Case assignment by prepositions in Russian aphasia
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CHAPTER II

LINGUISTIC BACKGROUND

This chapter presents the linguistics background that is relevant to this thesis and is divided into three main parts. The first is devoted to case and its related phenomena; the second part deals with prepositions and their relation to case. Unfortunately, the number of syntactic theories that explore case is too large to receive a full description here. Therefore, this chapter starts with an examination of the phenomenon of case in the general linguistic framework adopted for this study, which is Case theory. In the second part of the chapter, the basic concepts of Russian language essential to this thesis are introduced, such as case, its manifestations in case-paradigm, basic case assigners, and the notion of the default case. A short overview of some theories about Russian case is also presented. The last part of the chapter starts with a description of the category of prepositions, and Russian prepositions in particular, and their functions and meanings. Further to this, a traditional classification of Russian prepositions is presented, followed by some alternative accounts. The chapter finishes with a discussion of the phenomenon of elliptical sentences with regard to prepositions.

What is case?

“*The notion ‘case’ means different things to different people*”
Miriam Butt, 2006: 2

Several modern syntactic accounts are concerned with case; however, there is no unified theory accepted by all linguists. To name just a few, these include syntactic theories such as Relational Grammar (RG), Government and Binding (GB) theory, the Minimalist Program (MP), Lexical-Functional Grammar (LFG), Role and Reference Grammar (RRG), linking theories, Optimality Theory (OT), and semantic theories. It is not the
intention here to provide an exhaustive review of all theories of case, or to present a
discussion of all concepts; this would go beyond the scope of the study proposed. The
objective is to provide tools and to establish the work in a particular framework for
further discussion and interpretation of the data from aphasic speech; for these
purposes, then, Case theory is adopted, which is outlined in Government and Binding
Theory (Chomsky, 1981, 1986). The fundamental idea in Chomsky’s research was
Universal Grammar (UG), to which he refers as “characterization of the genetically
determined language faculty” (Chomsky, 1986: 3). According to Chomsky, “the UG
consist of various subsystems – X-bar theory, binding theory, case theory, theta-theory”
and others (Chomsky, 1986: 102).

Abstract case and morphological case

The notion of case is rather complex. There are different types of cases and different
classifications. A distinction is made between abstract case, which is a universal property
denoting syntactic case, and morphological case, which is a realization of abstract case,
and it refers to perceptible (visible or audible, and surface) case. According to Case
theory, all languages have case systems; however, the degree of realization of abstract
case within systems differs across languages. Abstract case can either be overtly
detectable (visible or audible) and morphologically realized, or it can be virtually
imperceptible and have only some remnant morphological forms (Haegeman, 1994). For
example, in English, only pronouns have some visibly case-marked forms: he –
nominative case; him – accusative/dative case. In Russian, however, abstract case is
visible on all members of the nominal category, and it is realized either as a bound
morpheme in nouns (see example 1, below), adjectives (see 2), and numerals (see 3), or it
is reflected in the phonemic structure of words in pronouns (see 4, below):

(1) kniga “book” nominative case
    knigu “book” accusative case
Therefore, the universal requirement of Case theory is that overt noun phrases (NPs) are licensed only in the positions to which case is assigned. The principle postulated in Case theory is referred to as the Case filter; it states that every overt noun phrase must be assigned abstract case: “*NP if NP has phonetic content and has no Case” (Chomsky, 1981: 49). Case is assigned by “a category that governs it”, that is, a case assigner. Two principle case assigners are verbs and prepositions, but in some languages case can also be assigned by nouns and adjectives to their complements (Chomsky, 1981).

Structural case and inherent case

Within Case theory two types of abstract case are distinguished: structural case and inherent case. Because Case theory is one of the ‘modules’ of Universal Grammar, together with other subsystems, some concepts of Case theory are explained through concepts of other theories and vice versa. Structural case assignment is explained in terms of government, and inherent case assignment is looked at in terms of theta-theory (θ-theory). Structural case is independent of thematic relations, and it is only subject to structural requirements. In other words, if a structural case assigner governs NP, it can case-mark it irrespective of its thematic relation5 to this NP (Haegeman, 1994). For

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5 According to Haegeman (1994), “relations between verbs and their arguments are referred to in terms of thematic roles or theta roles (θ-roles)” (Haegeman, 1994: 49). A verb can assign different thematic relations
example, the nominative case of a subject of a sentence is assigned structurally by the
finite element INFL of a verb, and the accusative case of a direct object of a sentence is
assigned by transitive verbs (see example 5 below)\(^6\)

\[(5) \quad \text{Jane [NOM] is visiting him [ACC]}\]

Unlike structural case, inherent case is sensitive to thematic relations; according to
Chomsky, “if \(\alpha\) is an inherent Case-marker, then \(\alpha\) Case-marks NP if and only if \(\theta\)-marks
the chain headed by NP” (Chomsky, 1986: 194). According to Case theory, information
about inherent case is supposed to be part of a lexical entry of a particular case assigner,
which is why this type of case is also referred to as lexical by some authors. For example,
dative (see 6) and genitive cases (see 7) are considered to be inherent cases when
assigned by verbs or prepositions in German:

\[(6) \quad \text{Sara hilft ihm [DAT]}\]

Sara helps him

\[(7) \quad \text{Kinder bedürfen der Eltern [GEN]}\]

