On the Nature of Intra-Clausal Relations:

A Study of Copular Sentences in Russian and Italian

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A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements
of the degree of

DOCTOR OF PHILOSOPHY

The forms of things unknown, the poet's pen
Turns them to shapes, and gives to airy nothing
A local habitation and a name.

– William Shakespeare, *A Midsummer Night's Dream* 5:I:15-17

Abstract

This dissertation investigates intra-clausal relations, namely, the relations that obtain between the elements in a clause. This investigation is based on a detailed study of copular sentences in Russian and Italian. In particular, three types of intra-clausal relations are investigated here: phrase-structural relations, thematic relations, and case relations.

With respect to phrase-structural relations, it is argued that not all syntactic structures are asymmetrical. Rather, it is proposed that under certain conditions – when the two input phrases have the same features – Merge will result in a symmetrical structure. This requirement for matching features leads to a more parsimonious analysis of equative sentences where the interpretation derives directly from the syntactic structure, without postulating a special "identity copula".

As for thematic relations, it is claimed that there is no one-to-one correspondence between thematic positions and structural positions (contra the strong version of UTAH, Baker 1988). Instead, a more flexible theory of thematic relations is proposed. It is also proposed that theta-assignment is not a necessary condition for DP interpretation. Rather, a DP can be interpreted if it establishes a certain relationship with another theta-marked DP. This analysis extends to Left Dislocation, Pronoun Doubling and *sound like*-construction.

Finally, case relations are said to be tied to thematic relations. A version of the Visibility Condition is thus argued for. It is maintained that non-argument DPs – namely, those that are merged as neither complements nor specifiers of a lexical head – need not be case-marked in syntax at all and appear with the morphological default (i.e., nominative) marking. The alternative "agreement in case" analysis of NOM-NOM sentences is argued against; various conceptual and empirical problems for this analysis are identified and discussed.

The analysis developed in this dissertation accounts for a number of properties of copular sentences, including their interpretation, case-marking patterns, and such syntactic properties as extraction, inversion, binding possibilities and unaccusativity diagnostics.

Résumé

Dans cette thèse, je fais l'étude des rapports intraphrastiques, c'est-à-dire des rapports qui existent entre les éléments à l'intérieur d'une même proposition. Ce travail est basé sur une étude détaillée des phrases à copule en russe et en italien. Plus précisément, j'examine trois types de relations intraphrastiques : les relations à l'intérieur de la structure phrastique, les relations thématiques, et les relations casuelles.

En ce qui concerne les relations à l'intérieur de la structure phrastique, je rejette l'idée que toutes les structures syntaxiques sont asymétriques. Plus précisément, je propose que, dans certaines conditions, lorsque les deux syntagmes intrants ont les mêmes traits, une structure symétrique peut résulter de la fusion (angl. Merge). La nécessité de traits semblables permet une analyse plus parcimonieuse des phrases équatives (angl. equative) où l'interprétation résulte directement de la structure syntaxique, sans la nécessité de postuler l'existence d'une «copule d'identité» particulière.

Quant aux relations thématiques, à la différence de la version forte de UTAH (Baker 1988), je rejette l'idée qu'il existe une correspondance directe entre les positions thématiques et les positions structurales. J'avance plutôt une théorie de relations thématiques plus flexible. Je propose aussi que l'assignation des rôles thématiques n'est pas une condition préalable pour l'interprétation des DP et qu'on peut interpréter un DP s'il est en relation avec un autre DP qui, lui, porte un rôle thématique. Cette analyse s'applique aussi à la dislocation vers la gauche, au redoublement des pronoms et à la construction sound like.

Enfin, je propose que les relations casuelles sont reliées aux relations thématiques; ainsi, je crois qu'il existe une Condition de visibilité (angl. 'Visibility Condition') : les DPs qui ne sont pas des arguments, c'est-à-dire ceux qui ne sont associés ni comme des compléments, ni comme des spécifieurs d'une tête lexicale, n'ont aucun besoin d'être marqués pour le cas en syntaxe et figurent avec la forme morphologique par défaut (c.-à-d. le nominatif). En présentant et en analysant plusieurs problèmes conceptuels et empiriques, je m'oppose à l'analyse alternative des phrases nom-nom, (celle de l'accord des cas).

L'analyse que je propose dans cette thèse rend compte de nombreuses caractéristiques des phrases à copule, y compris leur interprétation, l'assignation de cas (angl. case marking), et des caractéristiques syntaxiques telles l'extraction, l'inversion, les possibilités de liage, et les diagnostiques d'inaccusativité.

Acknowledgments

Copular sentences appear to be relatively short and simple. However, describing their structure proved to be no easy task. Here is my chance to thank those numerous people who have helped me with this research. Needless to say that all remaining mistakes are solely mine.

First and foremost, I am indebted to Lisa Travis, who has been my advisor, mentor, and friend throughout all my years at McGill University. During my work on this dissertation, Lisa has provided very insightful comments, suggestions and criticisms. She has spent long hours reading and commenting on the drafts of this dissertation, and her expertise has brought some sound improvements to the earlier versions. By working as her teaching assistant, I learned many tips for being a better teacher. There are many things I learned from Lisa, but most importantly she has shown me that linguistics can be so fun! Thank you, Lisa, for keeping the flame of enthusiasm about linguistics burning in my heart, despite all the disappointments and failures!

My thanks go also to Jonathan Bobaljik, who spent long hours in discussions of issues related to my research, writing extensive comments, and pointing out the shortcomings of my analysis. I also wish to extend my warmest thanks to Mark Baker, my unofficial advisor and mentor. Mark has taught me to stretch my research intuitions and believe in seemingly crazy but really inventive ideas. He has instilled a firm belief in my abilities as a researcher, and supported me at every stage of my work. Many discussions with Mark have influenced not only the various points of the analysis presented in this dissertation, but also my views on the place of linguistics in science and the place of science in life in general.

Going back to the humble beginnings of my linguistic career, I am deeply grateful to my first syntax teachers at the Hebrew University of Jerusalem: Yehuda Falk, Edit Doron, and Yael Ziv. Yehuda Falk was my first linguistics teacher. In his first linguistics class, I was so intrigued by his story about the travels through the vocal tract of some puff of air (which at the time I believed to be a French guy named *Paffovert*) that I decided to become a linguist, and never since have I regretted this decision. It was Yehuda who first

aroused my interest in case and agreement, and supported my decision to work on Russian. He also taught me to pay close attention to language facts, and work carefully with the data – a very important skill, which I hope to have improved throughout my work on this dissertation. Edit Doron has taught me the basics of syntactic argumentation; she has also stressed the importance of highlighting the dramatic points of the analysis, and making my written and oral presentations exciting both to the presenter and the audience. Finally, Yael Ziv has taught me that there is more to linguistics than just syntax and that there is more to life than linguistics.

My work on this dissertation has been affected by many fine linguists in North America, Europe and Israel, all of whom provided consequential comments, suggestions, criticisms, and corrections. At the very inception of this research, my inclination to work on copular sentences was kindly supported by Barbara Partee, Caroline Heycock, and Tova Rapoport. At various stages of the research, they have guided me through the mazes of semantic, syntactic and morphological complications with copular sentences. My deepest gratitude goes also to David Adger and Gillian Ramchand, who have made crucial contributions to my understanding of the semantic aspects of the problems at hand; to Ad Neeleman, who has made some critical suggestions about case theory; and to Jane Grimshaw for her astute criticisms of my analysis.

The greatest proportion of this research was conducted at the Linguistics Department of McGill University; in addition to those McGill faculty and students mentioned above, I want to extend my gratitude to Heather Goad, Lydia White, Brendan Gillon, Nigel Duffield, Glyne Piggott, Susi Wurmbrand, Larissa Nossalik, Mikael Vinka, and Monica Ungureanu for all their help.

The last three months of working on this dissertion I have spent at the University of Tromsø, Norway. I am very grateful to the Tromsø linguistic community: Tarald Taraldsen, Marit Julien, Oystein Vangsnes, Lennart Lönngren, Olga Komarova, Ove Lorentz, and Curt Rice. I have especially benefited from very insightful conversations about syntax with Peter Svenonius, to whom I am most grateful for all his suggestions, criticisms and ideas. At the beginning of my research, I have been greatly inspired by his dissertation, and later I have discussed my work with him on several occasions. Peter has

spent long hours reading drafts of this dissertation and making helpful comments; he supported me both in my research and in the job hunt, and his enthusiasm about linguistics has kept me going in many a dark hour.

As far as my research on Russian is concerned, I have been greatly assisted by discussions of Russian case and agreement morphology with Greville Corbett and Andrew Spencer, and by discussions of the syntax and semantics of Russian copular sentences with Ora Matushansky, Kylie Skewes, Luka Szucsich, Stephanie A. Harves, Karine Megerdoomian, and Ljudmila Geist. *Spasibo* to all of them! For help with my work on Italian, *grazie mille* to my Italian colleagues and friends – Vieri Samek-Lodovici, Andrea Moro, Roberto Zamparelli, Valentina Bianchi, Antonella Sorace, Carlo Cecchetto, and Alessandro Tavano. I cannot thank them enough for their patience in explaining the intricacies of the Italian syntax and providing the many judgments reported in this dissertation. Next, I am grateful to Irit Meir (my first syntax TA!) and Dawn MacLaughlin for the time they took to discuss various aspects of the Israeli and the American Sign Languages, respectively. For judgments and discussions of Norwegian data I thank Marit Julien, Ove Lorentz, Mai Tungseth, Tarald Taraldsen and Kristine Bentzen. For occasional judgments and discussions of the data, I am also grateful to O.T. Stewart (Èdó), Lotus Goldberg, Jeff Steele, Evan Mellander, Jennifer Mortimer, Gillian Ramchand, and Diane Nelson (English), Yael Ziv, Idan Landau, Dana Cohen, Miriam Engelhardt, Tsipi Kuper-Blau, and Irit Meir (Hebrew), Itziar Laka (Basque), Patrycja Jablonsky and Joanna Blaszczak (Polish), and Sonia Osminkin, Alexander and Larissa Svitschov, and Denis Chesnokov (Russian).

At different stages of the research that led to this dissertation, I have also benefited from occasional discussions with Steven Franks, Richard Kayne, Hagit Borer, Alec Marantz, Susan Rothstein, Anders Holmberg, Mark Baltin, Jamal Ouhalla, Carol Tenny, Gennaro Chierchia, Luigi Rizzi, Adam Wyner, Diane Massam, Tom Ernst, Peter Culicover, Claire Lefebvre, Ur Shlonsky, Lisa Matthewson, Albert Ortmann, Satu Manninen, and Diane Nelson – I thank them all from the depth of my heart.

I also thank the president of the LAGB Andrew Spencer and its members for providing a warm home away from home for me in England. I also wish to thank the organizers and

the audiences of the conferences I was privileged to attend and present at, including the NELS meeting at the NYU and CUNY, the IATL meetings at the Bar Ilan University and the University of Haifa, the WCCFL at the University of British Columbia, the CLA meetings at the University of Ottawa and the University of Sherbrooke, the LAGB meetings at UCL, the University of Durham, the University of Leeds, and the University of Reading, the FASL meeting at the University of Pennsylvania, the 8th Colloquium on Generative Grammar in Palmela, the Semitic Syntax Conference at the USC, the Negation Conference at the University of Salford, the 8th Postgraduate Conference at the University of Manchester, the Adverbs and Adjunction Conference at the University of Tromsø, and the Interactions Conference at UCL.

As the expression goes, the friend in need is a friend indeed. For their invaluable help in times of crises, I am especially grateful to Heather Goad, who hosted me when I had no other place to stay in Montreal; to Jeff Steele and Lotus Goldberg, who have never refused to proofread my papers on a very short notice, and have done a lot in improving my English; and to Anne Rochette, who was very helpful in bringing my first journal publication to the world. My special thanks go also to McGill University, Hydro Quebec, the Linguistic Association of Great Britain, and the Research Council of Norway for their financial support, which I cannot underestimate.

On a more personal note, I thank my friends – Annette Dominik, Max Mastrocola, Tina Fry, Zinovy (Justas) Volpert, Sonia Osminkin, Denis and Mel Chesnokov, Eric Mathieu, Dirk Bury, Elaine Francis, Wilma ter Haar, Theres Grüter, and Ioulia Kovelman – for shared meals and laughs, blues and booze, and for being there for me when I simply needed to talk.

I am also deeply grateful to Mike Hardman for his warmth, trust and support, for believing in me, for inspiring me to become a better person, and for introducing me to the world of hockey!

Last but not least, I am indebted to my family – my father Michael Pereltsvayg and my mother Freyda Pereltsvayg, and my grandmother Rakhil Savinskaya – for their profound love, support (financial and otherwise), and for trusting me all the way. Спасибо за всё!

To my grandfather Yakov

Table of Contents

List of Tables

Abbreviations Used in the Glosses

Only information relevant for understanding an example is given in the glosses; irrelevant information is omitted. Glosses with hyphens give morpheme-by-morpheme glosses of the examples. Glosses with dots list all relevant morphemes in the given form, regardless of the actual morpheme order in the item. The notation [A B].C in the glosses means that the grammatical information C applies to the bracketed string as a whole (as in case marking of nominal phrases that contain more than one word). The notation # before a translation indicates that the given reading is unavailable for the given example. The following abbreviations are used in the glosses:

A	animate	INSTR	instrumental case
ABS	absolutive case	LOC	locative case
ACC	accusative case	M	masculine
ADJ	adjective	N	neuter
AUG	pronominal augment	NEG	negative particle
CAUS	causative morpheme	NOM	nominative case
CL	classifier	NOMIN	nominalizing morph.
COND	conditional particle	PA	pluractional marker
COP	copula	PASS	passive
DAT	dative case	PERF	perfective
DEIC	deictic morpheme	PL	plural
DEM	demonstrative pronoun	PREP	prepositional case
DET	determiner	PRES	present
DIMIN	diminutive	PST	past
EMPH	emphatic particle	Q	question particle
ERG	ergative case	REP	repetitive aspect
EXIST	existential morpheme	S	subject (in Salish)
F	feminine	SF	short form (Rus. As)
FUT	future tense	SMLF	semelfactive
GEN	genitive case	SG	singular
IMPER	imperative	SPRL	superlative
IMPERF	imperfective	SUBJ	subjunctive
INCEP	inceptive	TR	transitive morpheme
INF	infinitive		

Transliteration Key and Notation

The following symbols are used in transliterating Russian examples (except for proper names in cited sources):

а	a	и	i	с	s	ы	y
б	b	й	j	т	t	ъ	”
в	v	к	k	у	u	щ	šč
г	g	л	l	ф	f	э	è
д	d	м	m	х	x	ю	ju
е	e	н	n	ц	c	я	ja
ё	ë	о	o	ч	č		
ж	ž	п	p	ш	š		
з	z	р	r	ь	’		

Note that commas in Russian transliterated examples correspond to commas in Russian orthography, not intonational breaks. The latter are represented with “|”.

In Hebrew examples, ʔ represents the letter *ayin*, ’ represents the letter *alef* (most speakers do not distinguish these two in pronunciation), y represents a palatal glide. For the transliteration convention for Èdó examples, see Stewart (2001). Examples from other languages are given with the same transliteration conventions as in the sources cited.

The following notations are used in the examples:

A	A is grammatical (acceptable)
✓ A	A is grammatical (acceptable)
* A	A is ungrammatical or unacceptable
?? A	A is strongly marginal, almost unacceptable
? A	A is slightly marginal, less than perfectly acceptable
$ A	A is acceptable only in certain pragmatically defined contexts
# A	A is unacceptable (but not necessarily ungrammatical in the syntactic sense)
(A)	A is optional

*(A)	A can not be omitted, it must be expressed overtly
(*A)	A has to be omitted, it may not be expressed overtly
(??A)	A is strongly marginal, its omission is strongly preferred
*...(A)...	the sentence is ungrammatical whether A is expressed overtly or not
A / B	A and B are both possible variants
A / *B	A is an acceptable variant, while B is an ungrammatical variant
* ... A / B...	both A and B are ungrammatical variants
$...A_i...B_i...$	A and B are coindexed
* $...A_i...B_i...$	the sentence is ungrammatical for reasons that may or may not involve coindexing
$...A_i...B^*_i...$	the sentence is ungrammatical with the indicated coindexing, but grammatical otherwise
A	A is the element under consideration in this example (no phonetic correlates)
A	A is the element under consideration in this example (no phonetic correlates)
...[A]...	A is the relevant constituent under consideration in this example
CAPS	heavily stressed constituent
~~A~~	A is present in the structure but is not pronounced
e	a phonetically null element (of any sort)
t	a (phonetically null) trace
A:	remark by speaker A
B:	remark by speaker B

1. Studying copular sentences

1.1. Introduction

This dissertation is concerned with copular sentences, English examples of which are given in (1).

(1) a. John is intelligent.
b. John is a writer.

The focus of this thesis is on Russian, where copular sentences exhibit various "quirks" not present in English. For a start, nominal and adjectival phrases following the copula (usually called "predicates"; for reasons to become clear later in the dissertation, I will call them "post-copular phrases") exhibit an alternation in morphological case marking. They can appear in either nominative or instrumental case, as shown below:

(2) a. Čexov byl pisatel'.
Chekhov was writer.NOM
'Chekhov was a writer.'

b. Čexov byl pisatelem.
Chekhov was writer.INSTR
'Chekhov was a writer.'

For the ease of exposition, I will refer to sentences like (2a) as the NOM-NOM (i.e., nominative-nominative) pattern, and to sentences like (2b) as the NOM-INSTR (i.e., nominative-instrumental) pattern. As will be discussed in great detail in the course of this dissertation, this alternation is not a purely morphological matter: whether the post-copular phrase is marked with nominative or instrumental affects the syntactic and semantic structures of the sentences. Even though the two sentences in (2) are translated into English in the same way, speakers of Russian share an intuition that the two sentences do not mean the same thing (i.e., cannot be used felicitously in exactly the same situations). This intuition has been explored in many works; however, a clear and encompassing analysis is missing at this point. Thus, one of the empirical goals of this dissertation is to investigate the differences between the two kinds of copular sentences in Russian.

The contrast between the NOM-NOM and the NOM-INSTR copular sentences is interesting also because the copula *byt'* 'be' is the only verb (in standard Russian) that allows this contrast. If we consider non-copular verbs, the following pictures emerges. First, some verbs allow the NOM-INSTR pattern (these verbs are discussed in more detail in section 4.2.1 below).

(3) Rossija monopol'no vladela sobolem.
Russia.NOM with-monopoly owned sable.INSTR
'Russia had a monopoly on sable.' [Zolotova 1988:245]

Some verbs appear with a nominative post-verbal phrase (in the unmarked word order); the pre-verbal phrase is usually in the dative case.[1]

(4) Nam nužna kniga.
us.DAT need.3.SG.F book.NOM
'We need a book.'

Yet, in standard Russian no verbs other than *byt'* 'be' take two nominative phrases.

(5) a. * Mama pocelovala / uvidela / požalela / razbudila devočka.
mother.NOM kissed / saw / pitied / woke-up girl.NOM
intended: 'The mother kissed / saw / pitied / woke up the girl.'

b. * Mama pročitala / porvala / poljubila / vybrosila eta kniga.
mother.NOM read / tore / liked / threw-out [this book].NOM
intended: 'The mother read / tore / liked / threw out this book.'

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[1] Note that in colloquial Russian this nominative is often substituted by accusative, as in (i). In this case, the verb does not agree with the nominative phrase but appears with the default agreement (i.e., 3rd person singular neuter).

(i) Nam nužno knigu.
us.DAT need.3.SG.N book.ACC
'We need a book.'

This fact is particularly striking since copula-like verbs, semantically similar to the copula *byt'* 'be', do not allow two nominative phrases either (the only two exceptions are *stat'* 'become' in colloquial Russian and *nazyvat'sja* 'be called' with a particular word order; see the discussion in section 4.2.2).

(6) a. Čexov javljalsja / kazalsja / počitalsja veličajšim pisatelem.
Chekhov was / seemed / was-revered [greatest writer].INSTR
'Chekhov was / seemed / was revered as the greatest writer.'

b. * Čexov javljalsja / kazalsja / počitalsja veličajšij pisatel'.
Chekhov was / seemed / was-revered [greatest writer].NOM
intended: 'Chekhov was / seemed / was revered as the greatest writer.'

Thus, a theory explaining why the copula *byt'* 'be' can take two nominative phrases should not overgeneralize to other verbs, including those that are semantically similar to *byt'* 'be'.

In the course of this thesis, these and other peculiarities of Russian copular sentences will be examined and (hopefully) accounted for. It will be shown that the case alternation between nominative and instrumental is an overt indication of deeper differences in syntactic structure. Sentences with the NOM-INSTR pattern will be argued to differ from sentences with the NOM-NOM pattern in that the former but not the latter are built from a richer type of a small clause core, involving a head absent in sentences with the NOM-NOM pattern. Sentences with the NOM-NOM pattern will be argued to involve a "bare", head-less small clause.

Moreover, I will argue that even though the small clause core of these copular sentences is different, the copula itself can be considered the same lexical item. I will associate the differences between the copula in NOM-NOM sentences and the copula in NOM-INSTR sentences with the distinction between functional and lexical categories: the copula in NOM-INSTR sentences is a lexical head, whereas the copula in NOM-NOM sentences is a functional head. Importantly, this difference will be related to the other differences between the two kinds of copular sentences: case-marking, interpretations, and distribution. For example, the ability to mark a complement with a (non-nominative) case

and the ability to assign or transmit a θ-role will be related to the lexical nature of one *byt'* 'be', whereas the lack of these abilities will be correlated with the functional nature of the other *byt'*.

The differences in syntactic structure will be also correlated with differences in semantic interpretation, thus accounting for the intuition that the two kinds of copular sentences do not mean exactly the same thing. In particular, sentences with the NOM-NOM pattern will be shown to involve an identity interpretation imposed by their syntactic structure. On the other hand, sentences with the NOM-INSTR pattern will be interpreted as asserting property ascription due to the head of the small clause core. Furthermore, the analysis developed in this dissertation will be further supported by the examination of copular sentences in other languages, in particular in Italian.

Yet, the goals of this dissertation are not limited to explaining the empirical contrasts mentioned above. Copular sentences, seemingly simple and unsophisticated but in reality very intricate, will be used to probe into the issues of intra-clausal relations. In particular, I will focus on three types of relations that hold between elements in a clause: phrase-structural relations, thematic relations, and case relations. Phrase-structural relations are the backbone of syntax; they define what kinds of structures the syntactic theory allows. For instance, in recent years it has been a matter of a considerable debate among syntacticians whether syntactic structure is necessarily asymmetrical (Kayne 1994) or whether some degree of symmetry is allowed (Moro 2000). Thematic relations are those between predicates and referential expressions; they include θ-assignment and predication. In this dissertation, I will consider the question of how many different thematic relations there are (i.e., how thematic positions are saturated), and how each one of them is restricted. Furthermore, I will show that thematic relations are intimately connected to case relations. As far as case relations are concerned, I will draw a distinction between syntactic case specifications and morphological case realizations, and will argue that case marks that the given noun phrase is either a specifier or a complement of a lexical head.

Before I embark on the exploration of these issues, a few preliminaries are in order. They will be dealt with in this first chapter. Section 1.2 introduces the reader to

some of the empirical issues concerning copular sentences cross-linguistically. Section 1.3 provides an overview of the main empirical facts concerning copular sentences in Russian. In particular, I review three main questions: (i) the number of lexical items that are needed to account for different uses of the copula *byt'* 'be'; (ii) properties of post-copular phrases; and (iii) properties of copula-like verbs.

Section 1.4 is dedicated to an overview of the theoretical issues relevant for this study of copular sentences. Section 1.5 outlines the theoretical framework adopted in this dissertation. In section 1.6, I present the structures proposed for copular sentences (in Russian and other languages), and the main theoretical claims to be defended in this dissertation. Finally, in section 1.7, I outline the course of the discussion in this dissertation.

1.2. Copular Sentences Cross-Linguistically

Copular sentences are those that involve the copula verb *be* (and its counterparts in other languages, which may in some cases be phonetically null). It has been long noted that such sentences come in different "colors and flavors": they can be existential, locative, predicative or equative, to name only a few. Furthermore, in many languages *be* can be used as an auxiliary verb to form complex tenses. These uses of *be* are illustrated with English examples below:

(7)	a.	There <u>are</u> gnomes and fairies in these woods.	- existential
	b.	The gnome <u>is</u> in the jar.	- locative
	c.	The fairies <u>are</u> small.	- predicative
	d.	Puck <u>is</u> Robin Goodfellow.	- equative
	e.	The gnome <u>is</u> building a new house.	- auxiliary

Some languages (though not English and Romance languages) use the same copula for possessive constructions. An example of such a language is Hebrew, which uses essentially the same copula for all the six constructions: existential, locative, predicative, equative, auxiliary and possessive (however, I do not claim that there are no peculiarities to any of these constructions).

(8) a. LOCATIVE

Dani haya ba- mitbax.
Danny was in-the-kitchen
'Danny was in the kitchen.'

b. AUXILIARY

Im Mixal hayta mevia 'et ha-kruzim ba-zman,
if Michal was bring ACC the-leaflets on-time

hayinu yexolim le-xalek 'otam ha-boker.
were.1.PL able to-distribute them the-morning
'If Michal had brought the leaflets on time, we could have distributed them this morning.' [Borer 1995:533]

c. PREDICATIVE

Dani haya xaxam.
Danny was intelligent
'Danny was intelligent.'

d. POSSESSIVE

Le-Dani haya sefer xadaš.
to-Danny was book new
'Danny had a new book.'

Interestingly, it is the predicative and the equative constructions that most often use the same copula. This is true of Germanic and Romance languages, as well as Hebrew, Russian and Bengali. The latter is illustrated below; in Bengali, there are two distinct copula bases. One of them – I will call it ACH- – is used in existential and possessive constructions and has two allomorphs *ach-* and *thak-* (it is also the etymological source of tense morphemes; Gillian Ramchand, p.c.). The other – I will call it HO- for its main allomorph *hɔ-* – is used in predicative and equative constructions (Klaiman 1987:509 notes that the equative copula is phonetically null in non-emphatic contexts; according to Gillian Ramchand, p.c., the copula in both equative and predicative

contexts is null unless emphatic).[2] A further complication is that in its equative use HO- must appear between the two DPs (see Dasgupta 1983:104), whereas in its predicative use it appears sentence-finally (like the rest of the verbs in Bengali, which is a V-final language).

(9) a. EXISTENTIAL

bhOgoban chilen, achen, thakben.
god ACH-PST ACH-PRES ACH-FUT
'God existed, exists, will exist.' [Dasgupta 1983:133]

b. POSSESSIVE

amar gaRi ache.
I.GEN car ACH-PRES
'I have a car.' [Ramchand 2000]

c. EQUATIVE (EMPHATIC)

ini hocchen jodu.
this-person HO-PRES Jodu
'This (one) is Jodu.' [Klaiman 1987:509]

d. PREDICATIVE (EMPHATIC)

gaRi-Ta lal hocche.
car-CL red HO-PRES
'The car is red.' [Gillian Ramchand, p.c.]

Yet many other languages, including Spanish, Basque, Irish and Scottish Gaelic (to name only a few), use two distinct copulas in predicative (and equative) constructions. The examples below illustrate these contrasts, with copula verbs glossed by their citation form in CAPS:

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[2] Under negation, in both the equative and the predicative uses of the copula, it is obligatorily overt (Gillian Ramchand, p.c.).

(10) SPANISH (from Roig 1989:85)

a. Esta cama es comoda.
this bed SER comfortable
'This bed is comfortable.'

b. Esta cama esta rota.
this bed ESTAR broken
'This bed is broken.'

(11) BASQUE (from Stassen 1997:180)

a. Gela hau hotza da.
room this.ABS hot IZAN
'This room is hot (permanently).'

b. Gela hau hotza dago.
room this.ABS hot EGON
'This room is hot (for now).'

(12) IRISH (from Carnie 1993:102)[3]

a. Ba dhochtúir Seán.
IS doctor Sean
'Sean was a doctor
[and is dead now].'

b. Bhí Seán ina dhochtúir.
TÁ(BÍ) Sean in-his doctor
'Sean was a doctor
[and lost his license].'

(13) SCOTTISH GAELIC (from Ramchand 1997:193)[4]

a. Is faicilleach Calum.
IS careful Calum
'Calum is a careful person
(by nature).'

b. Tha Calum faicilleach.
BI Calum careful
'Calum is (being) careful.'

For a further discussion of copular sentences in these languages, see Franco (1986), Roig (1989), and Delbeque (1997) for Spanish; Artiagoitia (1997) for Basque; Carnie (1993, 1997), Doherty (1996), and DeGraff (1997) for Irish; Adger and Ramchand (2001) for Irish and Scottish Gaelic.

Other languages use only one verb 'be', but make a distinction by other means. For example, in Hebrew some (present tense) copular sentences appear with a pronominal

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[3] For parallel examples from Scottish Gaelic, see Ramchand (1997:199).

[4] Note the difference in the word order with different copulas. For a detailed discussion and an analysis of these facts, see Ramchand (1997) and Adger and Ramchand (2001).

copular element (corresponding to a third person pronoun agreeing with the subject), while in other copular sentences such elements are ungrammatical (moreover, in some sentences these pronominal copular elements are optional).

(14) HEBREW

a. Ha-'iša ha-zot *(hi) rina.
the-woman the-this 3.F.SG Rina
'This woman is Rina.' [Greenberg 1998:126, (4)]

b. Rina (*hi) yafa ha-ʔerev.
Rina 3.F.SG pretty the-night
'Rina is pretty tonight.' [Greenberg 1998:127, (6b)]

For a further discussion of Hebrew copular sentences, see Berman and Grosu (1976), Doron (1983, 1986), Rapoport (1985, 1987), Y. Greenberg (1994, 1998), Rothstein (1995), Sichel (1997), and Shlonsky (1998). Similar facts also obtain in various dialects of Arabic and in Maltese (see Stassen 1997:209-211).

Slavic languages typically use morphological case to mark the contrast between the two types of copular sentences. This has been illustrated for Russian in section 1.1 above and is further illustrated for Slovak and Belorussian below:[5]

(15) SLOVAK (from Rothstein 1986)

a. Kukuchin bol lekar.
Kukuchin was doctor.NOM
'Kukuchin was a doctor [his main characteristic].'

b. Kukuchin bol lekarom.
Kukuchin was doctor.INSTR
'Kukuchin was [happened to be] a doctor.'

[5] Other languages that exhibit a similar nominative/non-nominative alternation on post-copular phrases include Finnish, Estonian, Votic (all are Finnic languages), and Lithuanian (a Baltic language). For data and discussion, see Nichols (1981b) and Stassen (1997:189-190, 222-224).

(16) BELORUSSIAN (from Grannes et al. 1995:338)

a.	Budz' vjasëly.	b.	Budz' vjasëlym.
	be.IMPER cheerful.NOM		be.IMPER cheerful.INSTR
	'Be cheerful!'		'Be cheerful!'

Polish is interesting in this respect because it makes use both of the case alternation and of different copulas (the verbal copula *jest'* 'is', as in (17b), and the pronominal copula *to*, corresponding to a demonstrative 3rd person singular neuter pronoun, as in (17a)):[6]

(17) a. Ta pani to premier Anglii.
this woman DEM premier.NOM England.GEN
'This woman is the premier of England.' [Rothstein 1986]

b. Ta pani jest premierem Anglii.
this woman is premier.INSTR England.GEN
'This woman is a premier of England.' [ibid]

The distinctions that the different languages mentioned above are making may not be exactly the same semantic distinction, yet they have been traditionally characterized as distinguishing stage-level and individual-level predicates.

In this dissertation, I will focus on copular sentences in Russian and will propose an analysis that can easily be extended to other Slavic languages, and hopefully, to some (but probably, not all) other contrasts illustrated above.

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[6] Note that in Polish it is also possible to have both the pronominal copula and the verbal copula, as in (i).

(i) Ta pani to jest premier Anglii.
this woman DEM is premier.NOM England.GEN
'This woman is the premier of England.'

1.3. Copular Sentences in Russian

It is dangerous to theorize without data, my friend Watson.
– Arthur Conan Doyle, *The Adventures of Sherlock Holmes*

In this section, I present some of the facts concerning the properties of copular sentences in Russian. In particular, I focus on three issues:

- How many copular elements are there in Russian? In particular, of the six major copular constructions (existential, locative, possessive, auxiliary, predicative and equative), which ones use the same copula?
- What kinds of phrases can appear after the copula?
- To what extent is the copula *byt'* 'be' special and different from so-called copula-like verbs?

1.3.1. How many <u>be</u>'s?

Éntia non sunt multiplicanda praeter necessitatem.
– William Occam

Russian uses *byt'* 'be' in all the six major copular constructions identified in the previous section: existential, locative, possessive, auxiliary, predicative and equative.[7] Examples of the different uses of *byt'* are given below.

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[7] In English and many other languages, the copula *be* is also used in cleft and pseudo-cleft constructions.

(i) a. It **is** garbage that I am talking about. – cleft
b. What I am talking about **is** garbage. – pseudo-cleft

For this reason, clefts and pseudo-clefts have often been investigated together with copular sentences, and similar analyses have been proposed for both types of constructions (e.g., Heggie 1988, Heycock and Kroch 1999b, among others). However, as claimed in Junghanns (1997:187), "Russian does not have a true cleft construction". In contrast to English clefts, Russian *èto*-clefts do not allow a copula to intervene between the pronoun *èto* and the focused constituent (Junghanns 1997:188, fn.4).

(18) EXISTENTIAL

Do revoljucii v Moskve byli konki.
before revolution in Moscow were horse-trams.NOM
'Before the Revolution there were horse-trams in Moscow.'

(19) LOCATIVE

Den'gi byli na stole.
money.PL.NOM were on table
'The money was on the table.'

(20) POSSESSIVE (ALIENABLE AND INALIENABLE)

a. U Tani byli den'gi.
at Tanya were money.PL.NOM
'Tanya had money.'

b. U Tani byli golubye glaza.
at Tanya were [blue eyes].NOM
'Tanya had blue eyes.'

(21) AUXILIARY (FUTURE)

Deti budut igrat'.
children be.FUT play.INF
'The children will play.'

(ii) a. Èto (*est' / bylo) Boris vypil vodku.
èto is / was Boris.NOM drank vodka.ACC
intended: 'It was Boris who drank the vodka.'

b. Èto (*est' / bylo) vodku Boris vypil.
èto is / was vodka.ACC Boris.NOM drank
intended: 'It was the vodka that Boris drank.'

In this dissertation, I will not consider cleft or pseudo-cleft constructions. For further discussion of Russian counterparts of English clefts, see Grenoble (1998:200-204), Junghanns (1997), and the references cited therein; for a discussion of clefts and pseudo-clefts in Italian, see Salvi (1988a:177-189) and Frison (1988).

(22) PREDICATIVE

Gnomy byli suščestvami rabotjaščimi.
gnomes.NOM were [creatures laborious].INSTR
'(The) gnomes were laborious creatures.'

(23) EQUATIVE

Lenin byl Vladimir Uljanov.
Lenin.NOM was [Vladimir Ulyanov].NOM
'Lenin was Vladimir Ulyanov.'

However, it turns out that not all of these instances of *byt'* 'be' are the same. In particular, I will assume Chvany's (1975:5) proposal that "Russian sentences with *byt'* fall into two syntactically distinct types": one type involving an existential verb *byt'* (which she calls ∃) and the other – the copula *byt'*. The differences between the two kinds of *byt'* are summarized in the table below (adapted from Chvany 1975:53).

Table 1. Differences between existential and copula *byt'* 'be'

tests	existential *byt'* 'be'	copula *byt'* 'be'
sentential negation is expressed by	*net*	*ne* + *byt'*
case of the subject under negation	genitive	nominative
preserved in questions	YES	NO
allows raising-to-object	NO	YES
allows raising-to-subject	NO	YES
has lexical derivatives	YES	NO
has syntactically similar synonyms	YES	NO

According to Chvany, the existential *byt'* appears in existential, locative and possessive constructions, whereas the non-existential *byt'* appears in predicative constructions (and, presumably, in equative constructions as well, though she does not discuss them at all). Furthermore, Chvany shows that the future auxiliary *byt'* is a "contextual variant" of the existential *byt'*. A detailed discussion of the application of the

tests above to different uses of *byt'* goes far beyond the scope of this dissertation; the interested reader is referred to Chvany's work for details.

Here, I will focus on the non-existential copula *byt'* 'be' in Russian and will consider the question of whether both predicative and equative uses of *byt'* in Russian can be subsumed under the same lexical item. My answer to this question will be affirmative: I will argue throughout this dissertation that both predicative and equative *byt'* are the same lexical item and the differences between them are reducible to the distinction between lexical and functional heads. An alternative approach would be to postulate two distinct lexical items for the predicative and the equative *byt'* 'be'; most proponents of this approach assign the equative *byt'* a distinct meaning, encoded as part of the lexical entry. In this dissertation, I will argue against such an approach; in particular, I will show that there is no need for a distinct equative (i.e., identity) copula. Rather, the meaning of equative sentences derives from their syntactic structure. Thus, even though I will not argue that **all** uses of *byt'* can be reduced to one lexical item, I will argue that predicative and equative uses can be so reduced.

1.3.2. What comes after be?

In the previous section, I have discussed the classification of copular sentences in Russian with respect to the kind of copula used. I assume following Chvany (1975) that different occurrences of *byt'* can be reduced to two lexical items: the existential *byt'* and the non-existential *byt'*. Furthermore, I have proposed that predicative and equative occurrences of *byt'* can be accounted for without postulating two separate lexical items; substantiating this claim is one of the goals of this dissertation.

In this section, I will consider the elements that can appear after the copula; here and throughout the dissertation, I will consider the unmarked word order only (unless otherwise specified). As has been noted by various authors, a range of syntactic constituents can appear in the post-copular position in predicative (and/or equative) sentences, including noun phrases, adjectival phrases, prepositional phrases, and a lexically restricted set of adverbs (which are usually fossilized prepositional phrases). Crucially, phrases headed by nouns or long adjective forms show case alternations (see

below), whereas short adjectives, prepositional phrases and fossilized adverbs exhibit no (overt) case marking.[8]

(24) a. SHORT ADJECTIVE

Ol'ga byla umna.
Olga was smart.SF
'Olga was smart.'

b. PREPOSITIONAL PHRASE

Ol'ga byla v xorošem nastroenii.
Olga was in good mood
'Olga was in a good mood.'

c. FOSSILIZED ADVERBS

Ol'ga byla navesele / nastorože / zamužem.
Olga was tipsy / on-guard / married
'Olga was tipsy / on guard / married.'

Noun phrases in the post-copular position can be marked with either nominative or instrumental case.[9]

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[8] A post-copular phrase can also be a noun phrase headed by a noun in the genitive case. In this construction the genitive noun-head has the meaning of a qualitative evaluation, as in (i), or possession, as in (ii). In the former case, adjectival modification is obligatory (cf. Rozental' 1976:39). I will not discuss these construction in this dissertation.

(i) Voda byla *(olovjannogo) cveta.
water.NOM was tin.GEN color.GEN
'The water was of tin color.'

(ii) Dom ètot – Meškova.
house.NOM this.NOM Meshkov.GEN
'This house is Meshkov's.' [Rozental' 1976:39]

[9] For information on nominal and adjectival morphology in Russian, see Appendix A.

