернул ее - меня хлестнуло острой болью, и через несколько минут, точно пьяный от радости, прихрамывая, я сносил к нашей бане спасенные вещи, а Ромась, с трубкой в зубах, весело говорил: -
127. … Муж уехал на работу, а я лежала в постели и читала книгу, когда услышала звук открывающегося окна, и тут же меня обдало холодным воздухом.
128. … Бориса обдало теплым запахом бензина, махнуло по лицу ветром, темный силуэт "виллиса" запрыгал в глубине лесной дороги, исчез.
129. … Погнали, а его телка сшибло водой.
130. … На несколько секунд я задержался на краю, лицо обдало ледяным ветром.
131. … При этом Холодцова обдало характерным для здешних мест запахом.
132. … Произошел взрыв, нас обдало горячим паром, но, слава Богу, обошлось без ожогов. –
133. … Произошел взрыв, нас обдало горячим паром, но, слава Богу, обошлось без ожогов. –
134. … Словно соглашаясь с его словами, земля под ногами вздрогнула, стены поперек были разбиты, стены пещеры характерно завибрировали, нас обдало терпкой пылью, а уши заложило от нестерпимого волны…
... Так мы дошли до торгового центра, распахнули двойную стеклянную дверь, за которой нас обдало струей горячего сухого воздуха, и двинулись по центральному ряду.

... Трубка чмокнула, щеку обдало горячим, а в стену сзади ударило чем-то хлестким, и посыпалась крошка.

... Я шла, собирая цветы, и вдруг, слева из-за леса со стороны низины, немного наклонно к земле и вверх пронеслось что-то со свистом и меня обдало легким ветерком.

... Мое лицо обдало перегаром.

... Подчас это заканчивается трагически: на днях в Кочубеевском районе одного из таких смельчаков убило током.

... Как сообщили "ВМ" в ГУВД Подмосковья, 69-летнего актера убило упавшим деревом, которое он вместе со своим постоянным рабочим-помощником попытался спилить.

... Когда меня уносило течением, они как-то злорадно притихли.

... Например, в Апалачах наш автобус завалило снегом.

... Было душно, жарко; из леса глухо шумел теплый ветер, небо заволакивало тяжелыми облаками.

... Шел уже пятый час, и пустой город заволакивало дождем, снегом, и в беловатой мути, которая чорт знает откуда берется на петроградских улицах, начинали уже светиться слепые, как слюда, окна, когда Шахов вернулся к себе в номер, чтобы сменить белье, заношенное за две недели.

... Глаза заволакивало слезами.

... Ветер еще более усилился, и море заволокло мглой.

... Небо заволокло непроглядными грядами туч.

... Ах, беда - глаза хана заволокло туманом, он плохо видит прелести наложниц!

... УЛИЦЫ АВСТРАЛИЙСКОГО ГОРОДА ЗАЛИЛО ВИНОМ.

... НЕВУ ЗАЛИЛО МАЗУТОМ.

... ОБЬ ЗАЛИЛО НЕФТЬЮ.

... Контролер сказала, что ее задело волной.

... И опять взорвало ревом толпу...

... Засыпало дождем бедного Александра, завалило, можно сказать.

... Засыпало песком лежавшую на столе карту, полетела обшивка стен.

... Когда случалось поцеловаться с ней при всех — обжигало огнем сердце и готов был провалиться сквозь землю.

... За пару лет до того ехал в Питер, пересекал поездом женщину; желобка- спросил.

... Внизу лежали трупы, подмыло дождями грунт и часть их оказалась на виду.

... Именно в этом месте разрезало стеклом ту женщину.

... И тут же встретив ему харкнуло огнем, опалило пушок под мышкой, проткнуло раскаленным жигалом сердце, рвануло, потрясло все тело и хрустнувшие в нем кости.

... Убило ядром одну лошадь.

... Замело дорогу вьюжным рукавом, С этой панихидой век свой весь живем.

... Захлестнуло рот водой.

... Бесобуждения тьмы отступила совсем, и озарило всю землю евангельским светом.

... Ему налили, и не успел он даже губы вытереть, как вновь подкинуло его вдохновением.

... Сгорел у Вас дом, или разбило его ураганом, или унесло наводнением - Вам надо думать не о том, что именно случилось с домом, а о том, где теперь жить, как теперь жить, что делать дальше... -
177. . . Пока мы все только мечтаем о своем участии в жизни, а не живем: занесло нас снегом, заморозило, и сидим по своим углам за книгами да домашними делишками, оживая только с приходом почты…
1. Владимир Сушков дал поручение главам районов контролировать ситуацию и регулярно предоставлять в администрацию города информацию о работе общественного транспорт, так как это лучшее информировано о транспортных проблèmes в микрорайонах столицы республики. [Администрация Саранска будет контролировать общественный транспорт // "Московский комсомолец" в Саранске, 2004.12.23]

2. Хотелось бы, чтобы нам не пришлось много раз потом согласовывать нашу декларацию / чтобы они получались более / но весьма предпочтителен / чтобы они не зависели от вопросов, каким образом характеристики продукта / выдвинутого на Премию они должны описывать в каких-то документах / которые будут рассмотрены экспертами / и на какие подробности всегда особенности будут обращать внимание члены жюри / выбор победителя [Заседание жюри Национальной премии по безопасности "ЗУБР" (2004.11.12)]

3. Система типа online-to-offline предполагает наличие о поиске посредника между отправителем и получателем перевода, который осуществляет перевод денег с пластиковой карточки отправителя переводчика в виртуальный кошелек одной из платёжных систем Интернета, а затем дает указание переводчикам перевести электронные деньги из указанного кошелька в кошелек посредника, работающего на стороне по месту нахождения получателя перевода, преобразует электронные деньги в валюту (при участии [Денежные переводы мигрантов - фактор инновационного развития мировой финансовой инфраструктуры // "Вопросы статистики", 2004]

4. Русская театральная традиция в разные годы давала жизнь этим коллективам, ныне работающим вне территории России, но по-прежнему внутри ее культуры. [Спектральная эстафета игры // "Экран и сцена", 2004.05.06]

5. Дать образование детям своим и самому саморазвиваться / конечно, есть деньги / то можно и за границей. [Беседа в Петербурге (2004.01.27)]

6. В конце концов, супермаркеты, где можно дать волю чувствам и совершать покупки по настроению, благо выбор позволяет. [Владимир Ляпоров. Молодая гвардия. Искусство быстрого завоевания новых рынков сбыта // "Бизнес0журнал", 2003.10.23]

7. Дали ход слою "психозависимости". [Е.А. Климов. Психология в XXI веке // "Ежедневный журнал", 2003.10.23]

8. Как отметил И. Поран, "наша цель - дать практические рекомендации потребителям о том, как жить потенциально опасна и какие альтернативы есть существуют". [Качество доверия // "Поиск", 2003.09.12]

9. Владимир Путин дал задание министру экономического развития и торговли Герману Грефу разработать программу по закреплению населения на Дальнем Востоке России. [Даниил Володин. Грефу приказано закрепить население // "Ежедневные записки", 2003.08.07]

10. По итогам плёнки он дал интервью нескольким телеканалам и радиостанциям, в которых заявил, что "идеальное решение - это, конечно, создание избирательного блока во главе с КПРФ, чтобы избиратель не приходилось выбирать между похожими новостями" (Владивосток), 2003.08.07

11. Так, Екатерина мы с вами ещё тысячу раз поговорим, я хочу дать слово Жизель, чтобы она подвела итог нашей сегодняшней беседе. [Беседа В. Ганапольского с Е. Лаховой в прямом эфире "Эха Москвы" (2003.04.30)]

12. Мы же действуем в соответствии с законами РФ и Конституцией РФ, которая требует от нас в случае необходимости дать принципиальную оценку политике, которая проводится в стране, поставить вопрос о возможном недоверии. [Беседа В. Варфоломеева с Г. Явлинским в прямом эфире "Эха Москвы" (2004.03.30)]

13. 6 марта на заседании правительства премьер-министр Михаил Касьянов дал поручение Министерству экономического развития и торговли в три дня разработать и внести в Госдуму все необходимые поправки в закон "О таможенном тарифе". [Игорь Пылаев. "Электронная Россия" в деле // "Вопросы статистики", 2004.03.06]

14. А дальше - чтобы человечек имел возможность, накопив деньги, совершенствоваться образование и доля свою карьеру, и имел бы возможность улучшать себе жизнь и дать возможность человечку. [Беседа Н. Болтянской с О. Дмитриевой в прямом эфире "Эха Москвы" (2003.04.06)]

15. Газета, напечатавшая "Открытое письмо", дал подробную иллюстрацию этому воплению генерального безумия. [Алексей Симонов. Борьба с крайностями // "Известия", 2003.02.25]

16. Предлагается изменить конституцию и дать право государственного контролю обращающимся в КС "относительно отмены необоснованного решения этого суда" [37]. [Игорь Петрухин. Исторический обзор деятельности прокуроров // "Отечественные записки", 2003]

17. Вот борьба патентов / которая на самом деле даст возможность отечественному производителю / может быть / доброобразователю заздравному производителю выпустить в равных условиях внутри страны. [Круглый стол "Взаимодействие бизнеса и государства в ходе реализации проекта "Электронная Россия" (2003)]

18. Нам было бы интересно наметить спектр вопросов, решение которых невозможно без участия специалистов из различных научных областей, дать возможность представителям этих областей ознакомиться с тем, что происходит в смежных сферах исследований

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позволяя, а также по возможности представить панораму нынешнего состояния когнитивной науки в России. [Конференция по когнитивной науке (2003)]

19. В этих условиях, пишет Ж. Багмунх, "должом партийных, государственных и правовых органов бьёло дать отправ пожиткам нанести вред народным массам, предотвратить случаи возможных беспорядков" (с. 57). [Жамбун Багмунх: насилие не применять (2002.12.30)]

20. В соответствии с этими рекомендациями правительство дало указание министерствам и управлением провести необходимое обследование ОНОЛ и на его основании реализовать вышеназванные меры. [Несспешные шаги административной реформы в Японии (2002.12.30)]


22. Учёные, однако, пытаются дать шанс на жизнь забытым, появившимся в результате "непорочного зачатия". [Надежда Маркина. Премия за непорочное зачатие. Можно обойтись и без партера // "Известия", 2002.10.09]

23. Сами мы не решились дать оценку заключению президента ОКР: сравнив скандал и написанным это можно сделать самостоятельно. [Андрей Митьков. "Принципиально вы должны занять позицию: Да или Нет...". Олимпийский комитет России отказывает Лазутину и Данилову в поддержке // "Известия", 2002.06.25]

24. И в тот же день в Государственном центральном концертном зале "Россия" мэр Москвы Юрий Лужков и губернатор Читинской области Равиль Гениатуллин дали старт праздник. [Марина Ленская. Приглашаем в Забайкалье! // "Вечерняя Москва", 2002.06.13]

25. Пётр премьеры и авторы мюзикла композитор Ричард КОЧАНТЕ и поэт Люк ПЛАМОНДОН дали интервью Валерию КИЧИНУ. [Валерий Кичин. Москва у стен Нотр-Дам // "Известия", 2002.05.21]

26. Если Россия снова сможет уравновешивать мощь другого стран, это даёт шанс многим слабым странам выбирать, на чьей стороне быть, возможность перебраться из одного лагеря в другой. [Они о нас // "Коммерсант-Владыч", № 11, 2002.03.26]

27. На промежуток недели на эту же тему высказался знаменитый британский кинорежиссёр Питер Гримчук, побывавший в Москве с визитом и давший мастер-класс студентам ВГИКа. [Виктория Мусвик. Неделя 12-03-2002-03.18 // "Коммерсант-Владыч", № 10, 2002.03.19]

28. Давайте дадим возможность нашему зрителью задать вам вопросы. [Вышеста. Москва у стен Чёрного моря // "Известия", 2002.03.19]

29. У певого романа, давшего название всей книге, подзаголовок "Гастрольный роман", у пьесы "Эта жизнь несправедлива". "Записки театрального отшепенца". [Юлия Рахаева. Другой Брэдбери. Книжный развал // "Известия", 2001.11.11]

30. Хотя кадровая революция на Житной ещё не завершена, Грызлов фактически дал старт новой реформе. [Александр Садчиков. Найти шины за один день. МВД готово к реформе системы учета преступлений // "Известия", 2001.07.05]

31. О могуществе кельтской цивилизации говорят названия городов и областей в Европе: Галлия во Франции и Галиция в Испании, отдельные племена дали имена Бельгии, Богемии и Австрии. [Об Изумрудном острове, келтах, Св. Патрике, погоде и современном образовании // "Туризм и образование", 2001.03.15]

32. Продавать. Но когда-то не захотели отдавать / насильно в завод. АМ. ээ] / потому что когда моему отцу в 700м году прислали... как правильно сказать? [Андрей Волос. Недвижимость дверя чтобы дать возможность работникам экспедиции простились с... как правильно сказать? [Андрей Волос. Недвижимость]

33. По дороге на кладбище тело принесли заветы туда и в него приехав время оставить на двух стульях в холле за стеклянными... [вышеста. Москва у стен Чёрного моря // "Известия", 2002.03.19]

34. Лужкова вновь поддержал президенту "он дал поручение премьеру Черномырдину "ещё раз совместно с руководством Москвы рассмотреть их аргументы, взвесить возможные последствия повышения ставок таможенных пошлин, как экономических, так и социальных". [Игорь Клочков. Лужкова вновь поддержал президент: он дал поручение премьеру Черномырдину // "Коммерсант-Владыч", № 21", 1999.06.01]

35. Уполномоченный по правам человека в РФ Олег Миронов напрямую Председателю Правительства Евгению Примакову письмом с просьбой дать рекомендации Министерству финансов увеличить статью расходов в бюджете-99 на восстановление и защиту сбережений граждан. [Текущая информация о проектах законодательных и других нормативных актов // "Адвокат", 1999.03.24]


37. Он дал эксклюзивное интервью ведущему "Коммерсант-Владыч". [Збигнев Бжезинский: ни Польша, ни Россия не смогут господствовать в Европе // "Коммерсант-Владыч", № 10", 1998.03.24]
38. После тёмных минут изучения Галина Леонидовна далёк знак Шишлиному, чтобы тот прикрыл наготу и застегнулся, и ско́рбию отошла к столу. [Анатолий Азольский. Домашняя тихая гавань (1998)]
39. -Дать удовлетворение русским жённичинам, чтобы они оставались одной другой краше. [В. Г. Распутин. Новая профессия (1998)]
40. К тому же Мур обнаружил, что принадлежавший ей классик не плетенитомическим оком взырьёт на пышных подава́льщиц и молодёжных го́рничных, и решил, что пришла пора укрепить семью, дав возможность классику проявить себя в качестве родителя уже подро́сшей девочки. [Людмила Улицкая. Пиковая дама (1995)]
41. Это стыло совершенно ясным, когда обозначилась тенденция выдвигать молодых (по сути верно, но так легко впасть в демагогию, дав ход нитрягам), - а на деле лучши Георгия Сергеевича, конечно, не нашлось. [Г. Я. Бакланов. Отечественные новостные писатели (1995-1999)]
42. Она знал, больше он не придёт, прокружилсь по галсие его шаги за окном и стихли, и она дало волю слезам, зажимая рот подушкой, чтобы хотева за стенной не слышали. [Д. Я. Бакланов. Вместе светлом, в месте злачном, в месте покойном (1995)]
43. Дима молча прово́ди́л её до гостиницы и тёлком тут дал волю своему гнёву. [Алексей Славовский. Гибель гитариста (1994-1995)]
44. Вместе с Перу-старшим, офицёром французской армии, они предложили всем вооружиться, чтобы в случае чего дать отпор рыкающим банда́м эсэсовцев. [Даниил Гранин. Зубр (1987)]
45. Что касается щекотливого оттенка в деловых отноше́ниях, он даст сто очко́в и матема́тикам, и фи́зикам, и ли́рикам, и кому уго́дно. [Владимир Маканин. Отдыхшина (1977)]
46. (В слу́чае невозможности Вашего личного присутствия, просьм дай доверённость члену семьи, в которой укажи, что Вы доверяете и выступляете, и голосователь за Вас, так как без приложения доверённости к протоколу Ваш голос засчитан быть не смо́жет.) [Владимир Войнович. Язык люди, или рассказать о весении писателя Войновича в новую квартиру (1976)]
47. * Ответ: "Потому что еврейская была сотворена, как тóтчас согрёшая; сотворённый в трёх-трёхи час, мужчи́на дал имена животным; в шестой час была сотворена женщина и, сра́зу же вну́к запретный плод, села́ла смертным мужчи́ну, кото́рый поел еë из любви к ней, и затём, в девятом часу, господь изгна́л их из раа" [45]. [А. Я. Гуревич. Популярное богословие и народная религиозность средних веков (1976)]
48. Дал лёкарство больно́му, объясни́л, как пить, верну́лся домо́й и усну́л как уби́тый. [Фазиль Искандер. Бедный демагог (1969)]
49. Так я дал кома́ндку бухгалтеру, а вы, дорога́я, проследи́те. [Юрий Домбровский. Хранитель древностей, часть 1 (1964)]
50. Димка сжал кулаки. "Дать пинка Фраму и погна́ть его́ отсю́да, с пля́жа?" [Василий Аксенов. Звездный билет // "Юность, №6, 7", 1961]
51. "Естественно, - сказал Шишаков, - в нашей среде возникло желание дать достойную отповедь всей этой мерзости. [Василий Гроссман. Жизнь и судьба, часть 3 (1960)]
52. Романы да́ли толчок содержанию. [Владислав Ходасевич. Младенчество (1933)]
53. Но отчего же, рицарь, отчего это вдруг ты дал шпоры коню и помчался? [И. Анненский. Вторая книга отражений (1909)]
54. Надо, во-первых, дать ход иностраным компаниям для скважки по участкам наших земель, как велё владе́нид тёперь за границей. [Ф. М. Достоевский. Мороз (1865)]
55. ... А я думаю, что игра не свеч [свеча, indic, act=anom, S, f, inan'>стоит и что пора дать покой костя Василия Кирилловича, и вжéему не покойнёйшим. [И. И. Лажечников. Знакомство мое с Пушкиным (1856)]
56. Будем же нетерпеливо выжидать времени, когда вспоминания о разнообразных приключениях за морем, мирно улеглись в фантазии г. Гончарова, дадут место произведениям его прежней фантазии и прежнего творчества. [А. В. Дружинин. Русские в России в конце 1853 и в начале 1855 годов (1855)]
57. Ну, да это вся природы оправдание, коли дать волю мудрованиям. [А. И. Герцен. Мимоездом (1846)]
58. Возможно, конечно, что наши фанатические славяне и их разнообразных понесённых бой вре́мени от времени откажутся дикимников для наших музей и библиотек; но, по моему мнению, посвятимся, что мы удалось в между-нибудь изда́лён из нашей исторической пы́ль нечто такое, что могло бы заполнить пустоту наших душ и дать плотность нашему расплывчатому созна́нию. [П. Я. Чадаев. Записки сумасшедшего (1837)]
59. И когда я воображал, что земля вещество тяжёлое и мог, на́сёвши, размоло́ть в муку носы на́ши, то мно́й овладе́ло тако́е беспоко́йство, что я, на́девши чулок и башмак, поспеша́л в залу государственно́го сове́та, с тем чтоб дать прика́з поза́ни д не допустить земля сесть на луну. [Н. В. Гоголь. Записки сумасшедшего (1835)]
60. Главнейшие суть: начальное размещение сил на грани́це, направление к Дриссе и образ отступления от Смоленска; дозна́но (В слу́чае невозможности Вашего ли́чного прису́тствия, про́сим дать дове́ренность чле́ну семьи́, в кото́рой указа́ть, что Вы
армию, возвращавшуюся из Москвы: но, несмотря на излишнюю его осторожность, должно признаться, что он дал искусное направление движением своей армии. [Д.В. Давыдов. Мороз ли истребил французскую армию в 1812 году? (1830-1835)]