Children need parents

One of the main differences between structural and inherent case assignment can be
discovered through verb passivization. When a verb that assigns case inherently (dative,
for example), is turned into passive form, inherent case marking of nouns survives. When
a verb that assigns case structurally (accusative case, for example) undergoes
passivization this case is absorbed. As in example (8), below, in Russian this sentence is
active. The finite verb \(dajet\): “gives” assigns nominative case to the subject of the

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\(^6\) The following abbreviations will be used throughout to denote various cases: NOM – nominative case;
GEN – genitive case; ACC – accusative case; DAT – dative case; INSTR – instrumental case; PREP –
prepositional case.
sentence *devochka*: “the girl”; it assigns accusative case to the direct object of the sentence *knigu*: “a book [ACC]”; and dative case to the indirect object *mame*: “mother [DAT]”. When the active sentence in example (8) is transformed into the passive sentence in example (9), nominative case of the noun *devochka*: “the girl”, which is assigned structurally, is replaced by the instrumental case. Accusative case of the noun *knigu*: “a book” is also assigned structurally and is replaced by the nominative case. Dative case of the noun *mame*: “mother” stays after passivization:

(8)  *Devochka [NOM] dajet mame [DAT] knigu [ACC]*


(9)  *Kniga [NOM] dana devochkoj [INSTR] mame [DAT]*

   The book [NOM] is given by the girl [INST] to the mother [DAT]

The same effect emerges in quantification and negation; cases assigned structurally (nominative and accusative) undergo case alternation, changing their case as the result of quantification or negation, unlike cases that are assigned inherently (such as the dative). For example, compare the sentence in (10), below, to the quantificational sentence in (11) and the negation sentence in (12). The object noun *knigi*: “books” in sentence in (10) bears the accusative case, whereas in quantificational sentence in (11) and in negation sentence in (12), it is replaced by the genitive case. The noun *mame*: “mother [DAT]” bears the dative case in sentence in (10); it also bears the dative case in a quantificational sentence in example (11) (where the noun turns into the plural form *dvum mama*: “two mothers [DAT]”), and in a negation sentence in example (12).

(10)  *Devochka [NOM] dajet mame [DAT] knigi [pl.ACC]*

   The girl [NOM] gives mother [DAT] the books [pl.ACC]
(11) *Devochka [NOM] dajet dvum mamam [DAT] p’yat’ knig [pl.GEN]*
    The girl [NOM] gives two mothers [DAT] five books [pl.GEN]

(12) *Devochka [NOM] ne dajet mame [DAT] knig [pl.GEN]*
    The girl [NOM] does not give mother [DAT] the books [pl.GEN]

*About Russian*

The Russian language belongs to the Slavic group of Indo-European languages, which also includes European groups (such as Germanic, Romance, Celtic, Baltic), Indic and Iranian languages, and some isolated languages – for example, Greek. Thus, Russian does not significantly differ from languages of other European groups regarding the major linguistic features. Like many Indo-European languages, Russian is a synthetic language with a rather high morpheme–word ratio. Being one of the Slavic languages, Russian is also a fusional or inflecting language, with rich morphology, both inflectional and derivational in verbal and nominal categories. One of the characteristics of the Russian language is its free word order; however, although it is free with respect to grammatical relations, it also reflects sentence “organization of a sentence on a communicative level” (Sekerina, 2003: 10). The canonical word order of Russian is Subject–Verb–Object (SVO); other derived or scrambled word orders are quite common and widely used. Their main function is to change the focus of the sentence or topicalize a particular sentence constituent. Thus, Russian word order is referred to as discourse-oriented (Sekerina, 2003). It has been suggested that morphologically rich inflecting languages have more word orders available, and their word order is freer than that of non-inflectional languages, since the system of inflections can provide all the necessary information about the roles and relations among the elements of a sentence (Cubberly, 2002). The following sections will provide the basic relevant background on the Russian nominal morphology that encodes different grammatical concepts, among which are case, gender, number, and animacy.
LINGUISTIC BACKGROUND

Morphological characteristics of a Russian noun

In Russian, the nominal category includes nouns, pronouns (personal, possessive, demonstrative, relative, indefinite, question, and negative), adjectives, and numerals, which all share, to a certain extent, features of gender, number, and case. For the purposes of this thesis, only some of the relevant morphological characteristics of Russian nouns are discussed. A noun in Russian is marked for case, gender and number, but there is no morphological marker for animacy. Most Russian nouns have plural and singular forms, though a few occur only in one or the other; for example, *sumerki*: “twilight”; *kartofel’*: “potatoes”. There are three grammatical genders in Russian – masculine, feminine and neuter (abbreviated as masc., fem., neut. respectively). All three genders may have animate referents (anim.), as humans and animals, and inanimate referents (inanim.), as objects, concepts or states. For animate referents, the correlation between natural gender and grammatical gender is straightforward; for inanimate nouns, assignment to one or the other gender is determined on the basis on their declension class and phonological word structure. In Russian, nouns of masculine gender constitute about 46 percent of the lexicon, feminine nouns 41 percent, and neuter nouns 13 percent (Akhutina, Kurgansky, Kurganskaya, Polinsky, Polonskaya, Larina, Bates, & Appelbaum, 2001). All nouns in their singular form constitute certain nominal patterns called declension classes; each declension class has its own case paradigm that differs from others. There are three main declension classes, and there is also a group of indeclinable nouns that do not change their forms. The first declension class is composed of regular nouns of masculine and neuter gender; the second declension class includes mainly regular nouns of feminine gender, and only some nouns of masculine gender that have morphological characteristics similar to the feminine gender; the third declension class consists exclusively of feminine nouns that end in a soft sign, indicated by ’ . Examples of animate and inanimate nouns of the three genders belonging to the three different declension classes are given in table 2.1.