(25) a. Oleg byl durak.
Oleg.NOM was fool.**NOM**
'Oleg was a fool.'

b. Oleg byl durakom.
Oleg.NOM was fool.**INSTR**
'Oleg was a fool.'

Likewise, phrases headed by a long adjective form can be marked with either nominative or instrumental case.

(26) a. Pjatno bylo krasnoe.
spot.NOM was red.**NOM**
'The spot was red.'

b. Pjatno bylo krasnym.
spot.NOM was red.**INSTR**
'The spot was red.'

In this dissertation, I will focus mainly on copular sentences with nominal and adjectival post-copular phrases, largely ignoring sentences with post-copular PPs (as well as short adjectives and fossilized adverbs) since the latter do not exhibit case alternations. Hopefully, the analysis proposed in this dissertation will extend to copular sentences with post-copular PPs as well. Furthermore, since post-copular phrases headed by long adjectives behave in exactly the same way as those headed by nouns, I will illustrate the discussion with the latter type of sentences.

It should be noted here that the pairs of sentences in (25) and (26) above do not mean exactly the same thing. The exact nature of these differences is hard to put one's finger on; however, speakers express certain intuitions which may change from a particular example to another (the exact nature of these meaning differences will be discussed in more detail in chapter 3). For instance, speakers I have consulted often characterize the difference between (25a) and (25b) by saying that the former makes "a stronger statement" than the latter; it also strongly implies that Oleg is dead. Likewise, the sentence in (26a) asserts that the spot was always red; (25a) is nearly synonymous with "There was a red spot". On the other hand, (26b) makes a statement about the spot's color a particular time; the color might have changed (but need not have changed).

The nominative-instrumental alternation correlates not only with meaning differences but also with various syntactic differences, such as differences in extraction,

illustrated below with examples from Bailyn and Rubin (1991:123, their (50)), and inversion (discussed below).[10]

(27) a. Kem$_i$ ty znaeš, čto Saša byl t_i?
who.INSTR you know that Sasha was
'Who do you know that Sasha was?'

b. * Kto$_i$ ty znaeš, čto Saša byl t_i?
who.NOM you know that Sasha was
intended: 'Who do you know that Sasha was?'

Finally, the contrast between nominative and instrumental is neutralized in the present tense, where only nominative is possible (whether the copula is overt or not).

(28) *Čexov (est') veličajšim russkim pisatelem.
Chekhov is [greatest Russian writer].INSTR
intended: 'Chekhov is the greatest Russian writer.'

As will be shown throughout the dissertation, the nominative-instrumental alternation correlates with other syntactic differences as well. Finally, as mentioned in the introduction, no verbs other than the copula *byt'* 'be' take two nominative phrases, a fact that requires an explanation as well. Thus, one of the goals of this dissertation is to uncover further syntactic differences between sentences with nominative and instrumental marking on the post-copular phrase and to account for these differences in a coherent and theoretically sound way.

1.3.3. Copula-like verbs: the cousins of be

Even though this research concentrates on copular sentences with the verb *byt'* 'be', I will also briefly consider other copula-like verbs (in Russian, *svjazočnye glagoly*).[11] Russian grammar books list many such verbs, though different grammars list

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[10] As noted in Bailyn and Rubin (1991:123), these judgments come from speakers who accept extraction from *čto*-complements.

[11] For a detailed discussion of the notion "copula" vs. "copula-like", see Lekant (1995).

somewhat different sets of verbs. Below is given a list of verbs most commonly cited as "copula-like" with their approximate English translations (the classification is based on the one given in Rozental' 1976). Pairs of verbs given with a slash are two aspectual forms of the same verb, with the imperfective form given first and the perfective form second. The use of these verbs is illustrated in Appendix B.

(29) a. VERBS OF MANIFESTATION OF PROPERTY:

byvat' 'be' (iterative), *okazyvat'sja / okazat'sja* 'turn out', *javljat'sja* 'be' (formal register)

b. VERBS OF PROPERTY IN SOMEBODY'S PERCEPTION:

kazat'sja 'seem', *pokazat'sja* 'come across as', *predstavljat'sja* 'seem', *sčitat'sja* 'be reputed as', *slyt' / proslyt'* 'gain the reputation of', *vygljadet'* 'appear', *mnit'sja* 'seem' (archaic), *smotret'sja* 'look like'

c. VERBS OF CHANGE OF PROPERTY OR CONSERVATION OF PROPERTY:

stanovit'sja / stat' 'become', *sdelat'sja* 'become', *ostavat'sja / ostat'sja* 'remain', *polučat'sja / polučit'sja* 'come out', *vyxodit' / vyjti* 'come out', *delat'sja / sdelat'sja* 'become', *obratit'sja* 'turn into'

d. VERBS OF NAMING A PROPERTY:

zvat'sja 'be called', *počitat'sja* 'be revered as', *nazyvat'sja* 'be called, be termed'

e. COPULAR-LIKE VERBS WITH LEXICAL MEANING OF OCCUPATION OR CONDITION:

žit' 'live as', *rabotat'* 'work as', *prebyvat'* 'be, stay', *dovodit'sja* 'be an X relative', *služit'* 'serve as', *sostojat'* 'work as' (archaic), *čislit'sja* 'be considered as', *rodit'sja* 'be born as'

As mentioned above, this list is by no means complete. In fact, it is hardly possible to come up with a complete list of copula-like verbs. The reason for this is that it is not clear where to draw the line between copula-like and regular lexical verbs. Thus, some of the verbs in (29) can function both as copula-like and as full lexical verbs (e.g., *predstavljat'sja* as a full lexical verb means 'to introduce oneself'). Moreover, many meanings expressed in English with a combination of a copula verb and an (AP) predicate

are expressed in Russian with a full lexical verb (e.g., *krasnet'* 'be red', *bedstvovat'* 'be poor', etc.). These verbs are further discussed in section 3.2.1.

Going back to the list of copula-like verbs, it should be noted that all these verbs share an important property with the "ideal copula" (in Russian, *ideal'naja svjazka*) *byt'* 'be' – whatever lexical meaning these verbs might have, they lose it in a process not unlike semantic bleaching.[12] However, *byt'* 'be' and other copula-like verbs differ in one important respect. As has been discussed in the previous section, *byt'* 'be' allows for a case alternation on the predicate phrase (nominative vs. instrumental), at least in the past and future tenses. In contrast, most of the copula-like verbs allow only instrumental case on the post-copular phrase; note that some of these copula-like verbs also allow complements headed by prepositions and short adjectival forms, but these constructions are largely irrelevant for the discussion in this dissertation (for examples, see Appendix B). The only two exceptions to this generalization are *stat'* 'become' and *nazyvat'sja* 'be called'. Thus, *stat'* 'become' allows nominative case on the post-copula phrase in colloquial speech, as noted in Bailyn and Rubin (1991:121, fn.11).

(30) a. Saša stal delovym.
Sasha.NOM became business-like.INSTR
'Sasha became business like.' [Bailyn and Rubin 1991:121]

b. Saša stal delovoj.
Sasha.NOM became business-like.NOM
'Sasha became business like.' [ibid]

According to Bailyn and Rubin, "as opposed to (a), which indicates a true change in Sasha's state, (b) implies that the world around has changed in such a way that Sasha is now inherently business-like". This judgment is shared by my consultants and myself.

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[12] The term "semantic bleaching" comes from work on complex predicate formation and usually refers to the process of light verb formation. As a result of this process, light verbs have "either a completely empty, or merely an incomplete, argument structure" (Butt 1995:144). For further discussion of semantic bleaching and the nature of light verbs, see Grimshaw and Mester (1988), Rosen (1989), Butt (1995) and Samek-Lodovici (1999); also section 3.2.2.

Similarly, in the example below, the variant with the instrumental post-copular phrase is appropriate in the standard variety of Russian, whereas in the colloquial variety of Russian the variant with the nominative post-copular phrase is more appropriate since nothing has changed about Crimea itself, but rather the world around it has changed so that it became part of the Ukraine instead of Russia (I thank Peter Svenonius for discussing these examples with me).

(31) a. Krym stal Ukrainoj.
Crimea became Ukraine.INSTR
'Crimea became (part of) Ukraine.'

b. Krym stal Ukraina.
Crimea became Ukraine.NOM
'Crimea became (part of) Ukraine.'

Thus, only in colloquial Russian *stat'* 'become' is a true copula. The other exception – the verb *nazyvat'sja* 'be called' – will be discussed in section 4.2.2.

It should also be noted here that descriptive studies of Russian case marking (e.g., Rozental' 1976 and Nichols 1981a) note that certain copula-like verbs can appear with nominative post-copular phrases in "very colloquial speech"; some examples are given in Appendix B. This spreading of post-copular nominative marking in colloquial speech can be attributed to either one of two factors: (i) copular-like verbs being reanalyzed as true copulas (similar to *stat'* discussed above), or (ii) loss of morphological case-marking for independent reasons. Here, I will not discuss these two possibilities in great detail, but I lean toward the second possibility for two reasons. First, the nominative-instrumental contrast with other copula-like verbs in highly colloquial speech does not seem to correlate with any meaning differences, as with *byt'* 'be' in standard language and *stat'* in colloquial Russian. Second, it has been noted in the literature that many cases of inherent case marking in colloquial Russian are being gradually replaced by nominative. In chapter 4 below, I will argue that instrumental case marking on post-copular phrases is an instance of inherent case marking, so that "nominative sickness" (i.e., the spread of

nominative marking) on complements of copula-like verbs can be subsumed under a more general process of loss of inherent case marking.

To sum up so far, it is noted that copula-like verbs (with the exception of *stat'* 'become' in colloquial speech) cannot appear with post-copular phrases in the nominative case. This generalization will be accounted for in the course of this dissertation.

1.4. Theories of Copular Sentences

> Where others say they are finished, we begin.
> – Yiddish saying

Copular sentences have been in the center of the research among linguists, philosophers and logicians at least since Plato and Aristotle. In spite of their seeming simplicity, copular sentences have caused a continuous debate as to their structure and interpretation. Logicians and philosophers concerned themselves with two major questions. The first question involves the nature of terms (e.g., what kind of meaning does a noun have? Do nouns denote things, properties, kinds, or something else?). The second major question has been whether the copula itself is ambiguous and if so, what kind of ambiguity is involved. Later, linguists have raised the question of the overall structure of copular sentences. Intensive research on languages of the world has shown that languages can differ considerably in their treatment of copular sentences, yet at the same time language after language makes a distinction between different types of copular sentences. In this section, I will review some of the many theories that have been proposed to account for copular sentences. (For a more extensive discussion of pre-generative-grammar theories of the copula, see Moro 1997:248-258; I rely heavily on his discussion of this period).

1.4.1. The Ambiguity of the Copula

The omnipresence of the copula in various types of copular sentences led philosophers and linguists to recognize four main functions of the copula. The first function of the copula is to provide the sentence with inflectional elements required by declarative sentences, in particular, tense and mood specifications. This function was

identified by Aristotle (cf. Moro 1997:249-251), and is most clear with auxiliary uses of the copula. This "expletive" use of *be* is described by Jespersen (1937:135, cited in Moro 1997:256) as follows:

> ... later these [nominal sentences] were brought to the usual type by the addition of the least substantial verb ..., in much the same way as other sentences were made to conform to the usual type by the addition of the colorless subject *it* (it rains, it pleases me to go, etc.).

The second function underlies the invention of the term 'copula' from Latin *copulare* 'to link' by Abelard and its later use by Port Royal grammarians Antoine Arnauld and Claude Lancelot (cf. Moro 1997:251-252 and Lepschy 1998:167). According to this conception, the copula can turn a term into a predicate and link it with the subject. This idea is reflected in the Port Royal *Grammaire* (p. 92):

> The only 'pure' verb is the verb *to be* in the third person of the present indicative, whose only function is linking subject and attribute, without adding any further meaning. [cited in Lepschy 1998:167]

If the copula itself is considered a predicate, two more functions of the copula can be identified: copula as the expression of identity and copula as the expression of existence.

It has also been a very widespread idea that the copula is more than one of these four things. As Bertrand Russell puts it:

> The proposition *Socrates is a man* is no doubt 'equivalent' to *Socrates is human*, but it is not the very same proposition. The *is* of *Socrates is human* expresses the relation of subject and predicate; the *is* of *Socrates is a man* expresses identity. It is a disgrace to the human race that it has chosen the same word *is* for those two such entirely different ideas as predication and identity – a disgrace which a symbolic logical language of course remedies.
>
> [Russell 1919:172, cited in Moro 1997:254]

The idea that the copula is ambiguous between predication and identity (and sometimes also pure tense-mood specification) has been widely accepted, both among traditional

grammarians (e.g., Benveniste 1966, Halliday 1967, Quirk and Greenbaum 1973, Kahn 1973, Salvi 1988a, among others) and in more modern schools of grammar.

Consider first the views of the copula within the framework of traditional grammar. Benveniste (1966:187, cited in Moro 1997:297) makes a distinction between the copula *be*, a marker of identity ("la 'copule', marque grammaticale d'identité"), on the one hand, and the full verb *be* ("un verbe de plein exercice"), on the other hand. Interestingly, Benveniste appeals to the notion of identity to illustrate the copulative use of *be*, distinguishing between different logical modalities of the identity relation, such as formal identity ("équation formelle"), class inclusion ("inclusion de classe") and member of a set ("participation à un ensemble").[13]

Halliday (1967:66, cited in Moro 1997:298) makes a distinction between three lexical verbs *be* belonging to three different classes (one to class 0, one to class 1, and one to class 2). Roughly, the class 0 *be* means "can be characterized as, has the attribute of being"; class 1 *be* means "exists, happens, is found or located"; class 2 *be* means "identifies or is identifiable as, can be equated with". Quirk and Greenbaum (1973:353, cited in Moro 1997:298) make the following generalization about the uses of *be*:

> ... *be* is commonly used to introduce a characterization or attribute of the subject... but with complement noun phrases it also commonly introduces an identification of the subject.

Functional grammars also make a distinction between several varieties of *be*. For instance, Goossens (1992) distinguishes between three different kinds of *be*: (i) a predicational verb *be*, which denotes existence, as in *I think; therefore, I am*, (ii) a

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[13] It is not clear what the difference between the latter two cases is. The examples Benveniste uses to illustrate them are the following:

(i) Le chien est un mammifère. - CLASS INCLUSION
'The dog is a mammal.'

(ii) Pierre est Français. - MEMBER OF A SET
'Peter is French.'

semi-predicational verb *be*, as in *be a nurse*, *be nice*, and (iii) a minimally predicational verb *be*, which is also called "ascriptive *be*" and includes the identifying *be*.

In Montague grammar (Montague 1973, Dowty et al. 1981:229, Partee 1976, 1999), a distinction is made between two kinds of *be*: the *be* of predication and the distinct *be* of identity, distinguished by the types of their arguments. The *be* of predication, as in *John is tall*, takes two arguments of types *e* and <*e, t*>. The semantics of this version of *be* is: $\lambda P \lambda x[P(x)]$. In other words, it simply applies the predicate to the subject. On the other hand, the *be* of identity, as in *Clark Kent is Superman*, takes two arguments of type *e*. The semantics of this version of *be* is: $\lambda x \lambda y[x=y]$. In other words, it asserts the identity of its two arguments.

Alternatively, *be* is treated as a single item – the *be* of predication which takes two arguments of types *e* and <*e, t*> – and the phrases around *be* are type-shifted to accommodate the selection of *be* (Williams 1983, Partee 1986, 1987). There are two type-shifting functions used for this purpose: BE and *ident*.

(32) BE combines with generalized quantifiers (<<*e, t*> *t*>) and yields predicative expressions (<*e, t*>);
ident combines with expressions of the type *e* and yields predicative expressions of the type (<*e, t*>)

Another analysis along these lines is that of type-logical semantics (Carpenter 1997), according to whom there are two definitions of *is*:

(33) a. is $\Rightarrow$ eq : np\s/np

b. is $\Rightarrow \lambda V.$ V:np\s/(np\s)

The first of these definitions applies when the copula takes two NP complements and expresses identity, as in *John is the mayor.* The second definition applies when the copula takes a VP and an NP complement, as in *Joe is running*. In this latter case, "the resulting semantics is that of applying the verb phrase's semantics to that of the noun phrase" (Carpenter 1997:193).

Similarly, Higgins (1973) has posited a *be* of identity for specificational pseudoclefts (as in (34a)) and a *be* of predication for predicational pseudoclefts (as in (34b)).[14]

(34) a. What John is is a danger to himself. - specificational pseudocleft

b. What John is is a danger to him. - predicational pseudocleft

In the specificational pseudocleft, being a danger to himself is predicated of John, not of the referent of the whole free relative; this sentence can be paraphrased as *John is a danger to himself.* Higgins named this construction "specificational" because it specifies the value of the description given by the free relative (here, *what John is*). In the predicational pseudocleft, the predicate *is a danger to him* is predicated of the referent of the free relative *what John is*. A possible situation where (34b) can be uttered is described by Partee (1999:362) as follows:

> ... perhaps John is a bodyguard, and being a bodyguard is a danger to John; in other words, it is John's job or situation that is a danger.

Further differences between the two kinds of pseudoclefts involve presence (in specificational pseudoclefts) vs. absence (in predicational pseudoclefts) of connectivity effects, which include the distribution of reflexive and non-reflexive pronouns, illustrated in (34) above, as well as an unexpected licensing of negative polarity items in specificational pseudoclefts, and case marking in languages like German. Furthermore, the two kinds of pseudoclefts can be distinguished by such tests as raising and subject-verb inversion. Finally, the two kinds of pseudoclefts contrast with respect to the so-called Tense Harmony (TH). In particular, specificational pseudoclefts exhibit TH: "if the

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[14] Higgins' (1973) full classification of copular sentences is more complex and includes four types of copular sentences: predicational, specificational, identificational and identity. Examples are given below from Heggie (1988:5):

(i) a. Bill is a scuba diver. - PREDICATIONAL

b. What John hates most about Jane is her tendency to brood. - SPECIFICATIONAL

c. That animal is a dog. - IDENTIFICATIONAL

d. The morning Star is the Evening Star. - IDENTITY

subject contains a relative clause, the matrix tense and the tense of the relative clause must agree" (Sharvit 2000:233). Predicational pseudoclefts, on the other hand, impose no such restrictions. For some recent accounts of pseudoclefts, see Heggie (1988), Iatridou and Varlokosta (1998), Heycock and Kroch (1999b), and Sharvit (2000). As mentioned in footnote 7, Russian has no clear cases of cleft or pseudocleft constructions, and therefore, I will not discuss these constructions in any detail in this dissertation.

To recap so far, I have outlined some analyses that maintain that the copula (*be*, *byt'*, *être*, *essere*, etc.) is ambiguous between two or more readings, including predication, identity and expression of tense/mood. For all these approaches, the ambiguity of the copula is related to the lexical item itself (i.e., it is encoded in the lexicon), not to the syntactic structure of the sentence in general. One problem with these analyses is that they miss the generalization that different copulas have largely homophonous paradigms. Under these analyses, the fact that the copula of predication and the copula of identity are pronounced the same in many languages is a pure coincidence (see Russell's quote above). In this dissertation, I will argue that there is no need to distinguish a copula of identity and a copula of predication in addition to the tense (and mood) marking functions of the copula. Instead, I will argue that the so-called copula of identity is but a marker of tense, whereas the copula of predication is a true argument-taking predicate; thus, the differences between the copula of identity and the copula of predication reduce to properties of functional vs. lexical heads.

1.4.2. Phrase Structure in Copular Sentences

For syntacticians, copular sentences have been of interest because they raise the question of phrase structure. In particular, the issue of the structure of the small clause core of copular sentences has been at the center of a heated debate among syntacticians. As discussed in this section, various structures that have been proposed for small clauses rely on different assumptions about core properties of phrase structure. Therefore, empirical evidence from small clauses (and in particular, from copular sentences) brought in support of one or the other of the structures proposed can have important ramifications for the overall theory of syntax.

It should be noted here that much of the influential syntactic research in the last ten years or so has concentrated on verbal projections (see Larson 1988, Pollock 1989, Grimshaw 1997, Marantz 1997, Cinque 1999, and many others). However, unlike "normal" (i.e., non-copular) sentences, copular sentences do not contain any verbs other than the copula itself (if it is a verb at all). Therefore, special attention should be given to nominal projections. Even though much has been written on argument nominals, predicative nominals are much less studied. It is often assumed that nominals are prototypical arguments, and that predicative nominals are in some sense atypical. The questions are then what it is that makes a nominal prototypically argumental, and whether this characteristic is associated with the noun itself or with some functional structure typically present with nominals. Thus, a question arises as to the distinction between lexical and functional layers and the relation between the two. This issue is discussed in section 2.1 below.

As has been mentioned above, at the core of a copular sentence is a small clause. Yet, the question of the nature and structure of small clauses is still much debated in the syntactic literature (for a nice summary, see Cardinaletti and Guasti 1995).[15] On the one hand, proposals have been put forward that treat small clauses as X-bar theory-compatible projections of either a lexical or a functional head. For example, one approach treats small clauses as the lexical projection of the head of the predicate (it can be an N, an A, or a P). The subject of a small clause can be either in the specifier of the lexical projection of the predicative head (as in Stowell 1981, 1983) or adjoined to that projection (as in Manzini 1983, Heycock 1994, Rothstein 1995). These proposals are summarized in (35), where XP is the predicate category.

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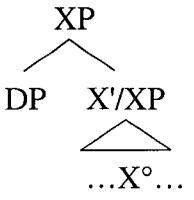
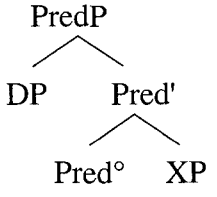
[15] Not everybody agrees that DP XP sequences form a constituent (i.e., a small clause) in the first place (e.g., Bresnan 1978, 1982, Williams 1980, 1983, 1994, Schein 1995, and many others do not accept the small clause analysis). Here, I will not discuss these approaches.

(35)



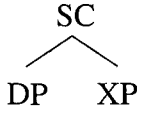
The second approach has been to analyze small clauses as projections of a special functional head, as illustrated in (36). For some proposals along these lines, see Kayne (1985), Hornstein and Lightfoot (1987), Moro (1988), Bailyn and Rubin (1991), Bowers (1993), and Svenonius (1994). Yet, the label and the nature of this functional head have been debated in the literature. For example, Sportiche (1995) and Guéron and Hoekstra (1995) label this functional head AGR° (this label allows to capture the generalization that adjectival heads of small clauses exhibit agreement with their subjects in languages like French and Italian, even though small clauses are semantically tenseless); Contreras (1995) labels this functional head Asp°, and Starke (1995) considers the same functional head to be a null V°. Following Svenonius (1994) and others, I call this functional head Pred°.

(36)



On the other hand, small clauses have been treated as anomalous constructions immediately connecting two maximal projections, with the top node marked as "SC" (for "small clause"), as in (37); see for example Moro (1997, 2000).

(37)



Whether structures like (37) are allowed in the grammar is still an open question. Obviously, such structures cannot be generated within the framework of X'-Theory since this structure contains no head. Moreover, this structure brings up the question of whether symmetry in general is allowed by the syntactic theory or not. According to Kayne (1994), symmetrical structures (including (37)) are ruled out by the Linear Correspondence

Axiom (LCA). However, a study of copular sentences re-opens this issue. In particular, some copular sentences have an appearance of perfect symmetry; the two DPs can be switched in order around the copula, as in *John is the culprit* and *The culprit is John.* Kayne himself does not discuss copular sentences at any length. He only makes a brief reference to earlier works of Moro (1991, 1993), where a functional structure as in (36) is adopted. But Kayne does not provide any empirical evidence from copular sentences to show that they do not involve the symmetrical structure in (37). Therefore, his claim that symmetrical structures are excluded cannot be taken for granted. In fact, Moro in his later works (1997, 2000) adopts a symmetrical structure like (37) for small clauses that appear in copular sentences. The issue of whether symmetry is possible in syntax will be taken up in section 2.2.

Finally, a question arises as to whether all small clauses have the same structure. Many analyses have been proposed in the literature where different types of small clauses have different structures. The differences in structure may correlate with one of the two factors: (i) the environment of the small clause, or (ii) the category of the predicate. The former approach is taken in Moro (2000), whereas the latter approach is taken in Contreras (1995) and this dissertation. In particular, for Moro (2000) the structure of small clauses depends on the environment they are embedded in: small clause complements to *believe*-type verbs – the so-called "rich" small clauses – have the structure in (36), whereas small clause complements to a copula – the so-called "bare" small clauses – have the structure in (37). On the other hand, for Contreras (1995) the difference depends on the specification for the [±V] feature. He adopts the small clause analysis for adverbial and verbal predicates (i.e., [+V] categories), but not for nominal and prepositional predicates (i.e., [–V] categories). For the latter type of predicates, Contreras proposes a version of the complex predicate analysis modeled on Larson's (1988) structure for double object constructions. In this dissertation, I will combine some features of each of these analyses: like Moro, I will draw a distinction between "rich" and "bare" small clauses, but I will follow Contreras in arguing that the difference between two structures for small clauses correlates with the category of the predicate. However, I will

differ from Contreras in that I will argue for a small clause analysis for NP predicates as well as AP predicates, but will draw a distinction between bare NP and DP predicates.

1.4.3. Thematic Relations and Copular Sentences

As noted by Moro (1997:255), copular sentences serve as a "Trojan horse" for linguistic theory by re-introducing the issue of thematic relations and their place in the architecture of the grammar. In GB, thematic relations have been dealt with within Theta Theory, the backbone of which is the Theta Criterion. The latter requires a one-to-one relation between arguments and thematic positions of predicative expressions. In Minimalism, thematic relations have been largely reduced to structural relations, in line with Baker's (1988) Uniformity of Theta Assignment Hypothesis (UTAH). For instance, Chomsky (1995:313) views thematic relations as manifestations of configurational relations; for him,

> ... a θ-role is assigned in a certain structural configuration; β assigns that θ-role only in the sense that it is the head of that configuration.

This view has been challenged by Neeleman and Weerman (1999), who claim that thematic relations should be dealt with in an independent module of grammar. For them, Theta Theory is interpretative in nature and "located at the LF interface" (p.3).

Copular sentences require a renewed attention to the questions of thematic relations. For instance, they raise the question of whether nouns themselves are bearers of θ-roles. A theory that views nouns themselves as prototypical arguments implies that predicative nominals are none other than arguments of the copula, whereas a theory that places the burden of argumenthood on the functional structure implies that predicative nominals have θ-roles that must be discharged in some way.

Furthermore, Theta Theory must account for the way(s) in which thematic positions may be discharged. The Minimalist view of thematic relations as manifestations of configurational relations makes only one way of discharging a θ-role available in the grammar – Merger. Yet, it has been proposed by Higginbotham (1985) that there is more than one way of discharging thematic positions. Copular sentences bear on this issue in

the following way: as will be shown in this dissertation, synonymous verbs, adjectives, and nouns do not discharge (what appears to be) the same θ-role in the same way (following Baker and Stewart 1997 and Baker 2000). Thus, in copular sentences adjectives (and nouns) need a different way of thematic discharge from that employed by verbs in non-copular sentences.

Another complication for Theta Theory arises when one considers what a θ-role consists of. As has been proposed by Samek-Lodovici (1999), based on earlier proposals by Jackendoff (1987), Grimshaw (1990), and Speas (1990), a distinction should be drawn between 'argumental variables' and 'thematic indices'. The former can be understood as slots in the thematic grid of the predicate, whereas the latter encode the content of the θ-role. Samek-Lodovici bases his argument on *ata*-nominalizations in Italian. In this dissertation, I will provide new support for this distinction by showing that it is necessary in order to account for copular sentences as well.

To recap, a careful investigation of copular sentences will show that there is more to the Theta Theory than a direct link between a configuration and an interpretation. Furthermore, there are non-trivial connections between Theta Theory and Case Theory. I will explore these issues in detail in chapter 3 of this dissertation.

1.4.4. Case Marking in Copular Sentences

Another way in which copular sentences play the role of a "Trojan horse" for the theory of syntax is by re-introducing the question of the nature of case. Any viable theory of case must be able to give a coherent definition of case and to account for all its occurrences. Unfortunately, many current theories of case fail to account for case marking on predicative nominals. This dissertation is intended to remedy this situation by providing an account for case marking in copular sentences.

The reason for the problematic nature of case marking on predicative nominals is that most of the work on case within the Chomskian tradition has concentrated on arguments and expletives, while predicative nominals were left largely unexplored from the case-theoretic point of view (some of the rare exceptions are Neidle 1982, Andrews 1982, Lee 1989, Delsing 1993, and Maling and Sprouse 1995).

In GB, Case Theory was supposed to account for the distribution of noun phrases; its central principle – the Case Filter – was intended to filter out noun phrases in "wrong" positions in the clause. A similar filtering mechanism has been proposed in the LFG framework, where the effect of ruling out caseless noun phrases is produced by constraint equations and the principle of consistency, which requires that "in a given f-structure a particular function name... must have a unique value" (Neidle 1982:399). Note, however, that Chomsky (1981, ch.6) has proposed a different view of Case Theory as derivable from Theta Theory. According to this view, a noun phrase must be case-marked in order to be visible for θ-role assignment; this is why it is called the Visibility Condition. In essence, the Visibility Condition restricts the domain of application of Case Theory to thematic arguments.[16] Therefore, case marking on predicative nominals becomes a non-issue in this framework.

In the framework of the Minimalist Program, case is not a very central issue either. Chomsky (1995:277) considers case a formal feature that must be checked and deleted prior to the interfaces. In short, the *raîson d'être* of case in Minimalism is to motivate movement of nominals into the specifier positions of the appropriate functional heads. Depending on whether in a given language the case features are strong or weak, this movement must occur before or after the Spell-out; this in turn determines the word order. For example, nominative is taken to be checked in a Spec-Head relationship in TP (i.e., IP), whereas the source of accusative is more controversial. The common ground is, however, that accusative is checked against some lower functional head (e.g., AgrO, as in Chomsky 1991, or Aspect, as in Travis 1992, Borer 1994, Ramchand 1997, Pereltsvaig 2000). Yet, it is not obvious how case marking on predicative nominals can be tackled within this framework.

In fact, the most problematic is the nominative marking in copular sentences, especially in those sentences that feature two nominative phrases. The nature of the

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[16] Chomsky (1981:336-337) shows that the Case Filter is derived from the Theta-Criterion even for non-arguments, such as expletive *it*. However, he does not discuss predicative nominals, and as far as I can see, there is no way to derive the Case Filter from the Theta Criterion for these nominals as well.

nominative has been debated in recent years. The more common position is that nominative is like other structural cases (i.e., accusative, and possibly, genitive and dative) and therefore must be checked against an appropriate functional head (cf. Chomsky 1995, 1998, 2000). In this view, nominative on the predicative phrase can be either assigned directly by the copula or transmitted from the subject. The latter approach is taken in Neidle (1982), Yip et al. (1987), Bailyn and Rubin (1991), Rothstein (1992:138, fn.10), and Franks (1995); however, as shown by Comrie (1997), both approaches might be necessary in accounting for the typological diversity of copular sentences with the NOM–NOM pattern.

In recent years, however, a different view of the nominative has been put forward by several independent researchers (see Falk 1991, 1997, Bittner and Hale 1996, Neeleman and Weerman 1999). According to these researchers, nominative is not like any other case; instead, they argue that nominative represents lack of syntactic case. Therefore, nominative cannot be assigned or transmitted. In fact, nominative phrases fail to pass the Case Filter in its old formulation, and must be licensed differently. Both Falk (1991, 1997) and Bittner and Hale (1996) reduce these special licensing conditions for nominative phrases to a structural configuration, essentially Spec-TP.[17] This solution, however, is problematic when one attempts to account for two nominatives in copular sentences. The only way to satisfy these configurational licensing conditions for two nominatives is to allow for multiple specifier positions (this is the essence of Bailyn and Citko's 1999 analysis). This brings us back to the question of phrase structure and symmetry in syntax, discussed in the previous section. Furthermore, it is unclear how to restrict such an analysis from overgeneralizing to non-copular sentences.

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[17] Note that these analyses, as formulated here, are empirically indistinguishable from the classical GB claim that nominative is checked in Spec-TP. The difference is in that the non-Case analyses of the nominative allow one to add other possible licensing conditions for nominative phrases. Thus, nominative objects in Finnish (and other languages) are accounted for by Falk (1997) by introducing discourse-related licensing conditions. See also the discussion in chapter 4 below.

An alternative is to return to the Visibility Condition of Chomsky (1981, ch.6). This is indeed the position of Neeleman and Weerman (1999), and it will be further developed in this dissertation. However, if one adopts this position, the problems raised by copular sentences for the thematic component of the grammar become even more relevant. Thus, if one assumes that the *raison d'être* of case is to identify arguments in the syntax and that nouns *per se* are argumental (i.e., referential), it comes as no surprise that predicative nominals, which are then treated as arguments of the copula, must be marked with case. However, if one places the burden of referentiality on the functional structure of the nominal (say, the D-layer), then predicative nominals can be analyzed as lacking that functional structure and therefore as true predicates. Under this view, it is unexpected that predicative nominals are marked with (non-nominative) case.

Russian copular sentences provide a particularly interesting problem for the case theory because not only is there case marking on the post-copular phrase, but there is also a contrast between nominative and instrumental case marking in that position. Therefore, a theory that can account for either nominative (i.e., morphologically unmarked) or instrumental (i.e., morphologically more marked) case marking on post-copular phrases in Russian but not for both falls short in accounting for the full range of data. Chapter 4 of this dissertation is dedicated to a detailed discussion of case marking in copular sentences in Russian. Here, I will outline two analyses that have been proposed to account for the contrast between the NOM–NOM and NOM–INSTR patterns in Russian copular sentences: Bailyn and Rubin (1991) and Franks (1995).

There are two ways to see the contrast between NOM–NOM and NOM–INSTR patterns. One can treat the NOM–NOM pattern as the unmarked and the NOM–INSTR pattern as the marked pattern, or vice versa, the NOM–INSTR pattern as unmarked and the NOM–NOM pattern as marked. The former position seems to be more natural on the basis of cross-linguistic data since, as discussed in Comrie (1997), in most languages post-copular nominals appear with nominative (or absolutive) case marking. It is adopted in Fowler (1997:145). On the other hand, the approach that treats the NOM–INSTR pattern as the unmarked one appears to be more reasonable on the basis of the Russian data, as discussed below.

Bailyn and Rubin's (1991) article is part of their larger research program, the goal of which is to identify structural conditions for case assignment in Russian (see for example Bailyn 1991, 1995, Bailyn and Citko 1999, Rubin 1994). Their working hypothesis is that there is a "close connection between configurational structure and particular morphological case occurrences in Russian" (Bailyn 1991:57). With respect to instrumental case, Bailyn and Rubin (1991:99) claim that "the predicate nominal use of instrumental case" and "all its other productive occurrences in Russian" can be unified "under a simple general rule". Upon an examination of the data concerning "all productive occurrences" of instrumental case in Russian, Bailyn and Rubin (1991:101) adopt Pesetsky's (1982) generalization that "Russian [+N] categories bear instrumental case when they are secondary predicates".[18] Some examples of this use of instrumental (from Bailyn and Rubin 1991:100) are given below:

(38) a. Ja ščitaju Sašu durakom.
I.NOM consider Sasha.ACC fool.INSTR
'I consider Sasha a fool.'

b. Ja našël ego pjanym.
I.NOM found him.ACC drunk.INSTR
'I found him drunk.'

---

[18] Bailyn and Rubin (1991) refer to "productive occurrences of instrumental case" to avoid including Instrumental objects (as in (i)) in their generalization. For more discussion of this type of instrumental case marking, see section 4.2.1 below.

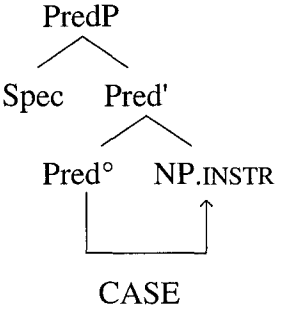
(i) Ivan upravljal stranoj.
Ivan governed country.INSTR
'Ivan governed the country.'

In fact, they also ignore the occurrences of instrumental case on nominal adverbials (e.g., *utrom* 'in the morning', lit. 'morning.INSTR') and cognate objects (e.g., *Ivan ulybnulsja ščastlivoj ulybkoj* 'Ivan smiled happy.INSTR smile.INSTR.'). For an analysis of these constructions along the lines of Bailyn and Rubin (1991), see Pereltsvaig (1999b, 1999c, 2000).

c. My tancevali golymi.
we.NOM danced nude.INSTR
'We danced nude.'

In their account, Bailyn and Rubin (1991) rely on the functional head Pred°, first introduced by Bowers (1993, an article which was written at the same time as Bailyn and Rubin's work but was published a few years later).[19] In order to account for the generalization that instrumental is the "default predicative case" in Russian, Bailyn and Rubin (1991:105) propose Rule R, according to which Pred° (the head of the secondary predicate small clause) assigns instrumental case to its complement.

(39)



Furthermore, Bailyn and Rubin (1991) claim that in copular sentences with the NOM–INSTR pattern the instrumental predicate is a secondary predicate, not a primary one. It is a PredP small clause which is selected by the matrix verb *byt'* 'be'. The copular verb moves from V° to the matrix Pred°. The nominative subject is base-generated in the specifier position of the lower PredP and moves into Spec-TP for case reasons. So the sentence in (40a) has the structure in (40b); here, I omit the specifier positions of matrix PredP and the VP; it is to be understood that the movement of the subject proceeds through these positions in the usual manner.

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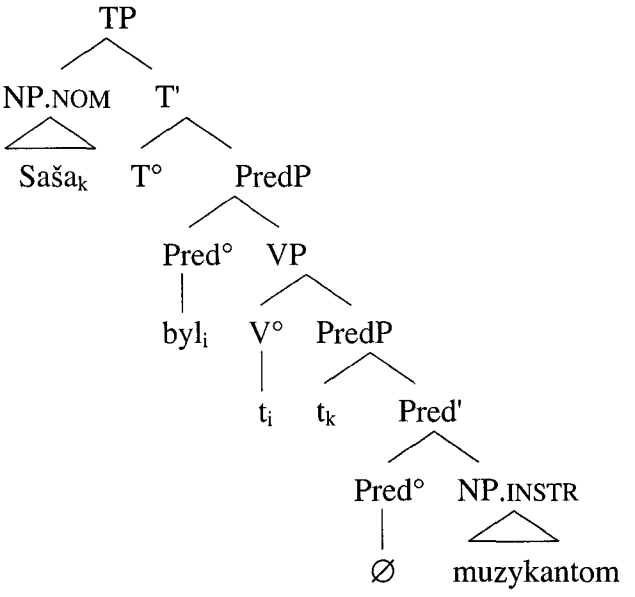
[19] Bailyn and Rubin (1991) use "Pr°" for this functional head, following Bowers' terminology. In this dissertation, I follow Svenonius (1994) and use Pred° instead.

(40) a. Saša byl muzykantom.
Sasha.NOM was musician.INSTR
'Sasha was a musician.'

b.



