



University of Groningen

Case assignment by prepositions in Russian aphasia

Trofimova, Maria

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version Publisher's PDF, also known as Version of record

Publication date: 2009

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):

Trofimova, M. (2009). Case assignment by prepositions in Russian aphasia. s.n.

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverneamendment.

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Download date: 03-06-2022

CASE ASSIGNMENT BY PREPOSITIONS IN RUSSIAN APHASIA

MARIA TROFIMOVA









The work in this thesis has been carried out under the auspices of the school of Behavioral and Cognitive Neuroscience (BCN) and the Center for Language and Cognition (CLCG), both are affiliates of the University of Groningen.



Publication of this thesis was financially supported by the Dutch Aphasia Foundation (Stichting Afasie Nederland – SAN).



Groningen Dissertations in Linguistics 74 ISSN 0928-0030

© 2009 Maria Trofimova

On the cover: Maria Trofimova, Dvoriki Nizhnego, 1994

Cover design: Maria Trofimova

Printed by RCG, Groningen

RIJKSUNIVERSITEIT GRONINGEN

Case assignment by prepositions in Russian aphasia

Proefschrift

Letteren

aan de Rijksuniversiteit Groningen

op gezag van de

Rector Magnificus, dr. F. Zwarts,

in het openbaar te verdedigen op

donderdag 12 november 2009

om 14.45 uur

door

Maria Trofimova

geboren op 16 maart 1980 te Gorky, Rusland Promotor: Prof. dr. Y. R. M. Bastiaanse

Beoordelingscommissie: Prof. dr. J. J. van Baak

Prof. dr. R. A. J. De Bleser

Prof. dr. D. Howard

ACKNOWLEDGMENTS

Всё пройдёт, пройдёт и это ... (Соломон)¹

The last few years have been an invaluable professional and personal experience; it is hard to enumerate the things I have had to learn, understand, accept and realize, but it is still possible to thank those people who helped me in this.

First of all I would like to thank my promoter, *Roelien Bastiaanse*, for all her input into this project and my research. I am also very thankful to the adviser of this project, *Sergey Avrutin*, for his comments and suggestions. Thank you very much! I would also like to thank my thesis reading committee: *Ria De Bleser*, *Joost van Baak* and *David Howard*. It was an honor for me to have you read my thesis and comment on it; it is an even greater honour that you will be present during my viva. I am much obliged, for their help in reading and discussing earlier versions of the thesis, to *Eleonora Rossi*, *Esther Ruigendijk*, *Jan-Wouter Zwart*, *Julia Klitsch*, *Laurie Stowe* and *Roel Jonkers*.

I would like to thank all my colleagues, and especially colleagues from the neurolinguistics group, for our lively discussions, exchange of ideas, their feedback on presentations, talks and abstracts, and also for the good times had during conferences, workshops, seminars and coffee breaks. I am very thankful to *Dirk-Bart den Ouden*, *Dieuwke*, *Dörte*, *Eleonora*, *Elzerieke*, *Femke Wehrens*, *Femke Westra*, *Jantien*, *John Hoeks*, *John Nerbonne*, *Julia*, *Gerard Bol*, *Lonneke*, *Katrien*, *Kees de Bot*, *Maartje*, *Marjolein*, *Rasmus*, *Roel*, *Tal*, *Tim*, *Tuba* and *Vasiliki*. Your input is very much appreciated. Without the help of *Anna Hausdorf*, *Britta Kust*, *Diana Koopman*, *Rob Visser* and *Wyke Van der Meer*, the organizational and practical sides of conference travel, workshops and finance would have been a significant trial.

_

¹ Everything passes; this too will pass (Solomon)

I would like to thank all those people who helped during the patient tests in the Neurological department of the rehabilitation centre, 'Zelenyj gorod', Nizhnij Novgorod; the institute of the human brain, the Russian academy of science, Saint-Petersburg; the federal centre of speech pathology and neurorehabilitation, Moscow. I am very thankful to *Elena Knjazeva*, *Nina Aleksandrova*, *Maria Khrakovskaja*, *Victorija Kotsovskaja*, *Victor Shklovsky* for their assistance, advice and support.

I would like to voice my gratitude here to those friends who had to bear endless and recurrent stories about testing, analyzing, statistical complications, patients, hospitals, case, prepositions, and many other matters. Thank you for being patient, supportive and understanding. Also, I would like to express my deep appreciation for the advice and help given for this project in its early stages, as the first test persons were my friends: *Julia Kameneva*, *Larisa*, *Lena Gorbova*, *Lena* and *Andrej Rogachevsky*, *Mikhail*, *Olga Kalistratova*, *Olga Vladimirovna*, *Tamara*, *Tanja* and *Sasha Klimenkovs*. The effect of your belief in me cannot be overestimated. Спасибо! Special thanks to all participants in the experiments described in this thesis: your help and patience during the testing was invaluable.

I am very happy and honored to have *Katrien* and *Julia* as my paranymphs. Thank you for always being there.

Without my family all this would have been impossible. *Svetlana*, *Aleksey*, *Levan*, *Lelja* — whatever I write here to thank you will never be enough. *Мама*, *папа*, *Леван*, *Лёля* — Спасибо!