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7 Linguistic classification also distinguishes nouns of common gender, which can be used with feminine as well as masculine referents, such as *brjuzga*: “grumbler”, *rastjapa*: “softy”.
8 There are several approaches to the declension classes: sometimes, the first two classes of declensions are reversed, and the other two are conflated. Here, we undertake the most common approach, which suffices for the present study.
### Table 2.1 Examples of Russian nouns of the three declension classes

<table>
<thead>
<tr>
<th>1st declension class</th>
<th>2nd declension class</th>
<th>3rd declension class</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>mal’chik - ø</strong></td>
<td><strong>koshk - a</strong></td>
<td><strong>doch’</strong></td>
</tr>
<tr>
<td>Boy</td>
<td>Cat</td>
<td>daughter</td>
</tr>
<tr>
<td><strong>stol - ø</strong></td>
<td><strong>knig - a</strong></td>
<td><strong>kost’</strong></td>
</tr>
<tr>
<td>Table</td>
<td>Book</td>
<td>bone</td>
</tr>
<tr>
<td><strong>kot - ø</strong></td>
<td><strong>pap - a</strong></td>
<td><strong>nezhnost’</strong></td>
</tr>
<tr>
<td>Cat</td>
<td>Father</td>
<td>delicacy</td>
</tr>
</tbody>
</table>

In Russian, case is realized on nouns as a bound morpheme at the end of the word, which is also referred to as an inflectional affix or suffix. There are six cases in contemporary Russian: nominative, genitive, dative, accusative, instrumental, and prepositional (abbreviated as NOM., GEN., DAT., ACC., INST., and PREP., respectively). Meanings of cases, in general, are parallel to the meanings of Latin cases.

- **Nominative** case expresses the subject of a sentence; it is used as a “dictionary form” or default form, which will be discussed later.
- **Genitive** case expresses possession, negation or partition; when used in prepositional phrases it denotes time limits or attachment to something or close proximity.
- **Dative** case expresses a recipient; in prepositional phrases it is used with movement directed towards something.
- **Accusative** case expresses the direct object of a sentence; in prepositional phrases it denotes destination or limitation of time.
- **Instrumental** case indicates instruments or means; in prepositional phrases it also refers to accompaniment and location.
- **Prepositional** case is used only in prepositional phrases and denotes spatial relationships. Each case has its different realization as a morpheme and its allomorphs, depending on the declension class, gender and animacy of a particular noun. A certain noun can have up to twelve distinct endings, representing...
realization of six cases in singular and plural noun forms. Reductions of this number of case-inflections result from instances of homonymy of case morphemes, also referred to as case syncretism, in case-paradigms. For example, case-inflection of all feminine nouns of the second declension class in dative case singular form is identical to their inflection in prepositional case singular form; also, case-inflection of animate masculine nouns of the first declension class in the genitive case corresponds to their inflection in accusative case singular form. Table 2.2 shows examples of these and other homonymous case-forms.

Table 2.2 Examples of homonymy of case-forms

<table>
<thead>
<tr>
<th></th>
<th>kot: “cat”</th>
<th>sobaka: “dog”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>anim., masc., 1st declension class</td>
<td>anim., fem., 2nd declension class</td>
</tr>
<tr>
<td></td>
<td>Singular</td>
<td>Plural</td>
</tr>
<tr>
<td>Nominative</td>
<td>kot-ø</td>
<td>kot-y</td>
</tr>
<tr>
<td>Genitive</td>
<td>kot-a</td>
<td>kot-ov</td>
</tr>
<tr>
<td>Dative</td>
<td>kot-u</td>
<td>kot-am</td>
</tr>
<tr>
<td>Accusative</td>
<td>kot-a</td>
<td>kot-ov</td>
</tr>
<tr>
<td>Instrumental</td>
<td>kot-om</td>
<td>kot-ami</td>
</tr>
<tr>
<td>Prepositional</td>
<td>kot-e</td>
<td>kot-ah</td>
</tr>
</tbody>
</table>

Case marking in Russian

Russian is one of the few languages where abstract case is always realized morphologically. There is no caseless form; nouns\(^{11}\) are always case-marked in Russian, and production of bare noun stems most often results in a non-word with only a few exceptions: for example, genitive and accusative case forms of plural forms of nouns of the feminine gender belonging to the second declension class, as shown in table 2.2 above – sobak-ø: “dogs, pl.gen./acc. case”. Those nouns that do not have oblique case markings in certain case-forms are considered to have a zero morpheme inflection (-ø);

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\(^{11}\) There are borrowings in Russian from other languages that do not change their forms in case-paradigms; for example, boa: “boa”. These nouns are treated as exceptions.
Case assignment

The principle case assigners in Russian are verbs and prepositions, although nouns also assign case to their complements. According to Case theory (outlined above), in Russian, finite verbs structurally assign nominative case to subjects of sentences, and accusative case to direct objects of sentences, as in sentence (13), below:

\[ Mama \ kormit \ rebjenka \]
\[
\begin{array}{c|c}
\text{NOM} & \text{ACC} \\
\end{array}
\]

A mother [NOM] feeds a child [ACC]

Some verbs assign cases other than the accusative to their objects; for example, see dative (in example 14, below) and instrumental cases (in example 15); these cases are assigned inherently, and information about a particular case is specified in the lexical entry of a case assigner. Nouns that have been assigned these cases have theta-roles of beneficiary, goal, experiencer, and instrument, respectively:

\[ Devochka \ pomogaet \ babushke \]
\[
\begin{array}{c|c}
\text{NOM} & \text{DAT} \\
\end{array}
\]