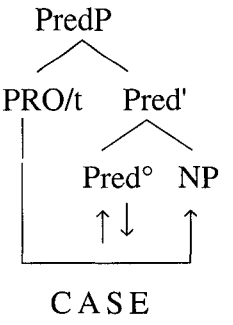
Therefore, the assignment of instrumental case in copular sentences is seen as an instance of a more general rule of instrumental case assignment to complements of Pred°. In contrast, Bailyn and Rubin (1991) see the NOM–NOM pattern as more exceptional. It is accounted for by a special rule, given below from Bailyn and Rubin (1991:116):

(41) Rule A

Pred° assigns case A to its complement, where A is the case assigned to the controller of the PRO, or binder of the trace, in its specifier position.

According to this rule, Pred° transmits case from its specifier (or the chain of its specifier) to its complement. Note, however, that this kind of case assignment is not found anywhere else in the grammar of Russian. This rule is schematized below:

(42)



In Modern Russian, the two rules involving case assignment by Pred° apply as follows: Rule R applies when Pred° is null, and Rule A applies when Pred° is filled. In order to account for copular sentences with the NOM–NOM pattern, Bailyn and Rubin (1991:122) assume that "matrix Pred° ... is always filled by virtue of its association with I°", not a straightforward assumption at all. Therefore, the structure of copular sentences with the NOM–NOM pattern is as follows:[20]

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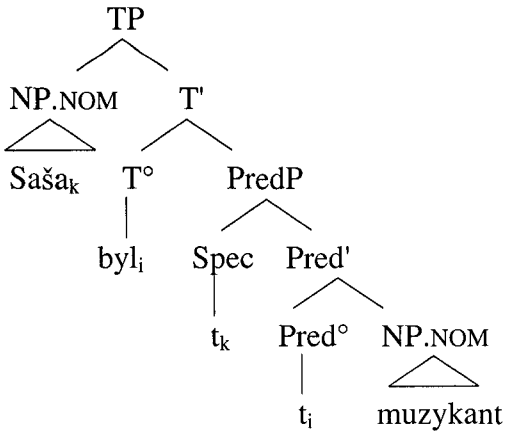
[20] In addition to accounting for copular sentences with the NOM–NOM pattern, Rule A also accounts for sentences with an overt Pred°, such as *za* 'as' and *kak* 'as', as in (i):

(i) My sčitaem ego za / kak našego / * našim.
we consider him.ACC as / as our.ACC / * our.INSTR
'We consider him as one of us.' [Bailyn and Rubin 1991:119]

Rule A was also active in older stages of the language (before Rule R came into play); therefore, it accounts for such historical remnants as secondary predicates *odin* 'alone' and *sam* 'by oneself'. Rule A is also active in other languages, such as Serbian/Croatian/Bosnian and English. For a more detailed discussion of cross-linguistic typology and diachronic facts, the reader is referred to Comrie (1997) and Bailyn and Rubin (1991), and the references cited therein.

(43)



Thus, according to Bailyn and Rubin (1991), there are two copulas *byt'* 'be': one is a verb and the other one is of category Pred°. Note further that Bailyn and Rubin consider the Pred° *byt'* 'be' as a non-raising predicate in sentences with the NOM-NOM pattern and as a raising predicate in sentences with the NOM-INSTR pattern.

To recap so far, Bailyn and Rubin (1991) treat copular sentences with the NOM–INSTR pattern as falling into the general case of instrumental case assignment by the functional head Pred°, which heads secondary predicate small clauses. The copular sentences with the NOM–NOM pattern are treated as instances of primary predication where Pred° transmits case from its specifier to its complement.

Franks (1995) agrees with Bailyn and Rubin (1991) that the NOM–NOM pattern results from agreement between the nominative subject and the predicative nominal. However, unlike Bailyn and Rubin, he does not treat this version of *byt'* 'be' as transitive. Even though Franks does not discuss sentences with the NOM–NOM pattern in great detail, it appears that he treats this version of *byt'* 'be' as a raising predicate. Moreover, Franks (1995) disagrees with Bailyn and Rubin (1991) as to how the sentences with the NOM–INSTR pattern should be properly analyzed. For him, these occurrences of instrumental case should be analyzed as instances of inherent case assignment rather than as instances of secondary predication. In other words, Bailyn and Rubin (1991) analyze the sentence in (44a) in the same way as the sentence in (44b), whereas Franks (1995) treats the sentence in (44a) as parallel to the sentence in (44c).

(44) a. Saša byl poètom.
Sasha.NOM was poet.INSTR
'Sasha was a poet.'

b. Saša pel golym.
Sasha.NOM sang nude.INSTR
'Sasha sang nude.'

c. Saša upravljal mašinoj.
Sasha.NOM drove car.INSTR
'Sasha drove a car.'

According to Franks (1995), instrumental case in copular sentences is assigned by *byt'* 'be', a transitive verb, which patterns with other transitive verbs in that it assigns inherent instrumental to its theme object. Other verbs in Russian that assign inherent instrumental include verbs of management (e.g., *rukovodit'* 'supervise', etc.), verbs of interest (e.g., *interesovat'sja* 'be interested in', etc.), possession (e.g., *vladet'* 'own', etc.), transferring possession (e.g., *nadelit'* 'endow', etc.), admiration/pride (e.g., *ljubovat'sja* 'admire', etc.), and a few other definable classes (for a more detailed listing and examples, see section 4.2.1 below). In contrast to these occurrences of inherent instrumental case, Franks (1995:39) proposes that instrumental case of secondary predicates results from a structural case assignment rule, according to which instrumental is assigned to sisters of VP. In terms of raising, Franks (1995) treats the copula *byt'* 'be' as a raising predicate in sentences with the NOM-NOM pattern and as a non-raising predicate in sentences with the NOM-INSTR pattern.

To recap, both Bailyn and Rubin (1991) and Franks (1995) agree that Russian makes use of two copulas *byt'* 'be', one of which is a transitive predicate and the other a raising predicate. However, these two analyses differ in their choice of which of the two copulas (i.e., the one associated with nominative or with instrumental) is the raising predicate, and which one is the transitive predicate. For Bailyn and Rubin, the "nominative" copula is transitive and the "instrumental" one is raising, whereas for Franks it is the other way around: the "nominative" copula is raising and the

"instrumental" one is transitive. In this respect, the analysis proposed in this dissertation is similar to that of Franks (1995).

For both Bailyn and Rubin (1991) and Franks (1995), the nominative case arises as the result of agreement between the nominative subject and the predicative nominal.[21] On the other hand, the instrumental case is assigned by a different rule, assimilating instrumental case in copular sentences either to secondary predicates (for Bailyn and Rubin) or to inherent case assignment (for Franks). In this dissertation, I will argue for an analysis similar to that of Franks (1995) but not exactly the same. In particular, I will argue that the instrumental case on the post-copular phrase is an instance of inherent case. However, I will argue against the "agreement in case" analysis that both Bailyn and Rubin (1991) and Franks (1995) subscribe to.

1.5. Theoretical Framework

The theoretical framework one assumes for one's linguistic research is as important in shaping the final analysis as the data this analysis is intended to account for. On the one hand, the pre-selected theoretical framework makes a researcher see the data in a particular light. On the other hand, the data may lead the researcher into adopting a particular theoretical framework, the one that is better adapted to describing and explaining the data. In general, this dissertation is set in the Chomskian framework of modular generative grammar, in particular the Minimalist framework (Chomsky 1995). However, it will be shown that it is necessary to make further amendments to the Minimalist theory of grammar in order to account for all the relevant facts. In this section, I briefly describe the main postulates of the Minimalist model of the grammar, with particular reference to four modules that are especially relevant for the study of copular

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[21] Bailyn and Citko (1999) account for this apparent agreement in case through case checking in multiple specifiers of the same functional head. Thus, for them both nominative phrases move to [Spec, TP] positions, one of them doing so in overt syntax and the other one at LF. See chapter 4 for a more detailed discussion.

sentences: (i) phrase structure, (ii) thematic and subject-predicate relations, (iii) case, and (iv) movement.

Minimalism grew out of a reaction to the extreme theoretical complexity of the earlier Government and Binding (GB) model. Thus, the main goal of the Minimalist Program is to reduce the grammar to "virtual conceptual necessity" (Chomsky 1995:169), or as Epstein and Hornstein (1999:xi) put it: "all things being equal ... more is worse; fewer is better". As the first step in this direction, Chomsky (1995:169) reduces the number of levels of representation to only two "(conceptually necessary) interface levels": A-P (articulatory-perceptual) and C-I (conceptual-intentional) interfaces (see also Chomsky 2000:113). Thus, in Minimalism the D-structure and the S-structure of the GB model no longer exist as autonomous levels of representation at which grammatical principles may apply. The notion "S-structure" is replaced by "Spell-Out", an operation that strips the representation of the features that are relevant only to PF, leaving the residue Σ, which is mapped onto LF by the same kinds of operations that are used to form Σ.[22] Moreover, D-structure *per se* does not exist at all because Merge and Move, the two basic operations, apply in successive turns, so that there is not necessarily a stage in the derivation at which the structure contains all the elements in their base-generated (merged) positions. Thus, unlike the GB model, Minimalism is radically derivational. There are no output conditions other than those required by the interfaces themselves, and

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[22] According to Chomsky's (1995) conceptualization, Spell-Out is a quasi-level at which no principles can apply. Uriagereka (1999) argues that Chomsky's stipulation that Spell-Out apply but once "fails to fully extirpate SS as a level" (cited in Epstein and Hornstein 1999:xvii). Instead, Uriagereka proposes that Spell-Out is a rule which, like any other rule can apply multiple times in the course of a derivation. Alternatively, it has been proposed that Spell-Out is the single output of syntactic derivation (cf. Single Output Syntax, Bobaljik 1995:349-350). According to this view, "the syntax produces a single output representation from a given input, and this output representation is then interpreted by semantic and morpho-phonological components"; therefore, "Spell-Out is after LF movement operations". The exact nature of Spell-Out is not crucial for the discussion in this dissertation.

structure is built derivationally by alternating applications of the two basic operations – Merge and Move.[23]

As a further simplification of the grammar, Minimalism eliminates standard X-bar theory: "minimal and maximal projections are not identified by any special marking, so they must be determined from the structure in which they appear" (Chomsky 1995:242). Intermediate projections do not exist at all because they are not required by bare output conditions.[24] Structure is created by multiple applications of Merge, the "operation that forms larger units out of those already constructed" (Chomsky 1995:243). According to Chomsky (1995:246), "the operation Merge(α, β) is asymmetric, projecting either α or β, the head of the object that projects becoming the label of the complex formed." However, this latter point will be challenged in this dissertation, in particular in section 2.2.

Theta Theory, which has played an important role in the GB model of the grammar, loses much of its importance in the Minimalist model.[25] Thus, in Minimalism thematic relations are merely expressions of certain configurations: "a θ-role is assigned in a certain structural configuration; β assigns that θ-role only in the sense that it is the head of that configuration" (Chomsky 1995:313, see also Chomsky 2000:103, 127). The effect of the Function Saturation Principle of Heycock (1994), which made the projection of subjects obligatory, is produced by the new formulation of the EPP, which is "divorced from Case" (Chomsky 1995:282) and further extended from T° to C° and v° (Chomsky 2000:102). In contrast to thematic relations, which take place in lexical domains, case and agreement are morphological features, which are checked in functional domains.

In contrast to Theta Theory, movement receives a considerable attention in Minimalist research. Unlike Move-α in the GB model, movement in the Minimalist

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[23] Here, I will not discuss the operation Agree (see Chomsky 2000:101-102, 122-123), or the notion of phases (see Chomsky 2000:106-110).

[24] In this dissertation, I will continue to use labels like X°, X' and XP as convenient labels, following common practice.

[25] To a certain degree this dissertation is aimed at remedying this situation.

Program is driven by morphological feature checking – some feature must be checked in order for movement to take place. Chomsky (1995:280) calls this restriction on Move the Principle of Last Resort, and derives it from the Principle of Full Interpretation, which requires that interface representations contain no elements inaccessible to that interface. This means that features that cannot be interpreted by either of the interface levels, the so-called [–Interpretable] features, must be checked (and erased) prior to the interfaces. Features are checked by entering into the checking domain of a head that contains a corresponding feature. The checking domain is created by adjunction to an XP, or a head, or substitution. Case in the Minimalist Program is considered as one such [–Interpretable] feature which must be checked prior to the interfaces (see Chomsky 2000:102, 119). Therefore, it is nothing more than motivation for movement. It should also be noted here that in much of the Minimalist research nominative case is treated on a par with accusative, both being called structural cases. In this dissertation, I will adopt a different view of case in general and nominative case in particular. These issues are discussed in chapter 4 of this dissertation.

In addition to the principle of Last Resort, Move is restricted by Economy conditions, in particular the Minimal Link Condition. Both the Last Resort and the Minimal Link Condition are incorporated into the definition of *Attract F*, cited below from Chomsky (1995:297).

(45) K attracts F if F is the closest feature that can enter into a checking relation with a sublabel of K.

As seen from this definition, the notion of "closeness" plays an important role in Economy conditions. The definitions of "closeness" and "equidistance" from Chomsky (1995:356) and the definition of minimal domain from Chomsky (1995:299) are given in (46).

(46) Assume that α is a feature or an X° category, and CH is the chain (α, *t*) or (the trivial chain) α. Furthermore, β c-commands α and τ is the target of raising.

a. EQUIDISTANCE:

γ and β are *equidistant* from α if γ and β are in the same minimal domain.

b. CLOSENESS:

β is *closer* to K than α unless β is in the same minimal domain as (a) τ or (b) α,

c. MINIMAL DOMAIN:

The *minimal domain* Min(δ(CH)) of CH is the smallest subset K of δ(CH) such that for any $\gamma \in \delta$(CH), some $\beta \in$ K reflexively dominates γ.

The *domain* δ(CH) of CH is the set of categories included in Max(α) that are distinct from and do not contain α or τ.

Max(α) is the smallest maximal projection including α.

To summarize, the Minimalist model presents a significant simplification of the grammar compared to the older GB model. In this dissertation, I will show that the Minimalist model is not only descriptively adequate but also superior to the GB model in accounting for copular sentences. In particular, I will show that certain simplifications of the grammar within the Minimalist model remove the obstacles that would lead to unnecessary complications in the analysis within the GB model. For example, the elimination of X-bar theory allows us to generate structures that are excluded within the GB model, thus allowing us to further simplify other modules of the grammar. On the other hand, I will show that certain elements in the Minimalist argumentation should be clarified, modified or replaced.

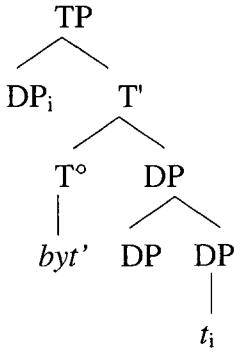
1.6. Proposal

> If morphological evidence does not fit in with our assumptions about the underlying structure, perhaps we should question those assumptions rather than immediately blame it all on the morphology.
>
> – Wierzbicka, *The Case for Surface Case*

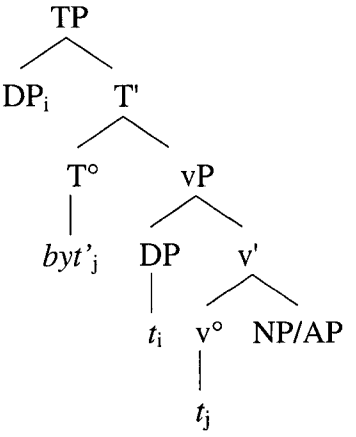
In this dissertation, I argue for the following hypothesis: there are two types of copular sentences associated with two distinct syntactic structures. The two structures are

illustrated in (47) below.[26] In Russian, the two structures are most easily distinguishable by the overt case marking on the post-copular phrase: nominative in (47a) and instrumental in (47b).

(47) a. *Bare Copular Sentences*



b. *Rich Copular Sentences*



Before I proceed, a note on terminology is in order. Throughout this dissertation, I will use different terms for these two types of copular sentences: the sentences with the structure in (47a) will be referred to as "bare copular sentences", "symmetrical copular sentences", "equative copular sentences", or "identity copular sentences". In contrast, the sentences with the structure in (47b) will be referred to as "rich copular sentences", "asymmetrical copular sentences" or "non-equative copular sentences". These different terms reflect different aspects of the respective structures. The distinction between "rich" and "bare" copular sentences goes back to the distinction proposed by Moro (2000) between "rich" and "bare" small clauses, and reflects a more complex structure of rich small clauses involving an additional head – v°. The terms "symmetrical" and "asymmetrical" copular sentences refer to the fact that the small clause core of the structure in (47a) is symmetrical (with the two DPs at the bottom mutually c-commanding

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[26] For the sake of exposition, I ignore the possibility that I° should be split into a number of functional categories (see Pollock 1989, Cinque 1999). Throughout this dissertation I will assume that all tense, modality, mood and outer aspect morphemes are generated in I°. Furthermore, in (47b) I assume that the copular verb *be* raises to the I° node in line with a generally adopted position that Russian is a verb-raising language (for some arguments, see King 1993:28-30).

each other), whereas the small clause core of the structure in (47b) is an asymmetrical projection of v°. The terms "equative"/"identity" and "non-equative" copular sentences refer to different types of interpretations that these sentences have (as discussed further in this dissertation, see chapter 3).

These structures are different in the following three ways:

- the structure in (47a) involves a DP as the post-copular phrase, whereas the structure in (47b) involves an NP or an AP as the post-copular phrase;
- the structure in (47b) involves an additional projection – vP – which is absent in (47a);
- the two structures involve different "versions" of the copula *byt'* 'be': one is a functional category (here I assume it to be T°, as in (47a)), and the other is a lexical category (namely, a v°, as in (47b)).[27]

It may seem that such a complex analysis is redundant – it would be enough to postulate one difference between the two structures. However, it is my contention that the three differences proposed above are all related to each other. I take the category of the post-copular phrase as the most basic difference between the two structures from which the others follow.

Consider first the claim that copular sentences with an NP/AP as the post-copular phrase contain an additional projection – the vP. The necessity of projecting a vP follows from the thematic properties of the AP/NP (as discussed in more detail in section 3.2.1). I follow the ideas in Baker and Stewart (1997) and Baker (2000), who argue that an adjective cannot assign a theta-role to its specifier but "needs help" from another category. However, I will argue that this "helping" head is a lexical rather than a functional category (for definitions of lexical vs. functional categories, see section 2.1.1). This brings us to the third difference between the two structures, namely the existence of

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[27] Calling the head of the small clause a v° rather than Pred° is in line with Eide and Åfarli's (1999:176) claim that "predication operator [i.e., Pred°] is internal to the verb, or in other words that the verb is a lexicalization of the operator".

two "versions" of the copula: a lexical copula and a functional copula. As I have mentioned above, I will argue that the copula in (47b) must be a lexical category.

Why can't the copula in (47a) be a lexical category as well? Adopting ideas from Neeleman and Weerman (1999), if the DPs in a bare copular sentence are complements or specifiers of a lexical head (and therefore, are interpreted as its arguments), they need to be marked with case. Yet, if the DPs are not arguments of a lexical head, as in the structure proposed here, they need not be marked with case. Thus, nominative case marking in these sentences will be argued to be a morphological default, rather than a pre-specified syntactic nominative case. (Case Theory will be discussed in detail in chapter 4 below.) To recap, the thematic properties of an AP/NP require that the copula that appears with it is a lexical category, but the facts concerning case marking together with the theory of case as in Neeleman and Weerman (1999) require that the copula that appears in a bare copular sentence be a functional head.

Having distinguished between lexical and functional "versions" of the copula, I will argue that there is no need to distinguish between several lexical items corresponding to the copula. On the contrary, the properties that distinguish the lexical "version" of the copula from the functional one can be accounted for purely by the distinction between lexical and functional categories.[28] In other words, it is possible to maintain one lexical entry for *be* (and its counterparts in Russian and Italian) and derive differences in behavior from the insertion site.

1.7. Organization of the Dissertation

The argument in this dissertation is organized as follows. The next chapter (chapter 2) is concerned with phrase-structural relations. In this chapter, I will address the

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[28] As has been suggested to me by Peter Svenonius, a similar situation arises with the lexical item *one*, which can be merged into the structure either as a lexical head, as in (ia), or as a functional head, as in (ib).

(i) a. a big one

b. one big cat

questions of theoretical motivation and initial plausibility of the structures proposed for copular sentences. In particular, I will defend two claims:

- Copular sentences with a post-copular DP, on the one hand, and those with a post-copular NP or AP, on the other hand, have very different structures. The difference is related to the thematic properties of DPs vs. NPs and APs. The former are referential, whereas the latter are predicative in nature.
- The operation Merge conceived in the true Minimalist spirit allows for the generation of a symmetrical structure, like the one proposed for bare copular sentences. Thus, symmetry is allowed in the syntax.

The goal of the later chapters (chapters 3 and 4) is to show that the structures proposed for copular sentences are not only plausible, but also allow for an account of a range of properties that such sentences have. In particular, chapter 3, which is concerned with thematic relations, shows that the structures I propose for copular sentences allow us to account for the interpretations associated with these sentences. Chapter 4 develops the Case Theory and provides an analysis of case marking in copular sentences in accordance with the structures I propose for these sentences. Chapter 5 summarizes the discussion throughout the dissertation.

2. Phrase Structural Relations

This chapter is concerned with Phrase Structure Theory. In order to generate syntactic structures, we need two basic elements: the building blocks and the operation(s) that combine these building blocks. For the purposes of this dissertation, I will assume that the building blocks of syntax are terminal nodes, which are bundles of features, most importantly category features. Furthermore, the operation that combines these bundles of features (and thus creates new bundles of features) is Merge. In this chapter, I will discuss these two components of the grammar in turn: in section 2.1, I address some of the issues concerning the nature of syntactic categories, and in section 2.2, I discuss the operation Merge.

In Section 2.1.1, I will discuss the distinction between lexical and functional categories, and will propose that the characteristic property of lexical categories which distinguishes them from functional categories is their association with theta-grids. Then, in section 2.1.2 I will consider the distinction between lexical and functional layers in noun phrases. I will argue that DPs and NPs (lacking the functional D-layer) differ in a very important way: DPs are referential in nature, whereas NPs are predicative. A brief interim summary is given in section 2.1.3.

The main goal of section 2.2 is to argue that the symmetrical structure proposed for bare copular sentences can be generated by Merge conceived in the true minimalist spirit. Upon the examination of the Antisymmetry Hypothesis (section 2.2.1), I will discuss some of the problems raised by the Antisymmetry Hypothesis (section 2.2.2). In particular, I will argue that the empirical motivation for the Antisymmetry Hypothesis is undermined by the fact that the alleged empirical advantages of this theory are outweighed by its costs. Furthermore, I will argue that the theoretical motivation for the Antisymmetry Hypothesis is problematic as well. Then, I will conclude that there is no motivation for applying the LCA throughout the derivation. Furthermore, I will reject Moro's (2000) proposal that all movement is triggered by the search for antisymmetry.

Instead, I will adopt the view that neutralizing a point of symmetry is a possible consequence of movement, but is not required (and therefore cannot trigger movement).

In section 2.2.3, I consider the question of how symmetrical structures can be generated in the first place. In this respect, I will propose that if the two input constituents have the same feature compositions, Merge need not asymmetrically project one of the input constituents. In section 2.2.4, I briefly discuss some constructions which may be analyzed as involving symmetrical structures. Finally, section 2.2.5 summarizes the claims made in this part of the dissertation.

2.1. On the Nature of Syntactic Categories

Syntactic categories are the building blocks of syntax. Yet, up to now their nature is understood less than perfectly. Even lexical categories, such as Verb, Noun, Adjective, which have been distinguished for more than 2000 years, remain somewhat a mystery in generative grammar. Thus, questions like what makes a verb into a verb, and what makes it different from, say, a noun have not been answered fully. Functional categories, such as Agreement, Complementizer and Mood, are even more problematic, as can be witnessed from a lively debate in the last ten years or so. What constitutes evidence for the existence of a functional category? How many such categories are there? Are such categories universal or can languages realize only some of the universally available categories? Can items belong to more than one category? What is the relation between lexical and functional categories? Is it the properties of the lexical or the functional layer that determine the syntactic behavior of a given item (such as a noun phrase)? Even though this dissertation is not primarily on the classification of syntactic categories, some of the questions related to syntactic categories are unavoidable here. As has been mentioned in chapter 1, copular sentences shed new light on the nature of lexical and functional categories because in such sentences nominals are used in a non-prototypical way, namely, as predicates. In this section, I will consider the issue of whether referentiality is a property of a noun itself or of the functional layer over it and will provide support for the following two claims:

- Referentiality (and therefore, the possibility of argumenthood) is to be associated with D° and not with N°.
- Nouns, much like adjectives and verbs, have theta-grids.

2.1.1. Lexical vs. Functional Categories

The distinction between lexical and functional categories is a very fundamental one in generative syntax. For example, Li's (1990) generalization governing proper head movement is formulated in terms lexical vs. functional categories.

(48) The Proper Head Movement Generalization (cited in Baker 1996:284)
A lexical category cannot move into a functional category and then back into a lexical category.

However, the nature of the distinction is not very clear. As Cardinaletti and Giusti (2000:1) note, "it is sometimes not easy to decide whether an element belongs to either of the two classes [i.e., functional or lexical categories]". So what are the criteria that make one decide whether a given element belongs to the class of functional or lexical categories? Based on Abney's (1987) dissertation, Kerstens (1993) lists the following four criteria that distinguish functional categories from lexical ones:[29]

(49) a. Functional elements constitute closed lexical classes.
b. Functional elements permit only one complement (which is a non-argument).
c. Functional elements are usually inseparable from their complements.
d. Functional elements "lack descriptive content".

Yet, these criteria are not unproblematic and sometimes contradict each other with respect to a given item or set of items. Consider the "closed class" criterion first. One problem with this criterion is that it is not clear how many items a class would need to have in order to count as an open class (and therefore, a lexical category). For instance,

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[29] Fukui and Speas (1986) proposed that functional categories can have a maximum of one specifier position, whereas lexical categories can have any number of specifiers. However, this proposal has been challenged by various researchers (cf. Speas 1990:47-48, Koizumi 1995, among others).

Baker (2000:168) estimates that English has around 50 prepositions and argues that prepositions constitute a closed class (and therefore, a functional category). On the other hand, he also claims that Chichewa has only 8 true adjectives (p. 230-231), but he still takes Chichewa adjectives to be a lexical category. Similarly, Igbo is said to have a closed class of eight adjectives" (Bhat 1994:41). Note that, crucially, these languages also resist forming/borrowing new adjectives.

The second criterion is also somewhat problematic. Since the introduction of the idea that theta-marking is strictly local and the analysis of ditransitive verbs in terms of verbal shells (see Larson 1988, and later work), lexical categories are believed to have also only one complement. In fact, X'-Theory in GB predicts just that. Therefore, the number of complements a given head can have cannot be taken as a defining criterion for distinguishing lexical from functional categories. Below, I will come back to the claim that functional categories take non-argument complements.

The third criterion listed by Kerstens has to do with the degree of separability of functional heads from their complements. The problematic nature of this criterion has been noticed by Abney (1987:285, fn.88) himself; he noted that determiners can appear without a lexical projection as a complement, as is indeed the case for pronouns, which he suggests should be analyzed as determiners.

Finally, consider the claim that functional elements "lack descriptive content". Unfortunately, the notion of "descriptive content" is somewhat vague. According to Abney (1987:285), determiners must be analyzed as functional elements because they are not predicational. However, he notes that determiners constitute predicates over predicates (see also Barwise and Cooper 1981), thus undermining the claim that determiners are not predicational and also the claim that they, therefore, lack descriptive content. On the other hand, the presence of descriptive content does not always tip the scale in the direction of lexical categories. Thus, Baker (2000) argues that prepositions are functional elements, even though a preposition like *after* can hardly be said to have less descriptive content than the verb *follow* (in this dissertation, I will not discuss prepositions and prepositional phrases in any great detail).

Instead of listing a number of properties that would help us to decide whether a given item or category is lexical or functional, I propose to take the presence of a thematic grid as the defining property of lexical categories. In other words, only lexical categories can discharge thematic positions because only lexical categories have such thematic positions to start with. The idea that functional categories do not have thematic grids has been long entertained in the literature (e.g., Pollock 1989), in particular with respect to auxiliary verbs (see also Cinque 2000:10 on "restructuring" verbs, i.e., "functional" verbs as lacking thematic roles).

Note also that this proposal ties nicely with the idea in Baker (2000) that (at least some) lexical categories can be distinguished by the theta-grids they bear (or the ways in which they can discharge thematic positions). According to Baker, verbs can theta-mark their specifiers, whereas adjectives cannot (this claim is discussed in great detail in section 3.2.1 below). Note further that this definition of lexical category forces us to assume that nouns have theta-grids; otherwise, they can no longer be considered a lexical category. However, this goes against Baker's specific claim that nouns cannot have a theta-grid (and have a referential index instead). I will consider this point in much detail in the next section.

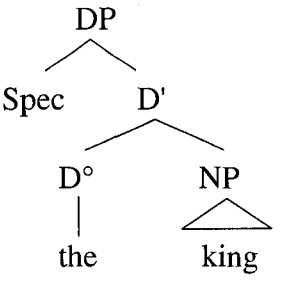
2.1.2. DPs vs. NPs

In this dissertation, I adopt a version of the DP Hypothesis of Abney (1987). According to this analysis, a determiner is not a specifier of the nominal projection (as in Jackendoff 1977:104-105), but rather the head of its own projection. Under this analysis, the determiner takes an NP as its complement:[30]

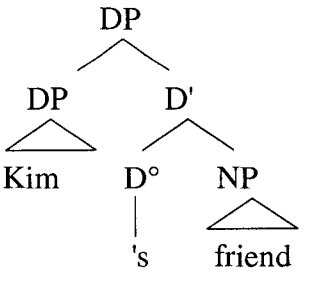
---

[30] In what follows, I will reserve the term "NP" to refer to nominals that do not contain the functional D-layer, and the term "DP" to refer to nominals that do contain such a layer. The terms "noun phrase" and "nominal" will both be used to refer to either an NP or a DP.

(50) a.



b.



According to Abney, the D° node hosts articles (e.g., *the, a*), demonstratives (e.g., *that, those*), quantifiers (e.g., *many, some, every*),[31] and possessor agreement.[32] Moreover, in some languages the N° head can move overtly into the D° node; for example, it can move overtly in Hebrew, Romanian, Swedish, Norwegian, and in a restricted way in Italian (see Ritter 1988, 1991, Dobrovie-Sorin 1987, Delsing 1988, Taraldsen 1990, Longobardi 1994, Chierchia 1998, among others).[33]

However, I will depart from Abney's (1987) analysis with respect to the structural position of attributive adjectives. Abney proposed that adjectives are heads taking NP complements (see also Kester 1993). Many alternative proposals have been put forward in the literature. For example, Delsing (1992, 1993) assumed, following Abney, that

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[31] In this dissertation, I will sometimes refer to quantifiers as Q°s (following much of the research on Russian syntax). It is to be understood that a Q° is a D° with special properties; for example, in Russian, Q°s assign genitive case to their complement NPs. See also fn. 49.

[32] Possessor phrases themselves are generally assumed to be generated in the specifier of NP; they may or may not move overtly to the specifier of DP (e.g., they move in English, but not in Hebrew, cf. Ritter 1988, 1991). Note further that possessives in Russian and Italian are adjectival both in their morphology and distribution. In Italian, possessives "except in the case of nouns for close members of the family, never occur unaccompanied by an article or demonstrative" (Vincent 1987:294); for example, **(la) mia macchina* lit. 'the my car', but *mio fratello* 'my brother'. Thus, possessives in Italian and Russian are said to appear neither in Spec-DP or Spec-NP but rather in the same positions where other adjectives can appear (see below in the main text).

[33] Note that not everybody agrees with the DP Hypothesis being universal. For example, Börjars (1998) argues that Scandinavian noun phrases are uniformly NPs (she remains agnostic as to whether the DP Hypothesis is incorrect or just not applicable to Scandinavian). I will come back to this question in section 2.1.2.2 below.

attributive adjectives are heads, but according to Delsing, the NP is in the right-hand specifier of the adjective rather than its complement (for pre-nominal adjectives, at least). Treating attributive adjectives as heads is also part of the analysis of Travis (1988), Sigurðsson (1993), and Sadler and Arnold (1994), but they argue the A° head-adjoins to the N°. Alternatively, attributive adjectives have been treated as phrasal categories, either as specifiers or as adjuncts. The specifier approach has been adopted by Holmberg (1993), who assumed that attributive adjectives are specifiers of N or *n* (a category analogous to Chomskian *v*). A different take on the adjectives-as-specifiers analysis underlies Cinque's view of attributive adjectives, which he argues to be in specifiers of functional projections (see Cinque 1994, cf. Cinque 1999). Alternatively, attributive adjectives have been treated as adjuncts, either to N', as in Santelmann (1993), or to NP, as in Svenonius (1993a, b), Duffield (1999), among others. Reviewing the arguments for and against each one of these views would take me too far afield, but in this dissertation I will assume the latter view, namely, that attributive adjectives are adjuncts to NP.

Furthermore, Abney's (1987) original proposal has been developed to include a number of other functional projections between NP and DP. For example, Ritter (1991) argues for the existence of a functional projection NumP (for Number Phrase); Zamparelli (2000) argues for a layered structure of DP, where the DP is split into three projections: SDP (Strong Determiner Phrase), PDP (Predicative Determiner Phrase), and KIP (Kind Determiner Phrase). Following Zamparelli (2000), I will assume that strong and weak determiners are distinguished structurally.

However, in this dissertation, I will concentrate on nominal phrases with strong determiners (such as definite articles, pronouns and proper names), leaving nominals with weak determiners and those that are ambiguous between the two readings for future research. Hopefully, including these determiners into the picture will only elaborate my analysis, but will not change its main tenets.[34] This simplification is partially due to the fact that Russian lacks overt articles, thus making the distinction between strong and weak

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[34] Furthermore, I will ignore structural and interpretative differences between definite descriptions, proper names and pronouns; for some discussion, see Longobardi (1994) and Zamparelli (2000).

determiners somewhat tricky. Italian, on the other hand, distinguishes overtly between strong determiners, weak determiners and absence of a determiner (i.e., bare NPs). However, the data concerning copular sentences with indefinite DPs (i.e., those with a weak determiner) are not as clear as one would wish them to be. For example, the *lo*-test (discussed below in section 2.1.2.2) gives mixed results: Salvi (1988a:167) provides an example of a grammatical sentence with the pro-predicative *lo* replacing an indefinite nominal, but my consultants showed extensive variation with respect to the (un)grammaticality of similar examples. Furthermore, certain kinds of definites in Italian (for example, definite nominals containing a superlative) pattern with bare NPs and indefinite nominals. Following Zamparelli (2000), I will assume that the definite article in such definites does not occupy the same position as it does with other definites, but rather the position occupied normally by indefinite articles and other weak quantifiers. In this dissertation, I will largely disregard such definites.

2.1.2.1. Baker (2000) vs. Marantz (1997)

Once the existence of a layered structure for nominals is established, the next obvious question is whether the characteristic properties of nominals (notably, the referentiality and the possibility of argumenthood) are associated with the lexical or the functional layer. Both positions have their proponents. For instance, Baker (2000) develops the analysis – originally proposed by Geach (1962) and later adopted by Larson and Segal (1995) and Chierchia (1998) – which is based on the idea that referentiality is the distinguishing property of nouns, and is therefore to be associated with the lexical N-layer. In contrast, Marantz (1997) has argued that referentiality must be associated with the functional layer since the lexical layer (for him) is category-neutral. Similar argument is made in Longobardi (1994), except that for him the lexical layer is not category-neutral. In this section, I outline these two analyses and the implications they make for copular sentences. In the next section, I will argue for the Longobardi-Marantz position.

According to Baker (2000), only nouns can bear a referential index (that allows them to be used in argument positions) because only nouns have Criteria of Identity. A Criterion of Identity is the standard that allows us to determine whether two things are the

same or not. For example, knowing the meaning of a noun *dog* involves knowing whether X is the same dog as Y. Two different common nouns can have significantly different Criteria of Identity. For example, the truth of (51a) does not entail the truth of (51b). A situation where the first sentence is true and the second sentence false would be such where certain people (say, Kim and Sandy) took more than one flight with National Airlines in 1975. In this case, Kim and Sandy will count as the same persons on different occasions, but not as the same passengers from the point of view of the airline's record keeping.

(51) a. National Airlines served 2 million passengers in 1975.

b. National Airlines served 2 million persons in 1975.

In contrast to nouns, adjectives and verbs do not have such Criteria of Identity. Baker (2000) shows this by using the frame "X is the same __ as Y"; this frame is meaningful only if the gap is filled by a noun. This is illustrated below with data from Baker (2000:77). Furthermore, Baker claims that what is wrong with (52b) and (52c) is not just a violation of syntactic subcategorization frame [Det A __]. Rather, he argues that "the inability of adjectives to occur with determiner expressions stems from the fact that adjectives have no Criterion of Identity, not the other way around" (Baker 2000:78), and the same goes for verbs.

(52) a. That is the same man as you saw yesterday.

b. # That is the same tall as this.

c. # I saw Janet the same sing as Mary did.

According to Baker (2000), one straightforward effect of the lack of Criterion of Identity is that adjectives and verbs cannot be counted and therefore cannot be used with numerals or number morphology. Thus, when adjectives and verbs appear with number morphology, it does not express a primary semantic contrast but reflects agreement with the number of the subject or modified head. The data below shows than an adjective cannot be pluralized:

(53) a. Kim is sick.

b. Kim has a disease.

c. Kim has (two) diseases.

d. * Kim is (two) sicks.

Note further that the sentence (53a) is a possible paraphrase of either (53b) or (53c). Furthermore, Baker (2000) claims that verbs cannot be pluralized either. Once again, the sentence (54a) is a possible paraphrase of either (54b) or (54c).

(54) a. Kim will kiss Sandy.

b. Kim will give Sandy a kiss.

c. Kim will give Sandy two kisses.

d. * Kim will (two) kiss(es) Sandy.

This claim, however, is not unproblematic given that a number of different morphemes in various languages have been traditionally analyzed as pluralizing or singularizing the verb (or the event denoted by the verb). These include pluractional markers such as *wa* in Squamish Salish and CVC reduplication in St'at'imcets (Lillooet Salish), semelfactive markers in languages like Swedish and Russian, and repetitive markers in languages like Sobei. Some examples of these markers are given below; for more discussion, the reader is referred to chapter 13 of Lasersohn (1995), chapter 8 of Corbett (2000), and the sources cited.

(55) PLURACTIONAL *WA* IN SQUAMISH SALISH (from Bar-El et al. 2001)

a.	chen tl'exwénk	b.	chen wa tl'exwénk
	1.S.SG win		1.S.SG PA win
	'I win/ I won.'		'I am a winner / I win all the time.'

(56) CVC REDUPLICATION IN ST'AT'IMCETS (from Bar-El et al. 2001; see also van Eijk 1997)

a. məcxál 'to write'

b. məc-məcxál 'to write a lot'

(57) SEMELFACTIVE IN SWEDISH (Mikael Vinka, p.c.)

a.	Kalle hoppade.	b.	Kalle hoppade till.
	Kalle jumped		Kalle jumped SMLF
	'Kalle jumped.'		'Kalle jumped once.'

(58) REPETITIVE IN SOBEI (Cinque 1999:205)

Ten-t-i-fun.