62. Наконец встали из-за стола; гости уехали, и Григорий Иванович дал волю смеху и вопроcам. [А. С. Пушкин. Барышня-крестьянка (1830)]

63. Дайте дорогу куме-богатырь-спорщице, пожилой бригадирше, жарко нарумяненной, набелённой и закутанной в чёрную мантилью. [К.Н. Батюшков. Прогулка по Москве (1811-1812)]

64. Тай фолю этим преклятым слатеям. [Д. И. Фонвизин. Недоросль (1782)]

65. Добросерд поехал в путь, наполняя сердце своею храбростию и желаю себя прославить, что бы тем больше ещё достойным учиниться обладанья Миловидью; а она, выпустя его из глаз, дал вольное течение слезам своим. [Новиков Н. И. Пустомеля. Ежемесячное сочинение, 1770 год месяц июнь (1770)]

66. Только что Президент Узбекистана дал оценку Договору, который мы подписали, к Договору о стратегическом партнерстве между Российской Федерацией и Республикой Узбекистан. [В. В. Путин. Выступление встречи с Н. А. Каримовым // "Дипломатический вестник", 2004]

67. Ответ: Предстоящая 28 июня - 23 июля в Нью-Йорке сессия Совета призвана дать новый импульс взаимодействию в таких приоритетных для мирового сообщества областях, как борьба с бедностью и голодом, укрепление международных торговой и финансовой систем, а также содействие устойчивому развитию и решению других глобальных социально-экономических проблем. [Ю. В. Федотов. Ответы на вопросы корреспондента ИТАР-ТАСС в преддверии основной ежегодной сессии ЭКОСОС 2004 года // "Дипломатический вестник", 2004]

68. Конференция даст возможность странам Среднеазиатского региона, далеко не самого благополучного в правовом отношении, сверить позиции в отношении гуманизации системы исполнения наказаний. [Ответ официального представителя МИД России на вопрос РИА "Новости" относительно позиции России на международной конференции в Душанбе "Смертная казнь и право на жизнь" // "Дипломатический вестник", 2004]

69. Лишь пятая часть опрошенных дало высокую оценку перспективам обучения в профессиональных учебных заведениях своего города - в основном это те, кто остался дома. [Ю. Ф. Флоринская, Т. Г. Рощина. Жизненные планы выпускников школ из малых городов // "Человек", 2005]

70. В начале конференции председатель комиссии по выборам, декан филологического факультета Валерий Прозоров дал слово кандидатам для рассказа о своих предвыборных программах. [Анастасия Гулина. Ректорство на день рождения // "Богатей" (Саратов), 2003.10.23]


72. Принимая участие во всех выставках, специалисты CНС смогут дать квалифицированную консультирование начинающим руководителям, желающим внедрить какую-то новую технологию. [Михаил Песин. Соединительный союз // "Биржа плюс свой дом" (Н. Новгород), 2002.09.16]

73. Так что можем только низко-низко поклониться маэстро-воспитателю этих начинающих кинематографистов, известного кинорежиссёра Алле Суриковой, вдохновившей и дадшей возможность своим талантливым ученикам опробовать не только забытый (школа Кулешова, ФЭКСы, киноакадемия Дзиги Вертов), но осмеливший, выброшенный на помойку оголтелой либеральной ратью принцип коллективизма, опыт работы направлением, школой, группой, объединённой общими целями и общими принципами. [Второе пришествие Рюрика // "Культура", 2002.04.01]

74. Прозрачный рынок даст возможность заводу формировать свою стратегию, производственный план на долговременную перспективу. [Василий Аузан. Хотят ли русские B2B // "Эксперт-Интернет", 2001]

75. Это дало по поводу Добёну произнести перед учениками речь о различном ощущении красок в юности, зрелом возрасте и старости. [Константин Паустовский. Орест Кипренский (1936)]

76. То же разделило и даст пощечину фельдшерке Часовниковой. [Борис Пильняк. Простые рассказы (1923)]

77. И понимает: забыли дать корову оленю. [Замятин Евгений. Север (1918)]

78. Ты можешь дать сердце моему королю! [Чарская Л. А. Дуль-Дуль, король без сердца (1912)]

79. Но доводы купца Лебедева были настолько убедительны, что я немедленно дал предложение судьбе следовать Рузинову о начатии следствия. [А. Ф. Копи. Изумрудная Мирифания (Из записок и воспоминаний судебного деятеля) (1908)]

80. Вася дал воежки лошади. [И. С. Тургенев. Хор и Калиныч (1847)]

81. Каждое из этих исповеданий на пути к другому старается дать формулу своим понятиям, и эта формула есть не что иное, как приближение к нашей верк: как видно, недаром ежедневно молятся о соединении церквей. [В. Ф. Одоевский. Элементы народных (1843)]
руково́дство, мучи́тельно и́щет прие́млемое реше́ние пробле́мы? [Не навреди!. Заметки телезрителя // "Известия", 2002.10.25]

Интернет0брокерам стало тесно в столице // "Известия", 2002.04.29

 klientского се́рвиса, в том числе́ и за счёт испо́льзования альтернати́вной торго́вой систе́мы. [Ольга Максимова. Регионы онлайн. Мы стреми́мся дать клие́нтам возмо́жность вы́бора, поэ́тому в на́ши ближа́йшие пла́ны вхо́дит расшире́ние и улучше́ние

Кто дал журнали́сту пра́во утвер́ждают что́0либо по по́воду полити́ческих реше́ний в то вре́мя, когда́ вся страна́, включа́я ее

"Известия", 2002.11.13 по́вод для суде́бного пресле́дования. [Андрей Анненков. Против взлома нет приема. Арестует ли ФБР американского ученого // "Народное творчество", 2004.08.16]

Е́сли экологи даду́т компа́нии добро́, она́ смо́жет производи́ть из вторсырья 6 т пла́стиковых изде́лий в су́тки. [Николай Малетин. "Нам не сужде́но потерять", но и не можем ли мы смо́жем "дать лю́дям шанс". 

По мне́нию Дмитрия Рогозина, э́то означа́ет ста́вку на протекциони́зм, разви́тие национа́льного предпринима́тельства, на те си́лы, кото́рые формиру́ют бюдже́т, что в коне́чном ито́ге даст госуда́рству бо́льше ресу́рсов для подде́ржки менее обеспе́ченных слоёв общества. [Евгений Жеребенков. Учитесь властвовать... // "Итоги", 2003.03.04]

"мы хотим дать потребителю нёчто совершенное неожиданное, - говорит Брайан Финке, дире́ктор по электронному бренд0

По комментари́ям билано в Nike USA. [Нестандартный интернет-маркетинг // "Рекламный мир", 2003.04.28]

"Сергей Доро́ненко. ЛЕВЫЕ СИЛЫ0ПЕРЕЗАГРУЗКА // "Завтра", 2003.08.09]

Даду́т олига́рхам возмо́жность сохранить лицо́. [Елена Костюк. Сверхбедные против свербогатых // "Время МИ", 2003.07.30]

Сергей Генера́лов дал компа́ниям, кото́рые опаса́ются захва́та, такой реце́пт: "Чем лучше́ компа́ния отни́сётся к ми́норитариям, тем сложне́е её поглоти́ть". [Арина Шарипова. Это отдельный бизнес с четкими расценками // "Газета", 2003.05.13]

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Есть две вещи, которые могут дать человеку ощущение скорости, это часы и автомобили. [Аксессуары: Деньги-время // "Автопилот", 2002.04.15]

Возможно, интуиция серьёзно помогает двум "дополнительным" факторам — постоянное участие президента в работе Госсовета и магическое словосочетание "дать правительству соответствующее поручение". [Аксессуары: Деньги-время // "Автопилот", 2002.04.15]


И дал Алеше полный нетерпения знак. [Олег Павлов. Карагандинские девятины, или Повесть последних дней // "Октябрь", №8, 2001]

Я вспоминаю, что даже не сказал им спасибо за то, что они дали России дёг. [Игорь Свириденко. Умытая Россия // "Коммерсантъ-Власть", № 18, 1999.05.11]

Я благодарим Вас и судьбу, которая дала русскому народу его певца! [И. А. Архипова. Музыка жизни (1996)]

В ночь на полное небо он дал газетный свёрток, развернул и дала Дмитриеву пачку денег. [Юрий Трифонов. Обмен (1969)]

Мачеха Клары дала прорабу указания по доделкам и особенно была недовольна, что паркет в одной комнате скрипит. [Александр Солженицын. В круге первом, т.1, гл. 26051 (1968)]

В июле 1796 года он дал Гедеонову 12000 руб. ассигнациями на деньги по тому времени значительные под залог дере́вни Сосновки. [П. И. Мельников-Печерский. Начало неоконченной автобиографии (1963)]

Я дал Веньке ещё два раза по шее, выхватил из его кармана рогатку с опти́ческим прице́лом, сломал её и бросился догонять Мишу с Костей. [Валерий Медведев. Баранкин, будь человеком! (1957)]

Так, двадцать лет тому назад Явлинский даровал стране шанс обрести свободу, и ей следует был его генеральский призыв. [В. Т. Шала́мов. Кольские рассказы (1954-1961)]
Эти теоремы дали философии М. наиболее интересную и острую конкретизацию общего положения о том, что живое мышление принципиально отличается от работы любого вида вычисляющих автоматов. [А. Н. Колмогоров. Математика (1954)]

Травкин решил дать людям часок отдохнуть, а кстати связаться по радио с Землей. [Э. Г. Казакевич. Звезда (1946)]

Тыл, органы снабжения должны напрочь все свое творческие, административные и изобретательные способности, чтобы при таких условиях дать армии хотя бы милое, необходимое. [А.И. Деникин. Очерки русской смуты. Том IV. Вооруженные силы Юга России (1922)]

Отдельные его черты по справедливости могу, конечно, и не вызвать сочувствия, ибо не пришло еще врея для его христианского возрождения, но надо всегда помнить, что Израиль дал церкви патриархов, пророков, апостолов, то есть всех тех, кто явился ее основанием, был послан Христом покутить и крестить "все языки". [С.Н. Булгаков. Судьба Израиля как крест Богоматери (1915)]

Немецкую буржуазию он рассматривал как элемент, который "с самого начала был склонен к измене народу" (только союз с крестьянством мог бы дать буржуазии целенаправленное осуществление ее задач) "и к компромиссу с коронованными представителями старого общества". [В.И. Ленин. Карл Маркс (1913)]

Ничего ты меня не противвела, любезная жена, но я дал божу обет три года не знать тебя. [Вс.М. Гаршин. Сказание о гордом Агее (1886)]

Какая риторика даст человеку бурный огонь одушевления, страсть, патос? [В. Г. Белинский. Общая риторика Н. Ф. Кошанского (1844)]

Если рациональный подход к жизни, о которой собирается светильник науки, действует своесявое пространство, то народное общество, и даже на самых правителей народов, если все начинают забыться о благе общественном, если начинают погибать основание своих дров и обязанностей; тогда, когда все вещи начинают именоваться, тогда настаёт благопоспешный час дать народу новое уложение, основанное на истинных и непреложных понятиях о всех предложенных общественных [Радищев А. Н. О законоположении (1801-1802)]

Дай несведущему творения Локкю ви: что он скажет об них? [Карамзин Н. М. Филалет к Мелодору (1795)]

Но когда рука любопытства, сопровождаемый светильниками науки, действует своесявое пространство посреди народного общества, и даже на самых правителей народов; если все начинают забыться о благе общественном, если начинают постигать основание своих дров и обязанностей; тогда лучше всего начать говорить о том, каким образом и по каким представителям старого общества. [В.И. Ленин. Карл Маркс (1913)]

Вечна лезут с ерундой, не дадут человеку то ли халву, то ли поганку. [Н. А. Тэффи. Семейный аккорд (1910)]

Эта нравственная сила, обновленная соприкосновением с народом, дала Достоевскому право на высокое место впереди нашего общественного движения не как служитель зла, а как истинного двигателя общественной мысли. [Вл. Соловьев. Три речи в память Достоевского (1881-1883)]
F. Postverbal prepositional phrases data – Russian

1. Как ни странно, это было именно то, что требовалось: встрепенулся минут через двадцать, я обнаруживал, что суть разговора, на который они потеряли столько времени, уже сидит у меня в голове. [Андрей Волос. Недвижимость (2000)]

2. ПА долго сидел у меня в кабинете. [Людмила Улицкая. Путешествие в седьмую сторону света (2000)]

3. А Барби Маша сидела у деда Ивана в кукольном домике на окне и говорила в телефоне: [Людмила Петрушевская. Маленькая волшебница // "Октябрь", №1, 1996]

4. Человек, который сидит у окна в кафе и чего-то жаждет. [Василий Аксенов. Круглые сутки нон-стоп // "Нов. мир", №8, 1976]

5. Однажды воскресным днём, когда я сидел у себя в комнате и читал одного из наших догитлеровских романов, я услышал из соседней комнаты голоса женщины и незнакомого мужчины. [Фазиль Искандер. Летним днем (1969)]

6. А те вот не страдали, не сходили с ума, а сидели у себя в фатерланте и на машинках отстукивали. [Юрий Домбровский. Хранитель древностей, часть 2 (1964)]

7. Когда Анна Дмитриевна уезжала куда-нибудь, Шарик добросовестно сидел у калитки в любую погоду. [Юрий Азаров. Подозреваемый (2002)]

8. Словно кто-то маленький, невидимый сидит у тебя в голове и приказывает в нужное время: поворни, сделай два шага, сядь, засмейся. [Влада Валеева. Скорая помощь (2002)]

9. Если я не сгонял одного из них дома, то сидел у себя в квартире, глядя на телефон. [Ефремов Андрей. Любовь в туда // "Октябрь", №1, 2002]

10. Сохранилась фотография, на которой он сидит у гостиничного бассейна в столице. [Зайчик Марк. В нашем регионе // "Звезда", 2002]

11. Всю ночь сидел у них в ментовке, пиздили. [Владимир Колков. Гопники (2002)]

12. Мне нужно было убедиться, что третий сидел у директора в Доме кино? [Андрей Измайлов. Трюкач (2001)]

13. Не тот ли он? Сидел у меня в гостином за кувшином вина, вернее, за целой батареей кувшинов. [Марина Дяченко, Сергей Дяченко. Магам можно все (2001)]

14. Мы сидели у Василия Павловича Аксенова и его жены Майи Кармен в их трехэтажной квартире в кондоминиуме в Джорджтауне в Вашингтоне. [Николай Климонтович. Далее везде (2001)]

15. На другой вечер мы сидели у него в гостиной, попивали пивцо из холодильника, закусывали сыром. [Кучаев Андрей. В германском плену // "Октябрь", №1, 2001]

16. Я стоял, потому что боялся, что, сделав шаг, сползу по стене на пол и буду сидеть у пустой комнаты в коридоре и это будет смешно. [Виктор Слипченок. Зимпер (2001)]

17. Шувалов сидел у себя в кабинете. [Вера Белоусова. По субботам не стреляю (2000)]

18. Давно она не видела столько народу, или по крайней мере давно не сознавала, что перед ней мелькают сотни человек; впрочем она поняла, что, несмотря на конкретность каждого, кто возник в ее глазах, - конкретность совершенно недоступную, пока она сидела у себя в квартире, - она воспринимает всех совершенно абстрактно. [Славникова Ольга. Бессмертный. Повесть о настоящем человеке // "Октябрь", 2001]

19. Мы сидели у Марыся сидела у меня в изголовье и поскрипывала зубами. [Ирина Грошева. Реставрация обеда (2000)]