A girl [NOM] helps a grandmother [DAT]

\[ Sobaka \ viljaet \ hvostom \]
\[
\begin{array}{c|c}
\text{NOM} & \text{INSTR} \\
\end{array}
\]

A dog [NOM] wags the tail [INST]
Genitive case (example 16, below) is considered to be assigned structurally as a complement of nouns and quantifiers. As its name suggests, prepositional case (example 17) in the Russian language cannot be assigned by verbs or nouns – it is only assigned inherently by prepositions:

(16) 
\[ \text{Mal'chik prochel p'yat' knig} \]
A boy [NOM] read five books [GEN]

(17) 
\[ \text{Vaza stoit na stole} \]
A vase [NOM] is on the table [PREP]

Other cases assigned by prepositions are considered to be assigned inherently as well (see examples 18–21 below).

(18) 
\[ \text{Kniga upala s divana} \]
A book fell from the sofa [GEN]

(19) 
\[ \text{Muzhchina idjet k domu} \]
A man walks to the house [DAT]

(20) 
\[ \text{Sobaka prygaet cherez luzhu} \]
A dog jumps over the puddle [ACC]

(21) 
\[ \text{Koshka pryjacheta pod krovatu} \]
A cat hides under the bed [INST]

**Default case in Russian**

In most languages, for example Dutch or Russian, it is acceptable for a sentence to be elliptical, to lack a finite verb, and still be grammatical. Although there is no case-assigning finite verb in these sentences, subject nouns are nevertheless marked for the nominative case. In terms of case assignment, nominative case is considered to be a default case in Russian; it appears on the nominals that do not have a case assigner (for
example, in vocatives and nominal predicates – Babyonyshov, 1993), and it is the least marked case from a semantic point of view (Jakobson, 1958).

Alternative accounts of Russian case

There are several theories that account for case in Russian. Roughly they can be divided into (1) syntactic theories, based on Chomsky’s view of case and case assignment (Pesetsky, 1982; Babby, 1980, 1984, 1988); (2) theories that focus on general meanings of Russian cases (Jakobson, 1984); and (3) theories that combine both approaches (Franks, 1995; Neidle, 1988). For the purposes of the present study, Chomsky’s theory for the explanation of case and case assignment, as described above, is adopted, notwithstanding the outline given for the other two accounts.

Semantic approach: Roman Jakobson

Jakobson aimed at clarifying many semantic meanings of Russian cases by ascribing to each case a general meaning [Gesamtbewertungen] from which particular case meanings [Sonderbewertungen] are derived (Jakobson, 1984). According to Jakobson, “each case in its multifarious applications, displays a series of more or less heterogeneous meanings” (Jakobson, 1984: 106). The differences between these specific contextual meanings are determined by the grammatical or lexical phrase composition in which a certain case occurs. Contextual case meanings are derived from its general meaning: “All of the specific contextual meanings of any case can be reduced to a common denominator” (Jakobson, 1984: 107). In relation to other cases, a certain case is characterized by its own ‘invariant’ meaning, its relevance and use. Jakobson stated, “the general meaning of any one case can be defined only in relation to all the other cases of the same linguistic system” (Jakobson, 1990: 384). The Russian case system was claimed to display uniform relations: a case signifying a particular feature is contrasted with a case not marked for this feature. These meanings can be further subdivided into smaller units of information –
case features – which lie at the basis of case-meaning. Case features lead to construction of the Feature decomposition model. The model proposed by Jakobson in 1958 in his article “Morphological observations on Slavic declension (The structure of Russian case forms)”, assumed a restricted set of features, the combination of which forms a basic invariant meaning for each individual case. The model is based on three dimensions or features, and all cases of the Russian language are grouped into classes characterized by the presence or absence of a particular feature. The features distinguished in the model – marginality, quantification and directionality – were labeled as [±Marginal, ±Quantifying, ±Ascriptive].

12 Plus ‘+’ indicated the presence of a particular feature: minus ‘–’ its absence. Marginality assigns to an entity an accessory place in the message; quantification focuses on the extent to which an entity takes part in the message; and directionality (or ascriptiveness) denotes a goal or an event. In addition to the six cases described, two more cases were distinguished by Jakobson – the second genitive and second locative, labeled as “genitive2” and “locative2”. These cases are rare, and nowadays they are considered to be obsolete, for example, as in (22) and in (23), below:

(22) (mnogo) sneg-a [genitive1]
     (mnogo) sneg-u [genitive2] (a lot of) snow

(23) (v) sneg-e [locative1]
     (v) v sneg-u [locative2] (in) the snow

Jakobson analyzed all eight cases, including genitive2 and locative2 and ordered them in a hierarchical manner in accordance with the features they possess, starting with the initial nominative case that is unmarked for any feature defined by Jakobson, as opposed to other marked cases.