REP-1PL-r-VS

'We hit repeatedly.'

Going back to Baker's (2000) proposal that only nouns have Criteria of Identity (and therefore, referential indices), another consequence of this proposal is that only nouns and their projections (i.e., NPs) can participate in processes that require co-reference relations, such as anaphora, binding and movement. Here, I will illustrate the contrast between NPs and APs with respect to these processes with examples that involve genitive nominals (e.g., *Italy's*) and nationality adjectives (e.g., *Italian*). Consider anaphora first.[35] As shown below, a genitive nominal can be the antecedent of a pronoun in the following discourse, but a nationality adjective cannot (data from Baker 2000:74):[36]

(59) a. I was distressed by Italy$_i$'s invasion of Albania. It$_i$ (i.e., Italy) should have known better.

b. ?? I was distressed by the Italian invasion of Albania. It$_i$ (i.e., Italy) should have known better.

A fortiori, if an adjective cannot participate in anaphoric relations with pronouns, it cannot bind a reflexive element since binding involves coreference in addition to

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[35] For the sake of exposition, I will use a single referential index rather than an ordered pair, as in Baker (2000).

[36] A possible counterexample was brought to my attention by Jonathan Bobaljik (p.c.):

(i) I found the Jakobsonian$_i$ perspective on case intriguing. He$_i$ was certainly a brilliant linguist.

structural requirements (i.e., c-command and locality). This is illustrated below with examples from Baker (2000:94):

(60) a. Albania$_i$'s destruction of itself$_i$ grieved the expatriot community.

b. * The Albanian destruction of itself$_i$ grieved the expatriot community.

The contrast with respect to movement can be illustrated by the examples below (from Baker 2000:95) involving the so-called passive nominals. According to the traditional analysis of passive nominals, they involve a trace in a position where Theme θ-role would be canonically assigned. This trace has anaphoric properties, that is, it has to be bound by an appropriate antecedent. Once again, such binding is possible with a genitive nominal but not with a nationality adjective.

(61) a. Albania$_i$'s destruction t_i by Italy grieved the expatriot community.

b. * The Albanian destruction t_i by Italy grieved the expatriot community.

Obviously, given his claim that only nouns and their projections (i.e., NPs) can move, Baker needs to provide alternative accounts for constructions that have been analyzed as involving VP or AP movement. Baker's solution (pp. 100-103) is based on the idea that in cases of comparative constructions and VP-fronting it is not an AP or VP that is moving but rather a larger constituent, a PredP. (Note that since PredP is not a projection of a noun, it is not clear how this analysis solves the original problem.) Furthermore, Baker adopts Stewart's (2001) analysis of predicate cleft constructions in West African languages as movement of "a cognate object that originates in construction with the verb" (Baker 2000:103). As far as head movement of verbs and adjectives is concerned, Baker (2000:104-105) proposes that since "head movement is ... the most strictly local of all the movement processes", "coindexing is not needed to establish the relation between the moved category and its trace". Thus, head movement of adjectives and verbs is not restricted in the same way that movement of APs and VPs is.

Furthermore, Baker (2000) argues that NPs but not APs or VPs can receive θ-roles and therefore, NPs but not APs or VPs can be arguments. Thus, an NP but not an AP or a VP can appear in such a canonical argument position as the object position (but see section 2.1.2.2 below for further discussion):

(62) a. I admire good wine.

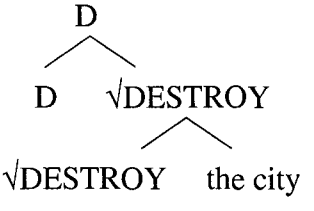
b. * I admire sincere. (cf. OK: sincerity (N))

c. * I admire sing. (cf. OK: good singing (N))

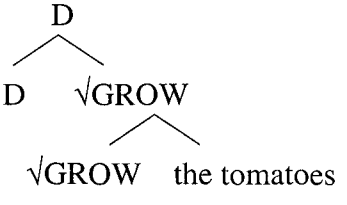
To summarize so far, Baker (2000) claims that referentiality, which determines the characteristic nominal behavior (possibility of pluralization, participation in anaphoric relations, and possibility of argumenthood), is associated with the lexical category N° and distinguishes nouns from other lexical categories. Importantly, he makes no distinction between the behavior of nominals with and without the determiner layer.

The opposite position was first argued for in Chomsky's (1970) "Remarks on Nominalization"; in recent years, this idea was "resurrected" most notably by Marantz (1997). According to this view, the distinctive properties of nominal and verbal projections (most notably, their distribution) depend not on the lexical category of the root but on the functional structure that the root is embedded in. Moreover, Marantz claims that the roots themselves are "category neutral", for example, "roots like √DESTROY and √GROW are ... neutral between N and V" (Marantz 1997:15). Whether an item has a nominal or a verbal distribution depends on its insertion site: "when the roots are placed in a nominal environment, the result is a 'nominalization'; when the roots are placed in a verbal environment, they become verbs" (Marantz 1997:15). For example, if the root is inserted under a D° node, it becomes a nominal, as in (63).

(63) a. the destruction of the city; the city's destruction

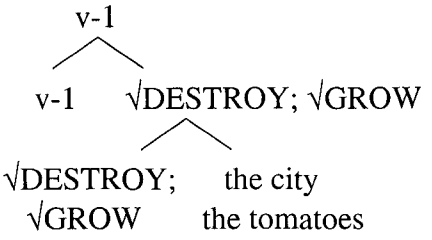


b. the growth of tomatoes

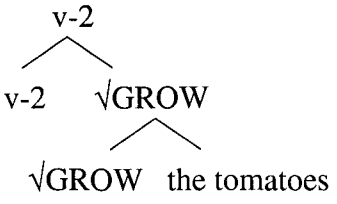


In contrast, if the root is inserted under one of the verbal functional heads (v-1 or v-2), it becomes a verb. (Note that for Marantz v° is a functional head, whereas under the analysis proposed in this dissertation v° is a lexical head.) Under Marantz's analysis, the two functional heads differ in that v-1 but not v-2 introduces an agent argument, resulting in a transitive verb. On the contrary, v-2 does not introduce an agent, resulting in an inchoative verb.

(64) a. John destroyed the city. / John grows tomatoes.



b. Tomatoes are growing.



Note that in order to exclude sentences like *The city destroyed*, Marantz (1997:17) speculates that there is an "incompatibility between v-2 and verb roots that imply external cause or agent, like √DESTROY".[37]

Furthermore, a nominalization like *John's destroying the city* is analyzed as a larger structure that involves a v-1 projection (i.e., a transitive verb structure) embedded under a determiner, which makes it a nominal.

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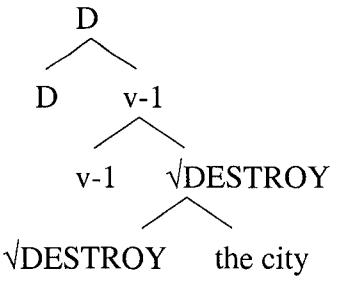
[37] Marantz further suggests that "it is possible that a "middle" reading is forced when v-2 is combined with this class of roots".

(65)



The motivation behind this structure is to explain why gerunds share some properties with verbal structures (e.g., accusative case on the theme-argument nominal *the city*, as shown by the lack of the preposition *of*), and some other properties with nominals (e.g., possessive nominal *John's*, and the ability to appear in argument positions, as in *John's destroying the city embarrassed the mayor*).

To recap, nominal projections differ from verbal ones not by the category of the root (which in this theory is not marked for category at all), but by the functional structure that the root is embedded in. For instance, the D-layer turns a category-neutral root into a nominal, while the v-layer (either v-1 or v-2) makes the root into a verbal projection. Furthermore, two kinds of nominalizations – *John's destroying the city* and *the destruction of the city* – are distinguished by the presence vs. absence of the verbal functional layer (v-1) below the nominal functional layer (D). According to this view, it is the functional layer (namely, the D-layer) that is associated with referentiality. Note that Longobardi (1994) has made a similar claim that referentiality is associated with the functional D-layer even though he does not assume that the lexical layer is category-neutral.

The choice between the two theories – the one that associates referentiality with the lexical layer (as in Baker 2000) and the one that associates referentiality with the functional layer (as in Marantz 1997 and Longobardi 1994) – has important ramifications for the study of nominals, argumenthood, cross-linguistic variation and language acquisition. Crucially, if the locus of referentiality is in the D-layer (as in Longobardi 1994 and Marantz 1997), a nominal must be minimally a DP in order to be an argument. This in turns implies that languages that do not have overt articles (including Russian) involve a system of phonetically null determiners. In other words, this theory relegates the

difference between an overt Italian-style article system and a non-overt Russian-style article system to the realm of morpho-lexical differences. In contrast, a theory that associates the referential index with a noun itself predicts that languages with no overt articles (like Russian) are really article-less, everything else being equal (I avoid calling such languages determiner-less because they do have overt quantifiers and demonstratives). This alternative suggests that languages like Russian are different from languages like Italian in a much deeper way than Marantz and Longobardi's alternative would have it.[38]

In the next section, I will investigate the question of which of the two theories outlined in this section is best suited for accounting for the behavior of nominals in copular sentences.

2.1.2.2. DPs and NPs in copular sentences

In this section, I will appeal to copular sentences to help us solve the controversy over the locus of referentiality (or at least shed some new light on it). I will argue that the Longobardi-Marantz position is correct, namely, that referentiality is to be associated with the functional D-layer rather than with the lexical N-layer. Three arguments will be brought to support this claim. First, I will show that some languages (e.g., Italian) not only allow apparently verbal projections in argument positions, but also allow these projections

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[38] Trenkic (2000) claims that languages with no overt articles, such as Serbo-Croatian, are really article-less, thus supporting Baker's (2000) claim that the referential index is associated with N°. Trenkic has shown that adult Serbo-Croatian learners of English have many problems with the English article system. In particular, her study shows that these speakers often omit articles and are more prone to this kind of mistake if the target nominal involves adjectival pre-modification. Trenkic's conclusion is that articles and adjectives in the learners' interlanguage compete for the same (presumably, modifier) position. Yet, crucial data are missing from Trenkic's study: she considers only omission mistakes but not substitution mistakes. If it turns out that her subjects make not only more omission mistakes but also more substitution mistakes in phrases with adjectival pre-nominal modification, an alternative explanation based on processing load would suggest itself. Additionally, one would need to look at cases where putative article omission can be explained as substitution of a null article (e.g., *dogs* may be a substitution mistake to be analyzed as *∅ dogs* rather than just an omission mistake).

in the presence of a determiner to have the kind of meaning that Baker (2000) restricts to nouns. Second, I will show that some languages make a clear distinction between nominals that can be used as arguments and those that can be used as predicates. In these languages, only DPs can be used as arguments and only NPs can be used as predicates. Third, I will show that even in languages that allow DPs in what seems to be a predicate position, such DPs behave differently from NPs in similar positions. The conclusion I will draw from these data is that referentiality is associated with the D-layer, and its presence is obligatory if a nominal is to function as an argument. Conversely, the presence of the D-layer prevents a nominal from appearing in a true predicative position.

First, consider Baker's (2000) claim that nominal semantics (i.e., Criteria of Identity) is associated with the lexical category N°. According to this view, an expression cannot have a criterion of identity unless it includes a projection of N°. Therefore, a prediction is made that verbal projections, with or without a determiner, do not have Criteria of Identity. For example, Baker shows that English verbs cannot function as arguments, thus resulting in the ungrammaticality of **I admire (the) to-sing*. Yet, this prediction is not borne out cross-linguistically. For instance, in Italian the counterpart of this ungrammatical English sentence is perfectly grammatical.

(66) Mi piace (il) cantare.
to-me pleases the sing.INF
'I like to sing / singing.'

Furthermore, Italian distinguishes between infinitival constructions with and without a determiner (i.e., the so-called *infinito sostantivato* and bare infinitives).[39] The former but not the latter can have the "object" interpretation, in addition to the "event" and "fact" interpretations, which are available for both constructions.[40]

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[39] For a more detailed discussion of these constructions, see Grimshaw and Selkirk (1976), Vanvolsem (1983), Salvi (1983), Skytte and Salvi (1988), Zucchi (1993), and Zamparelli (2000).

[40] The "object" interpretation corresponds roughly to Grimshaw's (1990) "result nominals". I prefer the term "object interpretation" since food is hardly a result of eating.

(67) a. Il mangiare a casa è saporito.
the eat.INF at home is tasty
'The food at home is tasty.'

b. * Mangiare a casa è saporito.
eat.INF at home is tasty
intended: 'The food at home is tasty.'

c. Cibo è saporito.
food is tasty
'Food is tasty.'

Unlike the nominalization morphology (e.g., *-ion* and *-ing* in English), the infinitival morphology is not considered as involving a lexical projection of N°. Thus, there is no N° in the infinitival projection in (67a); yet, this infinitival projection has the kind of interpretation that Baker (2000) associates with a Criterion of Identity. Furthermore, maintaining that the infinitival morphology in (67a) occupies an N° is not very helpful either: it would predict that both *infinito sostantivato* in (67a) and the bare infinitive in (67b) should have the object interpretation, contrary to fact. In fact, it is the presence of the D° in (67a) and its absence in (67b) that distinguishes between the two constructions; therefore, it is reasonable to assume that it is the D° that determines the availability of the object interpretation. Moreover, the ungrammatical sentence in (67b) contrasts with a grammatical (67c), which contains a mass noun (with no overt determiner) as the subject.

An alternative would be to assume (with Baker) that the availability of object interpretation is determined by the presence of a noun, but a D° always requires a noun to be present, whether phonetically null or overt. Under this account, the Italian data above are explained as follows: in (67a) the object interpretation is available because there is a phonetically null noun, whose presence is indicated by an overt determiner. In order to make this analysis work, we would need to assume also that the presence of a phonetically null noun is restricted to contexts with an overt determiner (this assumption is reducible to the ECP); otherwise, one could postulate a null noun in (67b), which would in turn predict the availability of the object interpretation and the grammaticality of this sentence.

Thus, an alternative explanation for the Italian *infinito sostantivato* data is not inconceivable; in fact, it is empirically indistinguishable from the account I argue for in this dissertation. However, it is conceptually more complex and involves an additional level of abstraction. Therefore, I prefer the account that associates the availability of the object interpretation with the D-layer rather than with the N-layer.

The next piece of evidence to support the claim that referentiality is associated with the D-layer rather than with the N-layer comes from St'át'imcets (Lillooet Salish). According to Matthewson (1998:71-79), this language (along with a number of others) makes a clear division of labor between DPs and NPs: argument nominals must be DPs (regardless of whether they involve proper nouns, common nouns, count or mass nouns), whereas predicative nominals must be NPs. As shown in (68), overt D°s are obligatory on all arguments, and as shown in (69), determiners are obligatorily absent on predicative nominals.[41] (Note that Salish is a uniformly predicate-initial language.)

(68) a. qwen-án-lhkan [**ku** sqlaw']
need-TR-1.SG.S [DET money]
'I need money.' [Matthewson 1998:72]

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[41] Under the analysis argued for in this dissertation, (69b) should be grammatical with the symmetrical structure. However, as noted in Matthewson (1998:77), "equative constructions... are not possible in St'át'imcets". Here, I will only conjecture that Salish lacks this symmetrical structure for independent reasons (e.g., it lacks the tense-marking copula). Interestingly, the only way to form equative sentences in Salish is by using a focus construction.

Curiously, the same connection between focus construction and equatives is found in Moroccan Arabic; thus, Ouhalla (1999) notes that focusing strategies in Moroccan Arabic include either (i) leaving the focused constituent *in situ* and marking it by a pitch accent, or (ii) forming an equative-like construction consisting of the focused constituent "followed by a pronominal copula ... of the type found in equative copular sentences ... followed by a relative clause marked with the relative marker" (Ouhalla 1999:341). Note that Ouhalla (1999:343) proposes an underlying structure very similar to the one proposed in this dissertation for bare copular sentences for this equative-like focus construction, as well as regular equative sentences.

b. * qwen-án-lhkan [sqlaw']
need-TR-1.SG.S [money]
intended: 'I need money.' [ibid]

(69) a. kúkwpi7 [**ti** sqáycw-a]
chief [DET man -EXIST]
'The man is a chief.' [Matthewson 1998:76]

b. * [**ti** kúkwpi7-**a**] [ti7 ti sqáycw-a]
[DET chief -DET] [DEIC DET man -EXIST]
intended: 'That man is the chief.' [Matthewson 1998:77]

These data support the theory that arguments are minimally DPs, whereas bare NPs are predicative in nature. The alternative theory, namely that which associates referentiality with the N°, provides no immediate account for these data.

This contrast between argumental and predicative nominals is further supported by the data from more familiar languages like French, which allows bare NPs only in predicative positions. Note that this is possible only with nouns from a lexically restricted set.

(70) a. Eric est (un) professeur.
Eric is (a) professor
'Eric is a professor.'

b. *(Un) professeur est venu.
a professor is arrived
'A professor (has) arrived.'

Even languages that allow what looks like bare NPs in argument positions place restrictions as to which positions such "bare" NPs can appear in; McCawley's (1988) question comes to mind of whether these NPs are "bare or clad in see-through garb". For example, Italian allows unmodified and non-coordinated bare NP arguments only for plurals and only in some of the argument positions. Furthermore, as noted by Chierchia (1998:383), "their occurrences appear to be linked to a somewhat 'elevated' or 'literary'

register (with the exception of a few more common, quasi-idiomatic phrases)". For example, as noted in Renzi (1988:364), Chierchia (1998), and Zamparelli (2000), such bare plurals are allowed in the postverbal subject position with unaccusatives, as in (71a), the postverbal object position, as in (71b), the object of prepositions, as in (71c), the clitic left-dislocated preverbal position of objects (in the sense of Cinque 1990a), as in (71d), and the preverbal contrastive focus position, as in (71e).

(71) a. Qui la notte arrivano cani.
here the night arrive dogs
'Here at night come dogs.' [Zamparelli 2000:31]

b. Uscendo, Gianni vide cani per strada.
going-out Gianni saw dogs by street
'Going out, Gianni saw dogs in the streets.' [ibid]

c. Gianni lavora con cani.
Gianni works with dogs
'Gianni works with dogs.' [ibid]

d. Cani, li ho visti spesso
dogs them have-I seen often
'(As for) dogs, I have seen them often.' [ibid]

e. POLLO io voglio, non pesce.
chicken I want not fish
'I want CHICKEN, not fish.' [Chierchia 1998:384]

However, bare NPs are not possible in the preverbal subject position, as in (72a), or in the postverbal subject position with unergatives, as in (72b):[42]

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[42] Renzi (1988a:375) gives examples of bare plurals in preverbal subject position but ascribes them to the high literary register. He also comments that such sentences are very common in formal bureaucratic language.

(72) a. * Bambini sono venuti da noi.
kids are come by us
intended: 'Kids came by us.' [Chierchia 1998:356]

b. * Hanno telefonato studenti.
have telephoned students
intended: 'Students have called.' [Chierchia 1998:384]

Furthermore, when they are possible at all in Italian, unmodified bare plurals only have the existential (i.e., indefinite non-specific) reading. Therefore, predicates that impose "kind" interpretation on their arguments disallow bare plurals in Italian (note that in English bare plurals are required in the same context):[43]

(73) a. Gli europei sterminarono *(i) dodo.
the Europeans exterminated the dodos
'The Europeans exterminated the dodo.' [Zamparelli 2000:32]

(i) Soldati sperduti correvano per le strade.
soldiers lost ran in the streets
'Lost soldiers were running in the streets.'

Note further that "if bare NPs are made 'heavy', either by being coordinated with other NPs or by various kinds of modification, the degree of acceptability in subject position increases considerably" (Chierchia 1998:384).

(ii) Studenti e colleghi hanno telefonato.
students and colleagues have telephoned
'Students and colleagues have telephoned.' [Chierchia 1998:385]

(iii) Hanno telefonato studenti che volevano sapere la data dell' esame.
have telephoned students that wanted to-know the date of-the exam
'Students who wanted to know the date of the exam telephoned.' [Chierchia 1998:385]

[43] Chierchia (1998:384-385) judges various similar examples as ranging from "not very good" to grammatical.

b. *(I) cani sono rari.
the dogs are rare
'(*The) dogs are rare.' [Chierchia 1998:342]

Likewise, when the interpretation is indefinite specific or generic ("individual-level" in Chierchia's terminology), bare plurals cannot appear either:[44]

(74) a. I bambini hanno ritrovato *(dei) cani che avevamo perduto.
the children have found some dogs that we-have lost
'The children have found dogs that we have lost.' [Renzi 1988:364]

b. * Leo odia gatti.
Leo hates cats
intended: 'Leo hates cats.' [Chierchia 1998:386]

To recap, the null determiner appears to be restricted to contexts where it is licensed by an appropriate head, either a V°, a P°, or a Focus° (Longobardi 1994, Chierchia 1998:386-387, Zamparelli 2000:31). These Italian data support the claim that argument nominals must be "clad in see-through garb" of the functional D-layer (i.e., they must be DPs rather than NPs). Where arguments appear to be bare NPs, a phonetically null determiner is postulated, which accounts for the restrictions on the distribution of such bare plurals.

To sum up so far, we have seen evidence that languages tend to restrict DPs to argument positions and NPs to predicative positions. This contrast is particularly clear in

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[44] Once again, "modification improves things, but only if the NP is made extra-heavy or if we have a coordinated structure" (Chierchia 1998:386).

(i) a. ?? Leo odia gatti neri.
Leo hates cats black
intended: 'Leo hates black cats.' [Chierchia 1998:386]

b. Leo odia gatti e cani.
Leo hates cats and dogs
'Leo hates cats and dogs.' [ibid]

St'át'imcets, but languages like French and Italian also show these restrictions even if not as clearly.

Next, consider nominals that appear in the post-copular position in a copular sentence. Italian is a good language to consider in this connection because (unlike English) it allows both DPs and bare NPs (lacking the functional D-layer) in the post-copular position (regardless of the number specification of the nominal; witness the singular bare count NP in (75b)).

(75) a. Maria è la figlia di un generale.
Maria is the daughter of a general
'Maria is the daughter of a general.' [Longobardi 1994:628, fn. 23]

b. Maria è figlia di un generale.
Maria is daughter of a general
'Maria is a daughter of a general.' [ibid]

These data seem to undermine the claim that the D-layer is the locus of referentiality in a nominal phrase and that predicative nominals are uniformly NPs. However, if we compare these two sentences further, we will see that the post-copular DP and the post-copular NP behave very differently. In fact, the post-copular NP in (75b) behaves just like a post-copular AP, and not like the post-copular DP in (75a). First of all, the two sentences in (75) have different meanings. Here is how such meaning differences are described by Renzi (1988:402-403; translation mine):

> In *Giorgio è dottore* [glossed as 'Giorgio is doctor'] the NP *dottore* suggests that Giorgio has certain knowledge and abilities of a doctor, as one would say, with an adjective, that he is 'bald' to say that he has the property of not having hair. In contrast, *Giorgio è il dottore* [glossed as 'Giorgio is the doctor'] would serve instead to establish the identification of two individuals, defined one by a name (*Giorgio*) and the other with the profession (of *doctor*) in the same person.

The interpretation of copular sentences with NPs, APs and DPs in post-copular position is discussed in more detail in chapter 3 below.

The similarity between bare NPs and APs in post-copular position and their distinctness from DPs in the same position is further supported by the facts concerning the pro-predicative clitic *lo*. This clitic is distinct from direct object clitic *lo*, and cannot be associated with a referential element (for a more detailed discussion of this clitic, see Salvi 1988a:167-168, Renzi 1988:403, and Moro 1997; also Sportiche 1995 on the French pro-predicative clitic *le*). As shown in (76), a bare NP or an AP can be associated with this clitic, whereas a DP cannot (see also examples 128a-b in Moro 1997:74).[45]

(76) a. * Giorgio è il dottore; se non lo fosse...
Giorgio is the doctor if not *lo* were
intended: 'Giorgio is the doctor; if he were not the doctor...' [Renzi 1988:403]

b. Giorgio è dottore; se non lo fosse...
Giorgio is doctor if not *lo* were
'Giorgio is a doctor; if he were not a doctor...' [Renzi 1988:403]

c. Giorgio è alto; se non lo fosse...
Giorgio is tall if not *lo* were
'Giorgio is tall, if he were not tall...'

Furthermore, if the sentence is inverted, the preposed DP of (75a) lands in the Spec-TP position, whereas the preposed NP of (75b) appears in an A'-position (presumably, Spec-CP; I also assume that the copula undergoes T-to-C movement).[46]

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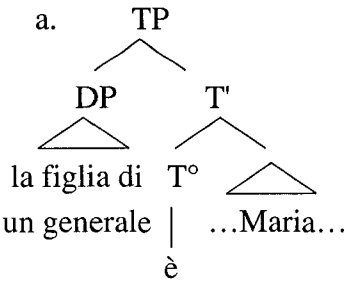
[45] Note that Renzi also claims that in some cases a DP can be pronominalized with the pro-predicative clitic *lo*, as in (i) below. Similar examples have been brought to my attention by Andrea Moro (p.c.). So far, I have no explanation for these exceptions.

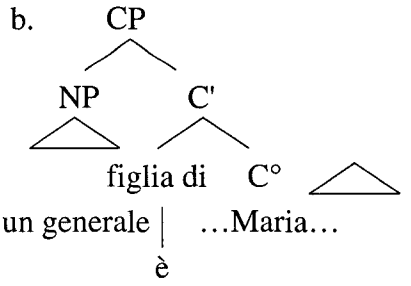
(i) Giorgio è il dottore di Carlo; se non lo fosse...
Giorgio is the doctor of Carlo; if not *lo* were
'Giorgio is Carlo's doctor; if he were not Carlo's doctor...' [Renzi 1988:403]

[46] Discourse-driven word order in Italian is discussed in Antinucci and Cinque (1977), Benincà (1988), Benincà and Salvi (1988), Samek-Lodovici (1996), Rizzi (1997), Frascarelli (2000), Pereltsvaig (to appear, a), and the references cited therein; discourse-driven word order in Russian is discussed in Yokoyama (1984, 1986), King (1993), Bailyn (1995), Grenoble (1998) and the references cited therein.

(77) a.



b.



This can be shown by the following two tests: (i) embedding; and (ii) cross-over effects. Consider embedding first. The assumption I make here is that an TP can be embedded under the C° *che* 'that', but a CP cannot. The following generalization can be made from the data in (78): if a sentence with a post-copular DP is inverted, it can be further embedded under *che* 'that', but the same is not possible when a sentence with a post-copular bare NP is inverted. Furthermore, if a sentence with a post-copular AP is inverted, it cannot be embedded either (even though a non-embedded inversion of such sentences with post-copular NPs and APs is perfectly grammatical, as shown in (79)).[47]

(78) a. Roberta pensa che [la figlia di un generale sia Maria].
Roberta thinks that the daughter of a general is.SUBJ Maria
'Roberta thinks that the general's daughter is Maria.'

b. * Roberta pensa che [figlia di un generale sia Maria].
Roberta thinks that daughter of a general is.SUBJ Maria
intended: 'Roberta thinks that a daughter of a general is Maria.'

c. * Roberta pensa che [alto sia Gianni].
Roberta thinks that tall is.SUBJ Gianni
intended: 'Roberta thinks that it is Gianni who is tall.'

[Zamparelli 2000:100]

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[47] Note that the judgments given here are for plain intonation only. The sentence (78c) is grammatical for some of the speakers I have consulted with a heavy stress on either *alto* or *Gianni*. It is also marginally acceptable for some of my consultants on a pseudocleft-like reading that can be paraphrased as "tall is like what Gianni is" (i.e., Gianni is the definition of what it is to be 'tall', or how much height one must have to count as 'tall'). This reading, however, is irrelevant for the argument made here. I thank Roberto Zamparelli for first bringing this reading to my attention.

(79) a. Figlia di un generale è Maria.
daughter of a general is Maria
'A daughter of a general is Maria.'

b. Alto è Gianni.
tall is Gianni
'It is Gianni who is tall.'

From this I conclude that the bracketed string in (78a) is an TP and the bracketed strings in (78b) and (78c) are CPs. Thus, inversion of a copular sentence is affected by the category of the post-copular phrase, namely, whether this phrase is a DP or an NP/AP. Here, I will leave open the question as to why it should be so; for the present argument it is important to note that bare NPs pattern with APs and not with DPs.

The second contrast involves cross-over-like effects. The relevant configuration is one that exhibits the possibility for a noun phrase embedded in the pre-copular XP (DP, NP, or AP) to bind the possessive pronoun in the post-copular phrase of an inverted copular sentence. Crucially, I assume here that cross-over applies only in the case of A'-movement. The generalization emerging from the data below is that inversion of a post-copular DP does not create cross-over effects, whereas corresponding inversion of an NP or an AP does. This suggests that the inversion of an NP or an AP is an A'-movement, whereas the inversion of a DP is an A-movement. These data further support the structure for inverted copular sentences proposed in (77) above.

(80) a. La figlia di un generale$_i$ è la sua$_i$ segretaria.
the daughter of a general is the his secretary
'The general's daughter is his secretary.'

b. * Figlia di un generale$_i$ è la sua$_i$ segretaria.
daughter of a general is the his secretary
intended: 'A daughter of a general is his secretary.'

c. * Orgoglioso di Maria$_i$ (lo) è il suo$_i$ professore.
proud of Maria *lo* is the her professor
lit.: 'Proud of Maria is her professor.'

To recap, Italian allows both DPs and NPs to appear in what looks like the same post-copular position. Yet, the two types of phrases do not pattern together, in particular with respect to their interpretation, the (un)grammaticality of the pro-predicative clitic *lo* and in the context of copular inversion, suggesting that DPs and NPs do not appear in the same position in (75) above. Moreover, it is crucial that bare NPs pattern with APs in these constructions, and not with DPs. This strongly suggests that both APs and bare NPs have something in common that distinguishes them from DPs. Here, I propose that the common characteristic of APs and bare NPs is predicativity. In contrast, DPs are referential even when they appear after a copula.

The same contrast can be shown in Russian, even though it is less spectacular than its Italian counterpart. It is well-known that Russian lacks (overt) articles. Still, it has overt demonstratives and quantifiers, which I assume to occupy the D° position. As has been mentioned in the first chapter, Russian post-copular phrases exhibit an alternation between nominative and instrumental case marking (in past and future tenses); however, this alternation disappears when the post-copular phrase is headed by a demonstrative or a quantifier (such as a numeral). Such phrases can appear only in the nominative case and the instrumental is impossible.

For example, consider a sentence with a post-copular phrase headed by a demonstrative: such a phrase must appear in the nominative after a copula, even though instrumental is grammatical in an argument position.[48] If the demostrative is omitted, the instrumental is grammatical.

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[48] The ungrammaticality of (81b) is not caused by the nominative case of the relative pronoun (instead of instrumental agreeing with the case of the head noun), as can be seen from the grammaticality of (81c). In Russian, a relative pronoun satisfies the requirements of the embedded (i.e., relative) clause rather than the matrix clause; therefore, the noun-head of the relative and the relative pronoun may appear with different case markings.

(81) a. Ivanuška -duračok byl [$_{DP}$ tot brat, kotoryj vsegda
Ivanushka.NOM-fool.NOM was that.NOM brother.NOM which.NOM always
popadal v bedu].
got into trouble
'Ivanushka the Fool was that brother who always got into trouble.'

b. Ivanuška -duračok byl [$_{DP}$ (* tem) bratom, kotoryj
Ivanushka.NOM-fool.NOM was that.INSTR brother.INSTR which.NOM
vsegda popadal v bedu].
always got into trouble
intended: 'Ivanushka the Fool was that brother who always got into trouble.'

c. Oleg okazalsja [$_{DP}$ tem bratom, kotoryj vsegda
Oleg turned-out-to-be that.INSTR brother.INSTR which.NOM always
popadal v bedu].
got into trouble
'Oleg was proud of that brother that always got into trouble.'

Similarly, if the post-copular phrase is headed by a numeral, such as *dva* 'two', it must appear in the nominative, as in (82a), and cannot appear in the instrumental, as in (82b).[49] If the numeral is omitted, the instrumental is grammatical. Furthermore, (82c) shows that there is no problem with a phrase headed by a quantifier in the instrumental if the instrumental phrase is an argument of a verb that assigns "quirky" (i.e., inherent) case to its object.

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[49] This argument is somewhat weakened by the unclear nature of quantifiers in Russian. On the one hand, they are often assumed to be determiners; on the other hand, they can be preceded by a determiner, as in *te dva brata* 'those two brothers'.

(82) a. Oleg i Ivan byli [$_{DP}$ dva xorošix rabotnika].
Oleg.NOM and Ivan.NOM were two.NOM good.GEN workers.GEN
'Oleg and Ivan were the two good workers.'

b. Oleg i Ivan byli [$_{DP}$ (* dvumja) xorošimi rabotnikami].
Oleg.NOM and Ivan.NOM were two.INSTR good.INSTR workers.INSTR
intended: 'Oleg and Ivan were two good workers.'

c. Oleg rukovodit [$_{DP}$ dvumja xorošimi rabotnikami].
Oleg supervises two.INSTR good.INSTR workers.INSTR
'Oleg supervises two good workers.'

Finally, pronouns, which are often assumed to be D°s, normally appear in the nominative case.

(83) Èto byl on.
this was he.NOM
'It was him.'

However, there are some examples where pronouns appear in the post-copular position in the instrumental case. Such examples, cited from Nichols (1981a:206), are suggested for a Jekyll-Hyde situation. Note that in these examples, the pronoun does not have a characteristic referential interpretation; rather, "the meaning is one of function" (Nichols 1981a:206).

(84) a. Kogda ja byl im, to ja soveršal užasnye prestuplenija.
when I was he.INSTR then I committed terrible crimes
'When I was him, I committed terrible crimes.'

b. Kogda ja byl samim soboj, byl uvažaemym čelovekom.
when I was myself.INSTR was [respected person].INSTR
'When I was myself, I was a respected person.'

Initially, such examples appear to be counter-evidence to the claim that instrumental post-copular phrases have no slot for D°-elements. However, it is not clear if pronouns in

Russian are necessarily merged in D°. They can be modified by adjectives and preceded by determiners, as shown below.

(85) a. Silnaja ja smogu èto preodolet'.
strong I.NOM will-manage this overcome
'A strong me will manage to overcome this.'

b. Ja ljublju togo tebja, kotorogo ja znaju.
I love [that you].ACC which I know
'I love the you that I know.'

To recap, the data above show that DPs in post-copular position must appear in the nominative, and cannot appear in the instrumental. It is impossible to show that bare NPs appear only in the instrumental because of the possibility of null determiners. The argument goes as follows: there are many reasons to believe that there is such a thing as a phonetically null article. For example, many assume that in English the plural counterpart of the indefinite article *a/an* is phonetically null. The question is then whether such null articles exist not only as "fillers" in otherwise well-established paradigms, but also in languages where no overt articles exist at all (like in Russian). In Italian, bare NPs are very restricted in their distribution in argument positions; therefore, we can determine the set of contexts in which a null determiner appears (and therefore the set of contexts in which the null determiner cannot appear). Then, it is possible to look at the distribution of bare NPs, namely, nominals that not only lack an overt determiner, but a null determiner as well. In Russian, in contrast, it is impossible to distinguish empirically between nominals with a phonetically null determiner and those that lack a determiner altogether. However, based on the contrast observed above, I maintain that in post-copular position the distribution is as follows: DPs appear in the nominative case, and bare NPs appear in the instrumental.[50]

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[50] Steblin-Kamenskiy (1957:66) remarks in passing that the contrast in Norwegian between copular sentences with an article in the post-copular phrase and those without an article corresponds to the Russian contrast between nominative and instrumental case marking on the post-copular phrase, respectively. He bases his remark on contrasts in meaning, but gives no syntactic tests to support the claim.

It is also important to emphasize at this point that the contrast between nominative and instrumental phrases is not a purely morphological matter; as is shown throughout this dissertation, nominative and instrumental phrases exhibit differences in syntactic behavior that cannot be ignored.

Now that we have seen that DPs appear in the nominative and NPs appear in the instrumental, the question arises as to the behavior of APs in Russian. Unfortunately, it is impossible to observe case marking on APs since the so-called short adjectives – the only ones that are uncontroversially APs rather than NPs with a null noun head (cf. Bailyn 1994, Pereltsvaig 2001a) – do not exhibit any case marking in modern Russian. However, it is still possible to show that NPs pattern with APs and not with DPs with respect to binding phenomena under copular inversion. This contrast is similar to the one illustrated in (80) above for Italian.

The possessive anaphor *svoj* 'his own' and the direct object anaphor *soboj* 'himself' must be A-bound by their antecedents, here *Oleg*. In order to be A-bound, the highest A-position in the anaphor chain must be c-commanded by the antecedent. As the data below shows, a preposed DP cannot contain an anaphor, whereas a preposed NP and a preposed AP can. From this it can be concluded that a preposed DP appears in an A-position, presumably Spec-TP, whereas a preposed NP and a preposed AP appear in an A'-position, presumably Spec-CP. Crucially for the present discussion, NPs pattern with APs and not with DPs with respect to the binding phenomena.

(86) a. * Svoj$_i$ lučšij drug byl Oleg$_i$.
his(anaphor).NOM best.NOM friend.NOM was Oleg.NOM
intended: 'Oleg was his own best friend.'

b. Svoim$_i$ lučšim drugom byl Oleg$_i$.
his(anaphor).INSTR best.INSTR friend.INSTR was Oleg.NOM
'Oleg was his own best friend.'

c. Dovolen soboj$_i$ byl Oleg$_i$.
satisfied.SF himself.INSTR was Oleg.NOM
'Oleg was satisfied by himself.'

To recap, I have shown that DPs and NPs appearing in a post-copular position behave differently. This is taken to be an argument for the Longobardi-Marantz approach that associates referentiality with the functional D-layer rather than with the lexical N-layer. In fact, this argument can be strengthened even further if a distinction is drawn between referential DPs and non-referential DPs. Below, I will illustrate this distinction with data from Norwegian; similar data can also be given from Italian and Russian (Mikkelsen 2001 discusses similar data from Danish).

In Norwegian, there is a tendency for DPs to appear in argument positions and for bare NPs to appear in post-copular positions. For example, Eide and Åfarli (1999:178, fn.30) claim that it is also "the general pattern in Norwegian" that "argument noun phrases are DPs, whereas predicative noun phrases are NPs" (I thank Peter Svenonius for first bringing this to my attention). Yet, DPs sometimes can appear in the post-copular position.[51] Thus, four kinds of phrases can appear in a post-copular position in Norwegian: (i) referential DPs, (ii) non-referential DPs, (iii) bare NPs and (iv) APs (note that the first two kinds of phrases need not be distinguished morphologically, but speakers perceive differences in meaning between them).

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[51] There are also bare NP arguments in Norwegian; see Borthen (2001) and the reference cited therein.

(i) a. **Bil** er kult.
car is cool
'To drive a car is cool.'

b. Per leser **bok**.
Per reads book
'Per is reading a book.'

c. Han ble angrepet av **bjørn**.
he become attacked by bear
'He was attacked by a bear / bears.'

(87) a. REFERENTIAL / NON-REFERENTIAL DP:

Peter er den største beundreren av finnebiff.
Peter is the biggest fan of reindeer-meat
'Peter is the biggest fan of reindeer meat.'

b. BARE NP:

Per er lærer.
Per is teacher
'Per is teacher.'

c. AP:

Per er syk.
Per is sick
'Per is sick.'