20. Мы сидели у себя в деканате, под большим настенным календарем, - проверяли сочинения корейцев. [Андрей Житков. Кафедра (2000)]
26. Сидит у меня в нервном отделении один субъект. [Пышчук Вячеслав. Русские анекдоты // "Знамя", 2000]
27. Я прямо-таки пыл, сидя у окна в весеннем свете. [Румен-Зариф Михаил. Диабет // "Звезда", 2000]
28. Что-то сидело у него в голове, какие-то мысли и предположения, которые он пока, видимо, не хотел озвучивать. [Алексей Рыбин. Последняя игра (2000)]
29. Она уже мало что курила, пугала Лильку с яркой и в сеть свою, что за старик сидит у нее в кресле. [Галина Щербакова. Восхождение на холм Соломона с коляской и велосипедом (2000)]
30. Сидим у меня в низких, мягких креслах друг против друга, близко, но не дотрагиваясь. [Ольга Новикова. Мужской роман (1999)]
31. В тот момент, когда подросток первый раз нажимал на курок незаряженного пистолета в кафе со стеклянной стеной, Тема уже сидел у Антона в кабинете на надувном матрасе и скручивал косынки. [Болмат Сергей. Сами по себе (1999)]
32. Я сидел у окна в зеленом круге торшера, отец уже ушел куда-то, а может, уехал надолго, я не знаю куда, ведь отец занят чем-то важным, и вот теперь я один в свете утра и электрической лампочки. [Березин Владимир. Свидетель // "Знамя", 1998]
33. Главный по-прежнему сидел у себя в кабинете под портретом мордастого политического деятеля. [Олег Дивов. Молодые и сильные выживут (1998)]
34. Но Кульбарсов снова промолчал, а год назад - тетка была уже в земле - я сидел у нее в комнате, разбирал бумаги, что она оставила, и вдруг среди прочего наткнулся на Корин баул. [Владимир Шаров. Воскрешение Лазаря (1997-2002)]
35. Хоть с того времени, как не знал, он чувствовал дух капитанта - что есть он в лазарете, сидит у себя в комнате и смотрел все передачи подряд. [Валентин Постников. Шапка-невидимка (1997)]
36. Сидит у меня в ногах, и даже при лунном свете было видно, как он бледен. [Екатерина Маркова. Тайная вечеря (1990-2000)]
37. Он сидел у себя в комнате, отложив на время математику и географию к завтрашнему дню, и писал продолжение романа. [Булат Окуджава. Упраздненный театр (1989-1993)]
38. Тот, как обычно, сидел у себя в комнате в драной майке, отдувался и правил какую-то рукопись. [Алла Боссарт. Повести Зайцева (1998)]
39. Он сидел у меня в ногах, и даже при лунном свете было видно, как он бледен. [Екатерина Маркова. Тайная вечеря (1990-2000)]
40. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
41. Он вдруг заметил группу зеков, сидящих у входа в левом глухом углу. [Виктор Доценко. Срок для Бешеного (1993)]
42. "К приезду Вильяма она сидела у бассейна, в кресле под ивой, бокал с шампанским в руке. [Наталия Медведева. Любовь с алкоголем (1988-1993)]
43. Когда-то моя подруга сидела у нас в гостях и ругала Лигачева, противополагая ему - Михаил Сергеевич. [Виктор Некрасов. Саперлипопет (1983)]
44. Эта бродячая пчела и "легкая" в нем служба сидят у меня в печенках до сих пор. [Астахьев Виктор. Веселый солдат // "Новый Мир", 1998]
45. Они сидели у меня в ногах, и даже при лунном свете было видно, как он бледен. [Екатерина Маркова. Тайная вечеря (1990-2000)]
46. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
47. Он сидел у меня в ногах, и даже при лунном свете было видно, как он бледен. [Екатерина Маркова. Тайная вечеря (1990-2000)]
48. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
49. Он сидел у меня в ногах, и даже при лунном свете было видно, как он бледен. [Екатерина Маркова. Тайная вечеря (1990-2000)]
50. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
51. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
52. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
53. Он придет пораньше и быстро меня отметит, а то ему каждый раз неловко при мысли, что такая образованная дама стоит - да хоть бы и сидит у него в коридоре. [Евгения Гинзбург. Крутой маршрут (1990)]
мертвая. [Львов Аркадий. Двор (1981)]
54. Сидеть у платяного шкафа в тоске и рефлексиях? [Владимир Орлов. Альтнэт Данилов (1980)]
55. Он сидел у пулу в прекрасно оборудованной телевизионной аппаратурой. [Владимир Высоцкий. Где Центр? (1975)]
56. Минут десять спустя, сидя у аппарата "ВЧ" в кабинете начальника отдела, я ждал, пока меня соединят с подполковником Поляковым. [Владимир Богомолов. Момент истины (В августе сорок четвертого...) (1973)]
57. Мы сидим у тепловатой батареи отопления в вестибюле - от дверей дует вовсю. [Кнорре Федор. Каменный венок (1973)]
58. Четвертинка сидела у меня в правом внутреннем кармане куртки. [Константин Воробьев. Вот пришел великан (1971)]
59. Но все же, узнав, помрачнел и долго сидел у себя в кабинете. [Олег Куваев. Территория (1970-1975)]
60. Старуха дала глазам отдохнуть и нашла Варвару, которая сидела у нее в ногах. [Валентин Распутин. Последний срок (1970)]
61. Продавщица Раиса сидела у себя в магазине, размышляя над непонятным. [Владимир Войнович. Жизнь и необычные приключения солдата Ивана Чонкина (1969-1975)]
62. Он сидел у пульта в прекрасно оборудованной телевизионной аппаратной. [Владимир Высоцкий. Где Центр? (1975)]
63. Минут десять спустя, сидя у аппарата "ВЧ" в кабинете начальника отдела, я ждал, пока меня соединят с подполковником Поляковым. [Владимир Богомолов. Момент истины (В августе сорок четвертого...) (1973)]
64. Сидим у огня в ожидании чая, греемся. [Обручев В. А. В дебрях Центральной Азии (1951)]
65. А что за музыкант сидит у вас в тюрьме? [Маршак Самуил. Умные вещи (1945-1964)]
66. Девочка с самым несчастным видом сидела в кресле у маленького телевизора. [Дарья Донцова. Уха из золотой рыбки (2004)]
67. Если бы такие, как он, сидели у них в адмиралтействе! [Юрий Герман. Дорогой мой человек (1961)]
68. Я представил вдруг весь ее длинный путь ко мне, как она ехала из Архангельска, спала или сидела у окна в вагоне и с кем-то говорила. [Юрий Казаков. Осень в дубовых лесах (1961)]
69. Ещё как-то рассказывал э́тот анекдо́т, сидя́ в гостя́х у знако́мых. [Григорий Горин. Почему повязка на ноге? (1960-1985)]
70. Девочка с самым несчастным видом сидела в кресле у маленького телевизора. [Дарья Донцова. Уха из золотой рыбки (2004)]
71. Не сидел у окна в вестибюле - от дверей дует вовсю. [Кнорре Федор. Каменный венок (1973)]
72. Сидим у огня в ожидании чая, греемся. [Обручев В. А. В дебрях Центральной Азии (1951)]
73. И Друзяев, так смело и хитроумно затеявший э́тот да́льний подко́п под кре́пость, огоро́женную мо́щной стено́й, не догадывался, что ровно че́рез два го́да он, вы́шибленный отво́еводу и сражённый инсу́льтом, будет сиде́ть в кре́сле у окна́ во двор и, тряся́ скрю́ченными рука́ми, мыком объясня́ть жене́, что хоте́л бы закури́ть сигаре́ту. [Юрий Трифонов. Дом на набережной (1976)]
74. Вентик и Шпунтик по целым дням сидели у себя в мастерской и чинили примусы, кастрюли, чайники, сковородки, а когда нечего было чинить, делали трехколесные велосипеды и самокаты для коротышек. [Николай Носов. Приключения Незнайки и его друзей (1953-1954)]
75. Сидел в глубо́ком кре́сле у окна́. [Сергей Довлатов. Наши (1983)]
76. И Друзяев, так смело и хитроумно затеявший э́тот да́льний подко́п под кре́пость, огоро́женную мо́щной стено́й, не догадывался, что ровно че́рез два го́да он, вы́шибленный отво́еводу и сражённый инсу́льтом, будет сиде́ть в кре́сле у окна́ во двор и, тряся́ скрю́ченными рука́ми, мыком объясня́ть жене́, что хоте́л бы закури́ть сигаре́ту. [Юрий Трифонов. Дом на набережной (1976)]
77. Сидел в глубоком кресле у окна. [Серге́й Довлатов. Наши (1983)]
78. И Друзяев, так смело и хитроумно затеявший э́тот да́льний подко́п под кре́пость, огоро́женную мо́щной стеной, не догадывался, что ровно че́рез два го́да он, вы́шибленный отво́еводу и сражённый инсу́льтом, будет сиде́ть в кре́сле у окна́ во двор и, тряся́ скрю́ченными рука́ми, мыком объясня́ть жене́, что хоте́л бы закури́ть сигаре́ту. [Юрий Трифонов. Дом на набережной (1976)]
79. Я как-то рассказа́л э́тот анекдо́т, сидя́ в гостя́х у знако́мых. [Григорий Горин. Почему повязка на ноге? (1960-1985)]
80. Марченко то́лько что пришёл с пере́днего кра́я и, сидя́ в углу́, у ста́рой ржа́вой молоти́лки, писа́л письмо́. [Э. Г. Казакевич. Звезда (1946)]
81. Рома сидел в кожаном кресле у торшера и вскочил, едва Аля вошла. [Анна Берсенева. Полет над разлукой (2003-2005)]
84. Он просто сидел в госпитале у кровати смертельно раненной дочери и, когда девочка испустила последний вздох, появился в министерстве, открыл кабинет и потребовал доклада командующих родами войск - новых командующих, без его ведома назначенных президентом. [Азольский Анатолий. Глаша // "Новый Мир", 2003]

85. Они разговаривали ночью, она сидела в изголовье у его тахты. [Мишарин Александр. Белый, белый день // "Октябрь", 2003]

86. Осенью, сидя в своем загородном доме у камина, они вслух вспоминали, каким спокойным высокомерием одаривал этот полуоглупевший мальчик нарядно одетых, богатых мужчин и дам, как равнодушно он проходил сквозь пошлые курортные соблазны, предпочитая дружбу с маленькими детьми и растениями, с какой грацией лазал по деревьям. [Орлова Тамара. Ловушка для ящериц // "Октябрь", 2003]

87. Они сидели в корчме у Айр0Донна, в комнатке, за которую славный вельх наотрез отказался брать с Волкодава плату, утверждая, что и без того, ежели по уму, должен был бы передать ему во владение половину "Белого Коня". [Мария Семенова. Волкодав: Знамение пути (2003)]

88. Гурзуфцам нечего шататься по вечерам - они должны сидеть в дукане у друга Кавалеридзе и потом идти в оперу, а впоследствии он совместит дукан с оперой, чтобы люди могли слушать музыку и кушать в перерыве. [Дмитрий Быков. Орфография (2002)]

89. Ученый-коммерсант дремал, сидя в кресле у иллюминатора. [Иванов Сергей. Марш авиаторов // "Звезда", 2002]

90. Есть еще фотография того же Жерара Гасто: я в советской солдатской шинели сижу в темноте, у северной оконечности острова Сен-Лун, вспышка вырвала меня из тьмы. [Эдуард Лимонов. Книга воды (2002)]

91. Однажды, я был классе в шестом, мы сидели в лесу у костра, в котором дымно горели прошлогодние березовые листья, и Андрей, смотря еще молодое лицо, так что пролегли морщины, знакомые по его поздним фотографиям, сказал: "Так ведь все сгорит". [Тарковский Михаил. Жизнь и книга // "Октябрь", 2002]

92. Полковник со стаканом и надкусанным бутербродом сидел в номере у Лешки. [Ольга Некрасова. Платит последний (2000)]

93. Минут через пятнадцать, тем не менее, вымытый и благоухающий, чинно сидел в комнате у телефона, делал вид, что рассматривает альбомы современной живописи. [Чернин Федор. Вячик Слонимиров и его путешествие в непонятное // "Звезда", 2002]

94. Когда он закончил рассказ, Лукин уже сидел в мягкем кресле у камина. [Андрей Белозеров. Чайка (2001)]

95. Традиция сидит в печенках у этих ребят, и байкальский головорез почему-то ничуть не ближе Иуде, чем французский винный пацифист. [Маркиш Давид. Стать Лютовым. Вольные фантазии из жизни писателя Исаака Бабеля // "Октябрь", 2001]
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медленно доел гречневую кашу из офицерского котелка, принадлежащего самому майору Негелю. [Ирина Полянская. Прохождение гени (1996)]

108. Виктор сидел в горнице у открытое настежь окна, курил и бездумно смотрел на сельскую улицу. [Сергей Бабаян. Господа офицеры (1994)]

109. Я сидел в комнате у этого сумасшедшего, кормил его птиц крошками и думал о том, что не понимаю, зачем я живу в этом занесенном сугробами чужом городе, зачем бреду каждое утро по темным еще улицам на службу, зачем говорю с людьми, с которыми ничего не связывает. [Михаил Шишкин. Всех ожидает одна ночь (1993)

110. Старый дядя Реваз, будто спрыгнувший с картин Пиросмани, сидел в плетеном кресле у входа, в тенике, обмахиваясь последним номером "Аполлона", и явно поджидая нас - увидел и сразу встал. [Ячеслав Рыбаков. Гравилет "Цесаревич" (1993)]

111. Вечером я сидел в избе у печки и перечитывал в сотый раз в верстку своей первой книжки. [Юрий Нагибин. Война с черного хода (1990-1995)]

112. Лада рыдала в маленькой комнате, а она сидела в ногах у Сени и смотрела, как меняется его лицо. [Сергей Каледин. Записки гробокопателя (1987-1999)]

113. Недавно лежал он в палате и вспомнилось: осень, он сидит в классе у окна, смотрит со второго этажа на улицу. [Григорий Бакланов. Навеки девятнадцатилетние (1979)]

114. И когда Славка подошел, обида, перегоревшая и сбитая в тугой комок, сидела в горле у Тима. [Владислав Крапивин. Трое с площади Карронад (1979)]

115. И вот, сидя в кабинете у главного редактора, все более тупея от болезненного и нудного разговора, я уже не столь думал о своем творении, сколь о большом человеке, который, не глядя на недуг, тащитится из-за меня в какую-то библиотеку, стоит сейчас, поди-ка, на мокром снегу возле Новослободской. [Виктор Астафьев. Зрячий посох (1978-1982)]

116. И вот сейчас, накануне Нового года, Григорий Дудин сидел в своем кресле у стены - под эстампом "Весна", между телевизором "Сони" и музыкальным центром "Самсунг" - и задумчиво вспоминал, что в столь далекой, но близкой ему Италии существует давний обычай: встречая Новый год, расставаясь с прошлым, выбрасывать из окон на улицу старые ненужные вещи. [Аркадий Инин. Новый год по-итальянски (1976)]

117. Спустя шесть лет мы с Сашей сидели в Вильнюсе у Томаса Венцловы, поэта, интеллектуала, неудачника и алкоголика, человека совершенно лишнего в советской Литве и ей чужого, потому что вся литовская поэзия в это время с какой-то огохолившую национал-историко-натурфилософскую идиллию советской власти, и [Соловьев Владимир. Три еврея, или Утешение в слезах. Роман с эпиграфами (1975-1998)]

118. - он вышел с инструкцией в руках, а мама осталась сидеть в ногах у именинницы. [Полонский Георгий. Ключ без права передачи (1975)]

119. И, сидя в знакомом глубоком кресле у курительного столика кашмирской работы, он выслушал трагическую повесть о нелепой судьбе сына геофизика. [Иван Ефремов. Лезвие бритвы (1959-1963)]

120. Он сидел в землянке у телефона и однообразно отвечал: [Константин Симонов. Живые и мертвые (1955-1959)]

121. Уже сидя в головах у спящей Клавы и ее матери, обхватив руками острое колено. [Александр Фадеев. Молодая гвардия (1943-1951)]

122. Кушер сидел в потертом жилете у окна и пил чай. [Константин Паустовский. Золотая роза (1955)]
сидел в пыли у колодца, ожидая смерти, а Марийка с горячей и бесстрашной решимостью просила начальника конвойной команды: [Бубеннов Михаил. Белая береза (1942-1952) / Части 406]

129. Командир полка, с широко расставленными блестящими глазами, с трубкой в зубах, и ротный командир, обветренный, как кора, - оба в шинелях и карузах, - сидели в кабинете, положив локти перед огоньком светильника. [Алексей Толстой. Хождение по мукам (1941)]

130. Командир полка, с широко расставленными блестящими глазами, с трубкой в зубах, и ротный командир, обветренный, как кора, оба в шинелях и картузах, сидели в хате у стола, положив локти перед огоньком светильника. [Алексей Толстой. Хождение по мукам (1941)]

131. Уже в зрелом возрасте бывшие "афганцы" шли к нам с последствиями ранений и контузий. [Служба. Декада инвалидов. Жить достойно, а не выживать // "Марийская правда" (Йошкар-Ола), 2003.01.10]


133. "Звезды" идут к нему с удовольствием. [Рустам Арифджанов. Колесо обозрения // "Столица", 1997.06.10]

134. Им нужно время, чтобы идти к зрителью, слушателю, читателю с ответами на непростые вопросы нашей сегодняшней жизни [Виктор Коршунов: Для нас наш театр — храм // "Витрина читающей России", 2002]

135. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

136. В Ошевенске до сих пор поддерживается обычай: в первый после свадьбы день "сгоревших" мать и родственники навещают на свадьбе, идут к зятю с тетерками. [Каргопольские тетерки // "Народное творчество", 2003]

137. Зрители идут к нам с удовольствием. [Виктор Токарев. Мы старались дать зрителям надежду // "Театральная жизнь", 2004.02.23]

138. Им нужно время, чтобы идти к зрителю, слушателю, читателю с ответами на непростые вопросы нашей сегодняшней жизни [Виктор Коршунов: Для нас наш театр — храм // "Витрина читающей России", 2002]

139. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

140. Кроме-Пермяцкий автономный округ открывает двери для всех, идущих к нему с миром и сотрудничеством. [Финно-угорские народы. Коми-пермяки // "Жизнь национальностей", 2001]

141. "Однако нужно время, чтобы идти к зрителю, слушателю, читателю с ответами на непростые вопросы нашей сегодняшней жизни [Виктор Коршунов: Для нас наш театр — храм // "Витрина читающей России", 2002]

142. «Идите к черту с вашими фактами.» [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

143. Мы много лет шли к созданию СП с "Дженерал моторс", у нас ещё немало совместных планов, но... условия переговоров обязывают к конфиденциальности. [Петр Меньших, Владимир Каданников. В Тольятти придут инвесторы. // "За рулем", 2003.05.15]

144. А еще усилить упор на борьбу со СПИДом, отдать должное больным детям, а также внести каждого жителя ХМАО, пострадавшего от необъявленных войн, в компьютер, чтобы им не ходить по спонсорам с протянутой рукой, а привлекать их к каждому с адресной помощью, даже когда о ней не просит. [Татьяна Кифорук. Богатство Сибири прирастать будет другими частями России // "Сургутская трибуна", 2000.02.26]

145. И он идет к своей цели с возможно меньшей затратой средств. [Л.Д. Троцкий. О Леониде Андрееве (1902)]

146. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

147. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

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149. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

150. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]