Nominative [– marg, – quant, – ascr]
Accusative [– marg, – quant, + ascr]

12 Russian equivalents of the features are “периферийный, объёмный, направленный” respectively.
13 Jakobson used the term “locative case”, which corresponds to the term “prepositional case”. 
As mentioned above, *Case theory* in *Government and Binding theory* regards all languages as subject to abstract case, with the assumption that abstract case receives its morphological realization whenever possible. According to Franks, morphological case does not significantly differ from abstract case, “but rather reflects its language-particular realization” (Franks, 1995: 16). *Case theory*, in Franks’ opinion, should be able to account for morphological case properties, such as those present in Slavic languages. Franks proposed a theory in which he combined Jacobson’s *Feature decomposition model* with Chomsky’s *Case theory* to account for case and case assignment in Slavic languages. The feature decomposition model was modified: Franks replaced *quantifying* features with *oblique* ones, *ascriptive* (also directional) with *nonascriptive*, and added a fourth feature to the model, which he referred to as *phrasal*. Thus, the account encompassed the following features: $[\pm \text{Marginal}, \pm \text{Oblique}, \pm \text{Nonascriptive}, \pm \text{Phrasal}]$ (Franks, 1995). On the basis of the four case features proposed by Franks, cases are assigned the following features:

- **Nominative**: $[- \text{obl}, - \text{marg}, + \text{nonasc}, + \text{phras}]$
- **Accusative**: $[- \text{obl}, - \text{marg}, - \text{nonasc}, - \text{phras}]$
- **Genitive$^1$**: $[+ \text{obl}, - \text{marg}, - \text{nonasc}, - \text{phras}]$
- **Genitive$^2$**: $[+ \text{obl}, - \text{marg}, + \text{nonasc}, - \text{phras}]$
- **Prepositional$^1$**: $[+ \text{obl}, + \text{marg}, - \text{nonasc}, - \text{phras}]$
- **Prepositional$^2$**: $[+ \text{obl}, + \text{marg}, + \text{nonasc}, - \text{phras}]$
Linguistic Background

Dative   [+ obl, + marg, – nonasc, + phras]
Instrumental   [+ obl, + marg, + nonasc, + phras]

Contrary to Jakobson, Franks claims that the accusative case is the least marked case and it is a default case assigned either by verbs or by prepositions. According to Franks, case-features are present in categories that need to be case-assigned, and also in categories that are case assigners. Verbs and prepositions are case assigners that do not bear case marking, but they realize it on their case-assignees. Case features of case-assigning verbs and prepositions are either specified or unspecified in the lexicon, whereas case features of nouns are always unspecified in their lexical entries. When a case assigner assigns case it is represented in its lexical entry and case-features become specified as well. When case features are unspecified in the lexical entry, case assigners structurally assign the accusative case, according to Franks. As mentioned above, however, Case theory is the framework adopted in the present work.

Prepositions

“People seem never to have taken prepositions seriously”.
Ray S. Jackendoff (1973: 345)

Prepositions have caused much controversy in linguistics; they were claimed to have an unclear status and occupy an ‘ambiguous position’ in grammar (Grodzinsky, 1988; Tesak, 1994). In the dichotomy of ‘closed and open class’ words, prepositions are attributed to the ‘closed class’; this category cannot expand and take new items. In phonology, prepositions may behave as other members of the ‘closed class’ and play no role in the stress pattern of a sentence when clitisized. In syntax, however, prepositions play a certain role in the syntactic analysis of a sentence, and they are treated as elements of a self-sufficient category (Jackendoff, 1973), or as “an autonomous lexical category.
together with the categories of noun, verb and adjective”, which are representatives of the ‘open class’ (Šarić, 2001: 4).

Functions of prepositions

Above, case was outlined within the framework of Case theory (as formulated within Chomsky’s Government and Binding theory); here, the functions of prepositions as they are formulated in Extended Standard theory (Chomsky, 1975, 1977) are considered. In Extended Standard theory (EST) all English prepositions are seen as performing one of the three functions depending on the context in which they occur: syntactic, subcategorized and lexical. Further these prepositions are referred to as syntactic, subcategorized and lexical prepositions respectively, although these qualifications are attributed to the function of prepositions and not to the prepositions themselves. So, the same preposition can have a syntactic, a subcategorized, and a lexical function depending on the context or environment in which it occurs. Occurrence of syntactic prepositions depends on the syntactic structure of a sentence. Syntactic prepositions are grammatical formatives inserted into syntactic components in order to assign case to otherwise non-case marked NP (Chomsky, 1981). This implies that they function only as case assigners and have no lexical meaning of their own, as in example (24), below:

(24) Mary gave a present to Tom

Subcategorized prepositions are selected by verb, and form one lexical unit in combination with it, as in example (25), below:

(25) John listened to the music

In English, subcategorized prepositions are subject to the passivization rule, and remain in the sentence after it has been transformed from an active (as in example 26, below) into a passive clause (as in example 27):
George referred to Anna’s article in his talk

Anna’s article was referred to by John in his talk

Lexical prepositions have semantic content of their own; they are selected from the lexicon to indicate the relational concept and are inserted in a prepositional phrase, (as in example 28, below):

Mary walks to the house

Prepositions in Russian

Views on the functions and roles of Slavic prepositions are not uniform, although it is not contentious to say that prepositions and case are tightly interrelated phenomena, and their relations result in prepositional-case constructions (“predlozhno-padezhnye konstrukcii” in Russian): the role and value of prepositions are still debated, however. Some linguists claim that prepositions are secondary to case, and are submorphemes of case (Kuryłowcz, 1960); others suggest that case used with a preposition is its morphological complementation (Isačenko, 1965), while others consider prepositions to extend and specify case meanings “rather than reduce it [case] to an entirely syntactic phenomena” (Šarić, 2001: 14).