Crucially, there is a contrast between referential DPs, on the one hand, and non-referential DPs, bare NPs and APs, on the other hand. Three tests that show the contrast involve inverted copular sentences and include: (i) the position of negation *ikke* 'not' and lower adverbs (e.g., *alltid* 'always' and *ofte* 'often'), (ii) binding, and (iii) embedding in no-CP-recursion contexts. Let us consider these tests in turn.

First, consider the position of negation and lower adverbs.[52] The generalization is the following: if the preposed phrase is a referential DP the negation must precede the subject DP; on the other hand, if the preposed phrase is a non-referential DP, a bare NP or an AP, the negation must follow the subject DP and appears in an otherwise unusual sentence final position. The relevant data are given below:

[52] For some speakers the contrasts are much clearer with adverbs like *alltid* 'always' than with *ikke* 'not'.

(88) a. REFERENTIAL DP

Den beste vennen min var alltid Peter.
the best friend.DEF my was always Peter
'My best friend was always Peter.' (presupposes that I always had a best friend)

b. NON-REFERENTIAL DP

Den beste vennen min var Peter alltid.
the best friend.DEF my was Peter always
≈ 'As for being my best friend, Peter always was that.' (does not presuppose that I always had a best friend)

c. BARE NP

Tyv var (*alltid) Peter (alltid).
thief was always Peter always
≈ 'As for being a thief, Peter was always that.'

d. AP

Syk var (*alltid) Peter (alltid).
sick was always Peter always
≈ 'As for being sick, Peter was always that.'

This is schematized below:

(89)						
	(a)	referential-DP	cop		*alltid/ikke*	*Peter*
	(b)	non-referential-DP	cop	*Peter*	*alltid/ikke*	
	(c)	bare NP	cop	*Peter*	*alltid/ikke*	
	(d)	AP	cop	*Peter*	*alltid/ikke*	

The assumption is that negation (and adverbs) are in the same position in all of these sentences; they are marking the left edge of the small clause. Consequently, in sentences with a preposed referential DP, the subject (here, *Peter*) stays in the small clause, whereas in sentences with a preposed non-referential phrase (a DP, an NP or an AP), *Peter* appears outside the small clause, presumably in the Spec-TP. This difference

can be explained if we assume that in (a) the referential DP moves into Spec-TP; as a result, *Peter* cannot move into this position. In senteces (b) through (d), the preposed non-referential phrase must then appear in Spec-CP. Note that the position of the copula is determined by the V2 effects.

The second test involves binding (these data are similar to the examples discussed above in connection with Russian). The relevant configuration (schematized below) involves an anaphor embedded into the preposed phrase. This configuration is grammatical if the preposed phrase is a non-referential DP, a bare NP, or an AP; in contrast, it is judged as less acceptable if the preposed phrase is a referential DP. [53]

(90) a. ?? [$_{\text{ref-DP}}$ ... *sin/segselv* ...] cop *ikke* *Peter*

b. ✓ [$_{\text{nonref-DP}}$ ... *sin/segselv* ...] cop *Peter* *ikke*

c. ✓ [$_{\text{NP}}$ ... *sin/segselv* ...] cop *Peter* *ikke*

d. ✓ [$_{\text{AP}}$ ... *sin/segselv* ...] cop *Peter* *ikke*

The relevant data are presented below:

(91) a. REFERENTIAL DP

?? Den største beundreren av sin kones kokekunst var ikke Peter.
the biggest admirer.DEF of his wife's cooking was not Peter
intended: 'The biggest admirer of his own wife's cooking wasn't Peter.'

b. NON-REFERENTIAL DP

Den største beundreren av sin kones kokekunst var Peter ikke.
the biggest admirer.DEF of his wife's cooking was Peter not
intended: 'The biggest admirer of his own wife's cooking, Peter wasn't.'[54]

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[53] There is some variation among speakers with respect to the configuration in (a) in the text: judgments vary from "worse than (b-d)" to "completely ungrammatical".

[54] One consultant commented that this sentence sounds ironic and implies that the wife in question is a lousy cook.

c. BARE NP

Offer for sin kones kokekunst var Peter ikke.
victim of his wife's cooking was Peter not
'A victim of his wife's cooking, Peter wasn't.'

d. AP

Stolt av sin kones kokekunst var Peter ikke.
proud of his wife's cooking was Peter not
≈ 'As for being proud of his own wife's cooking, Peter wasn't.'

Since the highest A-position of the phrase containing the anaphor must be c-commanded by its antecedent, we can conclude that a referential DP inverts into Spec-TP, whereas non-referential phrases invert into Spec-CP. Note that the data are also compatible with the analysis where the preposed phrase appears in Spec-CP regardless of its referentiality, but in the case of a referential DP it must pass through Spec-TP on its way to Spec-CP, whereas a non-referential phrase would not pass through Spec-TP (I thank Marit Julien for pointing this out for me). Crucially, there is a difference between referential DPs and non-referential phrases.

The third and final test to be discussed here involves embedding in no-CP-recursion-contexts (these data are similar to the data discussed above in connection with Italian).[55] When the matrix verb is one that does not allow embedded V2, the following generalization emerges with respect to the embedding possibilities: if the preposed phrase is a referential DP, the embedding is grammatical. In contrast, if the preposed phrase is a non-referential DP, a bare NP or an AP, the embedding is ungrammatical. This is schematized and illustrated below:[56]

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[55] Mikkelsen (2001) also discusses data involving NPI-binding in Danish. I was not able to replicate her results in Norwegian.

[56] Interestingly, the same generalization about embedding of inverted copular sentences is observed in (Austrian) German as well. Thus, embedding in no-CP-recursion contexts is possible only if the inverted

(92) …		V	that		was	Peter	not	was	Peter
(a)		V	*at*	referential-DP			*ikke*	*var*	*Peter*
(b)	*	V	*at*	non-referential DP	*var*	*Peter*	*ikke*		
(c)	*	V	*at*	bare NP	*var*	*Peter*	*ikke*		
(d)	*	V	*at*	AP	*var*	*Peter*	*ikke*		

(93) a. REFERENTIAL DP

Advokaten nekter for at det tjukkeste offeret (ikke) var Peter.
lawyer.DEF denied that the fattest victim.DEF not was Peter
'The lawyer denied that the fattest victim was(n't) Peter.' (establishing/denying the identity of the fattest victim, not a property of Peter.)

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phrase is a referential DP, but it is ungrammatical if the inverted phrase is a non-referential DP, a bare NP or an AP. The data are from Czinglar and Köhler (2001).

(i) a. REFERENTIAL DP:

dass die Ursache für den Skandal dieses Bild ist
that the cause for the scandal this picture is
'… that the cause for the scandal is this picture.'

b. NON-REFERENTIAL DP:

?* dass ein guter Musiker keiner von ihnen ist
that a good musician none of them is
'… that none of them are good musicians.'

c. BARE NP:

?* dass Lehrer ein Kollege ist
that teacher a colleague is
'… that a colleague is a teacher.'

d. AP:

?* dass krank keine Kinder sind
that ill no children are
'… that no children are ill.'

b. NON-REFERENTIAL DP

* Advokaten nekter for at det tjukkeste offeret var Peter (ikke).
lawyer.DEF denied that the fattest victim.DEF was Peter not
'The lawyer denied that the fattest victim, Peter was(n't).' (establishing/denying a property of Peter, not the identity of the fattest victim.)

c. BARE NP

* Advokaten nekter for at tyv var Peter (ikke).
lawyer.DEF denied that thief was Peter not
intended: 'The lawyer denied that Peter was(n't) a thief.'

d. AP

* Advokaten nekter for at skyldig var Peter (ikke).
lawyer.DEF denied that guilty was Peter not
intended: 'The lawyer denied that Peter was(n't) guilty.'

Since the embedded constituent in this case must be a TP, we can conclude that the preposed referential DP appears in Spec-TP, whereas preposed non-referential phrases appear in Spec-CP. To recap, the following generalization emerges: referential DPs invert by A-movement into Spec-TP, whereas non-referential DPs, NPs and APs invert by A'-movement into Spec-CP. As mentioned above, the same generalization applies to both Russian and Italian as well.

To summarize this section, I have shown that there are some crucial differences in distribution between DPs and bare NPs. As has been shown with the Italian data involving infinitivals, it is the D-layer that is associated with referentiality, and not the N-layer. Furthermore, bare NPs pattern with APs, both being predicative in nature, whereas DPs behave differently from both NPs and APs.

From this, I conclude that the theory that places the burden of referentiality on the lexical N-layer is to be rejected in favor of the alternative that associates referentiality with the functional D-layer. In this dissertation, I will show that, while DPs are referential in nature, they need not appear in argument positions. In particular, in bare copular

sentences the two DPs on both sides of the copula are referential but they are not technically arguments of any predicate. Thus, I maintain that referentiality is a prerequisite for argumenthood, but does not entail it. I will return to the questions of argumenthood and predication in chapter 3 below.

2.1.3. Summary

In this section, I have argued for the following points:

- Nouns, much like adjectives, are predicative expressions which bear their own theta-grids. Nouns are not bearers of referential indices (contra Baker 2000).
- The burden of referentiality is to be placed on the D-layer, not the N-layer. Consequently, DPs are referential, whereas NPs are predicative in nature (as in Longobardi 1994, and contra Baker 2000).

Furthermore, I have proposed a definition of a lexical category according to which the defining property of a lexical category is the presence of a theta-grid.

In what follows, these points will be picked up in the following way. In chapter 3, I will maintain that:

- Within a DP, NP's θ-role is discharged by θ-binding from the D° (as in Higginbotham 1985).
- In post-copular positions, both NPs and APs are predicative in nature, and they cannot discharge their (Theme) θ-role directly, that is, by θ-marking their specifiers. Instead, they require "help" from a special head (following Baker 2000).
- This "helping" head is a lexical rather than a functional category; it is a kind of verb (contra Baker 2000).
- The "non-local θ-marking" through the "help" of a special head (here, a v°) is accomplished through θ-identification followed by local θ-marking.
- The absence of v° with DP post-copular phrases is explained through the Theta Criterion.

- Even though both DPs in copular sentences of the form *DP is DP* are referential, they need not be analyzed as arguments of the copula. It will be shown that they can receive an appropriate interpretation even if they are not taken to be arguments of the copula, and furthermore, such an analysis will be shown to have advantages over an "identity copula" analysis.

In chapter 4, I will show that:

- Treating the two DPs in sentences of the form *DP is DP* as referential but not as argumental is advantageous in accounting for the distribution of case marking in copular sentences.
- Treating the head "helping" adjectives and nouns to assign their θ-roles as a lexical and not as a functional category is likewise advantageous in accounting for the distribution of case marking in copular sentences.

But before I proceed to make these arguments, I will examine the plausibility of generating the symmetrical structure proposed for sentences of the form *DP is DP* from the point of view of Phrase Structure Theory.

2.2. On Merge

The major idea behind Chomsky's Minimalist Program is that the grammar should be restricted to "virtual conceptual necessity" (Chomsky 1995:169); in other words, only those mechanisms and principles that are absolutely necessary should be retained. In practice, however, it is not always easy to determine what is absolutely necessary in accounting for language data. But one thing is clear: syntax must include an operation that creates larger syntactic units out of smaller ones. In the Minimalist Program this operation is called Merge. This operation applies to two objects α and β and forms a new object, K. This new object K must be somehow composed of the two objects that constitute it, namely α and β. It is an agreed upon assumption that syntactic units are sets of features (see, for example, Jackendoff 1972:21-22, Chomsky 1995:244, 1998:116, 2000:126). Accordingly, Merge is an operation that calculates the output set of features from the two

input sets of features. The crucial question is thus how the output set of features is calculated from the input sets of features α and β.

In this section, I will examine the claim of Chomsky (1995) and Kayne (1994) that Merge proceeds exclusively by asymmetrically projecting one or the other of the input constituents. I will argue that there is nothing that bans symmetrical structures from syntax *a priori*; therefore, the only way to exclude symmetrical structures is by introducing an unmotivated stipulation. Moreover, I will argue that restricting the range of syntactic structures to asymmetrical ones comes at the cost of complicating other modules of the grammar. Furthermore, I will maintain that there is a host of constructions in natural language that can be analyzed as involving symmetrical structures.

2.2.1. The Antisymmetry Hypothesis

According to Chomsky (1995:244), "the label γ must be constructed from the two constituents α and β. … Then the simplest assumption would be that γ is either:

(94) a. the intersection of α and β
b. the union of α and β
c. one or the other of α, β"

However, Chomsky immediately excludes the first two possibilities because "the intersection of α, β will generally be irrelevant to output conditions, often null; and the union will be not only irrelevant but "contradictory" if α, β differ in value of some feature, the normal case." This leaves him with only one option – that in (94c) – namely, asymmetric projection of either α or β. Therefore, Chomsky (1995:246) concludes that "the operation Merge(α, β) is asymmetric, projecting either α or β".

This view is also adopted by Kayne (1994), who argues that all syntactic representations are asymmetrical in nature. The major motivation behind Kayne's (1994) Antisymmetry Hypothesis is the idea that "the human language faculty is … rigidly inflexible when it comes to the relation between hierarchical structure and linear order" (p. xiii). In particular, "phrase structure … always completely determines linear order"

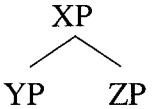
through "asymmetric c-command invariably map[ing] into linear precedence" (p. 3). This is formulated as the Linear Correspondence Axiom (Kayne 1994:5-6).

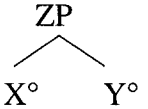
(95) LINEAR CORRESPONDENCE AXIOM (LCA)

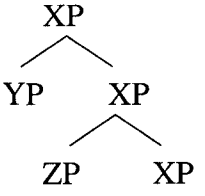
d(*A*) is a linear ordering of *T*

where A contains all pairs of nonterminals such that the first asymmetrically c-commands the second; d(X) is the set of terminals that X dominates; *T* is the set of terminals.

The LCA eliminates the distinction between a specifier and an adjunct and rules out the following three symmetric configurations, which, following Moro (2000), I will call "points of symmetry":

(96) a. 

b. 

c. 

The structure in (96a) represents a combination of two maximal projections neither of which adjoins to the other (this is the structure that is of most interest for the discussion in this dissertation); (96b) is a configuration in which neither of the two heads project, and (96c) is a multiple specifier configuration.[57]

Note also that even though there are two linear orderings defined on terminal nodes – precedence and subsequence – Kayne (1994:35-36) claims that there are empirical reasons that force antisymmetric c-command to map into precedence rather than subsequence. For example, precedence defines the universal word order as SVO (or SOV; see the discussion in the next section), whereas subsequence defines it as OVS. A quick look at the world's languages reveals that there is a sharp asymmetry between those two orders, the former one being much more common. Furthermore, the specifier of CP, "the typical landing site for moved *wh*-phrases, is visibly initial to an overwhelming degree"

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[57] Note that (96c) but not (96a-b) can be merged by asymmetric projection.

(p. 35). Overall, "although there may be some categories for which both orders [of specifier and head] are widespread, there are other categories where specifier-head order strongly predominates" (p. 35); furthermore, there are no categories for which head-specifier order is cross-linguistically predominant. Therefore, Kayne concludes that "specifier-head-complement, and not the reverse, is the only order available to the subcomponents of a phrase" (p. 36), which in turn means that asymmetric c-command maps onto precedence, not subsequence.

The choice of precedence as the relation underlying the relation between hierarchical structure and linear order means that both rightward adjunction and rightward movement are banned. Obviously, this rigid view of phrase structure compromises descriptive adequacy of the theory. In order to account for the phenomena previously accounted for by rightward adjunction or rightward movement (e.g., Right Node Raising, Heavy NP Shift, Extraposition and Right Dislocation), Kayne (1994) proposes alternative analyses that involve LCA-compatible structures and rely on massive leftward movement. Thus, a heavy load of descriptive adequacy is transferred from the Phrase Structure component to the Movement component.

Finally, it is important to note that Kayne (1994) envisages LCA as applying at all levels of syntactic representation, including "LF and ... D-structure (or the closest counterparts to D-structure in Chomsky's (1993) framework), for which one might think that linear order is not essential" (Kayne 1994:48). This is so because Kayne conceives the LCA as "the source of all the major properties of phrase structure that have been attributed to X-bar theory"; therefore, he concludes that "the LCA does underlie the entire set of syntactic representations" (p. 49).

To recap, Kayne (1994) proposes that hierarchical structure and linear order are related through the LCA, which bans symmetrical structures and rightward adjunction / movement. Crucially, for Kayne (1994) the LCA applies at all levels of representation.

2.2.2. Challenging the Antisymmetry Hypothesis

The structure proposed in this dissertation for bare copular sentences raises the issue of symmetry in phrase structure. This issue is a very important one: it concerns one

of the most fundamental properties of phrase structure. The choice one makes on this issue affects not only the types of structures that can be generated by the phrase structure component, but also the types of movement one's theory allows or requires, and this will have a profound effect on all levels and components of the grammar. So is symmetry to be allowed in the syntax?

Consider first the motivation for Kayne's (1994) view of the grammar. As noted by Chomsky (1995:335), "Kayne offers two kinds of arguments for the LCA: conceptual and empirical". Let us consider the empirical motivation for the LCA first. In order to evaluate a theory (relative to other theories) on empirical grounds, one needs to compare the relative "gains and pains" of the two theories. Even though a detailed discussion of the merits and the drawbacks of the Antisymmetry Hypothesis goes far beyond the scope of this dissertation, I will argue here that it does not provide a superior account of many linguistic phenomena.

The main empirical consequences of the LCA, as presented by Kayne (1994), include deriving SVO as the universal underlying order, and accounting for facts involving agreement with adpositions and relative clauses, to name a few. Here, I will consider the claim that LCA derives SVO as the universal underlying order. Whether this is indeed so depends on whether objects are merged as complements or as specifiers of the verb. In the former case, LCA predicts that SVO is the universal underlying order, whereas in the latter case, the predicted universal underlying order is SOV. The latter situation is more in tune with the typological studies, which show that the majority of existing languages are actually SOV, not SVO. For example, Mallinson and Blake (1981) claim that 41% of languages in their sample are SOV, as opposed to only 35% of languages that are SVO. Yet, there is a worse conceptual problem with Kayne's claim. In the Antisymmetry framework any surface word order can be achieved from the underlying SVO or SOV order through a number of leftward movements (for a number of recent analyses that derive overt SOV order from the underlying SVO order and vice versa, see Barbiers 2000, Brody 2000, Haegeman 2000, Haider 2000, Holmberg 2000, Hróarsdóttir 2000, Taraldsen 2000, among others). Therefore, it appears that languages that exhibit the surface SVO order (like English) or the surface SOV order (like Hindi) do so only

accidentally. Thus, in Kayne's analysis the fact that a large number of languages are overtly SVO (or SOV) is not supported by his claim that all languages are underlyingly SVO (or SOV). In fact, any tendency for a predominance of a certain surface word order is purely accidental, since any surface order is derivable from any underlying order with more or fewer movements.

In this context, Kayne's choice of precedence as the relation defining the mapping from hierarchical relations to linear ordering loses much of its attractiveness. Since the majority of world languages (65% according to Mallinson and Blake 1981) are not SVO, there is no reason to assume that SVO and not OVS is the universal underlying order. Therefore, the hypothesis that OVS is the universal underlying order is perfectly plausible in Kayne's framework since all attested surface word orders can be derived from it. Just as a curious note, I will add here that the underlying-OVS hypothesis has had its supporters throughout the history of linguistic thought. For example, Etienne Bonnot de Condillac, an 18th century French grammarian, considered OVS as

> the 'most natural order': first the noun indicating the object one was talking about, then the verb indicating the operation one intended to carry out on that object: for example, *fruit want*; the subject of the verb came at the end of the whole series: for example, *fruit want Peter*. [cited in Lepschy 1998:196]

Moreover, it is not clear to what extent a generative grammatical theory is expected to predict linguistic tendencies and typological generalizations. For example, Newmeyer (1998:161) argues that "grammars do not encode typological generalizations, either directly or indirectly... universal grammar tells us what a possible language is, but not what a probable language is". To recap, there are several empirical and conceptual problems with Kayne's claim that it is an advantage of the Antisymmetry Hypothesis that it can derive SVO as the universal underlying word order.

Other alleged empirical advantages of the Antisymmetry Hypothesis are problematic as well. For example, Kayne (1994) argues that dispensing with the distinction between adjuncts and specifiers has desirable empirical consequences. However, this claim has been challenged by Duffield (1999), who has argued that

retaining the distinction between adjuncts and specifiers allows for a natural account of the variable freedom of attachment of AP modifiers between Semitic languages (Hebrew and Maltese), on the one hand, and Celtic languages (Irish), on the other hand. Furthermore, the exclusion of rightward adjunction and rightward movement leaves the Antisymmetry Theory with no elegant way of accounting for the facts concerning contrastive focus in Italian and Russian, as described by Samek-Lodovici (1996) and Pereltsvaig (to appear, a).[58]

To sum up so far, at least several of the alleged empirical advantages of the Antisymmetry Hypothesis are dubious. Moreover, the conceptual costs of this theory are quite high. More specifically, all constructions previously analyzed as involving points of symmetry or rightward adjunction/movement must be reanalyzed as involving numerous leftward movements, including remnant movements. In addition to the increased burden on the movement component of the grammar, a problem arises as to the motivation for these movements that Kayne has to rely on. Nor is it apparent how such instances of (remnant) movement are restricted. In a way, this makes movement a fix-up for structures that do not come out the way the LCA predicts (cf. Moro's 2000 view on movement in Dynamic Antisymmetry Hypothesis; see below). In the spirit of the Minimalist Program, where movement is motivated only by feature checking, Kayne has to introduce a large number of [–Interpretable] features in order to motivate movement and derive the correct word order.

Even worse, Kayne has to rely on introducing a large number of functional heads that can host the moved phrases (including instances of remnant movement). Even though in some cases these heads may turn out to have semantic and/or phonetic content, many heads proposed in the framework of the LCA are semantically inert and phonetically null as well, their sole purpose being to host the moved phrases (and in essence to get the correct word order). In other words, these functional heads consist of [–Interpretable] features only and receive no support from either of the interfaces. According to Chomsky

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[58] Note that Cecchetto (1999) and Frascarelli (2000) have argued for LCA-compatible analyses of these facts. Yet, they cannot account for all the facts (see discussion in Pereltsvaig, to appear, a).

(1995:349-355), such functional heads must be dispensed with. Indeed, for Chomsky (1995:378) "the only functional categories are those with features that survive through the derivation and appear at the interfaces, where they are interpreted". By this logic, fix-up functional categories the sole purpose of which is to host moved phrases are not allowed in the grammar. In essence, restricting the theory by disallowing certain (LCA-incompatible) structures results in the need to loosen the theory in a different aspect, namely, by allowing an unrestricted number of semantically inert functional categories.

To sum up, the costs of the Antisymmetry Hypothesis seem to outweigh the empirical gains it might have. What about conceptual motivation for the LCA? According to Kayne (1994:3), the main conceptual motivation for the Antisymmetry Hypothesis is that it "yield[s] a derivation of the essentials of X-bar theory". In other words, X-bar theory is no longer a primitive but is rather derived from the LCA. One problem with this claim is that within the Minimalist framework the X-bar theory is abandoned in favor of the Bare Phrase Structure, where the essentials of the X-bar theory (which Kayne claims to be derived from the LCA) are for the most part derivable without the LCA (Chomsky 1995:336).

Yet, even if one does not adopt the Bare Phrase Structure, it is not clear if Kayne's LCA can indeed derive the basic properties of the phrase structure as defined by the X-bar theory. This point is investigated in detail in Akiyama (2000), who shows that only a subset of the essential properties of the X-bar theory can be derived from the LCA (for a detailed argument, the reader is referred to Akiyama's work). Unfortunately for the Antisymmetry Hypothesis, Akiyama (2000) concludes that LCA cannot derive all the properties of the X-bar theory. Crucially, this undermines the conceptual motivation for the Antisymmetry Hypothesis.

A weaker version of the Antisymmetry Hypothesis is that the LCA need not apply at all levels of representation. Thus, it is possible that LCA is applicable only at the level where linearization process occurs, namely, at PF. Moreover, on the assumption that null categories are not visible at PF (in the relevant sense), they need not be linearized. Therefore, it is not clear why LCA should apply to them. This line of reasoning is

entertained in Chomsky (1995:337), who maintains that "there is no reason for LCA to order an element that will disappear at PF, for example, a trace". The same idea is briefly entertained in Kayne (1994:133, ch.2, note 3).[59]

In addition, the hypothesis that LCA applies only at the level where linearization occurs has been explored by Moro (2000). Thus, Moro too subscribes to the idea that "the LCA, mapping hierarchy onto linear order, is active only when linear order is required by definition – that is, only when words are spelled-out" (Moro 2000:28). Crucially for him, symmetrical structures can be generated by Merge, but this symmetry has to be neutralized by PF. The obvious way to neutralize a point of symmetry is to move one of the offending constituents. Movement saves the structure from a violation of the LCA (at PF) because it leaves a trace in the position of the moved element. According to Moro,

> ... by definition, traces are not visible in the linear sequence at PF. Thus, if one of the elements constituting the point of symmetry is a trace, no problem is expected to arise... [Moro 2000:28]

In fact, Moro (2000) makes an even stronger claim. According to him, neutralizing a point of symmetry is not only a possible consequence of movement, it is its main motivation. Thus, Moro's Dynamic Antisymmetry Hypothesis (p. 28) states that "movement is driven by the search of antisymmetry" rather than by morphological feature checking (as in Chomsky's Checking Theory). In the book, Moro does not account for all types of movement; rather, he supports his hypothesis with an illustration of how movement neutralizes the three types of points of symmetry schematized in (96) above. The configuration in (96a) is most relevant for this dissertation since it obtains with small clause complements of the copula. The configuration in (96b) is relevant for the analysis of clitics; the configuration in (96c) occurs with *wh*-movement of objects.

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[59] The hypothesis that traces are not visible for linearization and therefore are not subject to the LCA is the starting point for Nunes (1999), but he develops an analysis (within the copy theory of movement) where traces are subject to the LCA.

Even though there are some interesting results following naturally from the Dynamic Antisymmetry Hypothesis, there are numerous problematic gaps in the analysis. Most importantly, it is not clear how many of the paradigmatic cases of movement, such as A-movement constructions including passive, raising, unaccusatives, VP-internal subjects, ditransitive constructions, and Germanic-type object shift, can be accounted for within the Dynamic Antisymmetry framework.[60] Only a brief footnote in Moro's monograph (2000:126) is devoted to A-movement, and only subject-to-subject raising and VP-internal subjects are discussed there. The analyses for both raising and VP-internal subjects are left very sketchy and many problems arise as to the details of these analyses (for a detailed discussion and critique of Dynamic Antisymmetry analyses of A-movement constructions, see Pereltsvaig 2001b). Thus, it is not obvious how the Dynamic Antisymmetry Hypothesis can provide an insightful analysis of A-movement constructions (and object shift in Germanic). It remains to be seen whether purely mechanistic analyses can be devised to account for these phenomena, or whether they present a real challenge for Moro's theory.

Therefore, I will not adopt the strong versions of the Antisymmetry Hypothesis or the Dynamic Antisymmetry Hypothesis in this dissertation. Rather, I will develop the idea that Merge can generate symmetrical structures which then need to be converted into LCA-compatible asymmetrical structures that can be linearized at PF. Throughout the dissertation, I will argue that a theory that allows Merge to generate symmetrical structures (for example, in copular sentences) is preferable to Kayne's (1994) Antisymmetry Hypothesis in that it allows us to account for a number of empirical facts concerning copular sentences (including case marking, semantic interpretation, and syntactic properties such as binding and extraction) without relying on stipulations and principles that are not otherwise necessary.

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[60] There is a disagreement in the literature as to whether Germanic-type object shift is an A- or A'-movement. Here, I ignore this controversy and mention Object shift on a par with other cases of A-movement, because this type of movement presents a problem for the Dynamic Antisymmetry Hypothesis, just like other cases of A-movement.

2.2.3. Merging Symmetrical Structures

In the previous section, I have put forward some arguments against the Antisymmetry Hypothesis of Kayne (1994). I argued instead that symmetry must be permitted throughout the derivation. However, I have not addressed the question of how it is possible to generate points of symmetry in the first place. Recall that Kayne (1994) envisages the LCA as the substitute for X-bar theory, which applies at all levels of representation. However, Moro (2000) has proposed to depart from the view that Merge is necessarily asymmetric. According to him, Merge can generate symmetrical structures. I will agree with Moro that Merge is not necessarily asymmetric, but I will propose a different theory as to exactly how symmetrical structures can be generated.

First, consider Moro's proposal for generating symmetrical structures. He argues that in addition to asymmetrical projection – the only option allowed by Chomsky (1995:244) – there is an option of projecting a node that has an empty label. Thus, Moro (2000:33) claims that Merge can create three types of output:

(97)	a. <α> (or <β>)	simple label – asymmetric projection
	b. <α, α> (or <β, β>)	complex label – adjunction
	c. < >	empty label – symmetrical structure

The second option – complex label, created in the adjunction process – is not particularly relevant for the discussion in this dissertation. Therefore, I will not talk about it here (for more discussion, the reader is referred to Chomsky 1995 and Moro 2000). The option that interests us here is the third one, namely, projecting an empty label. According to Moro (2000:33), this option satisfies the two conditions he identifies as underlying the Minimalist notion of Merge. In particular, this option "does not add extra information" and "there are no mixed labels" created as a result of this process (Moro 2000:33).

However, there is a serious objection to this proposal. Recall that syntactic objects are sets of features; the label < > means that the object does not have any features. However, a node with no features is not a legitimate syntactic object at all. In fact, it cannot be selected, and therefore cannot be a complement to a head (Moro does not discuss the issue of selection). According to Moro (2000) bare small clauses, which are

symmetrical structures of the type discussed here are complements of and presumably selected by the copula. Furthermore, Moro (2000:71) proposes to analyze clauses (i.e., TPs) as symmetrical structures consisting of the subject DP and TP projection (the latter corresponds to an T' in standard GB structures). Obviously, a clause, whether full or small, must be able to be selected, for example, by a copula, a complementizer or a verb (as in ECM constructions). Therefore, the issue of selection is particularly important here. Furthermore, a node with no features cannot further project, so that it cannot be a head either. In other words, syntactic computation can manipulate only features, and therefore, it cannot manipulate something that has no features. From the point of view of syntactic computation, something that does not have syntactic features does not exist at all. Thus, we do not want to generate symmetrical structures as empty nodes. The question is then what is a viable option for generating such symmetrical structures.[61]

At this point, recall that Chomsky (1995:244) presents three options for Merge – union, intersection and asymmetrical projection. The first two options are immediately excluded because they create illegitimate syntactic constituents. However, Chomsky limits his discussion of union and intersection as non-viable ways for Merge to proceed to the "normal case", namely, when the two input constituents α and β differ in some feature(s). Here, I would like to turn our attention to the "abnormal case", namely such when the two input constituents α and β do not differ in features relevant for syntactic computation.[62] I claim that in such cases, union and intersection should be viable options for Merge to proceed.

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[61] The discussion below is largely inspired by the work of Baker and Stewart (1999). I am very grateful to Mark Baker and Jonathan Bobaljik for discussions of the issues investigated in this section.

[62] It is widely assumed that phonetic features are not part of syntactic computation. Therefore, only those features that are part of the syntactic computation are relevant here. For example, category features and referential indices are relevant for syntactic computation (on indices, see section 3.3.2), whereas Topic/Focus and gender/number features on the N° are not relevant (see discussions in sections 2.2.4.1 and 4.2.2.1, respectively).

Consider the following toy example. There are three features relevant for syntactic computation: [±F], [±G] and [±H]. Every syntactic constituent must be specified for the first two features (they may be conceived as category features, for example, corresponding to GB's use of [±N] and [±V]). The third feature – [±H] – is optional. In what Chomsky refers to as the "normal case", the two input constituents α and β differ in features. For the sake of example, assume that α is specified as {+F, –G} and β is specified as {–F, +G} (curly brackets are used to indicate sets of features). In this case, the output of Merge γ can be one of the following:[63]

(98) a. {+F, –G}

b. {–F, +G}

In (98a), α asymmetrically projects; in other words, it is the features of α that are taken to be the features of γ. In (98b), β asymmetrically projects; in other words, it is the features of β that are taken to be the features of γ. Now, consider what sets of features cannot be taken as the result of Merge of α and β defined above:

(99) a. * {+F, +G}

b. * {–F, –G}

c. * {+F, –G, +H}

d. * {∅}

e. * {+F, –G, –F, +G}

The set in (99a) is not a possible output of Merge because a mixed label is created: the value for [±F] is taken from α and the value of [±G] is taken from β. The set in (99b) is ruled out for the same reason; in this case the value for [±F] is taken from β and the value of [±G] is taken from α. The set in (99c) is ruled out because it violates the second condition for Merge identified by Moro (2000:33) – it adds extra information not present in either α or β, namely, [+H]. The options in (99d) and (99e) are ruled out for the reasons discussed by Chomsky (1995:244). In particular, in (99d), the output node is created by an

---

[63] Here, I ignore the adjunction option, which is largely irrelevant for the discussion at hand.

intersection of features of α and β, and it has too few features for it to be identified as a legitimate syntactic constituent. In particular, it lacks the specifications for [±F] and [±G], which are defined as obligatory in our toy model of syntax. In (99e), the output node is created by a union of features of α and β, and it has too many features (which are also contradictory) for it to be identified as a legitimate syntactic constituent. Therefore, this option is also excluded as non-viable in the situation where the two input constituents differ in features.

Now consider the "abnormal case", namely, where the two input constituents do not differ in features. Assume that the two input constituents have the following specifications: both α and β are specified as {+F, –G}. In this case, the output of Merge can be one of the following:

(100) a. {+F, –G} union of α and β

b. {+F, –G} intersection of α and β

Whether Merge proceeds by union or by intersection of α and β, the resulting output is the same – {+F, –G}. Furthermore, in this case asymmetric projection of α is indistinguishable from the asymmetric projection of β.

Therefore, I conclude that the simplest assumption about Merge is it can proceed in one of the three ways identified by Chomsky (1995:244), but in certain cases – those where the two input constituents differ in features – union and intersection will result in an illegitimate syntactic object, which would be discarded by the syntactic computation.

2.2.4. Symmetrical Structures

In the previous section, I have argued that symmetrical structures can be generated under the simplest assumptions about how Merge can proceed. The next obvious question is whether such symmetrical structures are ever found in natural language. Since much of the recent research has concentrated on showing that asymmetry is the characteristic property of syntactic structure, at this point it is impossible to give a fully substantiated positive answer to this question. However, as suggested by Baker and Stewart (1999), it is at least plausible to analyze certain constructions in this way. In section 2.2.4.1, I will

briefly mention some constructions that can be analyzed as involving symmetrical structures, and in section 2.2.4.2, I will show some evidence that suggests that (some) copular sentences are symmetrical. This latter point will be further supported by the argumentation throughout this dissertation.

2.2.4.1. Symmetrical Constructions Cross-Linguistically

As argued in Baker and Stewart (1999), a number of constructions in various languages may be analyzed as involving symmetrical structures generated by Merge via union (or intersection); however, Baker and Stewart do not discuss the details of how such Merge would proceed or how it is restricted. Most of their discussion centers around Serial Verb Constructions (SVCs) in West African languages, such as Èdó. Baker and Stewart identify three types of SVCs that have different properties and result from the application of Merge via union at different stages of the derivation. The first type is the Covert Coordination (CC), which results from Merge via union of two VoicePs.[64] The second type is the Consequential SVC (CSVC), which results from Merge by union of two vPs. The third type is the Resultative SVC (RSVC), which results from Merge by union of two Vs.[65] Examples of these three types of SVCs with partial representations are given below:

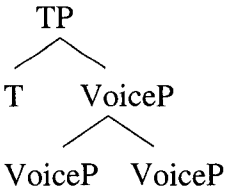
(101) a. COVERT COORDINATION

Òzó [$_{TP}$ ghá [$_{VoiceP}$ [$_{VoiceP}$ gbé ẹ̀wé] [$_{VoiceP}$ khiẹ̀n ùhùmwùn érẹ̀n]]].
Ozo FUT hit goat sell head its
'Ozo will kill the goat and sell its head.'

---

[64] Baker and Stewart (1999) show that CC is distinct from ordinary coordination and therefore cannot be analyzed as involving an elided conjunction.

[65] According to Baker and Stewart (1999) in RSVCs the two verbs are merged together to form a V'. So far, I have proposed that the output of Merge by union or intersection is always of the same category as the two input constituents. However, since the features of the head and those of the phrase it projects are the same, it is not important whether the two verbs merge to form a V' or a V° (the latter option is in fact less preferable since it is suggestive of morphological formation rather than a syntactic one).

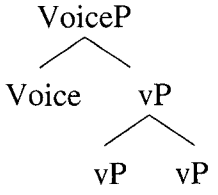


b. CONSEQUENTIAL SERIAL VERB CONSTRUCTION

Òzó ghá [$_{VoiceP}$ [$_{vP}$ [$_{vP}$ gbé ẹ̀wé] [$_{vP}$ khiẹ̀n *pro*]]].

Ozo FUT hit goat sell

'Ozo will kill the goat and sell it.'

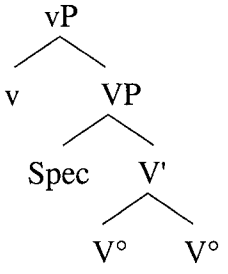


c. RESULTATIVE SERIAL VERB CONSTRUCTION

Òzó ghá [$_{vP}$ gbé [$_{VP}$ ẹ̀wé [$_{V'}$ [$_{V}$ *t*$_{V}$] [$_{V}$ wú]]]].

Ozo FUT hit goat die

'Ozo will strike the goat dead.'



Crucially for Baker and Stewart (1999), these serial verb constructions are not simple adjunction structures, where one of the verbal projections adjoins to another one of the same kind; rather, these constructions are considered doubly headed.

A similar doubly headed verbal structure is proposed by Butt and Ramchand (2000) for what they call "Type 1 light verb constructions" in Hindi/Urdu. According to them, the event arguments of the two V°s combine through the process of telic pair

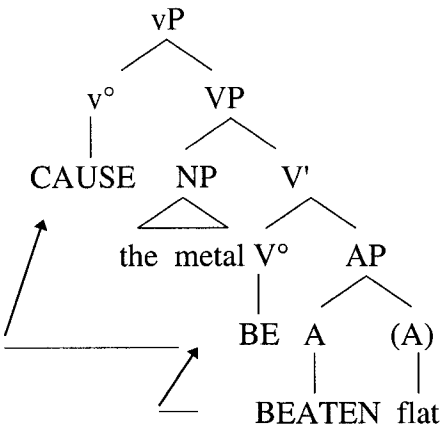
formation with the resulting meaning being that of completion, inception, benefaction, force, suddenness, etc.

Other constructions that may be analyzed as involving symmetrical structures mentioned by Baker and Stewart (1999:9-10) include:

- serialized prepositions in Fon-gbe, as discussed by Lefebvre (1989, p.c.);
- certain noun-noun phrasal "compounds" with conjunctive (*dvandva*) meanings in Vietnamese, which Noyer (1998) argues to be phrasal constituents rather than true compounds;
- complex proper names, like *Noam Chomsky*.