151. "Идите к черту с вашими фактами. [Алексей Митрофанов. ББ и русский марксизм // "Независимая газета", 2003.06.10]
Щенок догнал в небе своего друга, они покружили над Пушком Мурчиковичем, помахали ему на прощанье лапами и вдруг заметили какого-то человечка, идущего к реке с кувшином молока. [Андрей Курков. Великое воздухоплавательное путешествие (1986)]

"Мы нашли счастье", — и моргает, не погуби подлунную своей великой свободой, помни: идя к людям с посулами лучшей доли, всегда нужно брать с собой кнут. [Павел Крусянов. Укус ангела (1999)]

Оно все же шли к нему с опаской, потому что с детства знали его и не могли понять, откуда он премудрости набрался. [Кузьмина-Караваева Елизавета Скобцова. Клим Семенович Барвышкин (1925)]

Между тем внушительный диалог приходил на ум капитану все реже и реже, так как Грэй шел к цели с стиснутыми зубами и побледневшим лицом. [Александр Грин. Алые паруса (1922)]

По пробитии зори надо идти к полковнику с рапортом. [М.П. Загряжский. Записки (1770 — 1811) (1770–1811)]

В то утро, когда Флорес назначил совещание, чтобы обсудить план экспедиции на соседний остров, О’Тара и Бокко, разодетые в свои роскошные костюмы, шли к резиденции с важным видом сановников, небрежно кивая головой островитянам, встречавшимся на пути. [Беляев Александр. Остров погибших кораблей (1926)]

У них был тогда посол Ибрагимов, который немедленно дал знать в Казань, что россияне из Устюга и Вологды идут к ее пределам с малыми силами. [Н.М. Карамзин. История государства Российского: Том 6 (1811–1818)]

А в глубине башни в своем кабинете сидел Анатолий Васильевич и поочередно принимал посетителей, которые шли к нему с самыми разными проблемами. [Масленикова Зоя. Жизнь отца Александра Меня (1992)]

(Идет к телефону с намерением позвонить.) [Н.Н. Евреинов. Любовь под микроскопом (1931)]

Я знал, что убиваю, еще когда шел к ней с пером за ухом. [Аркадий Стругацкий, Борис Стругацкий. Трудно быть богом (1963)]

Миражи, старик, миражи, — я тоже отдал им дань, шел к ним с протянутой рукой за ради Христа, шел с последней надеждой. [Николай Дежнев. В концертном исполнении (1993)]

А он шел к ней с лучшими намерениями и ничего так не боялся, как разочароваться в этих своих надеждах. [Л.И. Шестов. Добро в учении гр. Толстого и Ницше (1900)]

Автор изводил бумагу, автор старался, автор шел к ним с лучшим, что у него есть, — и вот на тебе. [Владимир Маканин. Голоса (1977)]

Вскоре я увидела Некрасова, идущего к галерее с Панаевым. [Панаева А.Я. Воспоминания (1889–1890)]

Вайс с трудом узнал ее, когда она шла к машине с маленьким чемоданчиком в руке. [Вадим Кожевников. Щит и меч (1968)]

Лев шел к Кракову с гордостью великою, говорит летописец, но возвратился с великим бесчестием, потому что при Гошличе, в двух милях от Сендомира, поляки поразили его наголову, а в следующем 1281 году Лешко отплатил ему вторжением в Галицкую область, где взял город Перевореск (Пршеворск) и сжег его, перебивши всех жителей. [Соловьев С.М. История России с древнейших времен. Том третий (1853)]

И герой и нищий одинаковы, особенно когда дело касается собственности, которая сама идет к своему вору с ласками и поцелуями. [Д.Н. Мамин-Сибиряк. Черты из жизни Пепко (1894)]

Головкин, по царскому приказанию, торопил гетмана письмами, побуждая идти к Стародубу со своими казаками на соединение с царскими силами. [Н.И. Костомаров. Русская история в жизнеописаниях ее главнейших деятелей. Выпуск шестой: XVIII столетие (1862–1875)]
174. В другой артели не то косарь, не то, черт его знает кто, зарезал нашего же, должно быть, беглого брата, старика лакея, а лакей этот шел к морю с дочкой, маленькою девочкой. [Г.П. Данилевский. Беглые в Новороссии (1862)]
175. Давно ли питерский рабочий шел к Зимнему с хоругвями? [Александр Яковлев. Омут памяти. Т.1 (2001)]
176. Иду к выходу с товарищем, а навстречу Андрей Петрович по аллейке. [Константин Ваншенкин. Писательский клуб (1998)]
177. подозревают своего с ним разрыва (как всё же подозревали, например, петрашевцы), напротив, не только прямо идут к народу с самыми странными словами, но и в твердой, блаженнейшей уверенности, что их непременно поймет народ. [Ф.М. Достоевский. Дневник писателя. 1877. Год II-й (1877)]
178. Когда мы со всем отрядом стали на позицию над крутым скатом к реке, тогда только Вельяминов разрешил Вольховскому идти к переправе с войсками, накануне отдаванными в его распоряжение. [Ф.Ф. Торнау. Воспоминания русского офицера (1874)]
179. Завтра иду к нему с кучей бумаг, среди которых характеристика, полученная сегодня в Эрмитаже за пробиранцию по поводу моего строптивого поведения. [Александр Болдырев. Осадная запись (блокадный дневник) (1941–1948)]
180. Арафат вёл себя вызывающе, дело шло к двоевластию с незавидной перспективой для короля. [Бовин Александр. Пять лет среди евреев и мидовцев, или Израиль из окна российского посольства (1999)]
181. Я шел к Густаву Ивановичу с чувством полной обреченности. [Юрий Елагин. Укрощение искусств (1952)]
182. И он почувствовал, что никакого упорства нет у него и что пора идти к столу, белому, чистому, с фруктами. [Юрий Тынянов. Смерть Вазир0Мухтара (1928)]
183. Я не знал, что царь расстрелял в 1905 году рабочих, которые шли к нему с его портретами и иконами. [Юрий Олеша. Книга прощания (1930–1856)]
185. Так 300летний канадец, последние полтора года проведший в объятиях австралийской певицы Данни Миноуг, и даже вроде бы собиравшийся идти к алтарю, неожиданно расстался со свой подругой, по уши влюбившись в 19-летнюю американскую балерину Элли Грн. [Владимир Маккаев. Три холостяка // "Формула", 2001]
186. Хуан говорил мне, что слышал твой разговор с Браулио, когда вы поджидали Аугусто, чтобы идти с ним к Фунесу узнать про Гонсало и Бенито. [Юрий Кузьменко. Правда семьи Оласаблей // "Столица", 1997.06.17]
187. Так, например, в Новгородской второй летописи сообщается, что столкновения сторон города закончились, когда епископ "разсудил вещи сия начало"[8], а в Ефремовской кормчей 14-е правило Сардикского собора требует, чтобы изгнанный священник шел с апелляцией по своему делу к митрополиту, "да испытание вещи будет", что переводит греческое exesis, в веронской версии латинского перевода — examen[9]. Конечно, часто имущественные коннотации нечасты и у [Лариса Иванова0Веэн, Олег Хархордин. Новгород как res publica: мост к величию // "Неприкосновенный запас", 2003]
188. **Оппоненты КПРФ боятся идти с отчетом к избирателям, — подчеркнул депутат Валентин Романов. — Как им объяснить, что пропрезидентскими фракциями продавлен разгром единой энергосистемы, а Путин подписал эти законы. [Наказы рабочих Урала // "Советская Россия", 2003.06.15]
189. Овсянников, как он сам выразился на суде, "с материнской кольбели" к широкому хлебному рынку, опираясь на крупные и выгодные индустриальные подряды, и, наконец, сделался одним из самых могущественных обладателей этого рынка, окруженным лишенным поклонением менее крупных поставщиков, среди которых он привык играть властительную роль, повелительно ставя свои условия. [А.Ф. Кони. Дело Овсянникова (Из записок и воспоминаний судебного деятеля) (1907)]
190. Так, за исключением праздничных дней, в которые Аполлон шел с отцом к обедне к Спасу в Наливках, проходили дни за днями без малейших изменений. [А.А. Фет. Ранние годы моей жизни (1893)]
191. Религия же высших разумных сил / которая которая тоже могла бы / по идее / как-то активизироваться / остается на уровне простых обрядов / люди идут с иконами к окзеру / топятся в церкви / только почему-то в ней звучит музыка / что православной службе не свойственно / здесь небольшая погрешность автора. [Заседание семинара Б. Стругацкого // (1990.01.19)]
В двадцатые годы, когда он был в апогее своего значения, на экзамене в здешней Духовной академии он шел с князем А. Н. Голицыным к завтраку, как вдруг один маленький чиновник, зайдя сбоку, подошел под его благословение; но Фотий отшиб с презрением поднятую к нему руку, продолжая, не оглядываясь, свой путь. [Корф Модест. Из дневника (1838–1839)]

Корф Модест. Из дневника (1838–1839) // "Альфа и Омега", 2001

Сенявин приказал контр-адмиралу Грейгу немедленно идти с двух кораблями и одним фрегатом к Тенедосу, а сам с остальным флотом направился к Дарданеллам. [Е.В. Тарле. Экспедиция адмирала Сенявина в Средиземное море (1805–1807) (1954)]

Первое место в сонме иерархов занял святитель Петр, и он, простерши руку свою через царский венец к Евангелию, от лица всех присутствующих обратился к стоявшему по правую сторону престола патриарха Никону с наставлением и завещанием — идти с обличением к государству за попранные им права святительского сана своим вмешательством в дела церковные и за оскорбление, нанесенное им Церкви и церковным учреждениям стеснением их [Николаевский Павел, протоиерей. Путешествие новгородского митрополита Никона в Соловецкий монастырь за мощами святителя Филиппа (1885) // "Альфа и Омега", 2001]

"Вот так же ныла и я, когда шла с девочками к больной подруге." [Виталий Губарев. Королевство кривых зеркал (1951)]

Наш приезд был, очевидно, замечен в усадьбе, потому что во дворе неожиданно появился свет: кто-то шел с ручным фонарем к воротам. [Чарская Л. А. Вторая Нина (1909)]

Мы окружены народами, пресмыкающимися во мраке детских заблуждений, — и никто еще из нас не подумал препоясаться и идти с миром и крестом к бедным братиям, доныне лишенным света истинного. [Александр Пушкин. Записные книжки (1815–1836)]

"(Души праведных), — говорит он, — при отшествии из сего мира, имея с собою Господа, идут с великою радостию к небесным жителям; обитающие же с Господом приемлют и отводят их в приготовленные им заблаговременно обители и вертограды и возлагают на них драгоценные и знаменитые одеяния"50. [(Брянчанинов) Игнатий. Слово о человеке (1862)]

"(Идет с чашкой к столу.) [Чехов А.П. Три сестры (1901)]

Мишак шел с Митькой к ферме, оба слегка покачивались, и Куров начал делать им предупреждающие знаки, чтобы не ходили. [Василий Белов. Привычное дело (1967)]

Вечером я шла с Рудаковым к Московскому вокзалу пешком с Колокольной улицы, где они жили и откуда я уезжала. [Герштейн Эмма. Лишняя любовь (1985–2002)]

Слушайте! — вскричал я, составив план действий. — Возьмите эту записку, идите с ней к штурману и скажите, что вы чувствуете себя встревоженным и хотите быть помещенным или в общую каюту второго класса, или в общую палату корабельного лазарета. [Мариэтта Шагинян. Месс0Менд, или Янки в Петрограде (1923–1924, 1954)]

А уехав из колонии, он писал Лили о том, как беспристрастно мысленно возвращается в колонию к своим любимцам, снова идет с ними к морю, слышит сосновый запах, видит веселые ребячьи лица. [Гершензон0Чегодаева Наталия. Воспоминания дочери (1952–1971)]

Однажды мы столкнулись на улице, когда я шел с букетом и подарком к прелестной Стелле Вагич на двадцатипятилетие; он сказал, что пойдет со мной, хочу я этого или не хочу. [Анатолий Найман. Славный конец бесславных поколений (1994)]

Женщины ставили его в пример своим мужьям, он был приятно вежлив, встречаясь с хозяйкой, идущей с поганым ведром к мусорному ящику, он быстро снимал свою солдатскую шапочку, в которой были заколоты две-три иголки. [Семен Липкин. Записки жильца (1962–1976)]

А сейчас, вспоминая лицо и фигуру Чертовки, вспоминая, как гибко нагнулась она к бадье, как легко шла с коромыслом к дому, будто что-то переливая из бедра в бедро, вспоминаю, что здесь, за стенкой, столько ночей эта баба была одна, ждала хоть кого-нибудь взамен детей и мужа, кто поделился бы теплом среди зимнего чердынского холода, — сейчас Венцу сделалось жарко. [Алексей Иванов. Сердце Пармы (2000)]

Пока шли с вестовым к избе, где ожидалось "прятное свидание", подпоручик измаялся вконец. [Борис Васильев. Дом, который построил Дед (1990–2000)]

В свое время Временным правительством был даже назначен день созыва Учредительного собрания (в который ему собраться большевики, однако, не дали), и помню, что по этому поводу Совком служащих было постановлено идти с
манифестацией к зданию Государственной думы. [Алексей Татищев. Земли и люди: В гуще переселенческого движения (1906–1921) (1928)]
211. По утрам назаретские женщины шли с кувшинами к роднику, который и поньше снабжает округу водой. [Мень Александр, протоиерей. Сын Человеческий (1969)]
212. Осторожно, словно на цыпочках, он снимает с задка телеги увесистый мешок и, крякнув, идет с ним к крыльцу. [Валентина Осеева. Динка прощается с детством (1969)]
213. Сейчас же мы идем с Мариком к станции метро "Колхозная" — ночь со второго на третью марта семьдесят седьмого года. [Павел Сиркес. Труба исхода (1990–1999)]
214. Расходились мы уже в темноте, и шли с Ириной к автобусной остановке по Пятой авеню. [Голяховский Владимир. Русский доктор в Америке (1984–2001)]
215. Идем с начальником к палатке. [Николай Амосов. Голоса времен (1999)]
216. Они шли с несколькими матросами к хижине, громко толкуя между собой. [Роберт Штильмарк. Наследник из Калькутты (1950–1951)]
217. Итак я, засунув за пазуху совсем не нужную вещь попу, а мне в дороге весьма необходимую, отворил окно и хотел лезть, как увидел умиленного молельщика, идущего с конвоем к воротам. [В.Т. Нарежный. Российский Жилблаз, или Похождения князя Гаврилы Симоновича Чистякова (1814)]
218. Огромные, как будто смотришь на них через увеличительное стекло, они стоят в гордом одиночестве как воплощение всей жизни художника. [Цветы зла Владимира Яковлева // "Культура", 2002.04.01]
219. Когда смотришь на мир через объектив, невозможно ни чувствовать себя несчастным, ни скучать. [Валерий Панюшкин. Город с открытыми глазами // "Столица", 1997.05.27]
220. Выбирая себе квартиру или строя свой дом, человек хочет смотреть на мир через светлые, чистейшей прозрачности стекла, быть уверенным в надежности окна, которое поможет сохранить тепло дома в морозную зиму, оградить от шума и пыли в летний день и легко распахнуться навстречу весеннему теплу. [Надежда Костяева. ООО "Стеклоком": новое слово в производстве оконных блоков // "Термский строитель", 2003.06.05]
221. Когда смотреть на жизнь через объектив, невозможно ни чувствовать себя несчастным, ни скучать. [Валерий Панюшкин. Город с открытыми глазами // "Столица", 1997.05.27]
222. Когда смотрешь на мир через объектив, невозможно ни чувствовать себя несчастным, ни скучать. [Валерий Панюшкин. Город с открытыми глазами // "Столица", 1997.05.27]
223. Посадить в зал двадцать Марьиванн и смотреть на них через занавеску, как они смеются. [Михаил Михайлович Мусоргский. Тигр Насти // "Домовой", 2002.10.04]
224. В этот момент мне кажется, что я как будто смотрю на нее через оптический прицел. [Елена Строителева. Учение о чикатилах. Десять лет назад закончилось следствие по делу российского "потрошителя" и началось исследование природы подобных ему людей // "Известия", 2001.07.12]
225. Все, или очень многие, знают эту жизнь; но все так привыкли смотреть на лицо Пушкина через призматический блеск его литературного величия и мы так еще к нему близки, что всякий, кто решится бы сказать дурное слово о человеке, навлечет на себя укор в неуважении или зависти к поэту. [Корф М.А. Записка о Пушкине (1848)]
226. Не только наука видит человека своим объектом, но и сам человек начинает смотреть на самого себя через выработанный наукой концептуальный инструмент. [М.С. Гусельцева. Философские горизонты психологических исследований // "Вопросы психологии", 2004]
227. Он смотрит на себя через роль, которую взял на себя, т.е. через взрослого, и обнаруживает, что он совсем не взрослый. [Е.О. Смирнова, О.В. Гударева. Игра и произвольность у современных дошкольников // "Вопросы психологии", 2004]
Так, когда мы бодры и жизнерадостны, мы смотрим на мир через "розовые очки" — замечаем вокруг себя только хорошее, доброе, а плохое, неприятное остается в тени. [Р.Х. Шакуров. Психология смыслов: теория преодоления // "Вопросы психологии", 2003]

Неудивительно, что мы смотрим на французского героя через наш отечественный художественный опыт, и потому Тартюф для нас образ сатиры, но не комедии, образ зловещий, порождение страшных условий действительности и нарушений в социальном сознании, психике, быту. [Елена Горфункель. И вот я играю Мольера (1990–200)]

Участникам второй экспедиции придется смотреть — да, да, просто смотреть! — на пейзажи Меркурия через призмы какого-то хитроумного прибора. [Дмитрий Биленкин. Десант на Меркурий (1967)]

Петр Артемьевич пил из бутылки молоко, задрав голову так, словно смотрел на месяц через подзорную трубу. [Виль Липатов. Деревенский детектив (1967–1968)]
251. Остолбеневший Василий смотрел на них через пропасть. [Андрей Лазарчук, Михаил Успенский. Посмотри в глаза чудовищ (1996)]

252. Не субъект познания, не познающий человек творит предметный мир, предметный облик реальности; и этот предметный облик не есть иллюзия — хотя бы всеобщая и необходимая — человеческой мысли, не результат того, что субъект смотрит на бытие через особые, как бы цветные очки и тем непроизвольно окрашивает бытие в цвет своих очков; предметность, предметная форма бытия "творится" самой реальностью, в которой она укоренена. [С.Л. Франк. Непостижимое (1938)]