Functions and meanings of Russian prepositions

In Vinogradov’s textbook “Russkij jazyk” (“The Russian Language”), which is one of the fundamental sources of Russian grammar, prepositions are defined as “parts of speech which serve for expression of space, time, cause, purpose, possession, limitation relations and other relations between objects or the same relations between objects and activities,
states and qualities” (Vinogradov, 1986: 531).\(^{14}\) In other words, prepositions are regarded as auxiliaries that denote relations between sentence constituents and indicate the roles of nominal categories in a sentence. In this respect, functions of prepositions come close to the functions of case, discussed above. It is claimed that meanings of prepositions can only be manifest in combination with oblique case forms of nominal categories. Thus, prepositions can even be regarded as “agglutinative prefixes of indirect objects”; although, in Russian, prepositions have not yet lost their lexical identity and turned into case-prefixes unable to express adverbial relations (Vinogradov, 1986). The range of lexical meanings of prepositions and their grammatical functions in Russian is very broad; one and the same preposition used in different contexts can denote several concepts and perform different functions. Used with some verbs, prepositions may lack semantic meaning and turn into ‘weak’\(^{15}\) prepositions, the main function of which is to express verb relations. This phenomenon is similar to the subcategorization function of prepositions defined within the framework of Extended Standard Theory. For example, preposition \(v:\) “in” – when used in different contexts, this has different meanings, and performs different functions; it has spatial meaning (as in example 29 below), time reference (see example 30), and functions as a “weak” preposition (as in example 31):

(29) \(\text{Biblioteka} \ nahoditsja \ v \ center \ goroda\)

The library is \(\text{in}\) the center of the city

(30) \(\text{Vstrecha} \ sostojalas’ \ v \ chas \ dnja\)

The meeting was \(\text{at}\) one o’clock

\(^{14}\) Original text from Vinogradov (1986: 531): “Частицы речи, служащие для выражения пространственных, временных, причинных, целевых, притяжательных, ограничительных и других отношений между объектами или таких же отношений объектов к действиям, состояниям и качествам, называются предлогами”.

\(^{15}\) “Weak” – “slabye” prepositions are also sometimes referred to as “empty” – “pustye” prepositions; however, many linguists claim that there are no empty prepositions in Russian, but all retain lexical meaning to a different degree. Thus, it is more appropriate to refer to such prepositions as “weak” or “desemantizirovannye” – so-called “desemantized”; in other words, we refer here to prepositions lacking semantic meaning.
LINGUISTIC BACKGROUND

(31)  
\text{Vrach} \quad \text{uveren} \quad \text{v} \quad \text{svojem} \quad \text{reshenii}

The doctor is sure \text{in} his decision

Classifications of Russian prepositions

In the linguistics literature on the Russian language, Russian prepositions are divided into \textit{non-derived} and \textit{derived} prepositions, which in morphological terms can be either \textit{simple} (a single word – \textit{v}: “in”, \textit{na}: “on”, \textit{pod}: “under”) or \textit{compound} (more than one word – \textit{iz-za}: “from behind”, \textit{iz-pod}: “from under”) prepositions. The group of \textit{non-derived} prepositions is very small and closed; it consists of simple polysemantic prepositions that are used with a wide variety of cases. \textit{Derived} prepositions originate from nouns (see 32 and 33, below), verbs (example 34 and 35) and adverbs (\textit{vokrug}: “around”; \textit{około}: “near”);\textsuperscript{16} they denote only one type of relation, and are used only with one particular case (Shvedova, 1980):

(32)  
\text{posredstvom} = \text{po} \ ["by"] + \text{sredstvo} \ ["means, tool"]

\textit{posredstvom}: “by means of”

(33)  
\text{vследствие} = \text{v} \ ["in"] + \text{sledstvie} \ ["consequence"]

\textit{vследствие}: “in consequence of”

(34)  
\text{благодаря} = \text{blago} \ ["benefit, good"] + \text{darit’} \ ["to give, to present”]

\textit{благодаря}: “by virtue of”

(35)  
\text{не смотря на} = \text{ne} \ ["not"] + \text{smotret’} \ ["to look"] + \text{na} \ ["on”]

\textit{не смотря на}: “in spite of”

On the basis of their semantics and the relations they express in a sentence, Russian prepositions are divided into twenty-one types, which can be reduced to a system of seven types: spatial (locative); temporal; deliberative (related to cause, reason);

\textsuperscript{16} In prepositions derived from nouns and verbs it is still possible to trace the word etymology and disentangle elements that constitute a preposition. As for the prepositions derived from adverbs, they are often identical to adverbs, from which they are derived, and it is only possible to decide if it is a preposition of an adverb in the context of the sentence.
comitative (denoting accompaniment, compatibility); means relations; equidimensional; transgressive (Vinogradov, 1986). A simplified version of this classification is usually used in education and comprises only four types of prepositions, such as prepositions of time, place, cause and a broad class of other prepositions (Borras and Christian, 1977). On the basis of the Russian case system, prepositions are grouped according to the case they are used with, and constitute six groups: nominative, genitive, dative, accusative, instrumental, and prepositional (Smirnitsky, 1975; Vinogradov, 1986). Within these groups prepositions are further classified on semantic grounds, because one and the same preposition can be used with different cases and take different meanings. We will not go into further detail here, and will only provide one example to illustrate the polysemy of Russian prepositions. For example, a preposition “k” used with dative case can denote movement towards something (as in example 36) or somebody (37), time limit (38, 39), or reason for an action (40):

(36) Anna podoshla k vokzalu
    Anna came up to the station

(37) Ivan prishël k vrachu
    Ivan came to the doctor

(38) K vecheru poshël dozhd’
    By the evening started rain
    ‘By the evening it started to rain’

(39) K obedu nam podali sup
    At lunch us served soup
    ‘At lunch we were served soup’