Moreover, Baker (2000:156) proposes that a symmetrical structure created by Merge via union of two As underlies the resultative secondary predicate construction, as in *We beat the metal flat*. A partial representation of the structure proposed by Baker is given below:

(102) ...



Even though I agree with Baker and Stewart (1999) that symmetrical structures can be merged, I disagree with them on a very important point: whether movement is permitted from a symmetrical structure. Baker and Stewart's analysis is based on the idea that symmetrical structures – which Baker and Stewart call "doubly-headed structures" – are possible only if neither of the input constituents is attracted by a higher head. In other words, for Baker and Stewart, movement from a symmetrical structure is not possible. The tentative explanation that they propose is that the higher head has to find a **unique** element to attract, but in the case of a symmetrical structure there are two competing

elements, and so a unique one cannot be selected. As a result, attraction fails, relevant features are not checked, and the derivation of the symmetrical structure crashes. The empirical evidence that Baker and Stewart put forward in support of their proposal is the "negative correlation between the presence of inflectional verb morphology and the possibility of SVCs" (p. 7). In particular, serializing languages, such as Èdó, Yoruba and Vietnamese, have little or no inflectional verb morphology, and therefore it is proposed that in these languages Ts have no V feature and do not attract the Vs. In contrast, non-serializing languages, such as English, French and Igbo, have much more inflectional verb morphology, and therefore Ts in these languages have a (strong or weak) V feature, attracting the Vs (either in syntax or at LF, respectively). Furthermore, a similar contrast can be found language internally as well. For example, Èdó has one tense – the past perfective – that shows up as an inflectional suffix on the verb, namely, the *-RV* suffix. Evidence from adverb placement shows that V-to-T movement in this tense happens overtly. In this one tense, Èdó patterns with French. Baker and Stewart (1999:9) claim that "strikingly, it is also impossible for SVCs of any kind to appear in this particular tense", whereas the same SVC is possible with a different tense. This is shown with an example of a consequential SVC below.

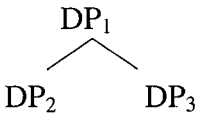
(103) Èvbàré ọ̀ré Òzó lé-(*rè) khiẹ́n-(*rẹ̀n).
food FOC Ozo cook-RV sell-RV
'It's food that Ozo has truly cooked and sold.' [Baker and Stewart 1999:9]

Even though Baker and Stewart's analysis of SVCs may be correct in that movement out of this particular symmetrical structure is impossible, I disagree with their broader claim that movement from a symmetrical structure is always impossible. Thus, if copular sentences involve a symmetrical structure, we expect some movement to be possible because of the word orders where the two DPs appear on different sides of the copula. Two questions arise in this connection.

- If there is no unique element attracted by a higher head, what determines which of the two input constituents (in this case, DPs) will move?

- In the structure below, can the top DP (i.e., DP_1) move? If yes, under what conditions? (Note that numbers in the structure below are for convenience of reference only).

(104)



In order to answer these questions, we need to consider the issue of what makes the DP move to Spec-TP (i.e., into the position preceding the copula) in the first place. Three reasons come to mind: Abstract Case, EPP, and Topic/Focus status. In chapter 4 below, I will argue that neither of the two DPs in a copular sentence involving a symmetrical structure needs to check Abstract Case (and as a result, both appear on the surface marked morphologically as nominatives). Therefore, checking Abstract Case is not the reason for a DP to move to Spec-TP.

In an earlier work (Pereltsvaig to appear, a), I have argued that the Topic/Focus status is assigned in the post-syntactic component depending on the constituent's position with respect to the left and right edges of the TP. Crucially, the Topic/Focus status is not the reason for a DP to move either.

Here, I would like to propose that it is the EPP that motivates movement into Spec-TP. Thus, I depart from Holloway King (1993), who argued that in Russian the Spec-TP position is not always occupied. Rather, she argues that movement into the pre-verbal space – either to adjoin to TP or into Spec-TP – is triggered by Topic and Focus features, respectively.

I assume that the EPP reduces to the need to check the uninterpretable D-feature of T°, which I take to be related to the referential index (for more discussion of referential indices and their role in syntax see section 3.3.2). Thus, only referential DPs, which have a referential index, have the D-feature and thus can check the D-feature of T°. One immediate consequence of this proposal is that it allows us to account for the inversion facts presented in section 2.1.2.2 above. Recall that only referential DPs invert into Spec-TP, whereas non-referential DPs, bare NPs and APs invert into Spec-CP. The impossibility of inverting a non-referential phrase into Spec-TP is explained by the fact

that a non-referential phrase cannot check the D-feature of T° since it lacks the referential index.

Now, let us return to the questions posed above in connection with (104). If there is no unique head attracted by the higher head (here, T°), what determines which of the two DPs (DP_2 or DP_3) moves into Spec-TP? In the syntax, either DP is a good candidate for movement: both DPs have a referential index and thus can check the D-feature of T°. Furthermore, both DPs symmetrically c-command each other; hence, neither of the DPs is closer to T° than the other. Thus, as far as syntax is concerned the choice of the DP to move into Spec-TP is open. However, whichever DP moves into Spec-TP, it becomes the Topic. (See also Moro 2001 on "mirror structures" where either of the symmetrical constituents can move in order to resolve symmetry).

Note also that since orders *DP copula DP* are possible, it is clear that Topic is not a feature that is relevant for syntactic computation. If it were, the two input DPs (i.e., DP_2 and DP_3) would have to be both Topics or both Foci, given the discussion in section 2.2.3 above. Clearly, this is not necessarily the case. This leads me to conclude that Topic/Focus is not a feature relevant for syntactic computation. It can be considered to be a feature somehow supplied at the interface level(s), as proposed in Pereltsvaig (to appear, a). In other words, the choice between DP_2 and DP_3 as candidate for movement into Spec-TP is free in syntax but determines which of the DPs is interpreted as Topic and which as Focus.

Now, let us consider the second question: whether the top DP (i.e., DP_1) can move into Spec-TP. Since it is a referential DP just like its constituent parts – DP_2 and DP_3 – it should be able to check the D-feature of T°. It could also be considered closer to T° than either DP_2 or DP_3. If this is true than only DP_1 should be able to move to Spec-TP blocking movement of either DP_2 or DP_3. This is clearly not the case. Thus, it appears that DP_1 cannot move into Spec-TP. How can this be explained? Recall that DP_1 is a symmetrical structure and as such it cannot be linearized at PF. Only if one of the two input DPs – either DP_2 or DP_3 – moves into Spec-TP, can the structure be linearized at PF (recall from the discussion of Dynamic Antisymmetry that a trace is invisible to linearization at PF). In other words, DP_1 cannot move into Spec-TP because if it did, the

structure would uninterpretable at PF. From this, we have to conclude that the order *DP DP copula* (which is possible in both Italian and Russian, but not in Norwegian for V2 reasons) is derived by moving on of the input DPs into Spec-TP and then moving the other DP into Spec-CP. Similarly, the order *copula DP DP* must be derived by moving on of the DPs into Spec-TP and then preposing the copula into C°.

In the next section, I will provide some arguments for treating bare copular sentences as involving symmetrical structures in addition to those constructions discussed above.

2.2.4.2. Copular Sentences and Antisymmetry

As has been mentioned above, Moro (2000) treats (some) copular sentences as involving a symmetrical structure. This view has been opposed by Adger and Ramchand (2001), who aim at showing that symmetry in copular sentences is only apparent.[66] They investigate *'se* copular sentences in Scottish Gaelic (illustrated in (105)) and claim that "semantic 'equativity' ... turns out not to be constructed by the semantic combinatorics, and the LFs which give rise to so-called 'equative' semantics are indeed predicationally asymmetrical" (p. 2).

(105) 'S e Calum an tidsear.
IS 3SG Calum the teacher
'Calum is the teacher.' [Adger and Ramchand 2001:12]

Even though "equative" sentences appear to be syntactically symmetrical in the sense that they involve two categorically identical DPs, Adger and Ramchand (2001) show that such sentences should be analyzed as a subtype of the general copular construction. For example, *'se* copular sentences do not allow copular inversion (for an extensive discussion of copular inversion see Moro 1990, 1997, Heycock 1992, 1994, 1998, and Heycock and Kroch 1999a):

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[66] Note that even though Adger and Ramchand (1999) argue against a symmetrical structure for copular sentences in Scottish Gaelic, they certainly do not assume Kayne's (1994) LCA. In fact, they allow Right-Dislocation structures that are banned by the LCA.

(106) a. 'S e Sean Hamlet a-nochd.
COP AUG Sean Hamlet tonight
'Sean is (playing) Hamlet tonight.' [Adger and Ramchand 2001:13]

b. * 'S e Hamlet Sean a-nochd.
COP AUG Hamlet Sean tonight
intended: 'Sean is (playing) Hamlet tonight.' [ibid]

Furthermore, *'se* copular sentences cannot be used to express the identity of two individuals (e.g., Cicero and Tully) without circumlocution:

(107) a. 'S e Cicero agus Tully an aon duine.
COP AUG Cicero and Tully the same man
'Cicero and Tully are the same person.'
[Adger and Ramchand 2001:14, (54)]

b. * 'S e Cicero Tully.
COP AUG Cicero Tully
intended: 'Cicero is identical to Tully.'
[Adger and Ramchand 2001:14, (53)]

From the lack of copular inversion and true identity sentences, Adger and Ramchand (2001) conclude that Scottish Gaelic *'se* copular sentences are not equative in any strict sense of the word: they are asymmetrical in both the syntactic and semantic combinatorics. However, Adger and Ramchand are careful not to make this a universal statement; in fact, they contrast Scottish Gaelic to languages like English, which allow both copular inversion and true identity statements, as shown below.[67]

(108) a. Sean is Hamlet tonight.
b. Hamlet is Sean tonight. [Adger and Ramchand 2001:13]

(109) Mark Twain is Samuel Clements.

---

[67] Note that the inverted sentence in (108b) is more marked than its counterpart in (108a); it is harder to contextualize pragmatically. The same applies to the Russian examples in (110) below in the main text.

Furthermore, Adger and Ramchand (2001) remain undecided as to how to express the parametric difference between languages like Scottish Gaelic and those like English. The question is then whether copular sentences in Russian and Italian (the two languages under investigation here) exhibit some signs of symmetry or not. Consider Russian copular sentences first. A quick look at the data suggests that Russian patterns with English in that some of its copular sentences (i.e., those with nominative post-copular phrases) are symmetrical: they allow for copular inversion and true identity statements. For example, in a discussion of a play, one can say either of the following:

(110) a. Vysotskij byl Gamlet.
Vysotsky.NOM was Hamlet.NOM
'Vysotsky was Hamlet.'

b. Gamlet byl Vysotskij.
Hamlet.NOM was Vysotsky.NOM
'Hamlet was Vysotsky.'

An example of a true identity statement is given below:

(111) Mark Tven byl Samuèl Klements.
[Mark Twain].NOM was [Samuel Clements].NOM
'Mark Twain was Samuel Clements.'

Moreover, such sentences are symmetrical in the sense that both the pre-copular and the post-copular phrases are marked with the same morphological case, namely nominative.

Now consider copular sentences in Italian. Like their Russian counterparts, they appear to be symmetrical in that they allow inversion and true identity statements:

(112) a. Giovanni Paolo II è il Papa.
John Paul II is the Pope
'John Paul II is the Pope.'

b. Il Papa è Giovanni Paolo II.
the Pope is John Paul II
'The Pope is John Paul II.'

(113) La stella matutina è la stella della sera.
the star morning.$_{ADJ}$ is the star of-the evening
'The Morning star is the evening star.'

To recap so far, there is empirical evidence that (some) copular sentences in Russian and Italian are symmetrical.

2.2.5. Summary

In this section, I have argued for the following points:

- The Antisymmetry Hypothesis does not apply to all levels of representations and all syntactic structures (contra Kayne 1994:49).
- Symmetrical structures are generated by an application of Merge via union (or intersection); contra Chomsky (1995:246), Kayne (1994), and Moro (2000).
- Merge via union (or intersection) is possible only if the two input constituents have the same feature compositions.
- There are reasons to believe that a number of syntactic constructions can be analyzed as involving symmetrical structures.
- With such a conception of Merge, symmetrical structures can be excluded only by an extrinsic stipulation (such as LCA of Kayne 1994).

In what follows, these points will be picked up in the following ways:

- Copular sentences of the form *DP is DP* are to be analyzed as involving a symmetrical structure.
- It will be shown that the identity (i.e., equative) interpretation of such sentences derives from the claim that such sentences can be merged only via union, and that for such Merge to apply the two input constituents must have the same feature compositions (see chapter 3).

3. Thematic Relations

The goal of this chapter is to investigate thematic relations, in particular, in copular sentences. This chapter consists of three main parts. In section 3.1, I discuss some general issues pertaining to the theory of thematic relations. I will suggest that a theory that reduces thematic relations to structural configurations under Merge (as in Chomsky 1995) is insufficient; this argument is further developed in section 3.2. Instead, I will propose to locate thematic relations at the conceptual-interpretative interface (i.e., the LF). Furthermore, I will adopt a richer theory of thematic relations, originally proposed by Higginbotham (1985), which allows for three modes of thematic discharge: θ-marking, θ-identification, and θ-binding. In section 3.2, dedicated to the thematic relations in rich copular sentences (i.e., those that involve post-copular NPs or APs), I will develop an analysis which incorporates all three modes of thematic discharge and allows us to account for the distribution and syntactic properties of post-copular DPs, NPs, and APs. Furthermore, I will propose that DPs need not be θ-marked (i.e., involved in thematic relations with predicative expressions), but can enter into thematic relations with each other. This possibility is explored in section 3.3, dedicated to the thematic relations and the interpretation of bare copular sentences (namely, those that have post-copular DPs). In this section, I will argue that the identity interpretation of bare copular sentences derives from an interplay of two facts: (i) the requirement that in order for Merge via union to apply, the two input constituents must have the same feature compositions, and (ii) that referential indices are features. I will also compare this analysis to other analyses proposed in the literature, and will argue that my analysis has certain advantages over the competing alternatives. Finally, I will argue that the analysis developed in this dissertation accounts for the meaning differences between the two types of copular sentences better than the analyses that reduce the differences to the inherent vs. temporary property distinction, and characterize the interpretation of these sentences in terms of stage-level vs. individual-level properties. Section 3.4 summarizes the claims made in this chapter.

3.1. Theta Theory

> The difficulty we have had in reaching agreement on just what a theory of thematic roles should look like is analogous to that of the blind men examining the elephant, each touching a different part of its body.
>
> – David Dowty, *Thematic Proto-Roles and Argument Selection*

In *The Minimalist Program* (Chomsky 1995), thematic relations are reduced to syntactic configurations; in other words, thematic relations are established through Merge (which is a very local operation). In this section, I will argue that such view of thematic relations is unduly simplistic. Therefore, a much richer theory of thematic relations is appropriate. It is the goal of this section to develop such a theory.

Consider first the question of the level at which thematic relations are established. Since thematic relations are interpretative in nature, and therefore are not part of the "dumb computational system" (the way Chomsky envisages the syntax proper), it appears reasonable to assume that thematic relations are established at LF, the level at which interpretation occurs.[68] This view is argued for at length in Neeleman and Weerman (1999). Here, I will not go through their arguments and the discussion of the consequences of adopting this assumption for the theory of movement; the reader is referred to Neeleman and Weerman's work for a detailed discussion.

Let us now turn to the question of the nature of thematic relations that the theory is to allow. In both GB and Minimalist theories, there is only one type of thematic relation. In GB, it is theta-assignment which relates predicative expressions and their arguments, whereas in Minimalism it is the syntactic configuration that holds between heads and their complements and specifiers. Combining elements from both these theories, let us consider as a predicative expression an element (whether a head or a maximal projection) that has a theta-grid. According to the definition of a lexical category proposed in section 2.1.1 above predicative expressions are always lexical categories; conversely, functional

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[68] Note that this is consistent with Williams' (1989:454) proposal that "the θ-relations are marked on the same level of representation as the anaphoric relations".

categories can never be predicative expressions. Furthermore, let us consider as an argument an element in a complement or a specifier position of a lexical head (at some level of representation).[69] These definitions are summarized below (cf. Rothstein 1983:19):

(114) A PREDICATIVE EXPRESSION is an element (either a head or a maximal projection) bearing a theta-grid, which has not been fully discharged.

An ARGUMENT is an element in a complement or a specifier position of a lexical head.

According to these definitions, whether an element is a predicative expression can be determined independently of its syntactic environment. On the other hand, whether an element is an argument can be determined only on the basis of its syntactic position. It is, therefore, impossible to say whether a given NP or DP is an argument without considering its syntactic position. In other words, argumenthood is an inherently relational notion, but predicativity is not.

Note further that according to the definitions above, predicative expressions and arguments are not in complementary distribution. In fact, an element can be a predicative expression but not an argument (for example, the verb in *The trolls kicked each other*), or an argument but not a predicative expression (for example, the object DP in *The snow covers the land*), or neither a predicative expression nor an argument (for example, an expletive in *It seems that Titania sleeps* and a vocative in *Waiter! There's a fly in my soup*), or both a predicative expression and an argument. According to the analysis developed in section 3.2 below, this latter possibility is instantiated by post-copular NPs and APs, which are both predicative expressions and arguments of the copula verb. Then, in section 3.3, I develop an analysis of bare copular sentences according to which both DPs in these sentences are neither predicative expressions nor arguments.

Consider now how predicative expressions and arguments can be licensed. Clearly, some principle is required in the grammar to rule out both "dangling predicative

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[69] In this dissertation, I ignore the question of quasi-arguments, such as the weather-*it*.

expressions" and "dangling referential expressions". A predicative expression is considered "dangling" if one or more of its thematic positions are left undischarged, as in (115a):[70]

(115) a. * The trolls devoured.

b. ✓ The trolls devoured the sausages.

Note that an alternative would be to explain the ungrammaticality of such examples by violations of s-selection (for "semantic selection"). According to such an approach, *devour* selects for a particular semantic type of a complement – an individual (rather than, say, a proposition) – and is ungrammatical if this required complement is not present. Yet, it has been suggested that s-selection is none other than θ-assignment (cf. Svenonius 1994:35).

Let us now consider "dangling referential expressions"; note that these expressions cannot be ruled out purely by Case Theory, as the examples below show:

(116) a. ✓ The troll laughed himself silly.

b. * The troll laughed the gnome.

c. ✓ The troll read the book all night.

d. * The troll read the book all chapters.

Himself in (116a) is usually analyzed as receiving a θ-role from *silly* (e.g., Schein 1995) and case from *laughed.* Therefore, the ungrammaticality of (116b) cannot be explained by Case Theory, namely, by the lack of case for *the gnome*. The obvious alternative is to rule this sentence out by Theta Theory, namely, by the lack of θ-role for *the gnome*. Similarly, in (116c) *all night* presumably receives case (since it does not lead to ungrammaticality). In fact, in Russian and Finnish it appears with accusative case-marking; Pereltsvaig (2000) shows that such temporally delimiting adverbials compete for structural case with direct objects. Therefore, the ungrammaticality of (116d) cannot be explained by Case Theory either. Here, I will not discuss in detail the contrast in grammaticality between (116c) and (116d); informally speaking, it appears that the problem with (116d) is that *all*

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[70] In this dissertation, I will use the terms *θ-role* and *thematic position (in a theta-grid)* interchangeably.

chapters cannot function as an event-delimiter directly, but it can only be a delimiter of the object *the book* (as in *The troll read all chapters of the book.*) To recap, Case Theory alone cannot explain the ungrammaticality of these sentences, but Theta Theory can.

To sum up so far, both dangling predicative expressions, as in (115a), and dangling referential expressions, as in (116b), must be ruled out by some principle of the theory. In GB, both types of dangling expressions are ruled out by the Theta Criterion (cited below from Chomsky 1981:36): the first half rules out dangling referential expressions, whereas the second half rules out dangling predicative expressions.

(117) Theta Criterion

a. Each argument bears one and only one θ-role.

b. Each θ-role is assigned to one and only one argument.

However, as noted in Higginbotham (1985), this formulation of the Theta Criterion is too strong in some cases and too weak in others. In the next section, I will present his revised version of Theta Theory.

3.1.1. Higginbotham (1985)

In this dissertation, I will adopt a revised version of Higginbotham's (1985) theory of thematic relations. In this section, I outline the main ideas of his theory, and in the next section, I will discuss some modifications to Higginbotham's analysis that are to be made in this dissertation. First of all, Higginbotham proposes that all lexical categories – including verbs, nouns, adjectives, and prepositions – have theta-grids. In section 2.1.2 above, I have argued in favor of associating referential indices with the D-layer rather than with the N-layer; thus, N° is to be seen as predicational, that is, as associated with a theta-grid, much like a V° or an A° (in this dissertation, I will for the most part ignore prepositions). Furthermore, Higginbotham proposes that both a V° (whether eventive or stative) and an A° have an event position in their theta-grids (Higginbotham 1985:555;

the same claim is made in Parsons 1990).[71] He further allows the grid to percolate in the syntactic structure along with all other categorial information (cf. Speas 1990:61; cf. Williams' 1989:431 idea that "the external argument... is represented not only on the predicate itself but also on every projection of the predicate").

Let us now consider the notion of thematic discharge. It can be defined informally as "elimination of open thematic positions in lexical items and in complex phrases" (Higginbotham 1989:475). Higginbotham claims that there are three basic modes of thematic discharge: θ-marking, θ-identification, and θ-binding.[72] According to him, all the three modes of discharge are restricted to the structural configuration of government. However, it turns out that the restrictions on thematic discharge need not rely on the notion of government, which has no status in the Minimalist framework. In fact, the notion of government is not restrictive enough in defining the structural configuration for thematic discharge. If the range of configurations in which thematic discharge can occur were defined by government, it would include structures that are clearly not permitted (for a more detailed discussion, see below in connection with θ-binding).

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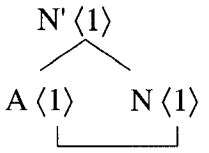
[71] This proposal, however, is not uncontroversial. For example, Katz (1996) claims that only eventive verbs have event arguments, whereas stative predicates (verbs and adjectives) do not. Alternatively, Kratzer (1989) claimed that only stage-level predicates have an event argument, whereas individual-level predicates do not. In this dissertation, I will largely ignore the event position; in section 3.3.3 below, I will come back to the question of whether the notion of stage- vs. individual-predicate is relevant for the description of Russian copular sentences.

[72] An additional mode of thematic discharge is autonomous theta-marking, "where the value assigned to the open position in the theta-marker is the attribute given by its sister constituent" (Higginbotham 1989:475). This mode of discharge is designed to account for cases of modification in which the property denoted by the adjective or the adverb is not absolute, but are relative to the choice of attribute (e.g., *an expensive meal* is interpreted as a meal whose price is high for a meal, but not for, say, a car; similarly, *a big butterfly* is big for a butterfly, but not for, say, an elephant). This mode of thematic discharge is largely irrelevant for the discussion in this dissertation. For a more detailed discussion, the reader is referred to Higginbotham (1985, 1989) and Speas (1990:69-70).

In Higginbotham's system, θ-marking comes to replace θ-assignment, the sole type of thematic relation in the standard GB Theta Theory; as a result of a θ-marking, the thematic position of the θ-marker is discharged. This process of θ-marking is instantiated, for example, by a transitive verb which θ-marks its complement, a direct object. Crucially, like other modes of thematic discharge, θ-marking is restricted to a local syntactic configuration, essentially, the maximal projection of the θ-marking head. This is comparable with the restriction on θ-assignment within the framework of GB, for example, as formulated by Guéron and Hoekstra (1995:77): "All θ-roles are assigned within the maximal projection of the θ-assigning head".

Let us now turn to the second mode of thematic discharge – θ-identification. According to Higginbotham (1985), this process is involved in the interpretation of simple adjectival modification, as shown below. In his later work, Higginbotham has extended the analysis to cover (some instances of) adverbial modification as well, which is accounted for by θ-identification between the event positions of the verb and the adverb. Following Higginbotham's notation, θ-identification is indicated by a line connecting two thematic positions indicated by numbers in angled brackets. It is implicit in his discussion that θ-identification discharges the thematic position of the non-projecting element (here, of the A); this idea follows from the normal assumptions on the nature of syntactic projection (see also Speas 1990:66-67).

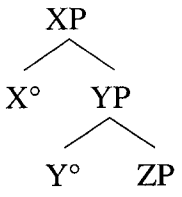
(118)



According to Higginbotham (1985:564), "θ-identification is constrained to take place under government". Note, however, that Higginbotham's analysis is cast in the pre-DP-analysis terms, and the structures he uses are quite different from the ones assumed in this dissertation (as discussed in chapter 2 above). If Higginbotham's analysis is to be adapted to the structures assumed here, there are two ways to reinterpret his locality restrictions on θ-identification. One possibility, adopted by Butt and Ramchand (2000), is to allow θ-identification between two heads X° and Y°, where X°

asymmetrically c-commands Y°, as in the schema below. Note that this configuration can be captured in Minimalist terms; in fact, it is exactly the configuration under which head movement occurs. Butt and Ramchand use θ-identification between two heads in the extended verbal projection (i.e., v° and V°) to account for a certain type of complex predicates in Hindi/Urdu.

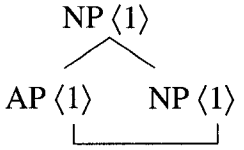
(119)



In this dissertation, I will assume an alternative view according to which θ-identification is limited to the sisterhood configuration, whether between two heads, two maximal projections, or between a head and a maximal projection. The advantage of this option is that it allows us to have the same conditions on structural configurations for all three modes of thematic discharge, namely, the condition of strict sisterhood (modulo θ-marking in Spec-Head configuration; note, however, that this process can be reduced to percolation of the theta-grid up to X'-level and θ-marking under strict sisterhood).

The structure for adjectival modification (given below) is adapted according to the assumptions about syntactic structure outlined in chapter 2 above.

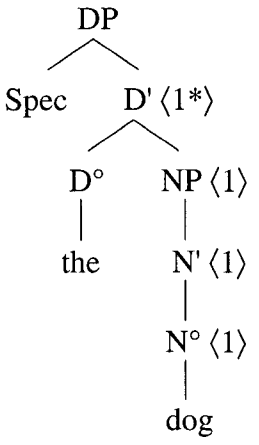
(120)



Finally, let us consider the third mode of thematic discharge – θ-binding. The core case of θ-binding considered by Higginbotham (1985:560) is the DP-internal θ-binding. According to him, an N° has a theta-grid containing (at least) one thematic position (for a discussion of other possible positions in a noun's theta-grid, see Speas 1990:64-65). This grid percolates up to the level where the D° is added to the structure. The D° acts as the

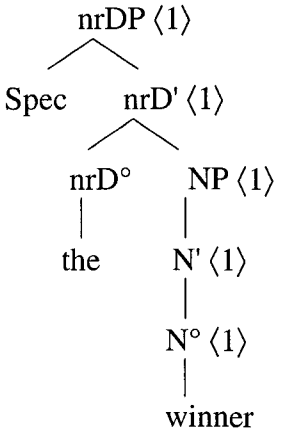
binder of the thematic position of the N°.[73] Here and below, I will use an asterisk to indicate θ-binding (note that Higginbotham uses an asterisk to indicate a thematic position discharged by any of the three modes). The structure below is adapted from Higginbotham (1985:560) according to the DP-analysis of Abney (1987), as discussed above.

(121)



As a result of θ-binding, a head discharges a thematic position of its complement. However, this does not apply to all DP but only to referential ones. In non-referential DPs (nr-DPs), the determiner is vacuous in the sense that it does not θ-bind the open thematic position of the NP, which then percolates up to the level of the nr-DP (cf. "expletive determiners" of Longobardi 1994 and Zamparelli 2000:158).

(122)



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[73] A similar analysis has been proposed by Longobardi (1994:634), who treats the D° as an operator that binds a variable, the range of which is defined by the common noun.

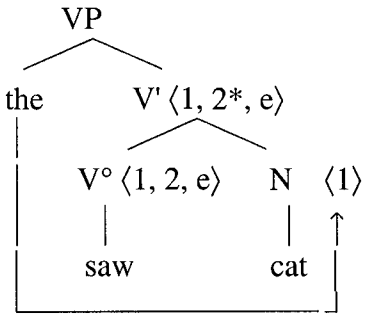
Note that the crucial feature of this analysis is that it allows us to distinguish between referential DPs, on the one hand, and non-referential expressions such as non-referential DPs, bare NPs and APs through their thematic properties. According to this analysis, only referential DPs are saturated expressions since the thematic position of the noun is bound by the determiner. In contrast, non-referential DPs and bare NPs are not saturated; they have an undischarged thematic position. This allows us to account for the distribution of post-copular NPs and non-referential DPs, which pattern with APs and not with referential DPs, as described in detail in section 2.1.2.2 above. Under this analysis, APs, non-referential DPs and bare NPs have undischarged thematic positions, and therefore are predicative expressions, regardless of their position in the structure (according to the definition in (114) above). In contrast, referential DPs are not predicative expressions, once again regardless of their position in the structure. This is so because referential DPs have no undischarged thematic positions. As a result, referential DPs but not non-referential DPs or bare NPs can function as arguments since they are functionally complete (i.e., saturated).

In this respect, Higginbotham's analysis (adopted in this dissertation) is very different from that of Williams (1981 and his later work). According to this latter analysis, a noun has an external θ-role which has no counterpart in the verbal system. Wiliams labels it *R* for "referential" since "it is this argument position R that is involved in referential uses of NPs as well" (Williams 1980:86). In essence, this *R* θ-role functions as both a theta-grid position and as a referential index. It is associated with N° and projects up to the highest node in the nominal structure (Williams refers to it as NP, but in the context of this dissertation the term DP would be more appropriate). In his later work, Williams (1989:425) proposed that in the case of an argument noun phrase the *R* θ-role is discharged by coindexing with the θ-role of the θ-marker (say, a verb or a preposition). Thus, in that paper, he views "θ-role assignment [as] a relation between two θ-roles" (Williams 1989:426), rather than a θ-role and a noun phrase. Importantly for the discussion at hand, Williams' approach fails to distinguish between a bare NP and a DP in terms of their thematic properties since both of them have the same theta-grid containing *R*. As we have seen in section 2.1.2.2 above, this view is not supported empirically.

Therefore, I reject Williams' analysis and adopt instead the alternative proposed by Higginbotham (1985).

Consider now the question of how θ-binding is restricted. As mentioned above, it occurs only between heads and their complements. For example, in DPs θ-binding applies between D° and its complement NP. Even though Higginbotham characterizes the structural configuration for θ-binding as defined by government, it is crucial that the correct restriction is, in fact, sisterhood. As noted by Speas (1990:119-120, fn. 27), defining the configuration for θ-binding by government would allow the following structure, which is clearly not permitted.

(123)



θ-binding

In addition to DP-internal θ-binding, Higginbotham (1985:561) has suggested that θ-binding also occurs between the T° and the E(vent)-position of the VP.[74] This analogy between D° and T° is particularly attractive in light of the observed parallel (or even non-distinctness) between these two categories in many unrelated languages, including St'át'imcets (Lillooet Salish), as described by Davis and Matthewson (1996), and Fon-gbe (Claire Lefebvre, p.c.).[75]

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[74] Higginbotham (1989:483) also suggests that θ-binding also occurs between adverbs of quantification, such as *never* and the event position of the VP, but he does not develop this proposal any further. Note also that adverbs of quantification are not in the correct structural configuration for θ-binding to take place, as discussed in the main text.

[75] It is has been proposed by Travis (1994) that θ-binding is limited to a special kind of heads; she calls them "binding categories". However, she assumes a more elaborate structure for both clauses and noun

Furthermore, Corver (1997) extends θ-binding to adjectival phrases. According to him, "the functional degree words ... Deg° and Q° function as operators and must [θ-]bind a referential argument position associated with the adjectival predicate", where the "referential argument position" refers to "an argument position over degrees ... G(rade)" (p. 131). Of the three cases of θ-binding mentioned here – in noun phrases, clauses, and adjectival phrases – the one most crucial for the discussion in this dissertation is the DP-internal θ-binding.

To recap, even though Higginbotham's theory extends the possibilities of thematic discharge, the theory is still quite restrictive since each thematic relation is strictly local. In particular, θ-marking can involve a head and its complement or a head and its specifier (the latter relationship can be reformulated as percolation of the theta-grid to X' and further θ-marking under sisterhood); θ-identification is restricted to sisters and θ-binding – to the sisterhood relation between a (special kind of) head and its complement. In order to accommodate the three modes of thematic discharge, Higginbotham (1985) revises the Theta Criterion (see (117) above) with a new formulation:

(124) Every thematic position is discharged.

According to Higginbotham (1985:561), "that a thematic role cannot be assigned to more than one argument becomes a special case of [(124)]" (on the assumption that discharge "uses up" a thematic position).[76] A further weakening of the Theta Criterion

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phrases, and for her, binding categories include E° (for Event) in clauses and its nominal counterpart R°. However, for the purposes of this dissertation, I will not adopt the notion of binding category and will assume simpler structures for nominals and clauses, as described in the main text. Furthermore, I will leave the exploration of the consequences of Travis' proposal for copular sentences for future research.

[76] Cf. Williams' (1989:445) anaphoric account of θ-role assignment, according to which the uniqueness of θ-role assignment "follow[s] from a general requirement that an anaphor have only one antecedent". He also suggests that this may not be a general principle and proposes a reanalysis of Warlpiri split noun phrase data, according to which each part of a split noun phrase is a noun phrase on its own and all the parts are assigned the same θ-role. Williams also speculates that English nonrestrictive appositives can be analyzed in the same way, that is as assigned the same θ-role as the noun phrase they are appositive to (e.g., in *I saw*

from (117) to (124) is in that the latter formulation does not invoke the uniqueness condition, requiring a one-to-one correspondence between arguments and thematic positions. However, Higginbotham (1985:561, fn. 14) suggests that thematic discharge is not necessarily unique, as has been assumed earlier. For example, he proposes that dual θ-marking occurs "in verbs that [are] syntactically intransitive but semantically inherently reflexive, candidates being certain verbs of hygiene in English, such as *wash* and *bathe*" (similar constructions in French are discussed by Bouchard 1982, and in Russian by Levin 1985). If the Theta Criterion is formulated in terms of chains, an additional example of doubly θ-marked chain is the parasitic gap construction (e.g., *Which book did you criticize t without reading e?*; see Brody 1993:1). An additional case of a phrase doubly θ-marked (by two distinct heads) is mentioned in section 4.2.1.1 below.[77] A candidate for dual binding is the comparative construction, exemplified below, in which "the complex *fewer ... than* ends up binding the open positions in both nouns" (Higginbotham 1985:561, fn. 14).

(125) [Fewer cups than saucers] are on the table.

To sum up this section, Higginbotham (1985) proposes a richer system of thematic relations that involves three modes of thematic discharge instead of one, as in classical GB and Minimalism. Yet, each mode of thematic discharge is restricted configurationally.

Bill, the candidate I like both *Bill* and *the candidate I like* are assigned the Theme θ-role by the verb). An additional case of multiple discharge (i.e., one θ-role and several DPs) is suggested in Brody (1993:1): the case of *tough*-movement, which at least under one possible analysis is a case of two DPs corresponding to one θ-role. For instance, in (i) both the matrix subject *John* and the variable in the embedded object position share the same θ-role.

(i) John is easy Op to please t.

I will not discuss these constructions in any detail here. It should be noted that alternative analyses have been proposed in the literature that avoid the multiple discharge. Evaluation of different analyses goes beyond the scope of this dissertation.

Furthermore, his revised formulation of the Theta Criterion requires only that each thematic position be discharged.

3.1.2. Modifications to Higginbotham (1985)

In the previous section, I have outlined Higginbotham's (1985) theory of thematic relations. The core principle of this theory is the revised version of Theta Criterion, given in (124) above. This formulation of the Theta Criterion serves to rule out dangling predicative expressions. Yet, this principle is not sufficient in that it does not rule out dangling referential expressions; the need to rule out such expressions has been illustrated in (116) above. As has been mentioned in the previous section, a condition requiring every argumental expression to be assigned one and only one θ-role (as in the classical statement of the Theta Criterion in (117) above) is too strong. It is possible to have noun phrases that are θ-marked twice.[78] In addition to the examples of dual θ-marking mentioned in the previous section, one might analyze the resultative secondary predicate construction in the same way. For example, in *The troll watered the tulips flat*, the noun phrase *the tulips* can be said to receive two θ-roles: one from *water* and the other from *flat*. Similarly, Jackendoff (1972:32-34, building on earlier work by Gruber 1965) proposes that in *John rolled down the hill*, the subject noun phrase *John* receive two θ-roles: Theme and Agent (for further examples of potentially doubly θ-marked phrases, see Jackendoff 1972:35-36).

To recap, we cannot exclude the possibility of a noun phrase that is θ-marked twice.[79] Yet, it appears that there is a need for a condition that would exclude some noun

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[77] Brody (1993) and Schein (1995:50) also allow assignment of more than one θ-role to the same phrase/chain. But see Williams' (1989:446-447) reservations about multiple θ-assignment to the same noun phrase.

[78] For the sake of exposition, I will focus on nominal arguments, largely ignoring clausal and prepositional arguments.

[79] Note that if the theory admits a possibility of a noun phrase being θ-marked twice, it is impossible to claim that θ-roles are in one-to-one correspondence to either syntactic positions or case forms.

phrases that are not θ-marked at all. The reason I used "some" in the previous sentence is that it appears that some noun phrases that are not θ-marked are nonetheless licensed (i.e., do not lead to ungrammaticality). Here, I will briefly discuss three constructions where this is the case: Left-Dislocation in Russian, Pronoun-Doubling in colloquial Russian, and *sounds like*-construction in (colloquial) English. In all the three constructions, a noun phrase licensed despite not being θ-marked appears to be "parasitic" on another noun phrase (almost always a pronoun), which in its turn receives a θ-role in the usual way. Consider first Left Dislocation and Pronoun Doubling in Russian; some illustrative examples are given below.

(126) a. LEFT-DISLOCATION

Policejskie | oni veli sebja užasno.
Policemen.NOM they.NOM behaved self terribly
'As for policemen, they behaved terribly.'

b. PRONOUN-DOUBLING

Žizn' ona voobše ne legkaja.
life.NOM it.NOM usually not easy
'Life is usually not easy.' [McCoy 1998:234]

As has been shown by McCoy (1998), these two constructions differ in two important respects. First, the leftmost phrase in Left Dislocation, but not in Pronoun Doubling, constitutes an independent prosodic unit (the intonational break is marked with "|"). Second, the leftmost phrase in Pronoun Doubling, but not in Left Dislocation, can agree in case marking with the intra-clausal "doubled" pronoun; in both constructions the leftmost phrase can appear in the nominative case. For instance, if an accusative direct object is doubled/dislocated, the leftmost DP in the Pronoun Doubling construction can appear in the accusative case, but in the Left Dislocation construction it always appears in the nominative.

(127) a. LEFT-DISLOCATION

Viktor | ja ego uvažaju.
Victor.NOM I.NOM him.ACC respect
'As for Victor, I respect him.'

b. PRONOUN-DOUBLING (from McCoy 1998:235)

Viktora / Viktor ego vse uvažajut.
Victor.ACC / Victor.NOM him.ACC everybody.NOM respects
'Everybody respects Victor.' OR: 'As for Victor, everybody respects him.'