253. И вот все последнее время у меня такое чувство, будто своими пятью окнами этот дом недобрым взглядом смотрит на меня через тысячи верст, отделяющие Европейскую Россию от Сибири, и рано или поздно меня сглазит. [Борис Пастернак. Доктор Живаго (1945–1955)]

254. По молодости человек придает непомерное значение мелочам, как будто смотрит на все через увеличительное стекло, но с годами реальные встряски и происшествия вынуждают его видеть все иначе. [Родион Нахапетов. Влюбленный (1998)]

255. Пьер, не переменяя своего положения задранных ног, смотрел на них через очки, и не понимал, что им может быть нужно и каким образом все они могли жить, не разрешив тех вопросов, которые занимали его. [Л.Н. Толстой. Война и мир. Том второй (1867–1869)]

256. Прокофий смотрел на Копенкина через сквозные узоры двери и ничего не говорил. [Андрей Платонов. Чевенгур (1929)]

257. Только один глаз его раскрылся и выжидающе смотрел на пассажиров через салонное зеркало. [Семен Даниилук. Рублевая зона (2004)]

258. Пьер, не переменяя своего положения задранных ног, смотрел на них через очки, и не понимал, что им может быть нужно и каким образом все они могли жить, не разрешив тех вопросов, которые занимали его. [Л.Н. Толстой. Война и мир. Том второй (1867–1869)]

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261. И вот все последнее время у меня такое чувство, будто своими пятью окнами этот дом недобрым взглядом смотрит на меня через тысячи верст, отделяющие Европейскую Россию от Сибири, и рано или поздно меня сглазит. [Борис Пастернак. Доктор Живаго (1945–1955)]

262. По молодости человек придает непомерное значение мелочам, как будто смотрит на все через увеличительное стекло, но с годами реальные встряски и происшествия вынуждают его видеть все иначе. [Родион Нахапетов. Влюбленный (1998)]

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Шукшин. Упорный (1972–1973)

274. Я подошел к шкафу и стал смотреть через стекло на тисненые корешки; это были дореволюционные издания. [Борис Хазанов. Правдиматер (2002)]

275. Спиной к двери камеры, с прикладом винтовки у ноги, часовой смотрел через пустой пролет тюремного корпуса на противоположный балкон, где так же спиной к двери камеры стоял его приятель по взвду и земляк. [Михаил Осоргин. Свидетель истории (1932)]

276. Ната с гимназы смотрела через стекло на горящие при закате окна дворцов и золотисто-розовые, широко и гладко расходящиеся волны. [М.А. Кузмин. Крылья (1908)]

277. Он смотрел через окно на совершенно пустой колодезный двор, по которому ветер зон зон газетный лист. [Сергей Юрский. Чернов (1972–1978)]

278. Величественное пролетарское утро. [Василий Быков. Знак беды (1982)]

279. Меня смотрел через блестящее стекло двери на дедушку. [Владимир Рецептер. Узлов, или Обращение к Казанове (1993)]

280. "До свидания, приходите к нам, на Гранатурова не обращайте внимания", — и по отблеску ее белков уловил: она смотрела через его плечо на красновато теплеющий восход месяца за вершинами сосен позади кирхи. [Юрий Бондарев. Берег (1975)]

281. Кто из нас равен Физиономии (мир как хозяйство) (1912)]

282. Для известной ориентировки в явлениях жизни в определенном отношении имеет значение, напр., даже фикция “экономического человека", выработанная политической экономией, но, если смотреть через ее призму на жизнь и историю, получается, конечно, уродливое и прямо неверное представление. [С.Н. Булгаков. Философия хозяйства (мир как хозяйство) (1912)]

283. Появляется рядом и мой литературный наставник — не слишком ли поздно? — которого я забыл на время, и то укоризненно, то снисходительно смотрит через мое плечо на беззащитный текст. [Владимир Гиляровский. Москва и москвичи (1934)]

284. "До свидания, приходите к нам, на Гранатурова не обращайте внимания", — и по отблеску ее белков уловил: она смотрела через его плечо на красновато теплеющий восход месяца за вершинами сосен позади кирхи. [Юрий Бондарев. Берег (1975)]

285. смотрел через забор на бега, знали каждую лошадь, обсуждали шансы выигрыша и даже играли в тотализатор, складывая по двугривенному — тогда еще тотализатор был рублевый. [Владимир Гиляровский. Москва и москвичи (1934)]

286. Конюхи из трактира к началу бегов отвозили хозяев в полтиничные места беговой беседки, тогда еще деревянной, а сами, стоя на шарабанах, смотрели через забор на бега, зная каждую лошадь, обсуждали шансы выигрыша и даже играли в тотализатор, складываясь по двугривенному — тогда еще тотализатор был рублевый. [Владимир Гиляровский. Москва и москвичи (1934)]

287. Боярышкин, раскорячившись, сталкивал лодку; Лиза с улыбкой смотрела через его голову на Митьку, игравшего ключом, кивала ему головой. [Василь Быков. Знак беды (1982)]

288. "До свидания, приходите к нам, на Гранатурова не обращайте внимания", — и по отблеску ее белков уловил: она смотрела через его плечо на красновато теплеющий восход месяца за вершинами сосен позади кирхи. [Юрий Бондарев. Берег (1975)]

289. "До свидания, приходите к нам, на Гранатурова не обращайте внимания", — и по отблеску ее белков уловил: она смотрела через его плечо на красновато теплеющий восход месяца за вершинами сосен позади кирхи. [Юрий Бондарев. Берег (1975)]

290. Посмотрите через них на мир и почувствуйте, как меняется ваше настроение. [Психоэнергетические техники работы с взглядом // "Боевое искусство планеты", 2003]
G. Postverbal prepositional phrases data – Danish

1. Coasteren "Per" var på 399 bruttotons, og var undervejs fra Halmstad i Sverige til London med en last armeringsjern.

2. Formålet har været, at han så af Stasi kunne bruges til at skaffe informationer fra Italien til Koko.


4. er et dansk skib, "Danix", blevet tilbageholdt af myndighederne i Nigeria, fordi det har fragtet affaldet fra Italien til Koko.

5. Omkring 250 mennesker - fortrinsvis Århus-landmandsfamilier - med Århusfolkedansere, faner og musik i spidsen kunne i dejligt midsommervejr vandre fra Store Torv og Bispelrav til Rådhuspladsen.

6. Derimod måtte Sanchez-klanens yngste, den 16-årige Arantxa, sande, at der er langt fra fransk grus til britisk græs.

7. Programmet fulgte det landbrugshistoriske optog fra Frederiksberg Randdel til Rådhuspladsen.

8. De har kun fået udrejsetilladelse af de israelske myndigheder, fordi de i deres ansøgning angav, at de skulle videre fra Danmark til USA for at studere der.

9. Ena flyttede i 1955 fra København til Århus for at blive gift med Knud Erik, der allerede på det tidspunkt havde været med i Aarhus Bøserkylægning i 10 år.

10. @I Skolegade, Århus, er der ikke langt fra Italien til Mexico.

11. @I Skolegade, Århus, er der ikke langt fra Italien til Mexico.

12. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

13. Formålet har været, at han så af Stasi kunne bruges til at skaffe informationer fra Italien til Koko.

14. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

15. Formålet har været, at han så af Stasi kunne bruges til at skaffe informationer fra Italien til Koko.

16. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

17. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

18. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

19. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

20. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

21. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

22. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

23. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

24. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

25. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

26. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

27. Han siger: Selv om der er langt fra København til Struer, har vi da både telefon og telex på B&O.

29. For der danner sig simpelthen nogle kører så store, at der bliver hasardedere overhalinger", sagde Poulsgaard og tilføjede: "Når jeg kører 100 km i timen fra Varde til Ringkøbing, så føler jeg migpræcis lige så lovlige som Margrete Aukem, selv om han kører 80 km i timen.


31. Alligevel kræver arbejdsmiljøloven, at der inden 1990 ved kirkegården indrettes et opholdsrum med toilet og bad til graver Arne Andersen, når han en gang hvert tredje år bevarer sig de tre kilometer fra nabolandsbyen Smadstrup til Frydendal.

32. Fordyrelsen bestod i, at skattefradraget for renteudgifter blev sat ned fra typisk 79% til typisk godt 59% - eller med renteafgiften helt ned til ca.

33. Derfor foreslås en væsentlig begrensning, der skal gennemføres ved, at den mindstetid, der skal være afsonet før en prøveløsladelse kan komme på tale, forhøjtes fra to måneder til et år, siger Ninn-Hansen.

34. Ikke desto mindre avancerer han i løbet af de fire måneder, forestillingen følger disse entusiastiske teateramaterører, som England er så rigt på, fra en statistrolle i bageste række til hovedrollen som landevejsrøveren og kvindebedåreren MacHeath.

35. Ingen patienter må udskrives fra psykiatriske afdelinger eller gå fra distriktspsykiatriske centre til ingenting.

36. Amritsars vicepolitichef sagde, at de bevæbnede mænd, der har kinesisk fremstillede Ak-47 geværer, forsøgte at komme fra deres rum til kælderen under Akal Takht - Den Evige Trone - hvor politiet mener, at de har et arsenal, som måske rummer mere avancerede våben, heriblandt granatafyringsenheder.

37. Da han skiftede fra Valencia til Anderlecht efter EM, blev han på grund af skader holdt ude fra holdet i lange perioder.

38. Der er tale om, at han er gået fra total afvisning til visse erkendelser.

39. Der er ikke langt fra det brede fortov til rendestenen.

40. Som det er sket i andre storbyster, har ilden bredt sig fra tarmen til mælken, fordi det ikke nedbrydes i vommen, tilsat fedt.

41. Første gang, han og hans kone var nødt til at søge hjælp udefra, var ved juletid, hvor de fik varer fra "Solidarisk med Polen" til deres familiebørnehjem.

42. Trods Sjevardnads venlige ord om, at "vi er kommet frem til konklusionen, at vi skal anerkende og respektere hinandens tro", så får ayatollaa næppe hjælp fra KGBs afdeling fra deres rum til at eliminere Salman Rushdie.


44. Intervalpositionerne (især i begyndelsen af koncerten); hvor stadigt støjende crescendo-virkninger førtes igennem til et patetisk fortissimo; hvor hårdt og stålsat denne affekt stod mejslet i rummet; hvor plastisk der kunne fraseres i enkeltforløbene stædigt sømløst opbyggende crescendo-virkninger førtes igennem til et patetisk fortissimo; hvor hårdt og stålsat denne affekt stod mejslet i rummet; hvor plastisk der kunne fraseres i enkeltforløbene...

55. Brand ikke er interesseret i selv at blive omdannet fra en "gensidig forening" til et aktieselskab, hvilket ville være nødvendigt for at modernisere det kunne overtage banken.

56. Skal klubberne overflyttes fra socialudvalget til kulturelt udvalg skal mindst halvdelen af medarbejderne i henhold til de gældende oversætningskomité på området være borgomiuddannede, og det medfører stigende lønomskostninger.

57. september 1988 blev sendt fra Justitsministeriet til Folketinget.

58. Flere sovjetrepublikker har nu tilslutet sig de oprørere aserbajdsjaneres kritik af Moskvas beslutning om at sende hær, KGB og soldater fra det sovjetiske indenrigsministerium til Aserbajdsjan.

59. I arkivets kopier af de gamle kirkebøger kan man læse, hvordan grev Reventlow bliver sendt fra Christianssøde til Horslunde af grædende bønder.

60. Fyn er andet end striber, Der er meget langt fra den politiske automatik til de fynske sandheder.

61. fjern ikke så stor, efter at kommunen efter alt at dømme vil opføre et rensningsanlæg efter et nyt og billigt system, sagde Svend Erik Sjællænder Pedersen, der fortsatte: Positiv ånd - Det er også tvivlsomt, om Østjyske kan flytte det store overskud fra Bjerringbro til Sønder Borup.


63. Efter i løbet af 1980'erne at have skaffet sig en mindre formue ved at smugle først marihuanna og siden kokain fra Panama-ørne til USA, installerede Richardson sig selv og hustruen i et stort hus i Miami og forsøgte at slå sig op som forretningsmand.

64. Bør ændres Åsporegørelserne, der har udløst mange henvendelser fra utilfredse skatteydere til landets skattekontor, bør nok ændres, så folk lettere kan overskue, hvordan skattemedlen er beregnet, mener skattechefen i Odense Kommune, Peder Pedersen.


67. Hvad angår socialministerens maveonde stammede det fra dagen før, forlyder det fra Socialrådgivning til lærer, politi eller psykolog?

68. Handicappet alene på havet i 31 dage Endelig har Poul Eriksen besøg af den handicappede sejlsportsmand Jens Als Andersen, der den sommeren 1988 måtte flytte fra Plymouth til Newport i USA.

69. Sådan steg ind i Citroën fra 1926 Prins Henrik ankom i går til Viborg, fordi den gamle redningsvogn ikke kunne komme frem.

70. Engælderne har afskaffet industriferien, idet de nu holdt ferie afstempet efter skoleferien, der strækker sig helt fra midten af juli til september.

71. Men hvad angår socialministerens maveonde stammede det fra dagen før, forlyder det fra en kilde til Politiken.

72. Det vestyske firma Transnuklear, der er specialiseret i transport af atomaffald, fragtede det radioaktive gods fra Vesttyskland til Mol, hvor affaldet blev bearbejdet og sendt tilbage til Vesttyskland.

73. Først tog den fra Tyrviet til Spanien og så videre til Danmark, hvor den håbede på at få asyl, fordi et af familieledennerne har en bror her.

74. Prins Henrik ankom i går til Viborg i en af militærets brølende helikoptere.

75. Præmien skiftede fra helikopter til veteranbil Steg ind i Citroën fra 1926 fra redningsvogn til ulykkested, fordi den gamle redningsvogn ikke kunne komme frem.

76. mere yoghurt i dag i forhold til for 15 år siden, og forbruget af mælk er omlagt markant fra sødmælk til letmælk.
80. Havørred og laks gyder æg og hermelinen skifter fra brunt til klædeligt off-white, så den er på den, hvis vi ikke får den sne, der forhåbentligt vil komme vrmlende.

81. »»»»»»»»»»»»»»»»»»»»»»»»» Kærlighed og Slim Tropical forvandlede 230årige Sofia fra at være en kaloriebombe til en slank og smart pige. Hurra jeg er 20 kilo gladere, Sofia havde været tyk lige siden, hun lå i vuggen.

82. Hans har du jo fået en smagsprøve på, og det ændrer sig ikke, fordi det flyttes fra bordet til sengen.

83. Så skifter han med et grin fra stromlinet til Peter Plys.

84. Beløbet overføres automatisk fra lønkontoen til budgetkontoen.

85. Folk avancerer ofte fra det borgerrettede til det klientrettede, men det lader til, at medmenneskelige motiver tilsyneladende spiller en underordnet rolle for de fleste frivilliges engagement.

86. Da hoffet flyttede fra hendes barndomshjem, Kensington, til Buckingham Palace, krævede Victorias mor rang og privilegium som dronningemor, men Victoria nægtede hende det.

87. Fundatsen har gennem generationer sikret, at Gisselfeld arveres fra far til ældste søn eller nærmeste mandlige arving, siger grev Erik Danneskiold-Samsøe, som i dag er enrådechef på det mægtige Gisselfeld Kloster.

88. Andre gange kører hun med den lokale vognmand fra diskoteket i Haslev til Gisselfeld.

89. »»»»»»»»»»»»»»»»»»»»»»»» 220årige Kirsten er godt på vej ind i rampelyset. Jeg slås for at blive berømt. Kirsten Iversen drog fra fødebyen Thisted til København fast besluttet på at blive "noget ved musikken".

90. Hun har knoklet fra klokken fire om morgenen til midnat for at skrabe penge sammen til undervisningen på den Show- og teaterskole det lykkedes hende at komme ind på.


92. "Med et kom hun i tanker om, at der allerede var kommet et brev fra Frankrig til Louise.

93. Julenat vandrer hun fra sit hus i Jerusalem til Bethlehem.

94. Jeg kender vejen, og selv om det tager timer at gå til fods fra Bethlehem til Jerusalem, nyder jeg hvert skridt.

95. Fra "The First" til anden LP, "Like A Virgin", gik hun direkte fra at være "énelleranden" til at være "den eneste".

96. Fra Los Angeles til New York med det færdige masterbånd for, at deltage i skæringsprocessen i det ifølge Michael "bedste skæring-studie i verden".

97. Hendes sygdom begyndte for fire år siden, da Debbie pludselig fik stærke smertes, som bredte sig fra undersiden af benet til underlivet.
Belinda er gået vejen fra grim punk og junk, til pop og råkost.

Man kan også foretage en hårtransplantation, hvor man bruger personens egne hår og flytter dem fra et sted med mange hår til et sted med få hår.

Bente har mørtet stor interesse for projektet og har fået penge fra fonde til projektafbedt.

I Tyrkiet fandt vi ud af, at der gik en lillebitte færge fra havnebyen Marmaris til Rhodos.

Ejeren, doktor i psykiatri Jeronimo van Dijk, bragte den sidste år med fra Holland til et nyt job som psykiater på et hospital på den hollandske antille Curaco.

Mine kys bredte sig fra hendes hals til længere ned ad den slanke krop.

Vi kørte fra Flensborg til Luzern på 1½ dag i ro og mag.

Hun flyttede fra Hollywood til hjembyen Memphis.

For kort tid siden flyttede de også fra Tranevænget i Glostrup til en herskabslejlighed på 135 kvadratmeter på Frederiksberg.

25 lokusudlader blev installeret på øen, og gæsterne blev fragtet fra flyvepladsen til cocainbordlet i 20 Mercedesvogne.


I mellemtiden var mine forældre flyttet fra et toetages rækkehus i Brønshøj til et étplanshus i Fredensborg, for min skyld, så jeg nemmere kunne komme rundt i det.

Der var ikke langt fra forlovelse til bryllup, selv om de fik masser af ”gode” råd om, at det aldrig kunne gå mellem dem.

Hun skulle have overført nogle penge fra sin bankbog i Danmark til USA, og hun fortalte om sin ny lejlighed midt i Chicago.

Store mængder kvæg blev i middelalderen eksporteret fra Norge til de øvrige lande i Europa, hvor planten blev anset for det bedste middel mod pest.