Maria Trofimova

TABLE OF CONTENS

CHAPTER I	1
INTRODUCTORY REMARKS	1
History of aphasiology: a short overview	1
Aphasia as a language disorder	2
Alexander Luria's view of aphasia	12
Summary	20
CHAPTER II	23
LINGUISTIC BACKGROUND	23
What is case?	23
About Russian	28
Prepositions	37
CHAPTER III	49
PREVIOUS STUDIES ON CASE, CASE MARKING AND PREPOSITIONS	49
In addendum: Data from Russian language acquisition	76
Summary	77
The main research question	79
CHAPTER IV	81
PROCESSING OF LOCATIVE PREPOSITIONS IN APHASIA	81
Processing of locative prepositions in aphasia: a short survey	81
The goal of the study	82
Pilot study: Comprehension of locative prepositions	83
Methods	83
Results	88
Error analysis	90
Pilot study: Production of locative prepositions	92
Methods	92
Results	97
Error analysis	98
Summary: Production experiment	102

Production and comprehension compared	103
Conclusions and discussion	104
CHAPTER V	109
CASE, CASE ASSIGNMENT AND PRODUCTION OF PREPOSITIONS	SIN
NARRATIVE SPEECH	109
Analysis of narrative speech	109
Research questions	112
Hypotheses	113
Results	119
Error analysis of prepositions and prepositional phrases	127
Discussion	129
CHAPTER VI	133
SENTENCE COMPLETION EXPERIMENT	133
A brief review of previous findings on case-morphology in aphasia	133
The research questions	135
Hypotheses	137
Methods	138
Results	148
Results: Subtest-1, 'noun provided'	149
Error analyses: Subtest-1, 'noun provided'	151
Error analyses: Subtest-2, 'case assigner provided'	162
Comparison of the results of the two subtests	167
Discussion	170
CHAPTER VII	175
PREPOSITIONAL PHRASE INSERTION EXPERIMENT	175
Research prerequisites	175
The main goal of the study	176
Hypotheses	178
Results	187
Error analyses	190
Discussion	202

CHAPTER VIII)
SUMMARY, COROLLARY AND PERSPECTIVE)
Summary of the experiments)
Corollary	2
Perspectives	5
BIBLIOGRAPHY)
APPENDICES	1
NEDERLANDSE SAMENVATTING	3
GRONINGEN DISSERTATIONS IN LINGUISTICS (GRODIL)	1

THESIS OUTLINE

The research described here investigates the linguistic abilities of Russian speakers with aphasia. Chapter I provides an introduction to the phenomenon of aphasia, its main characteristics, types and classifications. A short overview of the history of aphasiology development is presented, and a definition of aphasia as a language disorder is provided, with descriptions and clinical characteristics of the two most prevailing aphasic syndromes, which are Broca's aphasia and Wernicke's aphasia. The chapter also deals with the classification of aphasia types proposed by Russian neuropsychologist Alexander Luria, which is practiced in Russia.

Chapter II provides the linguistics background relevant to the present research. The chapter consists of three sections. The first is devoted to a definition of grammatical case and its related phenomena, such as abstract and morphological cases, structural and inherent cases, and the mechanisms of case assignment. The second section of the chapter is a short introduction to several aspects of Russian grammar relevant to this thesis, namely, morphological characteristics of a Russian noun, the case system and morphological realizations of case. The third section of chapter II deals with prepositions and their relation to case. A description of the category of prepositions, and Russian prepositions in particular, is provided, alongside the main functions and meanings of prepositions.

Chapter III is planned as a synopsis that sheds light on the ideas behind the thesis and the reasons for undertaking this research. The main objective here is to familiarize readers with previous relevant aphasiological studies and to provide them with the background to the present study. The purpose of this chapter is twofold. It provides an overview of previous cross-linguistic studies on nominal morphosyntax, namely, case-morphology in aphasic populations. It also looks at studies that have investigated the production and/or comprehension of prepositions. The idea of differential loss of prepositions from structural and semantic perspectives is reviewed cross-linguistically.

THESIS OUTLINE

Chapters IV to VII report on the studies and experiments undertaken over the course of the present thesis. Chapter IV discusses an explorative pilot study, administered prior to performing a series of other experiments. The main objective of the pilot study was to examine the general abilities of fluent and non-fluent aphasic speakers in comprehension and production of simple basic locative prepositions that denoted the spatial relationships of two objects.

After the pilot study showed that production and comprehension of locative prepositions in aphasia, while impaired, is not completely lost, prepositions were examined in the narrative speech of aphasic speakers. This analysis of narrative speech, which is described in chapter V, shows that although aphasic speakers experience difficulties in the production of correct prepositions, when they manage to produce prepositions in narrative speech they were also able to produce correct case-marking morphemes of the complement nouns of these prepositions.

Performance of the aphasic speakers was further examined in restricted tasks. Chapter VI considers the production of correct case-marking morphemes of the complement nouns of case-assigning prepositions in a sentence completion task with two subtests. The subtests differ with respect to the requirements. This difference allows for an exploration of whether a dependency exists between the case-assigning categories and the case-dependent categories, and whether presence or absence of the former has an influence on the latter. Although both groups of aphasic speakers had difficulties producing correct case-assigning prepositions, the overall results of the experiment support the general hypothesis put forward for non-fluent aphasic speakers: the presence of correct case-assigning prepositions facilitates the production of correct case-marking morphemes.

The next experiment, discussed in chapter VII, aimed to investigate whether this hypothesis is valid for all prepositions, since previous cross-linguistic studies have also reported differential impairment of prepositions in aphasia. This chapter looks at case assignment by prepositions in lexical and in subcategorized functions in a prepositional phrase insertion task. Fluent and non-fluent aphasic speakers were impaired in production of prepositions in lexical and subcategorized functions; however, in both groups, prepositions in the lexical function suffered less. With respect to production of correct

THESIS OUTLINE

case-marking morphemes of complement nouns of prepositions in two functions, the hypothesis was justified.

The summary of the research conducted in the context of this thesis is presented in chapter VIII. This work also presents the conclusions drawn from chapter IV onwards. The results of the experiments carried out with Russian aphasic speakers are viewed in the light of the hypothesis and the research questions. The results are also examined within the framework of previous comparable cross-linguistic studies and known theories. Chapter VIII also provides an overview of possible projects for future research.