17 The question of whether there are prepositions that assign nominative case is still under debate. There are two prepositions – za: “behind” and v: “in”, respectively – that are associated with nominative case. The preposition za+Nom is used only in questions with the interrogative pronoun chto: “what”, where it is a synonym of the adjectival pronoun kakoj: “which”, in the sense of “what kind of”. The other preposition v+Nom is used exclusively with plural objects to indicate joining a group or community. However, it is not clear whether these are prepositions or other homonymous parts of speech.
Moreover, there is a certain asymmetry between prepositions and cases, when one and the same preposition can be used with more than one case, and one and the same case can occur with more than one preposition. For example, the preposition *na*: “on” can be used with prepositional case, and denote several meanings of place (see examples 41 – 43, below) or time (44), as well as with accusative case (45 – 46):

(41)  *Ptitsa*  *sidit*  *na*  *dereve* [PREP]

A bird  sits  on  the tree [PREP]

(42)  *Na*  *kartine* [PREP]  *izobrazhen*  *pejzazh*

On  picture [PREP]  is depicted  landscape

‘A landscape is depicted on the picture’

(43)  *Petr*  *rabotaet*  *na*  *zavode* [PREP]

Peter  works  at  the factory [PREP]

(44)  *Na*  *Paskhu* [PREP]  *byla*  *khoroshaja*  *pogoda*

On  Easter [PREP]  was  nice  weather

‘It was a nice weather on Ester’

(45)  *Mal’chik*  *zalez*  *na*  *derevo* [ACC]

A boy  climbed  up  the tree [ACC]

(46)  *Samolot*  *zaderzhali*  *na*  *chas* [ACC]

The plane  was delayed  for  one hour [ACC]
Above, the main functions of prepositions as discussed in Chomsky’s *Extended Standard theory* have been briefly described. For the purposes of the present thesis, this account is now applied to Russian prepositions. As also noted above, Russian has a rich morphology with an extensive case marking, the main function of which is to express relations among sentence components and denote the roles they play. In this respect, Russian case functions similarly to syntactic prepositions in English. For example, in an English sentence – *A woman gives a present to a boy* – a preposition *to* is necessary to denote the recipient of a verb, *to give*; otherwise, omission of this preposition results in an ungrammatical sentence. Here, a preposition performs a solely syntactic function; it lacks any meaning of its own and only functions as a case assigner of the noun *boy*. However, as mentioned above, in English, the abstract case does not have any perceptible morphological realization on nouns, except for the genitive case-marker ‘s, but it is morphologically realized on pronouns. If the noun *a boy* is replaced by a pronoun, the abstract case becomes visible: *A woman gives a present to him* [DAT] as opposed to *A woman gives a present to he* [NOM]. An equivalent sentence in Russian does not contain a preposition, because the role of the recipient is expressed by the dative case of the complement of a verb – *davat’*: “to give” – and it is morphologically realized as a bound case morpheme of the noun *mal’chik* [NOM] - *mal’chik-u* [DAT]: “a boy” and as a different form of pronoun *on* [NOM]: “he”, *emu* [DAT]: “him”; *Zhenschina daet podarok mal’chiku* – *Zhenschina daet podarok emu* (see example 47):

(47)

From this example it is seen that the syntactic function of prepositions, as specified in EST in Russian, is taken over by case and case-morphology, whereas the other two
functions, which are lexical and subcategorized, have equivalent counterparts in Russian\textsuperscript{18}. The subcategorized function of prepositions within EST is paralleled by so-called ‘weak’ prepositions in Russian, as outlined above; for example, \textit{The trip depends on the weather} and its Russian equivalent \textit{Poezdka zavisit ot pogody}. These prepositions, when used with certain verbs, lack semantic meaning and function primarily as signifiers of verb relations. However, in Russian, there are no prepositions with “the same degree of grammatical abstractness which is common of weak prepositions in English or French (for example, \textit{de} or \textit{à})”\textsuperscript{19} (Vinogradov, 1986: 532). Russian prepositions are said to always have a semantic meaning of their own to different degrees, even if in some contexts the meaning is almost invisible.

\textit{Ellipsis in Russian}

The following sentence is a well-known telegram quoted from Mikhail Bulgakov’s novel “Master and Margarita” (1984):

\begin{quote}
\end{quote}


\textsuperscript{18} The lexical function of prepositions was illustrated with examples of a wide range of lexical meanings of Russian prepositions in the section above on \textit{Classifications of Russian prepositions}.

\textsuperscript{19} Original text from Vinogradov (1956: 532): “в русском языке ни один предлог не достиг той грамматической абстрактности, какая свойственна слабым предложам английского или французского языков”.

\textsuperscript{20} Original text from Bulgakov (1984: 67): “Ялты Москву Варьете сегодня половину двенадцатого угрозыск явился шатен ночной сорочке брюках …”
This sentence might be ungrammatical from a syntactic point of view, but it is still comprehensible for Russian speakers. It lacks all the obligatory prepositions, whereas all noun phrases bear correct case marking morphemes, which reflects their roles and the relation they play in the sentence:


Omission of certain sentence constituents is acceptable in Russian as long as the omissions can be recovered from the context of the sentence or discourse. Such sentences are referred to as elliptical. Elliptical sentences serve the same communication function as complete sentences, because omissions of certain elements do not interfere with the meaning of these sentences. When an elliptical sentence is correlated with its complete variant, empty positions of omitted elements are revealed via their dependent categories, which should bear the same morphological features (markings for case, gender, number) as they do in a complete sentence (Valgina et al, 2002). Elliptical sentences occur frequently in everyday colloquial (oral) speech, and they are widely used in fiction, although they are subject to certain limitations. Not all elements can be ‘legally’ omitted in elliptical sentences. For example, omissions of verbs, arguments and complementizers are acceptable, whereas omissions of prepositions, as in the example above, are only allowed in telegrams and are considered ungrammatical and unacceptable when used in other situations, even if the meaning of a sentence can be recovered from the context. Below are examples of elliptical grammatical and ungrammatical sentences (example 48 – 49) marked with * in a dialogue; the omitted elements are shown in curly brackets:
Elliptical sentences were frequently used in the experiments performed for this thesis; in the preliminary pilot study, elliptical sentences were used as experimental items in a comprehension experiment, and were accepted as responses of the aphasic speakers in the production experiment, upon the condition that they were acceptable and that no obligatory prepositions were omitted. Furthermore, in the analysis of narrative speech, elliptical responses were also analyzed on a par with complete sentences, and only those which lacked obligatory elements were excluded from the analysis. In other experiments here, use of elliptical sentences was precluded by the test requirements.

Summary

The main objective of this chapter was to introduce the linguistics background relevant to the present research. The thesis investigates the case-assigning abilities of Russian aphasic speakers with respect to case-assigning prepositions. Therefore, this chapter focused on two linguistics aspects of this: case and prepositions, and the phenomena associated with them.

Within Case theory (Chomsky, 1981, 1986), two types of cases are distinguished: abstract and morphological. According to Case theory, all languages have case systems with varied degrees of realization of abstract case, which is a universal property denoting syntactic case. Abstract case can either have an overt realization in the form of morphological case, such as case-marking morphemes, or it can be virtually imperceptible, having only a few remnant morphological forms (Haegeman, 1994). Russian is one of the few languages where abstract case is always realized morphologically. It is visible on all members of the nominal category, and it is realized
either as a bound morpheme of nouns, adjectives, and numerals or it is reflected in the phonemic structure of words in pronouns. One of the major functions of case in Russian is to mark the grammatical functions of nouns in a sentence, and to denote relations among sentence constituents, which are indicated by word order in other languages, such as English and Dutch. The realization of case depends on case assigners; the principle case assigners in Russian are verbs and prepositions. All together there are six morphological cases in Russian; four are assigned by both verbs and prepositions, one case is assigned only by verbs and the other only by prepositions.

As proposed in *Extended Standard Theory* (Chomsky, 1975, 1977), prepositions can perform three functions: syntactic, subcategorized and lexical. Occurrence of prepositions in the syntactic function depends on the syntactic structure of a sentence; their only aim is to act as case assigners and assign case to otherwise non-case marked nouns. Prepositions in syntactic functions have no lexical meaning of their own (*Mary gave a present to Tom*). Prepositions in subcategorized functions are selected by verb and form one lexical unit in combination with it (*John listened to the music*). Prepositions in a lexical function have a semantic content of their own; they are selected from the lexicon to indicate the relational concept of time, place or cause (*Mary walks to the house*). A rich morphological system of Russian with an extensive case-marking function, similar to the function of syntactic prepositions in English, allows only for two functions to be performed by Russian prepositions – the subcategorized (*Alexej uveren v svoem reshenii: “Alexej is sure in his decision”) and the lexical (*Kniga lezhit v sumke: “The books lies in the bag”*).

The following chapter reports on previous aphasiological studies relevant to this research, which look at the morphosyntactic properties of a noun and the phenomena of case, case assignment and prepositions in language-impaired aphasic speakers. Chapter III is intended as a synoptical chapter, for which the main goals are to introduce precedent aphasiological studies related to this research, to explicate the idea behind this thesis, and the reasons for it.
CHAPTER III

PREVIOUS STUDIES ON CASE, CASE MARKING AND PREPOSITIONS

The main objective of this chapter is to familiarize the reader with the results of the most relevant aphasiological studies and to provide the relevant background material. This synoptic chapter will clarify the idea behind the thesis and the reasons for this research. The focus of the chapter is twofold: it provides an overview of previous studies in different languages on noun morphology (namely, case-morphology) in aphasic populations; it also discusses studies that deal with production and/or comprehension of prepositions.

The chapter starts with a discussion of the relevant studies that investigated disrupted linguistic abilities in Broca’s and Wernicke’s aphasia – two syndromes that are typically opposed to each other in the literature. To begin with, an overview of the research into the functional morphology of nouns (that is known to be affected in Broca’s aphasia) is presented. The focus here is on studies that show that the deficit in functional morphology in aphasia is selective, from a structural point of view, and language specific, and that prove this using data from morphologically rich languages (Grodzinsky, 1984; Lehečková, 1988, 2002; MacWhinney & Osmán-Sági, 1991). The following section is devoted to case, case assignment, and case marking in aphasia. The results of studies of particular interest for this thesis are examined in more detail, alongside a discussion of the cross-linguistic research that investigates production of case-morphology and case-related categories (Beyn, Vizel, & Hatfield, 1979; De Bleser, Bayer, & Luzzatti, 1996; Ruigendijk, 2002; Ruigendijk & Friedmann, 2008; Ruigendijk & Bastiaanse, 2002; Ruigendijk, van Zonneveld, & Bastiaanse, 1999; Tsvetkova & Glozman, 1975). The chapter will then briefly investigate studies on the role of case in sentence comprehension in morphologically rich inflectional languages, which showed that difficulties of aphasic speaker with case-morphology are also encountered in sentence interpretation (Burchert,