Hele den næste sommer fartede Anna Lise fra Vestjylland til Sjælland, hvor filmen blev optaget.

Da paven i helikopter skulle flyve fra Sjælland til Jylland, blev luftrummet ryddet i den tid flyveturen varede.

Store mængder kvæg blev i middelalderen eksporteret fra Norge til de øvrige lande i Europa, hvor planten blev anset for det bedste middel mod pest.

Han huskede endnu de betænkeligheder, han havde næret, da sommerferien i 1952 lakkede mod enden: Dengang var der meget langt fra Tørslev til Hørning i mere end én forstand.

Ganske vist var det ikke det samme som den gamle vrangforestilling om at rejse til Amerika, og komme hjem som millionær men alligevel, havde han ikke i ånden set sig selv avancere fra almindelig bygningsarbejder til formand for et stort entreprenørskab, måske endda med opgaver i udlandet, og kunne det ikke kildre velbehageligt i selvføllsen at komme en tur hjem og berette om de spændende oplevelser der fulgte med i løbet af sådan et

Kvinden ser drengen bære spanden fra midten af plænen til buskadset bagest i haven.

Efter at have roet fra solopgang til solnedgang var mandshudet godt trætte og pigerne kogte flæsk, som de spiste med tørt skibsbrød til.

Kort før han i 1967 igen tog fra Paris til København, var Andreas Keplovsky dukket op i Paris og havde der etableret sig med en privatklinik med speciale i tropiske sygdomme og plastisk kirurgi.

Man kunne skifte fra en dyb betagelse af Helle til en intens optagethed af den måde Merete sad på - kun for et par måneder efter at måtte erkende, i en stille stund i enrum, at det var nu Anne der var det naturlige fokus for éns opmærksomhed.

Man havde nemlig for vane at gå direkte fra forretningen til kokkenen uden at skifte fodtøj!

Og den skik ophørte endda omtrent på det tidspunkt, hvor linie 14’s rute blev afkortet fra Klampenborg til Charlottenlund.
140. Lu havde ret: Hvis hun fik en ganske almindelig unge, overgik hun fra sin dobbeltstatus som menneskelignende væsen til rigtigt menneske.
141. I biografen kan jeg stadig forsvinde ind i billedrejsen, når vi en sjælden gang tager til byen og ser film (altid med denne følelse af at vende tilbage til virkeligheden), komme fra en til hovedlandet, for så at vende hjem til den gode landflygtighed igen: Jeg synes ikke, at man bliver misundelig på menneskene i byerne nu), men mit TV er næsten altid slukket.
142. Han overfører den sidste interesse fra Ada til Lis, som forsøger at undgå ham.
143. Lykken at kunne give fra sin egen krop til en hjælpeles, lille bytt.
144. Han græd som pisket, og han gik lige fra mit kontor til Ministeren for Natur og Turisme, som han selvfølgelig var i familie med, og fortalte, at de to danskerne i TFC var racister og svindlere og burde sættes i fængsel omgående.
145. Russeren, hvis drøm hedder sprut, skår og smadderkasser går straks i gang med at arbejde sig fra ingenting til præsident.
146. "Har kørt noget saft fra nødgeneratoren til batterierne!"
147. "Du har ikke engang et brevkort fra mig til mors dag.
148. Og han så forbi hende, ned på en ung sygeplejerske, der netop gik fra vagtstuen til skyllerummet.
149. Undervisningskommissæren Anatolij Lunatjarskij talte bedrøvet fra balkonen til det vældige følge.
150. Undervisningskommissæren Anatolij Lunatjarskij talte bedrøvet fra balkonen til det vældige følge.
151. Vi flyttede Olav fro kokkenet til stuen.
152. a skalte og valte med det som han fandt for godt, så når han havde hjembragt dagens høst blev den sorteret, sådan at marbrokker og glasskår blev fyldt i grusgraven, en lille part blev brændt, men det meste blev spredt ud over hans jorder, der gradvis gik fra at være lyse og salte til at blive mørke og forrådnede.
153. enten man var høj på stoffer eller på marxisme-leninisme; halvfjerdserne og begyndelsen af firserne blev et årti, hvor man fik travlt med den nødvendige kritik af utopierne og de filosofiske enhedsforklaringer på hvordan verden kunne gå fra det som er, "det onde", til det som bør være, "det gode".
154. Han fortalte mig, at han var kort helt fra Vestjylland til Valby Bakke på motorcykel.
170. Vi mærker ham fra tid til anden.
- Hvorfor ikke leve i visheden om, at slægten ikke dør ud med jer, Edward rejste sig og bevægede sig langsomt fra det ene anebillede til det andet.
- Åhr, der går direkte tog fra Glasgow til London, det tager bare nogen timer.
171. De transporterede katten i bil fra Højbjerg til Odense, men et par dage efter var katten sporløst forsvundet fra sit nye hjem.
172. Åhr, der går direkte tog fra Glasgow til London, det tager bare nogen timer.
173. De transporterede katten i bil fra Højbjerg til Odense, men et par dage efter var katten sporløst forsvundet fra sit nye hjem.
174. De løb gennem nogle baggårde og op ad Grønnegade, hvorfra de ringede til alarmcentralen fra en boks.
175. Vi er hjemme igen,” sagde Alexander Vergera, 10, i telefonen, da han ringede hjem til sin storebror fra Københavns havn.
176. Hun er kommet til Danmark fra Spanien for udelukkende at spille ved denne koncert og 'for at holde hvedebrodsdage', som hun sagde med et genert smil, mens den nybagte ægtemand, Iroquois, 17, slog sig for panden over al den romantiske snak og datteren Cosma Shiva, 6, tegne
177. Først brød vi til Danmark fra Burnley i 1978.
188. Først brød vi til Danmark fra Burnley i 1978.
Før Jonas og jeg flyttede til Jylland fra København, var jeg nemlig gift med en mand, der havde drukket nogle år, og som indimellem kunne finde på at optræde brutalt.

Jeg kender vejen, og selv om det tager timer at gå til fods fra Bethlehem til Jerusalem, nyder jeg hvert skridt.

Og så er det bare fem år siden, Michael hang på en burgerbar og ringede til TV-producenterne fra monttelefonen i håb om at få et job.

@Der var chokolade til arbejdskammeraterne fra Sussan og fra TOMS @SE og HØRs Helle trak vinderne mellem mere end 35.

september @ Peter Reichhardt i "Nitouche" 1989 @ Poul Reichhardt i "De røde heste", 1950 @ Der er ingen tvivl: Peter Reichhardt er en hjerteknuser som sit berømte ophav @ Peter cykler til teatret fra hjemmet i Skovshoved.

Vi er, hvad vi spiser Han kom til København fra Nykøbing Falster med en studentereksamen i bagagen for seks år siden, startede på Handelshøjskolen på handelsøkonomi (SPROK), skrev opgaver om virksomhedsopstart og kommunikation, men skulle også tjene nogle penge til sine studier.

Mange hilsener og tanker Vicki Skriv til lægen Jeg får utroligt mange breve til brevkassen fra unge piger, der spørger mig til råds i problemer, der angiveligt kun kan besvares af en læge, breve, der handler om menstruationsproblemer, prævention, mistanke om kønssygdomme osv.

Hun var faderens store onde hemmelighed, og hun var måske den skjulte kalden, der lød til Freud fra så mange patienter, han ellers ikke vidste, hvad han følte sig forbundet med.

Bjørnson havde skrevet til Schrøder fra Paris, at han gerne ville komme til Askov og holde sit nyeste foredrag om "Engifte og mangegifte", som skulle være hans indlæg i den sædelighedsdebatt, som gik over Skandinavien, og som jo goså Jeppe og Marie var optaget af.

Begge dele kom til os fra Amerika.

Eller yderst almindeligt brunt papir og sejlgarn med mange knuder, og man sender pakken til "Røde kors" eller "Terre des hommes" fra et fjerntliggende posthus, hvor ingen kender ene, og man har yderligere forskanset sig bag briller og en mine, der tydeligere end ord siger: "leave me alone.

ja det er en historie helt for sig selv og så forfærdelig, de sendte dem i hundredvis ad gangen ind i gasovne og smed cyankalium ned til dem fra et hul i taget, og .

På mandag, står der på kortet med trykte bogstaver, vil det glæde Ivy at se den og den til fødselsdag fra klokken et til fem.

Jeg kom ganske vist til Danmark fra Pakistan, men kun som en slags transitgods.

ville jeg også sidde på en god plads og var således kommet i god tid til føds fra Christiansgade, hvor jeg forinden havde spist dansk bøf sammen med min gamle mormor, der nu var ene, i Frederiksgade havde jeg passeret konsul Muus' gård inden om hjørnesøjlen; den lå der stadig uberørt, men er siden ombygget til boligkompleks

" lød det til sidst fra læge, og da kunne de alle høre fuglesangen igen.

Med hensyn til frokost, så er det ellers sådan, at Petra henter noget udmærket smørrebrød (3 stykker) til mig fra cafe Svanen, som du kan se fra mit vindue.

Du skal nok få lov til det, tænkte de, og de gjorde det omtrent i samme minut, og smilede stort til ham fra hver sin side.

Hun kan ringe til mig fra alle hovedstæder og sige: Ja.

Og han red alle de mil ind til København fra Knabstrup for at se hende gå til spil og tage hatten af for hende.

Jurij Kagan var kommet til Moskva fra Libau ved Østersøkysten for at studere jura.

Jeg ringede til hende fra stationen.

Endelig kunne han vende tilbage til sin by fra lejren i Frankrig, men byen var fuldstændig øde, så kommer han til sit barndomshjem og går derind, og så er det bare lejren igen med sine barakker og pigtråd.
H. Particle construction data – English

1. of concentration were required when Jack Charlton gave away a dubious free kick 30 yards from goal.
2. In the final minute, Jackie Charlton gave away a free kick whilst contesting a header with a German unknown, but after his baptism about 245-248 he gave away a portion of his wealth to the poor of Carthage, as
4. constructing dictionaries that someone may use to look up a logograph whose pronunciation is unknown.
5. The librarian can look up a brief, factual answer to a specific question.
6. were not present, one concrete method is to look up a list of the names and social security numbers of all
7. in his more provocative remarks. I advise him to look up the number of animals for which compensation was claimed
8. about 6% of the whole initiative. I will gladly look up the UK figures for you afterwards. So what this all means
9. Thessaloniki in any way; the fact is that if they look up the minutes, they will find it was a mistake to consign
10. , take the number immediately to the left, then look up the required number in the previous row, at the position
11. • But how does he know where and how he is to look up the word ́ red ́ and what he is to do with the word ́ five
12. • Look up the picker’s point total in the chart below.
13. • they first look up the closest angle in a small table, and then use the polynomial
14. versions of the IDE had the ability to instantly look up the definitions of the keywords of the language just by
15. • Travel agents use it to look up the price and availability of package holidays and flights
16. School revoked his Ph.D. ( For those who wish to look up the actual dissertations in HTTP, the OCLC number for
17. • first determine the order of “ G ”, then look up the candidates for that order in the list below.
18. on a Beatles song, ” You Know My Name ( Look Up The Number ). ”
19. • For instance, to look up the character ( pine tree ) in a typical dictionary, the
downfall of the Roman Empire it was customary to take out the imperial decree, unroll the great scroll of purple
21. the peace communities in the name of trying to take out the guerrillas.
22. was never organised in such a way that we can take out the files and say, ” Well, this is it ”.
23. the price of cattle, rather than primarily to take out the disease in the older cow. I do not mind underpinning
24. we can sell to the consumer. I think we have to take out the poor-quality calves that are born so that in the long run
25. on directories to be possible. We will seek to take out the bureaucratic limitation that direct marketing e-mails
26. • The ELDR group voted to take out the part of Amendment No. 46 that seeks to confer ´ data
27. aircraft is identical to the person required to take out the insurance. This amendment is necessary in order to
28. the policy is to be sharpened and refocused, to take out the required number of cattle that will most effectively
29. It has to be sharply focused; it has to actually take out the cattle that are most likely to have the disease. If
30. to the oral amendment proposed by Mr Cunha to take out the word ” automatic ”?
31. • And the LORD spake, saying, first shalt thou take out the Holy Pin.
32. The band’s first LP, 1981’s ” Sorry Ma Forgot to Take Out The Trash ”, defined the band’s sound and ethos.
33. badly burnt in bushfires in 1967 but managed to take out the games top individual award the ´ Brownlow ´ in 1975
34. and deliberate in their fire and managed to take out the cannons with sniper fire.
35. • take out the pork and put in a layer of fish, over that a layer
36. Why not **take out** the landscaping, the retaining walls, the colonnades.
37. the time period in which a second failure can **take out** the array.
38. other commandos get ready to storm the plane and **take out** the terrorists.
39. them again after the fall. The solution is to **take out** a derivative which pays off if the NASDAQ or CAC 40 falls
40. are long and difficult, it is often necessary to **take out** a second health insurance in the host country. When
41. programmes in our country also ensure that people **take out** a pension at an early age. I am aware that EU leaders
42. drivers an appropriate length of time before they **take out** a load. I know that Mr Hughes was talking about a 24
43. emphasised in his speech. When we **take out** a patent in the EU, we usually take it out in the USA
44. being encouraged by allowing an American firm to **take out** a patent on the use of the special Danish letters, and
45. reaction is everywhere the same: you cannot **take out** a patent on that kind of thing, regardless of the fact
46. it absolutely clear that it is not possible to **take out** a patent on human body cells and that it is not possible
47. the Directive as it stands it is not possible to **take out** a patent on life.
48. It is not of course possible to **take out** a patent on life or on parts of the human body, but
49. it does not really make sense to say that you can **take out** a patent on a copy of a gene, that is, patent a piece
50. Finally, Sears was forced to **take out** a mortgage on their headquarters building.
51. can easily wipe out an entire mineral line or **take out** a single Turret or Comsat Station to further avoid detection
52. **Sift** a pound and a half of flour, and **take out** a quarter for rolling cut in it a quarter of a pound
53. **They** **take out** a full-page advertisement in the New York Times and canoe
54. to kill her husband, after having her spouse **take out** a big insurance policy - with a double-indemnity clause
55. At one point she had to **take out** a court order against a man who had been stalking her
56. which was reviewed last December: again, they **took out the** opportunity which was used by the Spanish in the past
57. environment, actually weakened the proposal and **took out the** time limit. So it was essential that we put some amendment
58. camp prisoners called "Sonderkommandos" **took out the** dead bodies and burned them, was part of the same
59. Charlton and Randy Myers on the mound, the Reds **took out the** Pirates in the NLCS and swept the heavily favored Oakland
60. **I took out the** ice axe from the raincoat, gripped it in my hand and
61. **BMW took out the** option on the trademarks, licensing the name and "
62. in 1988, although Barnsley and Alan Sloan **took out the** patent (US.
63. **He and Havok took out the** X-men and the Ultimates, mostly by pitting them against
64. champion used his experience to his advantage and **took out the** challenger in 14 rounds.
65. rush for gold that General de Gaulle himself **took out a** loan. The Germans, traumatized by two monetary cataclysms
66. , she "reached into her briefcase and **took out a** book.
67. **He took out a** small ad in a computer magazine in order to promote
68. was refused admission because after passing, he **took out a** ball from his pocket and broke a glass while playing
69. took his coat off, placed it at his feet, **took out a** book and started reading.
70. **Cash took out a** full-page ad in Billboard denouncing country radio
71. **In 1884**, a store owner in St. Ignace **took out a** newspaper advertisement that included a reprint of
72. **In appreciation**, Kraft **took out a** full-page ad in the Boston Globe thanking fans for
He took out a rib from Adam, from which he formed Eve.

On April 1, 1996, Taco Bell took out a full-page advertisement in "The New York Times" announcing discovery, and the first for which Murdoch took out a patent was that of This patent was filed in 1791 and May, 1951, after Giants owner Horace Stoneham took out a full-page advertisement in several Minneapolis newspapers named after its inventor, Henry Bessemer, who took out a patent on the process in 1855.

In 1996, Taco Bell took out a full-page advertisement in "The New York Times" announcing that Murdoch took out a patent for an electro-magnetic clock, and he subsequently named the device after its inventor, Henry Bessemer, who took out a patent on the process in 1855.

discovery, and the first for which Murdoch took out a patent was that of This patent was filed in 1791 and

One objective of the Göteborg Summit was to work out a strategy for sustainable development. I see the Council’s

harmonise different schemes that we should use to work out a better way to cross the whole Alpine region in future

Sweden will make significant efforts to work out a coordinated and effective EU policy for conflict prevention live in representative democracies and we have to work out a complex system.

the European Union. There is a pressing need to work out a new design for an enlargement that unites rather than

of secondary legislation. Then if we manage to work out a clear plan it can be taken up in the Intergovernmental

the European Parliament has recommended, should work out a coherent basis for a decision on a constitutional treaty

which I intend to play my part. For if we cannot work out a clear position at first reading stage, the Council

as our starting point, we also intend to work out a Community action plan to deal with these practices

European Union, and have asked the Commission to work out a proposal.