Importantly for the present discussion, in both of these constructions the leftmost phrase is not θ-marked independently of the intra-clausal pronoun. Let us now turn to the *sounds like*-construction in English. This construction is similar to the Left Dislocation and Pronoun Doubling constructions in Russian in that the leftmost DP (here, in the matrix subject position) is not θ-marked. Some illustrative examples from Heycock (1994:288) are given below:

(128) a. That book seems like it will sell well.
b. That book looks like it will sell well.
c. That book sounds like it will sell well.

Note that it is possible for the verbs *sound* and *look* to θ-mark their specifiers, as in *I hate it when he sings: he sounds like he's in pain* (this example is from Heycock 1994:288). Therefore, some *sound like-* constructions are ambiguous: on one of the readings, the subject of *sounds like/looks like* is the source of direct sensory impressions, whereas on the other reading, the conclusions are drawn from a report about the entity denoted by the subject of *sounds like/looks like* (examples from Heycock 1994:289).

(129) a. Your car sounds like it needs tuning very badly.

- Situation A: the speaker sits in the addressee's car and is listening to the engine and wincing.
- Situation B: in a long distance telephone call, the addressee has just described to the speaker the bizarre behavior of her car.

b. Oh dear, John looks like he has failed the exam.

- Situation A: the speaker has just seen John walking down the corridor with a very miserable expression on his face.
- Situation B: the speaker has just seen the official exam results posted.

The reading that we are interested in for the purposes of the current discussion is the one that obtains in Situation B, namely that "in which the matrix subject [i.e., *your car* in (129a) and *John* in (129b)] is not interpreted as the source of the sensory impressions" (Heycock 1994:289). Note that in some cases the reading associated with Situation A is impossible or clearly dispreferred (examples from Heycock 1994:289):

(130) a. Dumfries sounds like it must be a lovely place to live.
b. That company sounds like it's in a lot of trouble.
c. That problem sounds like it could be tricky to solve.

On the clearly preferred reading – the one in which the matrix subject is not θ-marked – these sentences can paraphrased as in (131):

(131) a. It sounds like Dumfries must be a lovely place to live.
b. It sounds like that company is in a lot of trouble.
c. It sounds like that problem could be tricky to solve.

According to Heycock's (1994) analysis, the non-θ-marked DP in the matrix subject position in (128) and (130) is licensed by predication rather than by θ-marking (and crucially, for Heycock it is not the pronoun that creates a predicate out of a clause). However, this predication-based analysis cannot explain the contrast in grammaticality between sentences in (128) and (130), on the one hand, and those in (132) below, on the other hand (the latter set of examples is from Svenonius 1994:24; judgments are those of my consultants). Heycock (1994:292) considers the sentences in (132a-d) grammatical, whereas Svenonius (1994:24) notes that they "have a very colloquial ring to them"; however, the majority of the speakers I have consulted (but not all) do not accept these

sentences as grammatical on the relevant reading; Heycock, Svenonius and my consultants all agree that the sentences in (132e,f) are ungrammatical.[80]

(132) a. * That book sounds like everyone should own a copy.

b. * That restaurant sounds like new management would be an improvement.

c. * Those books sound like the covers should have been replaced long ago.

d. * That movie sounds like there should be a sequel.

e. * John looks like it's raining.

f. * John looks like the exam was difficult.

The crucial difference between the grammatical sentences in (128) and (130) and the ungrammatical ones in (132) appears to be the presence of a coindexed pronoun in the grammatical sentences and the absence of such pronoun in the ungrammatical ones. For example, the sentence below is grammatical on the relevant reading – in which the matrix subject is not the source of the auditory perception – only if the pronoun is coreferential with the matrix subject (the example – but not the judgment – is from Heycock 1994:295).

(133) Ruth_i sounds like $\text{she}_{i/*k}$ burst in at just the wrong moment.

This sentence can be paraphrased as 'From what you tell me about Ruth I can conclude that Ruth burst in at just the wrong moment', but not as 'From what you tell me about Ruth (and her reaction to Jane bursting in) I can conclude that Jane burst in at just the wrong moment', even though this latter interpretation is not inconceivable *a priori.*

To recap, Left Dislocation and Pronoun Doubling constructions in Russian, and the *sound like*-construction in English all feature a DP which is not θ-marked but is coreferential with a pronoun which is θ-marked.[81] Furthermore, the ungrammaticality of

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[80] Interestingly, whatever variation there is among speakers with respect to these data, it does not correlate with dialect divides between American, British and Canadian English.

[81] There are several other intriguing issues regarding semantic and pragmatic properties of these three constructions. However, these issues are outside the scope of this dissertation and shall remain open for further research.

such examples without a coreferential pronoun suggests that an analysis based on predication – like that of Heycock (1994) – is insufficient. Thus, the grammaticality of such "dangling" DPs is dependent on their coreferentiality with another DP (usually a pronoun).[82] Therefore, what is needed is a principle that would rule out non-θ-marked DPs unless they are in a proper relation with another DP.

To sum up so far, we have established a need for a condition that would rule out predicative expressions and DPs that do not get interpretation through establishing appropriate thematic relations. A predicative expression is licensed if all its thematic positions are discharged through one of the following three modes: θ-marking, θ-identification or θ-binding. In other words, a thematic position must either be bound by an appropriate head or establish an appropriate thematic relation with another thematic position (as in θ-identification) or a DP (as in θ-marking). A DP is licensed (or can be interpreted) only if it establishes an appropriate thematic relation with a thematic position (when it is θ-marked) or another DP (as in the constructions discussed above). These possibilities can be summarized into a general formulation of the Theta Criterion.[83]

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[82] It is not clear if the presence of a coreferential pronoun is obligatory in Left Dislocation sentences cross-linguistically. For example, Ashby (1988:209-210) remarks that "while most LDs [in spoken French] are tied to the main predication by a coreferential clitic, a relatively small number lack this explicit anaphor". In his study of natural production, Ashby found that 81 out of 851 instances of LDs (9.5%) do not contain a coreferential clitic in a θ-marked position. An illustrative example from Ashby (1988:210, his (14)) is given below:

(i) [having been asked whether she had found it difficult to have had her father as her English teacher]:

> C'est-à-dire que Papa, c'est un bon professeur; j'aimais bien ce qu'il faisait, oui. Non. J'ai une amie, ça lui posait des problèmes d'avoir sa mère comme professeur. Mais **moi**, ça y était.
>
> 'This is to say that Daddy, he is a good teacher; I liked very much what he did, yes. No. I have a friend, it was a problem for him/her to have his/her mother as a teacher. But **me**, it is OK.'

Note that such examples are completely ungrammatical in Russian.

[83] Here, I will remain agnostic as to the correct analysis of implicit arguments. For one possible analysis, the reader is referred to Williams (1989).

(134) THETA CRITERION (REVISED)

Every DP and every (unbound) thematic position must receive an interpretation through establishing a relation with an appropriate element, that is, another DP or another thematic position.

This formulation rules out both "dangling" thematic positions and "dangling" DPs, and in this way it generalizes over both parts of the original Theta Criterion (as in (117) above). Note that this formulation of the Theta Criterion can be reduced to Full Interpretation; thus, I agree with Brody (1993:2) that "the θ-Criterion holds at LF only to the extent required for meaningful interpretation". Note further that the revised Theta Criterion covers three types of thematic relations:

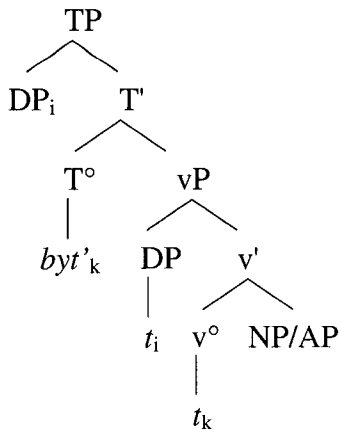
- between a DP and a thematic position, as in θ-marking;
- between a thematic position and another thematic position, as in θ-identification;
- between a DP and another DP, as in Left Dislocation-like constructions.

To recap this section, I propose that the Theta Theory module of the grammar is located at LF and comprises the Theta Criterion, as formulated in (134). In informal terms, this Theta Criterion guarantees that there are no dangling θ-roles or dangling DPs. In the rest of this chapter, I will show how these relations apply in copular sentences. In section 3.2, I will develop an analysis of rich copular sentences based on θ-marking and θ-identification, and in section 3.3, I will propose an analysis of bare copular sentences based on thematic relation between two DPs.

3.2. Interpretation of Rich Copular Sentences

In this section, I develop an analysis of rich copular sentences, namely those that involve post-copular NPs and APs (but not DPs). The structure I have proposed for rich copular sentences is the following:

(135)



Recall from section 2.1.2.2 above that bare NPs in the post-copular position pattern with APs, whereas DPs systematically pattern differently from NPs and APs. I have concluded that this is so because both NPs and APs are predicative expressions, namely they bear theta-grids. This is in line with the proposal made in section 2.1.1 that all and only lexical categories bear theta-grids. Furthermore, I have maintained that when an NP appears as a complement of a D° in a DP, the NP's thematic position is discharged through θ-binding (as in Higginbotham 1985).

In this section I will argue for the following claims:

- NPs and APs are "defective θ-markers" in that they fail to θ-mark their specifiers (following Baker and Stewart 1997 and Baker 2000).
- The thematic position of N° or A° is discharged "non-locally" to the specifier of a higher head, namely, the head of a small clause.
- The head of the asymmetrical small clause is a lexical category (i.e., it bears a theta-grid).
- The "non-local θ-marking" by N° or A° reduces to θ-identification followed by local θ-marking.
- A distinction is to be drawn between two components of a thematic position: an argumental variable and a thematic index (following Samek-Lodovici 1999).

3.2.1. APs and NPs fail to θ-mark their specifiers

As has been shown previously, adjectives and nouns in post-copular positions are predicative, that is, they bear theta-grids. I have also maintained that the highest thematic position in the theta-grid of an NP can be discharged through θ-binding when the NP is a complement of a D° (as in Higginbotham 1985). Yet, this option is not available for NPs (and APs) that are not complements of a D° but rather appear in the post-copular position. The question is then the following: in what way can the thematic position of a predicative NP or AP be discharged? In this section, I will develop the hypothesis put forward by Baker and Stewart (1997) and Baker (2000). According to them, adjectives cannot θ-mark their specifiers, thus failing to discharge the relevant thematic position internally to their maximal projections. Their analysis is based on the investigation of the behavior of adjectives with respect to unaccusativity diagnostics.[84] In particular, Baker and Stewart have shown that adjectives pattern with unergatives rather than with unaccusatives in that they do not allow possessor datives in Hebrew, *ne*-cliticization in Italian and genitive of negation in Russian. Moreover, Baker and Stewart show that adjectives differ from unaccusative verbs in Èdó in that de-adjectival nominalizations do not allow an overt argument, whereas de-verbal nominalizations do. In this dissertation, I contribute to Baker and Stewart's analysis in three important ways:

- I compare Italian and Russian adjectival predicates with **synonymous** stative verbs, rather than with just any unaccusative and unergative verbs (just as Baker and Stewart do for Èdó but not for Italian and Russian). The goal of this comparison is to exclude the interference of the semantics of the predicates in question. Thus, I show that the differences in behavior with respect to unaccusativity diagnostics cannot be reduced to the differences in the thematic properties of the arguments compared.
- I will consider data involving additional unaccusativity diagnostics: possessor datives in Italian and Russian, and *wh*-extraction from subject in Italian.

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[84] I follow Baker and Stewart in assuming that unaccusativity is a syntactic distinction (contra Dowty 1991).

- And most crucially, I differ from Baker and Stewart in that I do not assume N° to be associated with a referential index. Instead, I will show that NP predicates pattern with AP predicates with respect to all unaccusativity diagnostics considered. Thus, I will argue that both NPs and APs are "deficient θ-markers" in the sense that they cannot θ-mark their specifiers.[85] In this, adjectives and nouns contrast with verbs, which do θ-mark their specifiers.

In the next section, I outline the work of Baker and Stewart, focusing mostly on Èdó and Hebrew. In the following two sections, I present new data concerning adjectival predicates and stative verbs in Italian and Russian, and new data concerning NP predicates, respectively. Finally, section 3.2.1.4 summarizes these facts and formulates the problem that these data present for the theory. The solution to this problem is proposed in section 3.2.2 below.

3.2.1.1. Baker and Stewart on AP predicates

In this section, I will present the work of Baker and Stewart (Baker and Stewart 1997, Baker 2000) on adjectival predicates, focusing on the data from Èdó and Hebrew. According to Baker and Stewart, adjectives by definition cannot θ-mark their specifiers; as a result, the argument of an adjectival predicate is projected into a specifier of a higher head. Baker and Stewart refer to this head as Pred°, following Bowers (1993) and Svenonius (1994); but recall from the discussion above that I refer to this head as v°. In this section, I will use Baker and Stewart's terminology, but in the following sections, I will switch back to v°.

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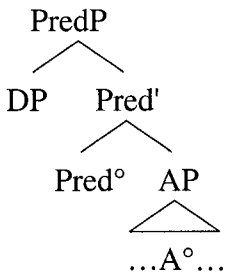
[85] I leave the question of possessor phrases outside the scope of investigation here. Clearly, even if possessor phrases are θ-marked in the specifier of NP, this position is still unavailable for subjects of copular sentences. In fact, the compatibility of subjects in copular sentences with possessor phrases (as in (i) below) has been taken as an argument against the analysis that generates the subject of the copular sentence as the specifier of NP, as proposed by Stowell (1983). For a detailed discussion, see Heycock (1994:98-99).

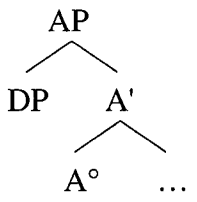
(i) Monica is Bill's best friend.

The structure that Baker and Stewart propose for adjectival predicates is the one in (136a) rather than (136b).

(136) a.



b.



The first piece of evidence for this hypothesis comes from the distribution of copular elements in Èdó. According to Baker and Stewart (1997), the copular element *yé* differs from English *be* in that the former but not the latter is the head of the small clause (for them, Pred°). Therefore, its distribution can shed light on the presence or absence of Pred°, and therefore on whether arguments of adjectival predicates are projected internally or externally. The Èdó facts are as follows: *yé* is obligatory if the predicate is adjectival and is ungrammatical if the predicate is verbal. (Note that nominal predicates appear with a different realization of Pred° – *rè*. Baker and Stewart do not draw a distinction between NPs and DPs in post-copular positions; therefore, I will not discuss nominal predicates in Èdó in this dissertation):

(137) a. Èmèrí (*yé) mòsé.
Mary is be-beautiful [Baker and Stewart 1997:33]

b. Èmèrí *(yé) mòsèmòsè.
Mary is beautiful
both: 'Mary is beautiful.' [ibid]

From this Baker and Stewart conclude that adjectival predicates cannot discharge their thematic position internally to the AP; instead, they require "help" from an additional head, and the copular element *yé* is that head.

Interestingly, the contrast between adjectives and stative verbs is retained under nominalization in Èdó. In this language, nominals derived from adjectives can be clearly distinguished from nominals derived from verbs. Baker (2000) distinguishes two types of derived nominals in Èdó: (i) nominal-1 derived by a productive *ù-H!H-mwèn* circumfix

("H!H" indicates high-downstep-high tones on the root); and (ii) nominal-2 derived by adding a vowel prefix. Furthermore, he shows that nominal-1s are derived from verbs, whereas nominal-2s are derived from adjectives. This claim is supported by the fact that roots which do not have a verbal form, such as *wòrò* 'long', lack the otherwise fully productive nominal-1 form as well. Conversely, roots that lack the adjective form, such as *kpòló* 'big' and *tán* 'tall', lack the nominal-2 forms. In itself, this fact is not conclusive, since the nominal-2 formation is not a productive process (as opposed to nominal-1), but it is suggestive of a connection between the adjectival forms and nominal-2s. Stronger support comes from the fact that nominal-2s retain the tonal pattern of the adjectival form, as illustrated in the table below (from Baker and Stewart 1997:41).

Table 2. Nominalization patterns in Èdó

	stative verb (LH)	adjective (HH or LL)	nominal-1 (ù-H!H-mwèn)	nominal-2 (e/i/o + A)
'small'	khèrhé	khérhé	ù-khé!rhé-mwèn	é-khérhé
'beautiful'	mòsé	mòsè(mòsè)	ù-mó!sé-mwèn	ì-mòsè
'tough, stringy'	sìkán	sìkàn(sìkàn)	ù-sí!kán-mwèn	ì- sìkàn
'little'	tùnién	túnién	ù-tú!nién-mwèn	é-túnién
'foolish'	zùró	zùrò	ù-zú!ró-mwèn	ò-zùrò
'big'	kpòló	—	ù-kpó!ló-mwèn	—
'tall'	tán	—	ù-tán-mwèn	—
'long'	—	wòrò	—	(—)

Having thus established the existence of two kinds of nominals in Èdó, we can compare their thematic properties. According to Baker and Stewart (1997:42-43) and Baker (2000:45-46), a nominal-1 can appear with an overt argument (inherited from the stative verb it is derived from), whereas a nominal-2 cannot appear with an overt argument.

(138) a. NOMINAL-1

ù-mó!sé-mwèn óghé èmèrí
NOMIN-beautiful-NOMIN of Mary
'Mary's beautifulness' [Baker and Stewart 1997:42]

b. NOMINAL-2

ì-mòsè (*óghé èmèrí)
NOMIN-beautiful of Mary
intended: 'Mary's beautifulness' [ibid]

According to the analysis argued for by Baker and Stewart, nominal-2s are derived from adjectives, which cannot discharge the relevant thematic position without the "help" of a special head, Pred° in their terminology. This head is absent in the case of nominalizations, and therefore, the argument cannot be realized.

To recap so far, the distribution of copular elements and the (un)grammaticality of expressed arguments in nominalizations in Èdó supports the claim that adjectival predicates cannot discharge their thematic position internally to the AP.

Next, consider the unaccusativity diagnostics in Hebrew, which, as will be discussed in detail immediately below, show that adjectival predicates pattern with unergative rather than unaccusative predicates. The most well-established unaccusativity diagnostic in Hebrew is the distribution of the possessor dative construction. Note first that this possessor dative construction can be distinguished from ethical dative construction: the former but not the latter can be a full dative noun phrase, as well as a dative clitic (Idan Landau, p.c.).[86]

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[86] Note that reflexive dative construction cannot be a full dative noun phrase either. I thank Jonathan Bobaljik for bringing up the question of whether possessor datives are reducible to ethical datives. For more discussion of various dative constructions in Hebrew, see Berman (1981) and Landau (1999).

(139) a. Gil tamid me'axer li / * le-Rina. – ETHICAL DATIVE
Gil always is-late to-me / * to-Rina
'Gil is always late on me / on Rina.'

b. Gil lixlex la / le-Rina et ha -salon. – POSSESSOR DATIVE
Gil dirtied to-her / to-Rina ACC the -living-room
'Gil dirtied her / Rina's living room.'

Furthermore, this possessor interpretation is obligatory, as shown by the following data (from Idan Landau, p.c.). The sentence in (140b) is ungrammatical on the possessor dative interpretation because Rina cannot be a possessor of Galit's name (only Galit can; witness the ungrammaticality of the intended English translation). Moreover, this sentence cannot be construed with the dative phrase *le-Rina* 'to Rina' as an ethical dative because it is a full noun phrase and not a clitic.

(140) a. Ha-amargan šina le-Rina et ha-šem šel ha-mofa.
the-manager changed to-Rina ACC the-name of the-show
'The manager changed Rina's name of the show.'

b. * Ha-amargan šina le-Rina et ha-šem šel Galit.
the-manager changed to-Rina ACC the-name of Galit
intended: '*The manager changed Rina's name of Galit.'
OR: 'The manager changed Galit's name on Rina.'

As has been first noted by Borer and Grodzinsky (1986), a dative phrase can be interpreted as a possessor of the subject of an intransitive verb only if the verb is unaccusative.[87] For example, the verb in (141a) is unaccusative, and the dative clitic can be interpreted as identifying a possessor. In contrast, the verb in (141b) is unergative, and the dative clitic cannot be interpreted as identifying a possessor, resulting in the ungrammaticality of this sentence.

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[87] As is expected from the general assumptions about unaccusativity, a dative phrase can also be interpreted as a possessor of the object of a transitive verb, but not of the subject of a transitive verb.

(141) a. Ha-kelev ne?elam le-Rina.
the-dog disappeared to-Rina
'Rina's dog disappeared.' [Borer and Grodzinsky 1986]

b. * Ha-kelev ritrocec le-Rina.
the-dog ran-around to-Rina
intended: 'Rina's dog ran around.' [ibid]

As with unergative verbs, in the case of an adjectival predicate, a dative noun phrase cannot be interpreted as a possessor. This is true of both simple adjectives and adjectival passives.

Consider adjectival passives first. Adjectival passives have morphology similar to those of verbal passives, hence the name. However, unlike verbal passives, which are derived in syntax from corresponding actives, adjectival passives lexically derived.[88] The properties distinguishing verbal from adjectival passives are summarized in the table below; for an early account of verbal vs. adjectival passives in general see Wasow (1977); for a discussion of verbal vs. adjectival passives in Hebrew see Doron (1997).

[88] For a detailed discussion of the formation of adjectival passives in general, see Levin and Rappaport (1986), and for a discussion of adjectival passives in Hebrew, see Doron (1997).

Table 3. Verbal vs. adjectival passives

property	verbal passives	adjectival passives
compositionality of meaning	Yes	Not necessarily
form identical to perfect participle	Yes	Not necessarily
derivational morphology (e.g., English *un-*)	No	Yes
case for second object	Yes	No
interactions with syntax (ECM)	Yes	No
corresponding active verb	Yes	Not necessarily
argument promotion	Yes	Not necessarily

Going back to the question of the distribution of possessor datives, adjectival passives contrast with verbal passives in this respect: verbal passives allow possessor datives, whereas adjectival passives do not (the following examples have been adapted from Borer and Grodzinsky 1986).

(142) a. VERBAL PASSIVE

Ha-matana hunxa le-Rina betox kufsa.
the-present place.PST.V-PASS to-Rina inside box
'Rina's present was placed inside a box.'

b. ADJECTIVAL PASSIVE[89]

* Ha-matana hayta munaxat le-Rina betox kufsa.
the-present was placed.A-PASS to-Rina inside box
intended: 'Rina's present was placed inside a box.'

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[89] According to my consultants, this sentence is grammatical with the reading: 'The present was placed in a box for Rina.' However, this reading is irrelevant for the discussion here.

Note further that simple adjectives do not allow possessor dative clitics either.

(143) *Ha-simla hayta levana le-Rina.
the-dress was white to-rina
intended: 'Rina's dress was white.'

To recap, these data show that adjectival predicates (whether adjectival passives or simple adjectives) pattern with unergative verbs rather than with unaccusative verbs, thus supporting Baker and Stewart's claim that the structure for adjectival predicates involves an additional head Pred°. In their papers, Baker and Stewart consider also additional data concerning *ne*-cliticization in Italian and genitive of negation in Russian. I will discuss these data in the following section, together with my own findings about these two languages.

3.2.1.2. Adjectival predicates vs. synonymous stative verbs in Italian and Russian

In this section, I will consider additional evidence from unaccusativity diagnostics in Italian and Russian which supports Baker and Stewart's hypothesis that adjectives cannot θ-mark their specifiers. In particular, the data will show that adjectival predicates pattern with unergative rather than unaccusative predicates in that their subjects do not allow *ne*-cliticization, *wh*-extraction and possessor datives in Italian, as well as genitive of negation and possessor datives in Russian.

The contrast between adjectives and nouns, on the one hand, and verbs, on the other hand, with respect to their ability to θ-mark their specifiers is most clear from a comparison of stative intransitive verbs with synonymous adjectives (or nouns). Italian examples of such pairs include *biancheggiare* 'to be white' vs. *bianco* 'white', *rosseggiare* 'to be red' vs. *rosso* 'red', *torreggiare* 'to tower' vs. *torre* 'tower', among others.

(144) a. I denti di Gianni biancheggiano.
the teeth of Gianni are-white

b. I denti di Gianni sono bianchi.
the teeth of Gianni are white
both: 'Gianni's teeth are white.'

Likewise, in Russian such pairs (and sometimes even triples of verbs, adjectives and nouns) are quite common. Some examples are listed in Table 4 and illustrated below.

Table 4. Stative predicates in Russian

stative intransitive verb	adjectival predicate		nominal predicate
	short adjective	long adjective	
bolet' 'to be ill'	*bolen* 'ill'	*bol'noj*	*bol'noj* 'patient'
bedstvovat' 'to be poor'	*beden* 'poor'	*bednyj*	*bednjak* 'pauper'
pjanstvovat' 'be drunk'	*pjan* 'drunk'	*pjanyj*	*pjanica* 'drunkard'
belet' 'to be/appear white'	*bel* 'white'	*belyj*	
krasnet' 'to be/appear red'	*krasen* 'red'	*krasnyj*	
černet' 'be black'	*čëren* 'black'	*čërnyj*	
želtet' 'be yellow'	*žëlt* 'yellow'	*žëltyj*	
zelenet' 'be green'	*zelen* 'green'	*zelënyj*	
sinet' 'be blue'	–	*sinij* 'blue'	
golodat' 'to be famished'	*goloden* 'hungry'	*golodnyj*	

(145) a. Ivan bedsvoval. VERBAL PREDICATE
Ivan was-poor
'Ivan was poor.'

b. Ivan byl beden. ADJECTIVAL PREDICATE
Ivan was poor.SF
'Ivan was poor.'

c. Ivan byl bednjakom. NOMINAL PREDICATE
Ivan was poor-person.INSTR
'Ivan was poor.' OR: 'Ivan was a pauper.'

Since these adjectives, verbs and (in some cases) nouns are very close in meaning, it is reasonable to assume that the thematic position discharged to the subjects of the sentences with adjectival, nominal or verbal predicates is the same. For a want of a better term, I will call this thematic position Embodiment; for example, Ivan embodies the state/property of being poor in the Russian examples above. The choice of the term is not as important as the differences between what I label Embodiment and various other proposals made in the literature.

For example, the term Embodiment is different from Williams' (1981) *R* θ-role in two ways. First, unlike Williams' *R*, Embodiment has no connection to referentiality since under my analysis referentiality is associated with the functional D-layer and not with the theta-grid of the noun (see section 2.1.2 above). Second, unlike *R*, which is associated exclusively with nouns, Embodiment is associated with adjectives and stative verbs as well as with nouns.

Similarly, my use of the term Embodiment is different from Contreras' (1995) use of the term Property. For him, Property is a θ-role that is assigned only by NP and PP predicates to their subjects, whereas verbal and adjectival predicates do not have the Property θ-role. Once again, my term Embodiment covers the θ-role of all stative predicates, regardless of their category.

The Embodiment position of stative verbs is similar to the Theme position of unaccusative verbs of change of state, such as *arrive* or *die*; yet, I will not use the term Theme for the thematic position of stative verbs, adjectives, and nouns in order to avoid a confusion between the Embodiment position and the Theme position inherited by derived

nouns from the verbs (e.g., *destruction* inherits a Theme position from *destroy* and acquires an Embodiment position as a result of nominalization).[90]

Another proposal that has been made in the literature regarding the thematic position of stative predicates is to call it Experiencer (cf. Chierchia and McConnell-Ginet 1990:443). However, I prefer to restrict the use of the term Experiencer to sentient arguments of psych-predicates.

To recap, three types of predicative expressions have the thematic position I call Embodiment: stative verbs, adjectives and nouns. However, as will be shown below, these three types of predicative expressions fall into two categories with respect to the syntactic behavior of their Embodiment arguments. Stative intransitive verbs are unaccusative; their Embodiment position is discharged internally to the VP, much like the Theme position of unaccusative verbs of change of state. In contrast, adjectives and nouns pattern with unergatives; their Embodiment position is not discharged internally to the AP or the NP. Instead, the Embodiment argument is generated externally to the AP or the NP, much like the Agent argument of transitive and unergative verbs (cf. Kratzer 1996). This is summarized in the table below.

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[90] Note that Baker and Stewart (1997) and Baker (2000) refer to what I call Embodiment argument of adjectives as Theme.

Table 5. Realization of arguments

Type of predicative expression	Agent	Theme	Embodiment
transitive verb (e.g., *kiss*)	external	internal	
unergative verb (e.g., *laugh*)	external		
unaccusative verb (e.g., *arrive*)		internal	
stative verb (e.g., Russian *bedstvovat'* 'be-poor')			internal
adjective (e.g., Russian *beden* 'poor')			external
noun (e.g., Russian *bednjak* 'pauper')			external

As can be seen from the shaded portion of this table, the Embodiment position is somewhat odd in that it can be discharged internally (in the case of stative verbs) or externally (in the case of adjectival and nominal predicates). In that it differs from both the Agent position (which can be discharged only externally) and the Theme position (which can be discharged only internally). Recall that the reason for grouping the Embodiment arguments of stative verbs with those of adjectival and nominal predicates is the close similarity and in some cases identity of meaning (in addition, an argument can be made that in some cases stative verbs are derived from adjectives/nouns or vice versa).

Note that these facts provide a strong incentive for separating thematic relations from syntactic configurations. In this, I depart from a widely-believed hypothesis that thematic relations reduce to structural configurations. This hypothesis goes back to Perlmutter's (1978) Universal Alignment Hypothesis; it has been later formulated as the UTAH (Uniformity of Theta-Assignment Hypothesis) of Baker (1988:46): [91]

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[91] See Baker (2000:58-72) for a discussion of the issue of whether UTAH is to be abandoned in light of the facts discussed in main text. My conclusion is very similar to his: "while the absolute position of the [Embodiment] is different in VPs and APs, the relative positions of the [Embodiment] with respect to goal and subject matter are the same" (Baker 2000:60).

(146) Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure.

The same idea also underlies the work of Hale and Keyser (see, for example, their 1987, 1991, 1993 papers), who have argued that

> there are no thematic roles. Instead, there are just the relations determined by the categories and their projections, and these are limited by the small inventory of lexical categories and by the principle of unambiguous projection. (Hale and Keyser 1991:40, cited in Moro 1997:229).

Finally, Chomsky (1995:313, see also Chomsky 2000:103, 127) adopts the same approach to thematic relations. For him,

> a θ-role is assigned in a certain structural configuration; β assigns that θ-role only in the sense that it is the head of that configuration ... θ-relatedness is a property of the position of merger and its (very local) configuration.

However, as can be seen from the behavior of Embodiment arguments of stative verbs, on the one hand, and adjectival and nominal predicates, on the other hand, a configurational theory of thematic relations is insufficient. In fact, verbal Embodiments are projected differently from their adjectival and nominal counterparts. In this dissertation, I will provide an analysis that captures this contradictory patterning of arguments of adjectival and nominal predicates, namely, the fact that they pattern semantically with internally realized Embodiment arguments of stative verbs, but syntactically with externally realized Agent arguments of transitive and unergative verbs.

But before I proceed to develop this analysis, I will show the evidence to support the claim that Embodiment positions of stative verbs and those of adjectives and nouns are discharged differently. In the previous section, I have examined some data in support of this hypothesis that comes from Èdó and Hebrew (mostly from Baker and Stewart's work). In the rest of this section, I will examine further data from Italian and Russian concerning adjectival and verbal stative predicates, whereas in the next section I will turn to nominal predicates, and will show that (contra Baker 2000) nominal predicates pattern

with adjectival predicates in that both project their Embodiment arguments externally to the maximal projection of the head.

First, let us consider some unaccusativity diagnostics in Italian. Normally, five unaccusativity diagnostics are identified for Italian: auxiliary selection, availability of reduced relatives, *ne*-cliticization, *wh*-extraction, and possessor datives. Here, I will focus on the last three of these, namely, the availability of *ne*-cliticization, *wh*-extraction, and possessor datives. Auxiliary selection is irrelevant for the contrast discussed here, since adjectival predicates always appear with the copula, and the copula governs auxiliary selection in complex tenses (cf. Burzio 1986). The availability of reduced relatives is not an appropriate test either. It has been shown (see Zaenen 1993, and others) that reduced relatives are possible only with telic predicates. Since both stative verbs and adjectival predicates are atelic, we do not expect any contrast between the two with respect to the availability of reduced relatives; with both types of predicates, reduced relatives are predicted to be ungrammatical, which is in fact the case.[92]

The first unaccusativity diagnostic to be considered here is *ne*-cliticization. As is well-known, *ne*-cliticization is possible with unaccusative verbs but not with unergative verbs (it is also possible with objects but not with subjects of transitive verbs).

(147) a. Ne arriveranno molti.
of-them will-arrive many
'Many of them will arrive.' [Burzio 1986:22]

b. * Ne telefoneranno molti.
of-them will-telephone many
intended: 'Many of them will telephone.' [ibid]

It should be noted here that, as with most other unaccusativity diagnostics, *ne*-cliticization has been challenged as a test. For example, Lonzi (1985), Saccon (1992), and Levin and Rappaport Hovav (1995:275-277) – the latter build on Lonzi's work – conclude that *ne*-cliticization cannot be used as an unaccusativity diagnostic because its

grammaticality does not coincide with the selection of *essere* as the auxiliary verb. For example, Lonzi (1985:111-114) gives examples where verbs which select the auxiliary *essere* do not allow *ne*-cliticization, and those where verbs which select the auxiliary *avere* do allow *ne*-cliticization (the latter kind of examples are grammatical in simple tenses, i.e., if the auxiliary is not present). Thus, Lonzi suggests that *ne*-cliticization is possible only if the whole clause is interpreted as Rheme (i.e., new information). Yet, Lonzi's argument is not very strong. First, it is not completely clear if auxiliary selection is a good unaccusativity diagnostic in first place (for a detailed discussion of auxiliary selection as an unaccusativity diagnostic, see Sorace 2000). In particular, it appears that auxiliary selection and *ne*-cliticization select slightly different sets of verbs, but it is the *ne*-cliticization which indicates whether the verb has an external (i.e., Agent) argument or not. For example, Saccon (1992:390) mentions that an addition of what she calls "an agent-oriented adverb" such as *rapidamente* 'quickly' (maybe it should better be analyzed as a manner adverb) makes *ne*-cliticization impossible.

(148) a. Ne sono passate tre.
of-them are passed three
'Three of them have passed.' [Saccon 1992:388]

b. * Ne sono passate tre rapidamente.
of-them are passed three quickly
intended: 'Three of them have passed quickly.' [Saccon 1992:390]

Furthermore, Lonzi herself (1985:113-114) notes that the possibility of *ne*-cliticization depends on the agentivity and/or animacy of the subject. For example, with respect to the example below, she remarks that *ne*-cliticization is more acceptable in a context where calls arrive rather than in one where they go out; "in this way, the

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[92] I thank Carlo Cecchetto for bring the facts concerning reduced relatives in Italian to my attention.

agentive interpretation is removed in favor of the interpretation of material movement" (p. 114; my translation).[93]

(149) Ti accorgerai che in ques'ufficio ne telefonano davvero molti, di stranieri.
2SG notice.FUT that in this office of-them telephone really many of foreigners
'You'll notice that in this office there are many foreigners calling.'

Moreover, she suggests that "the animate character of the subject, in fact, sometimes blocks *ne*-cliticization even with verbs that select the auxiliary *essere*". Finally, there is some variation among speakers with respect to the acceptability of some of Lonzi's crucial examples. The data reported in this dissertation is from speakers for whom *ne*-cliticization is associated with unaccusativity (i.e., the absence of an external argument) rather than discourse conditions (as proposed by Lonzi); these speakers do not accept Lonzi's crucial examples (such as (149) above and similar examples) where verbs traditionally thought of as unergative allow *ne*-cliticization.

Now let us consider the behavior of adjectival and verbal predicates with respect to *ne*-cliticization. Starting with passives, adjectival passives contrast with verbal passives.[94] As shown below, a verbal passive allows *ne*-cliticization, whereas an adjectival passive does not (the examples are from Burzio 1986:30-31).

(150) a. Ne sarebbero riconosciute molte. – verbal passive
of-them would-be recognized many
'Many of them would be recognized.'

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[93] Lonzi (1985:114): "In tal modo si allontana l'interpretazione agentiva a favore di quella di movimento materiale... Il carattere animato del soggetto, infatti, ostacola a volte la cliticizzazione di *ne* anche con verbi ad ausiliare Essere".

[94] As with Hebrew passives, the distinction between adjectival and verbal passives is drawn on the basis of their derivation: verbal passives are derived in the syntax from corresponding actives, whereas adjectival passives are derived lexically and need not correspond to verbs. For example, there is no verb *sconoscere* 'to unknow' corresponding to *sconosciuto* 'unknown' (cf. Burzio 1986:31).

b. * Ne sarebbero sconosciute molte. – adjectival passive
of-them would-be unknown many
intended: 'Many of them would be unknown.'

Furthermore, (most) simple adjectives do not allow *ne*-cliticization either (this fact has been first noted by Burzio 1986:74, fn.13; however, he maintains that there are no unaccusative adjectives at all; see discussion below).

(151) * Ne sono intelligenti pochi.
of-them are intelligent few
intended: 'Few of them are intelligent.'

It should be noted here that there is a small class of adjectives in Italian that pattern with unaccusative rather than unergative predicates. Guasti (1988:325) and Cinque (1990b:7, fn.7) list *sicuro* 'safe, sure', *certo* 'certain', *chiaro* 'clear', *esplicito* 'explicit', *implicito* 'implicit', *oscuro* 'obscure', *prevedibile* 'foreseeable', *ovvio* 'obvious', *noto* '(well-)known', *famoso* 'famous', *probabile* 'probable', *evidente* 'evident', *imminente* 'imminent', *gradito* 'pleasing, welcome'. These exceptional unaccusative adjectives allow *ne*-cliticization, unlike normal (i.e., unergative) adjectives.

(152) a. Ne sono note solo alcune.
of-them are known only several
'Only several of them are known.' [Guasti 1988:326]

b. Ne sono probabili ben poche.
of-them are probable very few
'Very few of them are probable.' [ibid]

c. Ne sono sicuri soltanto tre.
of-them are safe only three
'Only three of them are safe.' [ibid]

d. Ne è oscuro più d' uno.
of-them is obscure more than one
'More than one of them is obscure.' [Cinque 1990b:7]

Unlike Cinque (1990b), who sought to show that unaccusative adjectives exist, I would like to emphasize here that the class of unaccusative adjectives is limited and lexically idiosyncratic. It is not clear what determines the membership in this class of exceptional adjectives. Baker (2000:59) suggests that the two types of adjectives have different thematic positions; unaccusative adjectives have a "Subject Matter" rather than an Embodiment position (Baker calls the latter "Theme"). Another generalization that comes to mind is that many of these exceptional adjectives correspond to "higher adverbs" in Cinque (1999) classification, such as *evidentemente* 'evidently', *probabilmente* 'probably', *chiaramente* 'clearly', etc. However, it is not clear if all such high adverbs correspond to unaccusative adjectives, or why there is such a correspondence. Cinque himself (1990b:7, fn.7) "[does] not attempt ... a semantic/thematic characterization of the class of ergative [i.e., unaccusative] adjectives, but ... limit[s] [himself] to listing some of the adjectives that appear to belong to this class". Furthermore, it is not clear whether the class of exceptional unaccusative adjectives can be defined universally or not. For instance, Baker (2000) notes that the Russian counterparts of some of the Italian unaccusative adjectives allow the genitive of negation (for a discussion of the genitive of negation, see below), whereas Cinque (1990b:7, fn.7) notes that there is "some variability among speakers" and that "certain adjectives may be marginally attributed (by certain speakers) to the ergative [i.e., unaccusative] class". There also seem to be a fair amount of lexical idiosyncrasy involved; for example, Cinque (1990b:23) shows that *impossibile* 'impossible' is an unergative (i.e., unexceptional) adjective, whereas Guasti (1988:325) shows that *possibile* 'possible' is an unaccusative (i.e., exceptional) adjective.