Council in Seville, the task in hand will be to work out a common EU negotiating position on agricultural policy

United States sit round a negotiating table and work out a solution to the steel and cement issues, by setting time as both sides can be brought together to work out a solution then peace will never arrive. Peace can only

on human rights, you call on the institutions to work out a common code of conduct to serve as a basis for the

in 2003, the Commission must attempt to work out a different type of scoreboard and present it to Parliament. This will make possible to clarify

on the humanitarian office ECHO, to work out a methodology to identify what could be called ‘forgotten

, in the Convention on the Future of Europe, to work out a model in accordance with which the public and their

, or Baghdad, it will only be by attempting to work out a common position based on the knowledge that this is

Member States joins the euro. So take time to work out a new, transparent and viable proposal!

with the United States, so that we can work out a new policy for dealing with these problems in a new

What now really counts is that we act quickly and work out a compromise. Although I do not want to revisit all

also ripe for us to sit down together and try to work out a new policy objective. This will make possible to clarify

Union which, in fact, has not managed to work out a joint policy for Burundi. It has become absurd that
10. So it is necessary for the European Union to work out a coherent policy and I hope the special envoy in that
11. should give put greater emphasis on the need to work out a more efficient monetary policy aimed at promoting investment
12. of law_and_order in the various Member States to work out a joint plan for collaboration to contain , at international
13. , to reach a fair compromise and to work out a budget at the end of this year for next year .
14. , from 1997 onwards , will have a mandate to work out a multilateral framework of competition conditions .
15. has already started work , will take the time to work out a definitive proposal .
16. Member States to sit round the table and try to work out a better system for coordination . This is absolutely
17. a spirit of compromise . But we must at_long_last work out a long-term policy and maintain a presence , not just
18. . These problems have shown the urgent need to work out a permanent specific status which really takes account
19. tomorrow that we should learn from each_other or work out a coordinated strategy on jobs . It is today . It is
20. This must stop . It is time for France to work out a new policy instead_of this disastrous one , which has
21. to its establishment and is prepared to work out a series practical measures with a view to demobilizing
22. In section 131 he meets with the other Looters to work out a plan to bring Rearden down .
23. September Other Arab governments attempted to work out a peaceful solution , but by September , continuing "
24. Systems defined in this way work out a cogent picture , for those who make them up , of how
25. The Giants attempted to move on and work out a deal with Cleveland when Chargers general manager AJ
26. chambers may form a conciliation commission to work out a compromise version of the legislation .
27. should help the vendor reproduce the bug and work out a fix .
28. Finally , the Speaker for the Dead is able to work out a treaty with the piggies , so that humans and pequeninos
29. ( i.e. you can use ours if we can use yours ) or work out a common licensing agreement that make the product affordable
30. in Pakistan in mid-October , in_order_to work out a way to convince Mullah Muhammed Omar to turn bin Laden
31. number and contrast of the themes necessary to work out a first movement of a sonata are far too great to be
32. Other Arab governments attempted to work out a peaceful solution , but by September , continuing "
33. and its tolerations that we may hope to work out a new set of absolute values and standards , if such
34. Lee was adamant and tried to work out a compromise , but without success .
35. they are about to be shot down , and frantically work out a way to communicate with the jets using the plane’s
36. this context , Madam President , to allow us to work out the details , I should like to request that the vote on
37. opinion on EQual We just need a_bit more time to work out the details on the asylum question and I would therefore
38. . It will almost impossible for e-businesses to work out the VAT status of their customers and impossible to work
39. discuss it and it is important that we try to work out the same kind of well-informed consensus on this step as
40. were so quick to work out or to get someone to work out the figure of one hundred million for you , then we would
41. have to discuss . Over the coming months we must work out the year 2000 budget together , and I hope that we shall
42. market for financial services . If we cannot work out the levels of commitment and lay down rules with proper
43. 1 January 1996 . That should have allowed time to work out the implementing provisions . Although I was not a Member
44. How true , how right they both are ! So , let us work out the strategy and carry it through . The starting signal
45. the size of flocks in other Member States to work out the payments . The Court of Auditors quite rightly , in
46. At this time , we can and must work together to work out the best way of dealing with this . On this basis , I believe
These analyses should make it possible to work out the best practices likely to contribute to the strengthening of the accession process. But the Heads of Government will also have to work out the details of this chapter. I mean the chapter, the positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable. The positions on which we can foster accession financially and work out the cost implications is advisable.
observations with Hubble in February 2006 to work out the precise orbits, but ground-based observatories will work out the details of a federal union.

When later he began to work out the language relations further, "Hobbit" was to be derived from good cut command a price premium if you work out the price per carat.

Bob to estimate the level of eavesdropping and so work out the maximum amount of information Eve can have about their conference and Quebec conference, 1864 to work out the details of a federal union.

ODEEC WIRE To decipher it, the recipient has to work out the column lengths by dividing the message length by the number of columns, and ground-based observatories will work out the slack to tighten.

that he is interested, if the studios can work out the rights.

advance and fed into the computer, which would work out the answers and print them.

tradition is the set of disciplines practiced to work out the believer’s salvation and further the believer’s repentance.

Hannay and Britain’s military leaders try to work out the meaning of the mysterious phrase.

rapporteur, for the fact that we have at last worked out a joint plan on how to rectify the difficulties attending our eyes wide open, called a spade a spade and worked out a strategy to drastically reduce smoking and its harmful effects.

the General Affairs Council in Brussels worked out a more long-term strategy, to be implemented in cooperation with the CAP, but others too. We have worked out a new financial framework for all internal policies that is my group, that the Commission has worked out a strategy to combat acidification and we are in full agreement on how to proceed.

text contained inequalities, because we worked out a transitional arrangement for the salary for a parliamentary position.

of the Qin dynasty, had independently worked out a concept similar to Pascal’s triangle four centuries ago.

problems Frazee believed Ruth brought, Frazee worked out a deal with Yankees owner Jacob Ruppert.

Fuchs was very interested in Ruth and he worked out a complex deal with Barrow and Ruppert to get Ruth.

and philosophy of the mind *(1982)*, has worked out a model list of representatives of each of the eight schools.

By the summer of 1973, they had soon worked out a fundamental reformulation, where the differences between the views of animal welfare, as in zoos, were hardly more than a superficial disagreement.

Darwin later worked out a more elaborate model of heredity (which he dubbed the band got to Woodstock, Rundgren had already worked out a running order for both the recording and sequence of the songs).

Sage worked out a deal with Purvis and the FBI to set up an ambush for the band.

pushed westward into Algeria and eventually worked out a modus vivendi with Kusayla, the ruler of an extensive empire.

This realist, one might say materialist, school worked out a rigid five-member schema of inference involving an assumption of randomness and a strict interpretation of the evidence.

could be detonated and by 1894 the Russians had worked out a method of manufacture for artillery shells.

7 May, the TUC met with Sir Herbert Samuel and worked out a set of proposals designed to end the dispute.

later, Captain William Tucker and Dr. John Potts worked out a truce with the Powhatan Native Americans.
eat it " . There is no better solution . I have worked out the cost - 10 cents per kilo . So we do not need to argue here . All that has happened is that we have worked out the time when the Commissioner and the President-in-Office for the programme for the information society . We worked out the concept but the problem now is that we have moved on for the salary for a parliamentary term , and we worked out the same thing for the supplementary pension . There too approach , and once the European Council has worked out the general framework , the Commission can begin the process of the song ´ Idiot Wind ´ D In a few minutes we worked out the song .

well into the second half of the 20th century and worked out the mathematical theory for separating the inner ( core

was doing his Harvard dissertation , in which he worked out the theoretical foundations of Ethernet . published " The Meme Machine ", which more fully worked out the ideas of Dennett , Lynch and Brodie and attempted to

of the Twenties Bohr , Heisenberg and Pauli had worked out the Copenhagen interpretation of quantum mechanics , but

Olmsted worked out the general concept for the campus and its buildings ,

During this time Shockley worked out the critical ideas of drift and diffusion and the differential

According to some band members , Freddie had worked out the entire song in his head and directed the band through

With the illustrator Gerd Arntz , Neurath worked out the theory of Isotype , an early form of symbology and

While on holiday in Hawaii , the pair worked out the basis for the film .

the appendix and revealed to Bolyai that he had worked out the same results some time earlier .

Before writing the screenplay , Greene worked out the atmosphere , characterization and mood of the story

Larry gave the lawn chair away to a neighbourhood kid .

In 1955 he gave the property away and left , tired of the abuse he had received .

came to fruition however , Rapunzel foolishly gave the prince away , when she asked the witch one day why it was easier

often the easiest , and in some cases may all but give the answer away ( this final clue is thus often called " the giveaway

have books any_more , but computers where you can look a book up and request it using keywords . Fifteen minutes later

When it finds a word , it tries to look the word up in the " dictionary " and execute the word’s code .

Europe’s real problems we would advise it to take the new direction out by the Nice Council .

Should we take the ball out , or should we ask him to do it again ? ‘

In 1918 Cobb took a loan out against his future baseball earnings to buy his first

overthrow , the spirit of PERVERSENESS .â € He took the cat out in the garden one morning and hung it from a tree ,
I. Pilot study data

1. [Рецензия на книгу Даффи: "Сказки для взрослых"]
Редко кому удается так безжалостно и одновременно бережно исследовать любовь. Необычна и форма, в которой работает Даффи: сказки для взрослых. Книга ее начинается, как и должна начинаться сказка: "Жила-была в Лондоне принцесса, и
(1) она ненавидела любовь.
(2) она любовь ненавидела.
(3) любовь она ненавидела.
(4) любовь ненавидела она.
(5) навидела она любовь.
(6) ненавидела любовь она. 
И умна была принцесса, и хороша собой.. Словом, само совершенство.. Если бы не маленький изъян — не было у нее сердца.

2. [разговор между двумя мужчинами, назовём их: № 5 и № 0, которые обсуждая конфликт Палестины и Израиля, спорит о том, не могут ли эти государства решить конфликт, или не хотят?]
[№ 5.] Палестина с Израилем?
[№ 0.] Да. Или они не хотят решить этот конфликт?
[№ 5.] (1) Они ненавидят друг друга.
(2) Они друг друга ненавидят.
(3) Друг друга они ненавидят.
(4) Друг друга ненавидят они.
(5) Ненавидят они друг друга.
(6) Ненавидят друг друга они.
[Беседа с социологом на общественно-политические темы, Санкт-Петербург (2003.06.17)] (609)

3. Если я не простой совсем, а очень непростой. И вообще все люди непростые. Это же дурь!
(1) А я ненавижу дураков.
(2) А я дураков ненавижу.
(3) А дураков я ненавижу.
(4) Дураков я ненавижу.
(5) Ненавижу я дураков.
(6) Ненавижу дураков я.

4. [комментарии к рекламе о корме, Педигри, для собак]
Второе мое желание по силе не уступает первому. Я буквально жажду, чтобы того собаковладчика наконец-то загрызли его же зубастые питомцы. Чтобы они выплюнули каменистый "Педигри" и перешли непосредственно к собаковладчику.
(1) Я ненавижу рекламу.
(2) Я рекламу ненавижу.
(3) Рекламу я ненавижу.
(4) Рекламу ненавижу я.
(5) Ненавижу я рекламу.
(6) Ненавижу рекламу я.
В любом ее, с позволения сказать, проявлении. На бумаге, на экране, на придорожном щите. Москва больна рекламой. [Кирилл Островский. Ненависть // "Столица", 1997.11.24] (57)

5. [одна женщина предлагает другой ответить на некоторые вопросы]
— Например, как же? — Стихами или задачею: что лучше — желать и не получить, или иметь и потерять; а то по цветам: что какой цвет означает — верность или измену. — А вы к измене или к верности склонны?
(1)— Я ненавижу измены.
(2)— Я измены ненавижу.
(3)— Измены я ненавижу.
(4)— Измены я ненавижу.
(5)— Ненавижу я измены.
(6)— Ненавижу измены я.
— Вы неправду говорите. [Н.С. Лесков. Захудальный род (1874)] (1419)

6. [человек спит и во сне думает о том, что ему предстоит сделать в жизни]
Мне нужно думать о том, как поступить в институт, как не вылететь оттуда и не загреметь в армию. Как сдвать экзамены, писать диплом, ждать распределения, строить карьеру.. Потом я просыпался, и дикое чувство радости охватывало меня, что все уже позади, ничего не нужно, а я на месте, "на дне", так сказать, чтоб Максим Горький не услышал.
(1) Я ненавижу коллектив
(2) Я коллектив ненавижу
(3) Коллектив я ненавижу
(4) Коллектив я ненавижу
(5) Ненавижу я коллектив
6. Ненавижу коллектив и всю жизнь живу в нем. [Евгений Попов. Подлинная история "Зеленых музыкантов" (1997)]

7. В мусульманском мире религия никогда не была отделена от государства, и ислам с каждым годом продолжает увеличивать своё влияние на население, которое не в состоянии признать, что изучение одного только Корана в ущерб физике, химии и математике — наук, в которых мусульмане когда-то превалировали, — несет им отсталость и бедность.

8. [Мальчик менял букву Т на А на трамвае и сейчас его судят]
— Растите смелыми и не подчиняйтесь бандитским приказам! А преступника на суде спросили: — Вы зачем меняли букву "Т" на "А"?
— (1) Я ненавидел трамваи
(2) Я трамваи ненавидел
(3) Трамваи я ненавидел
(4) Трамваи ненавидел я
(5) Ненавидел я трамваи
(6) Ненавидел трамваи я


10. [воспоминания о политических деятелях]
Хрущев еще в Москве, до отъезда в Пицунду, сказал мне, что не верит в участие в "заговоре" Шелепина и Семичастного; не верит, что Воронов мог объединиться с Бряжневым
— (1) они ненавидели друг друга;
(2) они друг друга ненавидели;
(3) друг друга они ненавидели;
(4) друг друга ненавидели они;
(5) ненавидели они друг друга;
(6) ненавидели друг друга они;
[Анастас Микоян. Так было (1971–1974)] (1518)

11. Шутовство его состоит в том, что он режет правду-матку. Этим он и корится, и ненавидит любого соперника по королевским милостям. Актёр Г.Сайфулин играет простого парня, который хорошо во всякой компании, а потом на лестнице сводит счеты с кем надо.

12. Неделю работаем — в выходные выступаем. Вот такой бешенный ритм. Только гитарист у нас не работает, причем НИКОГДА! Он панк —
— (1) он ненавидит работу!
(2) он работу ненавидит!
(3) работу он ненавидит!
(4) работу ненавидит он!
(5) ненавидит он работу!
(6) ненавидит работу он!

13. [Никитин в гости у Шелестовых]
Собак дворовых и комнатных было так много, что за всё время знакомства с Шелестовыми он научился узнавать только двух: Мушку и Сома. Мушка была маленькая облезлая собачонка с мохнатою мордой, злая и избалованная.
(1) Она ненавидела Никитина;
(2) Она Никитина ненавидела;
(3) Никитина она ненавидела;
(4) Никитина ненавидела она;
(5) Ненавидела она Никитина;
(6) Ненавидела Никитина она; увидев его, она всякий раз склоняла голову набок, сказала зубы и начинала: "ррр... нга- nga- nga-nga... ррр... Потом садилась под стул. Когда же он пытался прогнать ее из-под своего стула, она заливалась пронзительным лаем, а хозяева говорили: — Не бойтесь, она не кусается. [А.П. Чехов. Учитель словесности (1894)] (620)

14. [мысли о русских писателях]
Ломоносов едва ли из наших писателей не наименее русский в том значении, которое присваиваем определению нашему. Даже Сумароков, который изо всей мочи подражал французам и выдавал себя за прямого питомца Расина и Вольтера, имел в жилах своих более русской крови: он более глядит русским, нежели Ломоносов.
(1) Этот ненавидел немцев,
(2) Этот немцев ненавидел,
(3) Немцев этот ненавидел,
(4) Немцев ненавидел этот,
(5) Ненавидел этот немцев,
(6) Ненавидел немцев этот,
но ум свой одел в немецкое платье. [П.А. Вяземский. Старая записная книжка (1830–1870)] (1529)

15. [из интервью с балериной]
А что обычно вы слышите от зрителей, какие отзывы? — Был у нас один папа, целый год молча приводил дочку на занятия, а затем уводил домой. А через год, на концерте, вдруг разрыдался, а после концерта подошел и сказал:
(1) "Я ненавидел балет,
(2) "Я балет ненавидел,
(3) "Балет я ненавидел,
(4) "Балет ненавидел я,
(5) "Ненавидел я балет,
(6) "Ненавидел балет я, не теперь хочу сказать вам спасибо". И я очень рада, что он открыл для себя эту дверцу.. [Елена Маслова. "Мы учим открываться перед зрителем." // "Встреча" (Дубна), 2003.04.02] (198)

16. [Коля Уколов - сын Фроси. Его учит Строев в школе]
В деревне Строев был единственным коммунистом. О Фросе до ее приезда в деревне думали, что после избиения она не выжила, умерла в Москве в больнице, и многие, как теперь и Коля, считали ее святой. Судьба ее, по-видимому, очень Строева волновала, да и Фросин культ однозначно был вреден, и он, уча детей, часто к нему возвращался.
(1) Он ненавидел Уколова и,
(2) Он Уколова ненавидел и,
(3) Уколова он ненавидел и,
(4) Уколова ненавидел он и,
(5) Ненавидел он Уколова и,
(6) Ненавидел Уколова он и, ссылаясь на мать, объяснял ученикам, почему Фрося, когда барин умер, так себя повела. [Владимир Шаров. Воскрешение Лазаря (1997–2002)] (759)

17. [мысли о русской грамматике]
В силу этого в высказывании Иван рассказал обо всем материи речь, скорее всего, идет о матери Ивана, в высказывании У мужа неприятности — о муже говорящем; в высказывании Жена с работником на хутор за рассадой уехала (А. Веселый) слово жена обозначает женщину говорящего, а в высказывании Работник с женой уехал на хутор обозначало бы женщину работника. Тем не менее различные факторы могут повлечь изменение стратегии: так, высказывание (1) Вы ненавидите мужа,
(2) Вы мужа ненавидите,
(3) мужа Вы ненавидите,
(4) мужа ненавидите Вы,
(5) ненавидите Вы мужа,
(6) ненавидите мужа Вы, взятое изолированно, скорее всего было бы понято как высказывание о муже субъекта предложения, т. е. слушающей, однако в пьесе "Дядя Ваня" Чехова пол участников коммуникации (Елена Андреевна говорит Войницкому) однозначно показывает, что речь идет о муже говорящей. [А. Д. Шмелев. Типы "неназванных валентностей" (1999)] (326)
18. — Непременно приказываю тебе ехать в город вслед за мной и явиться ко мне с дьячком и детьми, которых я желаю отдать в училище. — Приезжий с ним дьячок был очень пьян и кое-как сел на козлы; но староста рассудил сам исполнять должность кучера, и благочинный уехал. "Пошто меня зовет в город благочинный?" — думал отец, и это его весьма опечалило. Ему думалось: зачем приезжал этот новый благочинный в село? Посоветоваться было не с кем, потому что мать ворчала, Сергунина дразнила отца и больше растратила его, а отцу хотелось подразить благочинного, но чем?!. Нового сбора с крестьян он не хотел делать, или в лес тоже не хотелось, потому что хотелось скорее съездить в город. И он поехал один. \[Ф.М. Решетников. Никола Знаменский (1866)\] (784)

19. [человек передает разговор, который он слушал не очень внимательно]...Потом они заговорили про кок—сагыз, и я ушел:

(1) я ненавидел растение это.
(2) я ненавидел растение это.
(3) растение это я ненавидел.
(4) растение это я ненавидел.
(5) ненавидел я растение это.
(6) ненавидел растение это я.

На кок—сагыз нас гоняли с третьего класса. Считалось, что этот маленький кустик—каучуконос изменит нашу экономику, дав стране отечественный каучук. [Чудаков Александр. Ложится мгла на старые ступени // "Знамя", 2000] (1036)

20. [пропала собака по имени Буян] Буян пропал. Сосед, вернувшийся из магаданских лагерей подкулачник Куркун, который не мог работать и целый день грелся на солнышке на завалинке или сидел на лавочке у забора, сказал, что видел нашего кобеля с Егоркой—пьяницей. Я похолодел.

(1) Я ненавидел Егорку.
(2) Я Егорку ненавидел.
(3) Егорку я ненавидел.
(4) Егорку ненавидел я.
(5) Ненавидел я Егорку.
(6) Ненавидел Егорку я.

Проходя мимо нашего двора, где Буян играл с в аськигагинской Пульмой, он говорил громко: "Сучонку на ремешки, кобеля на мыло" или: "Хвост от суки сгодится для науки". [Чудаков Александр. Ложится мгла на старые ступени // "Знамя", 2000] (1036)

21. Страшна такая жизнь, какую он испытал сегодня. Он забыл физическую боль тела, лишь только в груди залегло что0то и мешало дышать. Отупел он от страха, и неотразимо ясно представилось ему: "Отверженец! 

(1) все ненавидят тебя!
(2) тебя все ненавидят!
(3) тебя все ненавидят!
(4) тебя все ненавидят!
(5) тебя все ненавидят!
(6) тебя все ненавидят!

и даже предвидеть нельзя, что с тобой сделают! быть может, сейчас ударят в спину, вырвут клок волос из головы, плюнут в лицо.. [Н.Г. Помяловский. Очерки бурсы (1862)] (525)

22. Я хоть в основном живу на одном месте, у меня есть свой теплый угол, и за три рубля я могу, кроме гуляша, съесть блинчики с мясом! А она спит в совхозах на полу или на столе в директорском кабинете, неделями ничего не ест и снимает сплошные уборки фруктов (всегда одно и то же). Она вся время ругается с Киселевым, который оказался подонком. Когда ты вернешься с фронта, Фома тебе расскажет, что он вытворяет в группе,

(1) все ненавидит его,
(2) все его ненавидит,
(3) его все ненавидит,
(4) его ненавидит все,
(5) ненавидит все его,
(6) ненавидит его все,

и представляешь, как ей весело снимать? [Василий Катанян. Лоскутное одеяло (1943–1999)] (1599)

23. Они вправили позвоночник рыхлому телу армии. Главнокомандующим Восточного фронта был назначен полковник Вацетис, который командовал до этого дивизией латышских стрелков. Это была единственная часть, сохранившаяся от старой армии.

(1) Латышские батраки, рабочие, бедняки-крестьяне ненавидели балтийских баронов.
(2) Латышские батраки, рабочие, бедняки-крестьяне ненавидели балтийских баронов ненавидели.
(3) Балтийских баронов ненавидели латышские батраки, рабочие, бедняки-крестьяне.
(4) Балтийских баронов ненавидели латышские батраки, рабочие, бедняки-крестьяне.
(5) Ненавидели латышские батраки, рабочие, бедняки-крестьяне балтийских баронов.
(6) Ненавидели балтийских баронов латышские батраки, рабочие, бедняки-крестьяне.

319
Эту социальную ненависть использовал царизм в войне с немцами. Латышские полки были лучшими в царской армии. После февральского переворота они почти сплошь обольшевичились и в Октябрьской революции сыграли большую роль. [Лев Троцкий. Моя жизнь (1929–1933)](1453)

24.
Меня же обворовали, — у меня, благородного человека, кони покрали, да и я еще должен спешить поехать и оправдываться против простого конокрада! Все було на сей грiшной земли, всякое беззаконие, но сего уже, кажется, никогда еще не було! А тут еще и ехать не к чему, и я, даже не отдохнув порядком, помчался на вольнонаемных жидовских лошадях балагулою, и собственно с тiм намерением, чтобы там в городе себе и пару коней купить. Ну, а нервы мои, разумеется, были в страшнейшем разволнении, и

(1) я ненавидел весь этот новый суд и следствие!
(2) я весь этот новый суд и следствие ненавидел!
(3) весь этот новый суд и следствие я ненавидел!
(4) весь этот новый суд и следствие ненавидел я!
(5) ненавидел я весь этот новый суд и следствие!
(6) ненавидел весь этот новый суд и следствие я!

Да и для чего, до правды, эти новые суды сделаны? Все у нас прежде было не так: суд был письменный, и що там, бывало, повятчики да секретары напишут, так то спокойно и исполняется. [Н.С. Лесков. Заячий ремиз (1894)](1632)

25.
Лука. Господи Иисусе... слышька, милый! Ты.. Клещ. (дрожит от возбуждения). Говорите тут — праавда! Ты, старик, утешаешь всех.. Я тебе скажу...

(1) я ненавижу всех!
(2) я всех ненавижу!
(3) всех я ненавижу!
(4) всех ненавижу я!
(5) ненавижу я всех!
(6) ненавижу всех я!

И эту правду... будь она, окаянная, проклята! Понял? Пойми! [Горький Максим. На дне (1902)](1208)

26.
Потому.. И вот человек меня понимает с двух слов: человек мой, уповлен, так сказать, сеетями, и я делаю с ним все, что хочу, то есть для его же блага. Сверхний человек этот Семен Иваныч! И какая у него сверхняя рожка.. Высоки в части, — это он нарочно сказал. — Нет, врешь, сам сеет, и я, а я не буду; я Трифона словом дойму, попреком дойму, вот он и будет чувствовать. Насчет розог, гм... вопрос нерешенный, гм.. А не заехать ли к Эмеранс. Фу ты, черт, проклятые мостки! — вскрикнул он, вдруг оступившись. — И это столица! Просвещение! Можно ногу сломать. Гм.

(1) Я ненавижу этого Семена Иваныча;
(2) Я этого Семена Иваныча ненавижу;
(3) Этого Семена Иваныча я ненавижу;
(4) Этого Семена Иваныча ненавижу я;
(5) Ненавижу я этого Семена Иваныча;
(6) Ненавижу этого Семена Иваныча я;

препротивная рожа. Это он надо мной давеча хихикал, когда я сказал: обнимутся нравственно. Ну и обнимутся, а тебе что за дело? Уж тебя0то не обниму; скорей мужика.. [Ф.М. Достоевский. Скверный анекдот (1862)](602)

27.
Не знаю я, где он. Софья Егоровна. Не приставайте ко мне! Отстаньте! Я вас ненавижу! Убирайтесь прочь! Где Платонов? Подлые люди.. Где он?

(1) Я ненавижу вас!
(2) Я вас ненавижу!
(3) Вас я ненавижу!
(4) Вас ненавижу я!
(5) Ненавижу я вас!
(6) Ненавижу вас я!

Войницев. За что? Софья Егоровна. [А.П. Чехов. Безотцовщина (1887)](1024a)

28.
Что ж? Может быть, Базаров и прав; но мне, признаюсь, одно больно: я надеялся именно теперь тесно и дружески сойтись с Аркадием, а выходит, что я остался назади, он ушел вперед, и понять мы друг друга не можем. — Да почему он ушел вперед? И чем он от нас так уж очень отличается? — с нетерпением воскликнул Павел Петрович. — Это все ему в голову синьор этот вбил, нигилист этот.

(1) Я ненавижу этого лекаришку;
(2) Я этого лекаришку ненавижу;
(3) Этого лекаришку я ненавижу;
(4) Этого лекаришку ненавижу я;
(5) Ненавижу я этого лекаришку;
(6) Ненавижу этого лекаришку я;

по-моему, он просто шарлатан; я уверен, что со всеми своими лягушками он и в физике недалеко ушел. — Нет, брат, ты этого не говори: Базаров умен и знающ. [И.С. Тургенев. Отцы и дети (1862)](1097)

29.
Что ему во мне?. На что ему такое существо, как я? Он молод, и она молода. А я? (Горько.) Где ему меня оценить? Они оба глупы, как говорит Ракитин. Ах!

(1) я ненавижу этого умника!
(2) я этого умника ненавижу!
(3) этого умника я ненавижу!
(4) этого умника ненавижу я!
(5) ненавижу я этого умника!
(6) ненавижу этого умника я!

А, вот они, в зеленом горшке! Ну, теперь зелье выйдет на славу! Достанется же этим проклятым людям!

(1) Я ненавижу их..
(2) Их я ненавижу..
(3) Их ненавижу я..
(4) Ненавижу их я..
(5) Ненавижу их я..
(6) Ненавижу их я..

Расселились по свету! Осушили болота! Вырубили чашу! [Александр Волков. Волшебник Изумрудного города (1939)] (1456)

30. 
Государство по указу возьмет на себя обязательство помогать проектированию жилья и производству стройматериалов по доступным всем ценам. Предоставит строительный бум, участвовать в котором выгодно. И моя фирма, скорее всего, перегонит часть средств из торговли продуктами в структуры стройиндустрии. Я напомнил Сереге: через два месяца президентские выборы, а

(1) большинство народа ненавидит Ельцина.
(2) большинство народа Ельцина ненавидит.
(3) Ельцина большинство народа ненавидит.
(4) Ельцина ненавидит большинство народа.
(5) ненавидят Ельцина большинство народа.
(6) ненавидят большинство народа Ельцина.

Чтоб преодолеть ненависть и сохраниться в Кремле, он сейчас может пообещать все что угодно. Но даже если Ельцин искренне возжелал развернуть указом масштабное жилищное строительство, надо учесть: ни один из многих его экономического толка указов, кроме тех, по которым растаскивалась в частные руки госсобственность, до сих пор никогда не выполнялся. [Николай Анисин. Спрос на Доренко (двух телебойцов Кремлю надо разменять на одного) // "Завтра", 2003.05.20] (393)

31. 
[высказывание предпринимателя в период президентства Ельцина]
Для них это еще одно унижение, еще один удар по исламу, а также, и это ни в коем случае нельзя не учитывать, торжество Израиля, единодушно осуждаемого и проклинаемого за захват Палестины и святого Иерусалима. Считается, что именно сионисты, всеми силами старающиеся ослабить арабский мир, больше всех заинтересованы в разгроме одной из самых сильных, антизионистских настроенных арабских стран. Из всех стран мира Ирак, может быть, наименее подходит для строительства стабильного демократического государства.

(1) Арабы-шииты и арабы-сунниты ненавидят друг друга.
(2) Арабы-шииты и арабы-сунниты друг друга ненавидят.
(3) Арабы-шииты и арабы-сунниты ненавидят друг друга.
(4) Друг друга арабы-шииты и арабы-сунниты ненавидят.
(5) Друг друга арабы-шииты и арабы-сунниты ненавидят.
(6) Друг друга арабы-шииты и арабы-сунниты ненавидят.


32. 
[из статьи об Ираке]
А причин не так уж и много. Первая: школа как социальный институт — не просто в кризисе. Школа реально уничтожена. Дети ненавидят школу.

(1) Школа ненавидит детей.
(2) Школа детей ненавидит.
(3) Детей школа ненавидит.
(4) Детей ненавидит школа.
(5) Ненавидят школь детей.
(6) Ненавидят детей школа.

Потому дети и бегут. Восстановить и спасти школу может только одна реформа, но радикальная. [Борьба с беспризорностью безнадежна, но прибыльна // "Известия", 2002.10.11] (31)

33. 
[теории об управлении крупными предприятиями]
чтобы заставить людей хорошо работать, их нужно все время контролировать; человек стремится избежать ответственности, нуждается в направлении извне и превыше всего ценит собственную безопасность. Большинство предприятий, по мнению Макргера, управлялось по данным принципам, и это неправильно, потому что, помимо материального вознаграждения, человек нуждается также в мотивации более высокого уровня. Управляя людьми в духе "теории X" и не давая им проявлять свои лучшие качества, руководители получают вполне предсказуемое поведение:

(1) люди ненавидят работу,
(2) люди работу ненавидят,
(3) работу люди ненавидят,
(4) работу ненавидят люди,
(5) ненавидят работу люди,
(6) ненавидят работу люди,

нуждаются в контроле и т. д. Более гуманный "теория Y" полагает, что: физическая и умственная работа является такой же естественной потребностью, как отдых или игра; контроль и принуждение — не единственные способы заставить человека работать, он сам может направлять себя, если привержен целям своей организации; [Михаил Попов. Призыв к труду. Как заставить мужика работать? // "Бизнес-журнал", 2004] (157)
35. [дочь пишет об отце и о своей детстве]
Это вообще довольно типично для него: сначала решить что-нибудь, а потом уже думать, нужно ли. По такому же принципу он завел себе много детей. Нас в семье четыре: три девочки и один сын. (1) Отец ненавидит всех четырех.
(2) Всех четырех ненавидит отец.
(3) Всех четырех отец ненавидит.
(4) Отец всех четырех ненавидит.
(5) Ненавидит отец всех четырех.
(6) Ненавидит всех четырех отец.

36. [воспоминания о Пепко]
Милый Пепко, молодость, где вы? У меня невольно сжимается сердце, и мысленно я опять проделываю тот тернистый путь, по которому мы шли рука об руку, переживая те же молодые надежды, испытывая те же муки молодой совести, неудачи и злоключения. И мне хочется покаять эту холодную сырую руку, хочется слышать неровный крикливый голос Пепки, странный смех — он смеялся только нижней частью лица, а верхняя оставалась серьезной; хочется, наконец, видеть себя опять молодым, с единственным капиталом своих двадцати лет. Позвольте, это, кажется, получается маленькое отступление, а
(1) Пепко ненавидел лиризм,
(2) Пепко лиризм ненавидел,
(3) Лиризм Пепко ненавидел,
(4) Лиризм ненавидел Пепко,
(5) Ненавидел Пепко лиризм,
(6) Ненавидел лиризм Пепко,
и я не буду оскорблять его памяти. В обиходе нашей жизни сентиментальности вообще не полагалось, хотя, говоря между нами, Пепко был самым сентиментальным человеком, какого я только встречал. [Д.Н. Мамин-Сибиряк. Черты из жизни Пепко (1894)] (534)

37. [о второй мировой войне]
Люди, владеющие немецким, шли нарасхват в седьмых отделах и газетах для войск противника. У меня даже не спросили документов, оформили с быстротой, невероятной для советских учреждений, особенно военных, где принято медленно поспешать — кутузовская стратегия, выдали обмундирование — офицерское, сапоги — кирзовые, бойцовские, дерматиновую сумку, из того же материала кобуру — без наполнения, и шапку-ушанку из поддельного ярко-рыжего демаскирующего меха, навесили кубари и вручили предписание со зловещим словом "убыть" на Волховский фронт, в расположение ПУ, что я и тут еврейская тема надолго закрылась для меня.
(1) Сталин ненавидел евреев,
(2) Сталин евреев ненавидел,
(3) Евреев Сталин ненавидел,
(4) Евреев ненавидел Сталин,
(5) Ненавидел Сталин евреев,
(6) Ненавидел евреев Сталин,
но, поскольку он разыгрывал в борьбе с Гитлером и еврейскую карту, приходилось маскировать свою жидофобию. Сталин всегда старался решать две задачи одновременно: блокадным Ленинградом он сдерживал значительные силы немцев и заодно изводил голодом ненавистный с революционных дней город. [Юрий Нагибин. Тьма в конце туннеля (1994)] (657)

38. [Раймонда лежит в больнице и звонит матери, которая не приходит к ней, по телефону-автомату.]
Проработки эти велись по телефону, потому что тетка, панически избегающая учреждений, то есть поликлиник, больниц и даже роддомов (мудро прозревая общую кровеносную систему созидания и разрушения), не делала исключения и для больницы имени Нахимсона. Когда на больничную койку угождал кто-нибудь из ближайшей родни — старики-родители, супруг, сын Корнелий, — она интенсивней обычного принималась обзванивать оставшихся на воле и в относительном здравии, чтобы тут же, с ходу, не дав абоненту вякнуть "алё", великолепно артикулируя, доложить, что "имела еще ту ночь", что перед глазами прыгают белые зайчики ... Раймонда, то и дело нарушая строгий постельный режим, кошкой прошмыгивала на лестничную площадку, где у телефона-автомата, всякий раз надеясь на другое, кое-как выслушивала родительское наставление, должноствующее, видимо, компенсировать родительское отсутствие.
(1) Раймонда ненавидела родительницу.
(2) Раймонда родительницу ненавидела.
(3) Родительницу Раймонда ненавидела.
(4) Родительницу ненавидела Раймонда.
(5) Ненавидела Раймонда родительницу.
(6) Ненавидела родительницу Раймонда.
Но в больнице было так уж невесело без Феди, а он исчез, и Раймонда все думала, что, быть может, он позвонит Гертруде Борисовне. [Марина Палей. Кабирия с Обводного канала (1990)] (1283)

39. Дядя радовался, что я учусь, то есть привыкать к чистописанию, и радовался тому больше, что очень много смыслю почтовую часть. Я никого не боялся в это время, кроме дяди и тетки, и обо всех рассуждал худо. Мне никто не нравился в губернском городе, вероятно потому, что о жителях его рассуждали мои воспитатели, родня и знакомые очень худо.
(1) Дядя ненавидел аристократию
(2) Дядя аристократию ненавидел
(3) Родительницу ненавидел аристократия
(4) Аристократию ненавидел дядя
(5) Ненавидел дядя аристократию
(6) Ненавидел аристократию дядя и ругал ее при встрече почти что вслух. Смотря на него, не любил аристократию и я.
[Ф.М. Решетников. Между людьми (1864)] (1579)

40.
День набегал на день, Женя не успевала опомниться, как рабочая неделя заканчивалась. В голове оставался только список дел, который никак не уменьшался, хотя она и привыкла ничего не откладывать. График сдачи рукописей с трудом составила, теперь надо уговорить хоть кого-нибудь не идти в отпуск в июле-августе, а то придется ишачить за всех вдвоем с Валерией. Конечно, так даже лучше, но физически прочесть одной все корректуры невозможно, а

1) Женя ненавидела халтуру
2) Женя халтуру ненавидела
3) халтуру Женя ненавидела
4) халтуру ненавидела Женя
5) ненавидела Женя халтуру
6) ненавидела халтуру Женя

и не разрешала прежде всего самой себе. Каждый день приходили два-три письма.
[Ольга Новикова. Женский роман (1993)] (1631)
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