To recap so far, with the exception of a limited set of unaccusative adjectives, adjectival predicates (whether adjectival passives or simple adjectives) do not allow *ne*-cliticization; in that they pattern with unergative verbs rather than with unaccusative verbs. Now consider corresponding stative intransitive verbs. The data concerning such verbs (e.g., *rosseggiare* 'to be-red', *biancheggiare* 'to be-white', *torreggiare* 'to tower') is not very clear; there is a fair amount of variation between speakers with respect to the

availability of *ne*-cliticization with such verbs. Thus, some speakers (but not all) accept sentences like the following:

(153) Ne sono rosseggiati / biancheggiati molti / tre.
of-them are being-red / being-white many / three
'Many / three of them are red / white.'

Crucially, there is a strong negative correlation between the acceptability of *ne*-cliticization by a given speaker for a given verb and the acceptability of the progressive periphrasis with the same verb (progressive periphrasis is a standard diagnostic for stativity in Italian): speakers who accept the progressive with a given verb (i.e., those who treat this particular verb as eventive rather than stative) do not allow *ne*-cliticization, and vice versa. Thus, those speakers who treat these verbs consistently as statives, allow *ne*-cliticization with them.

To recap, (most) adjectival predicates pattern with unergatives, whereas stative intransitive verbs pattern with unaccusatives. In other words, adjectival predicates (but not their synonymous verbal counterparts) project their subject (i.e., Embodiment) arguments externally to the AP.

The second test (not considered by Baker and Stewart) that can be used to demonstrate the contrast between stative intransitive verbs and adjectival predicates with respect to unaccusativity is the *wh*-extraction from the inverted NP subject, which, as noted in Cinque (1990b:8-9, fn.9), "appears to mirror clitic extraction from NP". As shown by Cinque, adjectival predicates, except the unaccusative adjectives mentioned above, do not allow *wh*-extraction from their subjects (the examples are from Cinque 1990b:8).

(154) a. * Mario, di cui è pericolosa / ingiustificata una presa di posizione sul
Mario of whom is dangerous / unjustified a statement on-the
tema, ...
subject
intended: 'Mario, whose statement on the subject is dangerous / unjustified...'

b. Mario, di cui è nota / imminente una presa di posizione sul
Mario of whom is well-known / forthcoming a statement on-the
tema, ...
subject
'Mario, whose statement on the subject is well-known / forthcoming...'

In this respect, adjectival predicates exhibit a contrast with stative intransitive verbs, which allow such extraction. The following minimal pair illustrates the contrast between a stative intransitive verb and a synonymous adjectival predicate.

(155) a. La barca di cui biancheggiavano le vele...
the boat of which were-white the sails
'The boat whose sails were white...'

b. * La barca di cui erano bianche le vele...
the boat of which were white the sails
intended: 'The boat whose sails were white...'

The third Italian unaccusativity diagnostic considered here is the possessor dative construction. Like in Hebrew, this construction is possible with unaccusative verbs (as well as verbal passives), as in (156a), and objects of transitive verbs, as in (156b), but not with unergative verbs, as in (156c).[95] As (156d) shows, with an unergative verb one dative

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[95] Burzio (1986:68-70) refers to this possessor dative construction as "dative benefactives". Also, see Lonzi (1985:115) for reservations about possessor datives as a test for unaccusativity. As with *ne*-cliticization,

clitic can be interpreted as a benefactive, but the other cannot be interpreted as a possessor (and having two benefactives is apparently disallowed); therefore, the sentence is ungrammatical.[96]

(156) a. Si è rotta la gamba al tavolo.
si is broken the leg to-the table
'The leg of the table has broken.' [Burzio 1986:69]

b. Una mareggiata gli ha capovolto la barca.
a sea-storm him.DAT has capsized the boat
'A sea storm capsized his boat.' [Burzio 1986:83]

c. Mi hanno cantato i bambini.
me.DAT have sung the children
'The children have sung for me.'
'My children have sung.'

d. * Mi ti hanno cantato i bambini.
me.DAT you.DAT have sung the children
intended: 'My children have sung for you.' OR 'Your children have sung for me.' [Roberto Zamparelli, p.c.]

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possessor datives appear to reflect agentivity of the subject. The results of the possessor dative test correlate nicely with the results of *ne*-cliticization, and show the same discrepancies with the auxiliary selection test.

[96] Tarald Taraldsen (p.c.) has pointed out to me that the availability of possessor dative in Italian passives depends on the reading: possessor datives are possible if the sentence has a transition reading, but not if it has a resulting state reading. This is particularly clear if an adverbial forces one reading or the other:

(i) a. Gli è morta la moglie un anno fa.
him.DAT is dead the wife a year ago
'His wife died a year ago.'

b. * Gli è morta la moglie da un anno.
him.DAT is dead the wife since a year
'His wife has been dead for a year.'

It is not clear how these facts interact with the data described in the main text.

Now consider stative predicates. Stative intransitive verbs allow possessor datives, whereas adjectival predicates do not. This contrast is illustrated with a minimal pair below.

(157) a. Gli hanno biancheggiato i denti.
him.DAT have whitened the teeth
'His teeth were/appeared white.'

b. * Gli sono bianchi i denti.
him.DAT are white the teeth
intended: 'His teeth were white.'

To recap so far, Italian *ne*-cliticization, *wh*-extraction, and possessor datives show that adjectival predicates (with the exception of a limited set of unaccusative adjectives) pattern with unergative rather than unaccusative predicates, whereas stative intransitive verbs pattern with unaccusatives. In what follows, I will show that the same contrast is observable with respect to Russian stative predicates.

The first unaccusativity diagnostic in Russian to be discussed here is the so-called genitive of negation (note that Baker and Stewart discuss this test but they do not apply it to synonymous verb-adjective pairs, as done here). As has been shown by Pesetsky (1982), the genitive of negation distinguishes between unaccusative verbs (with which it is possible) and unergative verbs (with which it is ungrammatical).

(158) a. Gribov zdes' ne rastet.
mushrooms.GEN here not grow
'No mushrooms grow here.' [Pesetsky 1982:43]

b. * Mal'čikov zdes' ne tancuet.
boys.GEN here not dance
intended: 'No boys dance here.'

Once again, if we compare adjectival predicates with synonymous stative intransitive verbs, the same generalization emerges: stative verbs are unaccusative (i.e., they allow the genitive of negation), whereas adjectival and nominal predicates are

unergatives (i.e., they do not allow the genitive of negation). This is illustrated with the data below.

(159) a. STATIVE INTRANSITIVE VERB

(...čtoby) ni odnogo rebenka nikogda ne bolelo
that not one.GEN child.GEN never not be-ill.3.SG.N
'...that no child would ever be ill'

b. AP PREDICATE (SHORT ADJECTIVE)

* (...čtoby) ni odnogo rebenka nikogda ne bylo bol'ny / bol'no
that not one.GEN child.GEN never not was ill.3.PL / ill.3.SG.N
intended: '...that no child would ever be ill'

Further examples of verb-adjective contrasts are given below.

(160) a. Na gorizonte ne belelo ni odnogo parusa.
on horizon not was-white not one.GEN sail.GEN
'Not a single sail was white on the horizon.'

b. * Na gorizonte ne bylo belo ni odnogo parusa.
on horizon not was white.3.SG.N not one.GEN sail.GEN
intended: 'Not a single sail was white on the horizon.'

(161) a. V dorevoljucionnoj Rossii ne bedstvovalo ni odnogo krest'janina.
in pre-revolutionary Russia not was-poor not one.GEN peasant.GEN
'In czarist Russia no peasants were poor.'

b. * V dorevoljucionnoj Rossii ne bylo bedno ni odnogo krest'janina.
in pre-revolutionary Russia not was poor.3.SG.N not one.GEN peasant.GEN
intended: 'In czarist Russia no peasants were poor.'

Note further that some intransitive verbs in Russian, which are "cognate" with adjectival and/or nominal predicates, have an agentive meaning 'make oneself appear X'. Examples include *umničat'* 'be/play a wise guy' (cf. the adjective *umën* 'smart'), *važničat'* 'make oneself appear self-important' (cf. the adjective *važen* 'important'), *duračit'sja* 'to monkey about' (cf. the noun *durak* 'fool'), *krasovat'sja* 'make oneself

appear beautiful' (cf. the adjective *krasiv* 'beautiful' or the noun *krasavica* 'a beauty'). Under normal assumptions, these agentive verbs have an external rather than an internal argument. Not surprisingly, none of these verbs allow the genitive of negation.

(162) a. * Ni odnogo studenta ne umničalo.
not one.GEN student.GEN not played-wise-guy
intended: 'No student played a wise guy.'

b. * Ni odnogo studenta ne važničalo.
not one.GEN student.GEN not made-self-appear-important
intended: 'No student made himself appear self-important.'

c. * Ni odnogo studenta ne duračilos'.
not one.GEN student.GEN not monkeyed-about
intended: 'No student monkeyed about.'

Finally, the verb *golodat'* is ambiguous between a stative reading (i.e., 'to be famished') and an agentive reading (i.e., 'to fast'). It allows the genitive of negation only on the stative reading, but not on the agentive one.

(163) (...čtoby) ni odnogo rebenka ne golodalo
that not one.GEN child.GEN not hunger.3.SG.N
'...that no child would be famished.'
'... that no child would fast.'

To recap, the genitive of negation data from Russian show once again that stative intransitive verbs pattern with unaccusative verbs, whereas adjectival predicates pattern with unergative predicates. Similarly, Russian possessor datives show that there is a contrast in unaccusativity between stative intransitive verbs and adjectival predicates. As in Italian, Russian possessor datives are possible with unaccusative predicates but not with unergative predicates. Note that the presence of the intransitivizing morpheme *sja* does not play a role in determining the grammaticality of these examples.

(164) a. Korzinka ej sovsem razvalilas'.
basket her.DAT altogether fell-apart
'Her basket fell apart.'

b. * Sobaka ej kusajetsja.
dog her.DAT bites
intended: 'Her dog bites.'

Once again, observe the contrast between a stative intransitive verb and a synonymous adjectival predicate.

(165) a. Deti ej nikogda ne boleli.
children her.DAT never not were-sick
'Her children have never been sick.'

b. * Deti ej nikogda ne byli bol'ny.
children her.DAT never not were sick
intended: 'Her children have never been sick.'

To recap, in Russian as well as in Italian stative intransitive verbs are unaccusative, whereas adjectival predicates are unergative.

3.2.1.3. Nominal predicates pattern with unergatives

In the previous section, I have provided data from Italian and Russian stative predicates that show that stative intransitive verbs pattern with unaccusatives, whereas synonymous adjectival predicates pattern with unergatives. In this section, I will show that nominal predicates pattern with adjectival predicates with respect to the unaccusativity diagnostics discussed above.

First, nominal predicates do not allow possessor datives associated with their subjects in either Hebrew, Italian, or Russian.

(166) a. * Ha-yeladim rof'im le-Rina.
the-children doctors to-Rina
intended: 'Rina's children are doctors.'

b. * Gli sono studenti i fratelli.
him.DAT are students the brothers
intended: 'His brothers are students.'

c. * Ej deti byli studentami.
her.DAT children were students.INSTR
intended: 'Her children were students.'

Second, nominal predicates do not allow *ne*-cliticization and *wh*-extraction from the subject position in Italian.

(167) a. * Ne sono studenti molti.
of-them are students many
intended: 'Many of them are students.'

b. * Le donne di cui sono professori i fratelli...
the women of which are professors the brothers
intended: 'The women whose brothers are professors...'

Third, nominal predicates do not allow the genitive of negation in Russian.

(168) a. * (...čtoby) ni odnogo rebenka nikogda ne bylo bol'nym
that not one.GEN child.GEN never not was ill.3.SG.INSTR
intended: '...that no child would ever be ill/patient'

b. * (...čtoby) ni odnogo rebenka nikogda ne bylo učenikom
that not one.GEN child.GEN never not was pupil.INSTR
intended: '...that no child would ever be a pupil.'

Finally, note that nominal predicates are like their adjectival counterparts in that they require a copula in both Èdó (169) and Hebrew (170). Note that in the Hebrew example the copula is in the past tense; for a discussion of peculiarities of present tense copula in Hebrew, the reader is referred to Berman and Grosu (1976), Doron (1983, 1986), Rapoport (1985), Greenberg (1994, 1998), Rothstein (1995), Sichel (1997), and Shlonsky (1998).

(169) Úyì *(rè) òkhaèmwèn.
Uyi is chief
'Uyi is a chief.' [Baker 2000:24]

(170) Dani *(haya) ben šel Rina.
Danny was son of Rina
'Danny was a son of Rina.'

Thus, nominal predicates pattern with adjectival predicates in that both types of non-verbal predicates pattern with unergative verbs with respect to unaccusativity diagnostics. If this is so, the next obvious question is what distinguishes between nouns and adjectives as lexical categories. Here, I will speculate (contra Baker 2000, for whom nouns but not adjectives bear a referential index) that the difference between nouns and adjectives is semantic rather than syntactic or morphological. Evidence in support of this suggestion may be drawn from languages like Bengali, where adjectives and (inanimate) nouns are not distinguished morphologically or distributionally (Gillian Ramchand, p.c.), and from languages like Russian and Italian, which allow productive conversion of adjectives into nouns (Swan 1980 estimates that there are more than 800 such nouns in contemporary Russian). In particular, in Russian two classes of substantivized adjectives can be distinguished: those that can still function as adjectives and those that cannot (the latter class of words exhibit clearly adjectival morphology but cannot be used attributively). Some examples of these two classes are given below; for more examples and discussion, see Kozyreva and Khmelevskaja (1972:37-38) and Swan (1980).

(171) a. ADJECTIVE/NOUN

beremennaja (ženščina)	'pregnant (woman)'
glasnyj (zvuk)	'vowel (sound)'
slabitel'noe (lekarstvo)	'laxative (medication)'
pervoe (bljudo)	'first (course)'
duševaja (komnata)	'shower (room)'
krepostnoj (krestjanin)	'bonded (peasant)'
politexničeskij (institut)	'Polytechnic (institute)'

b. NOUN ONLY

lešij	'goblin'	(cf. *gnom* 'gnome')
zodčij	'architect'	(cf. *arxitektor* 'architect')
nasekomoe	'insect'	(cf. *žuk* 'beetle')
soxatyj	'elk'	(cf. *los'* 'elk')
zapjataja	'comma'	(cf. *točka* 'dot')
kosoj	'hare'	(cf. *zajac* 'hare')
mesjačnye	'menstruation'	(cf. *menstruacia* 'menstruation')

(172) a. Ivan postupil v politexničeskij (institut).
Ivan was-accepted in Polytechnic (institute)
'Ivan was accepted in the Polytechnic institute.'

b. Na poljanu vyšel soxatyj (*los').
to glade came-out horned elk
'Into the glade came out an elk.'

So what semantic differences can we observe between nouns and adjectives? There are several proposal made in the literature. For example, Milsark (1977:13-15) has proposed that nouns tend to denote more long term (or permanent) properties, whereas adjectives tend to denote more temporary properties, but this is of course only a tendency, as shown by such nouns as *age*, *moment*, *ephemerality*, and such adjectives as *inborn*, *hereditary*, and *characteristic* (I thank Jonathan Bobaljik for pointing out these examples). Alternatively, Bhat (1994:24-30), following Jespersen (1924) and Givón (1984:55), proposed that nouns exhibit the so-called "cluster-effect", whereas adjectives tend to designate a single property. This cluster-effect can be illustrated by the noun *horse*, "which denotes an animal with typical color, shape, size, texture, etc.; even if one of these properties change, the remaining ones would still suffice to endow a horse with 'horseness'" (Bhat 1994:24). Alternatively, Wilmet (2001) proposes that "les noms ont l'extension immediate et les adjectifs ont l'extension mediate" ("nouns have an immediate extension and adjectives have a mediated extension"), but nouns and

adjectives are "la même classe morphologique" ("in the same morphological class"). Here, I will not discuss this issue any further and will leave it open for further research.

3.2.1.4. Summary

In the previous sections, I have shown that adjectival and nominal predicates, on the one hand, and synonymous stative intransitive verbs, on the other hand, pattern differently with respect to the structural position of their Embodiment arguments. Stative verbs discharge the Embodiment position to their specifiers, whereas adjectival and nominal predicates fail to do so. The data discussed above are summarized in the table below.

Table 6. Diagnostics for θ-marking specifiers

test	stative verbs	adjectival predicates	nominal predicates
appear with a copula in Èdó and Hebrew	No	Yes	Yes
retain the Embodiment argument in nominalizations in Èdó	Yes	No	N/A
allow possessor datives in Hebrew, Italian, and Russian	Yes	No	No
allow *ne*-cliticization in Italian	Yes	No	No
allow genitive of negation in Russian	Yes	No	No

Thus, we are faced with the following conundrum: the arguments of adjectival and nominal predicates pattern semantically with the internal arguments of stative intransitive verbs, but syntactically with external arguments of transitive and unergative verbs. In the following section, I develop an analysis that resolves this paradox.

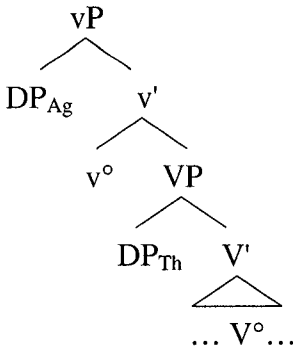
3.2.2. Non-local Theta-Marking

So far, I have shown (following ideas in Baker and Stewart's work) that the Embodiment position of adjectival and nominal predicates is unlike the Embodiment position of stative intransitive verbs in that the former cannot be discharged internally, that is, within the AP or NP predicate. Instead, the discharge of the Embodiment position of adjectival and nominal predicates is parallel to that of the Agent position of transitive and unergative verbs. How can this be accounted for?

Following Kratzer's (1996:131) idea that the Agent is "severed" from its verb and "is not really one of its arguments anymore", we could say that the Embodiment argument of an adjectival (or a nominal) predicate is not its argument either. However, this goes against the intuition that the Embodiment argument is an argument of the adjective or the noun in the same way that the Embodiment argument of a stative intransitive verb is an argument of the verb. This is, then, a real paradox: the Embodiment argument of an adjectival or a nominal predicate appears both to be and not to be its argument! So how is this paradox to be resolved?

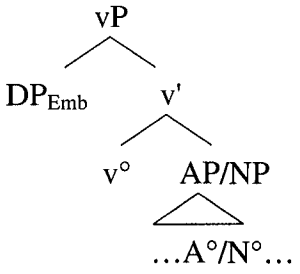
Consider Kratzer's analysis more closely. According to her, the Agent argument of a transitive or an unergative verb is introduced not by the V° but by a higher head, which she calls Voice°. The nature and the label for this head introducing the Agent argument has been debated in the literature. Chomsky (1995) and Marantz (1997) calls it v°, while Bowers (1993) called a similar head Pr° (for predication; Svenonius 1994 and most of the subsequent research dubs this head Pred° so that it is more easily distinguished from Prt° and P°). Furthermore, it is usually assumed that this head is a functional category. However, since this head introduces an argument, it must bear its own theta-grid. Therefore, in accordance with the definitions proposed in section 2.1.1 above, I will maintain here that this head is a lexical category. To highlight the fact that it belongs to the class of verbs, I will use the term v° for this Agent-introducing head. Thus, the structure for a transitive verb, adapted from Kratzer (1996), is given below.

(173)



Coming back to the adjectival and nominal predicates, recall from the preceding sections that their Embodiment arguments pattern with Agent arguments of transitive and unergative predicates with respect to a number of unaccusativity diagnostics (and thus differ from Embodiment arguments of stative intransitive verbs, which pattern with Theme arguments of transitive and unaccusative verbs). This parallelism between Embodiment arguments of adjectival/nominal predicates and Agent arguments of verbs suggests that the structure for adjectival and nominal predicates is parallel to that of transitive and unergative verbs, as schematized below.

(174)



Additional support for this structure comes from the data involving *wh*-extraction of the predicate. In particular, an adjectival (or nominal) predicate can be extracted leaving the subject behind (data in (175a-b) are from Svenonius 1994:29).

(175) a. How do you want your eggs?

b. How famous did the incident make the criminal?

c. How tall is Bill?

The same is true of Russian AP and NP predicates, both in copular sentences and in selected small clauses.

(176) a. Kem / Kakim muzykantom byl Saša?
who.INSTR / [which musician].INSTR was Sasha.NOM
'Who / What kind of musician was Sasha?'

b. Naskol'ko izvestnym sdelal ètot roman Nabokova?
how famous.INSTR made [this novel].NOM Nabokov.ACC
'How famous did this novel make Nabokov?'

As noted in Svenonius (1994:29-30), the possibility of extracting the predicate suggests that the predicate is indeed a maximal projection (since non-maximal non-head projections are "almost universally acknowledged to be inert for movement"; Svenonius 1994:30). Thus, the subject must be projected outside the maximal projection of the predicate, as in the structure in (174) above.[97]

However, this structure poses certain problems. In particular, if we assume (following the idea of Kratzer 1996) that v° introduces its own argument – either an Agent (for transitive and unergative verbs) or an Embodiment (for adjectival and nominal predicates) – two problems arise. The first problem has been mentioned above: the structure in (174) implies no connection between the Embodiment argument and the adjectival/nominal head. This makes the Embodiment argument of adjectival and nominal predicates very different from the corresponding argument of stative intransitive verbs. This is particularly problematic in light of the existence of synonymous and cognate pairs/triples of verbal and adjectival/nominal predicates, as discussed in section 3.2.1. Thus, it appears that the Embodiment position "belongs" to the head of the predicate; I will call this the PREDICATE HEAD PROBLEM.

The second problem is that since the v° discharges its own thematic position to its specifier, there is no reason a priori why it cannot take a DP complement, possibly

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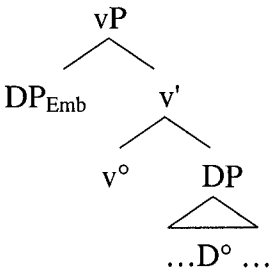
[97] An alternative possibility is to assume that subjects of adjectival and nominal predicates are merged in the Specifier position of the lexical head (i.e., AP or NP) and then move into a Specifier of a higher functional projection. This has been argued by Sportiche (1995:291), but his main argument is based on his analysis of floating quantifiers, which runs into various problems.

assigning it a θ-role as well. Thus, the structure in (174) above does not exclude the possibility of having a copula with two DP arguments, that is having a copular sentence with the form *DP is DP* with the same structure as that of rich copular sentences. In other words, nothing in this analysis excludes the structure below.

(177)



This brings us back to the single structure for copular sentences with post-copular DPs, on the one hand, and post-copular NPs and APs, on the other hand. Recall that the need to have distinct structures for the two kinds of copular sentences has been motivated by the data in section 2.1.2.2 above. I will call this the DP PROBLEM.

An alternative to this analysis à la Kratzer (1996) would be to assume that the Embodiment argument comes from the theta-grid of the A°/N°, and is somehow "transmitted" by v° (as in Baker 2000). However, under this alternative analysis we have to face a different set of problems. Note first that this solution would resolve both the PREDICATE HEAD PROBLEM and the DP PROBLEM described above: the Embodiment argument's θ-role now originates with the head of the predicate (i.e., the A° or the N°) and a DP is not a possible complement of v° because it cannot introduce an Embodiment argument (since a DP is a saturated expression, as discussed in section 3.1.1 above). However, two other problems arise. First, such a solution would require a non-local θ-marking from A°/N° to the Spec-vP. In general, thematic relations are assumed to be very local; in particular, in section 3.1.1, I have maintained that θ-marking is restricted to head-complement (and possibly head-specifier) relationships.[98] Allowing non-local

[98] Note that Williams (1989:447-451) attempts to derive the locality conditions on θ-assignment from locality conditions on anaphora.

thematic relations leads to a far less restrictive theory, and is therefore not a good step to take unless absolutely necessary. I will call this the LOCALITY OF θ-MARKING PROBLEM.

Finally, under this alternative analysis the causative and the copular v°s look very much the same: both lack their own theta-grids and serve as "thematic relation transmitters" (as in Baker 2000). Thus, we might predict that both (morphological) causative and copular elements should appear equally well with both transitive and unergative verbs, on the one hand, and adjectival and nominal predicates, on the other hand.

However, this prediction is sharply contradicted by the facts. As has been mentioned in sections 3.2.1.1 and 3.2.1.3 above, copular elements appear only with adjectival and nominal predicates, but not with transitive or unergative verbs (it should be noted that many languages use morphemes homophonous with the copular morphemes as auxiliaries in the verbal system; English and Italian are only two examples of such languages). Furthermore, Baker (2000:38-44) has noted that

> whereas a periphrastic causative construction can appear to be category-neutral, selecting either VP, AP, or NP "small clauses" (as in English), a morphological causative construction cannot be category-neutral in the same way, suffixing to V, A, or N with equal ease.

This is illustrated below with Japanese data from Baker (2000:40).

(178) a. John-ga Mary-o ik-(s)ase-ta
John-NOM Mary-ACC go(V)-CAUS-PST
'John made Mary go.'

b. * Taroo-ga heya-o hiro-sase-ta.
Taro-NOM room-ACC wide(A)-CAUS-PST
intended: 'Taro widened the room.'

c. * Hanako-ga Taroo-o sensei-sase-ta
Hanako.NOM Taro.ACC teacher-CAUS-PST
intended: 'Hanako made Taro a teacher.'

This contrast between verbal and adjectival predicates is particularly telling in the case of languages that have stative intransitive verbs distinct from adjectives, such as Chichewa.

(179) a. Mwana akudetsa zovala.
child is-dirty(V).CAUS.PRES clothes
'The child is making the clothes be dirty.' [Baker 2000:40]

b. * Mbidzi zinakaliitsa mkango.
zebras fierce(A).CAUS.PST lion
intended: 'The zebras made the lion fierce.' [ibid]

To recap, copular elements appear with adjectival and nominal predicates (but not with verbal predicates), whereas affixal causative elements appear with verbal predicates (but not with adjectival and nominal predicates).[99] If these elements appear with the wrong type of complement, the result is ungrammatical. I will call this the COPULAR-CAUSATIVE MISMATCH PROBLEM.

Note that Baker's (2000) analysis of the copular-causative mismatch problem in terms of the blocking effect of the functional head Pred° does not work under the assumptions made in this dissertation. Recall that I assume that the head of a rich small clause – v° – is a lexical rather than functional category. Therefore, it presents no problem for head movement. Even though these facts can be reduced to lexically specified selectional properties of copular and causative elements, I will propose an analysis that need not rely on such selectional specifications. This is discussed in section 3.2.2.2 below.

To sum up so far, the analysis outlined so far runs into a number of problems; furthermore, resolving one set of problems leads to creating a set of new ones. The general problem can be summarized as follows: the Embodiment argument of adjectival and nominal predicates appears to be "shared" between the head of the predicate (i.e., the A° or the N°) and the head of the small clause (i.e., the v°). In what follows, I will

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[99] For an analysis of causative affixes like English *-ize*, which can attach to adjectives but not to verbs, see Baker (2000:42). Crucially, it is Baker's contention that there are no causative affixes (triggering incorporation) that can attach equally well to both verbs and adjectival/nominal predicates.

develop an analysis that will avoid all the four problems mentioned above by taking the "argument sharing" idea seriously. This analysis is based on the distinction between two components of a thematic position, as proposed by Samek-Lodovici (1999); cf. also Speas (1990). His proposal is outlined in the next section.

3.2.2.1. Argumental variables and thematic indices

In this dissertation, I will adopt (and provide further evidence for) Samek-Lodovici's (1999) proposal that a thematic position consists of two parts: an *argumental variable* and a *thematic index.*[100] This proposal is a development of the idea that a lexical entry for an item must encode two kinds of information: (i) how many arguments a predicative expression must take in syntax (i.e., the adicity of the predicate), and (ii) what is the semantic content of each argument. This idea goes back to the work of Levin and Rappaport (1986), Hale and Keyser (1986, 1987), Jackendoff (1987), and Speas (1990). According to them, these two kinds of information are encoded in two different structures: the former is encoded in the Predicate Argument Structure (or theta-grid), whereas the latter is encoded in Lexical Conceptual Structure. According to Samek-Lodovici (1999), both kinds of information are encoded in the theta-grid: the former is encoded by argumental variables, whereas the latter is encoded by thematic indices.

In this dissertation, I will adopt Samek-Lodovici's terminology, and will use "θ" to indicate argumental variables and a subscript (indicating the content of the thematic position) to indicate a thematic index (note that Samek-Lodovici uses a slightly different notation, as explained below). For example, a transitive verb like *kiss* has the following theta-grid:[101]

(180) *kiss* $\langle \theta_{Ag}, \theta_{Th} \rangle$

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[100] Thematic indices should not be confused with referential indices.

[101] Here and below, I ignore the event position in verbs' theta-grids for clarity of exposition.

Importantly, both components of a θ-role are necessary for full interpretation. Crucially, argumental variables are "anonymous" (Samek-Lodovici 1999:2); therefore, they cannot be interpreted without thematic indices because only the latter import semantic information (cf. Speas 1990:32).

Samek-Lodovici's (1999) main contribution is in showing that each component of a θ-role can be affected by a syntactic operation independently of the other component. The evidence comes from Samek-Lodovici's investigation of *ata*-nominalizations and nominalization-based complex predicates in Italian.[102] Descriptively, such complex predicates consist of a light verb *fare* 'do' or *dare* 'give' taking as a complement a noun which is itself a nominalization of a verbal past participle. Examples of nominalization-based complex predicates are given below (from Samek-Lodovici 1999:3):

(181) a. fare una camminata
to-do a walking
'to walk'

b. dare una lavata alle camicie
to-give a washing to-the shirts
'to wash the shirts'

Samek-Lodovici (1999) notices two interesting facts about these nominalization-based complex predicates. First, as shown in the examples above, the light verb is not uniform, but depends on the thematic properties of the nominalization: *fare* 'do' appears with nominalizations derived from intransitive verbs, whereas *dare* 'give' appears with nominalizations derived from transitive verbs. Second, Samek-Lodovici shows that "verb-based nominalizations suppress the original external argument of their base", but in nominalization-based complex predicates "these arguments lose their suppressed status, and 'resurrect' as unsuppressed once transferred to the light verb" (p.3).

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[102] For a further discussion of *ata*-nominalizations in Italian, the reader is referred to Ippolito (1999) and the references cited therein.

Based on these observations, Samek-Lodovici (1999) proposes to decompose thematic positions into variables and indices, so that each element can be targeted by an operation separately. For example, he proposes to analyze both light verb formation and thematic transfer as "operations targeting thematic indices alone, while leaving argumental variables untouched" (p. 3). Thus, light verb formation is analyzed as index erasure, and thematic transfer as transfer of the indices. These two processes are schematized below (following Samek-Lodovici's original notation, I use letters for both argumental variables and thematic indices here; for bracket notation, see Grimshaw 1990):

(182) Light verb formation as index erasure (from Samek-Lodovici 1999:3, his (5))

	before index erasure	after index erasure
a.	fare $(u_i\ (v_j))$	$fare_{light}\ (u\ (v))$
b.	dare $(u_i\ (v_j\ (w_k)))$	$dare_{light}\ (u\ (v\ (w)))$

(183) Thematic transfer as index transfer (from Samek-Lodovici 1999:4, his (6))

before index transfer	after index transfer
a. $fare_{light}\ (u\ (v))\ + N_1\ (x_i\ (y_j))$	$fare_{light}\ (u_i\ (v_j))\ + N_1\ (x_i\ (y_j))$
b. $dare_{light}\ (u\ (v\ (w)))\ + N_2\ (x_i\ (y_j\ (z_k)))$	$dare_{light}\ (u_i\ (v_j\ (w_k)))\ + N_2\ (x_i(y_j(z_k)))$

In contrast, argument suppression (in the sense of Grimshaw 1990) is analyzed as an operation involving suppression of an argumental variable without affecting the thematic index. Therefore, when a suppressed thematic position "resurrects" in nominalization-based complex predicate formation, the thematic index can be transferred to the light verb in the usual manner. If, on the contrary, we assumed that, in the absence of decomposition into variables and indices, the whole thematic position is transferred, we would expect the suppressed thematic position to remain suppressed, with the consequence that only a passive form of complex predicate would be available, contrary to the facts. Transfer of suppressed thematic positions with and without decomposition is schematized below (from Samek-Lodovici 1999:4-5, his (7) and (8); suppression is indicated by angled brackets):

(184) Transfer with decomposition

a. before index transfer: $fare_{light}$ (u (v)) + N (<x>$_i$ (y_k))

b. after index transfer: $fare_{light}$ (u_i (v_k)) + N (<x>$_i$ (y_k))

(185) Transfer without decomposition

a. before index transfer: $fare_{light}$ (-) + N (<w> (z))

b. after index transfer: $fare_{light}$ (<w> (z)) + N (<w> (z))

To recap, Samek-Lodovici (1999) proposes to decompose thematic positions into argumental variables and thematic indices, each of which can be targeted independently. It should be highlighted here that this division of labor between an argumental variable and a thematic index is not incompatible with the Minimalist theory of grammar, even though it is incompatible with the specific implementation of this theory as in Chomsky (1995; based on Hale and Keyser's 1993 idea that theta-roles are strictly configurational). As discussed in previous sections of this dissertation, such purely configurational theories of thematic relations fall short of the facts.[103] In the next section, I propose an analysis of copular sentences with adjectival and nominal predicates based on separating a θ-role into an argumental variable and a thematic index.

3.2.2.2. Non-local θ-marking as θ-identification plus local θ-marking

Having thus established the distinction between argumental variables and thematic indices, we can now return to rich copular sentences. I propose that adjectival and nominal predicates have a complete theta-grid containing both an argumental variable and a thematic index ("Emb" for Embodiment), whereas the copula v° has a theta-grid which contains only an argumental variable, but lacks a thematic index. In essence, a copula is a light verb, derived by index erasure (cf. Samek-Lodovici's 1999 analysis of light verb formation as index erasure). A similar idea has been entertained by Eide and Åfarli (1999:176), who maintain that "the copula is a verb with a very sparse attributive content

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[103] I wish to thank Andrea Moro for bringing this issue to my attention.

which functions as little more than a pure lexicalization of the predication operator. Ordinary main verbs, on the other hand, have full attributive content, including Theta properties". The theta-grids of a copula v°, an AP predicate, and an NP predicate are given below.

(186) a. $v_{copular}$ $\langle\theta\rangle$

b. AP $\langle\theta_{Emb}\rangle$

c. NP $\langle\theta_{Emb}\rangle$

This lack of a thematic index positions this light verb – the copula – between full lexical verbs (e.g., *kiss* in (180) above), which have a full theta-grid, and functional categories, which have no theta-grid at all.[104] The lack of a thematic index also has two important consequences. First, it allows us to distinguish between a copula v° and a causative (i.e., agentive) v°.[105] The former has a deficient theta-grid with only an argumental variable (as in (186) above), whereas the latter has a complete theta-grid containing both an argumental variable and a thematic index:

(187) $v_{causative}$ $\langle\theta_{Ag}\rangle$

Secondly, the lack of a thematic index forces the copular v° to acquire an index from somewhere else; otherwise, it cannot be interpreted (see the discussion in the previous section). The only way for the copular v° to acquire a thematic index is through the process of index transfer. Furthermore, I propose that index transfer is done through θ-identification. Following the ideas of Higginbotham (1985), θ-identification encodes

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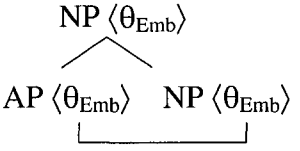
[104] Potentially, other "light" verbs belong to this intermediate category as well. Some candidates that come to mind are "functional verbs" of Cinque (2000), "semi-lexical motion verbs" in Romance and Germanic discussed by Cardinaletti and Giusti (2000), as well as *få* 'get' in Norwegian passives discussed by Taraldsen (1995). A detailed examination of these constructions in light of their "light verb" status goes beyond the scope of this dissertation, and I will leave it for future research.

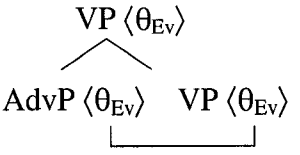
[105] There may be additional kinds of v° heads not discussed here. For example, Arad (1999) argues for the existence of at least four distinct v°-heads: causative v°, agentive v°, applicative v°, and stative v°. In this dissertation, I will ignore the differences between agentive and causative v°s and will assume them to be the same head.

that two thematic positions are one and the same. Therefore, only one of the original two thematic positions must be further discharged, whereas the other position (that of the non-projecting element) is considered discharged through θ-identification. Intuitively, θ-identification is restricted to thematic positions that have non-distinct thematic indices. Higginbotham (1985, 1989) himself discusses two cases of θ-identification: (i) adjectival modification, where two thematic positions which I call Embodiment are θ-identified, and (ii) certain cases of adverbial modification, where two Event positions are θ-identified.

(188) a. ADJECTIVAL MODIFICATION

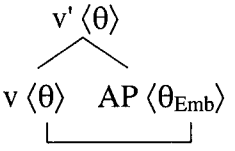


b. ADVERBIAL MODIFICATION

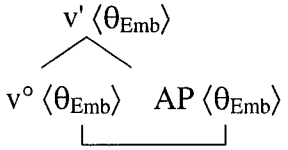


Crucially, θ-identification cannot occur between two thematic positions that have distinct thematic indices, for example, a Theme and an Agent. However, θ-identification is possible between two thematic positions if one of them has no thematic index. Here, I propose that this is exactly how index transfer in copular sentences happens, as schematized below for sentences with AP predicates (the same analysis applies to sentences with NP predicates):

(189) a. before index transfer



b. after index transfer



Note that since θ-identification is restricted to the configuration of sisterhood (see section 3.1.1 above), index transfer is likewise restricted to sisters. As in Higginbotham's original proposal, θ-identification in (189) results in discharging the thematic position of the non-projecting element (here, the AP). Therefore, only one Embodiment position – that of the v° – has to be further discharged by locally θ-marking Spec-vP, in accordance with the generalization made in section 3.1.1 above.

Contrary to Baker's (2000) proposal that v° unilaterally "helps" its adjectival complement to discharge its thematic position, under my analysis both the copular v° and its complement (either an AP or an NP) "help" each other. On the one hand, θ-identification between the theta-grids of the AP (or NP) predicate and the copular v° allows the AP (or NP) predicate to discharge its thematic position, and on the other hand, it allows the v° to acquire a thematic index without which it cannot be interpreted.

Now consider how this analysis avoids the four problems outlined above. First of all, the PREDICATE HEAD PROBLEM is resolved since the Embodiment position originates in the theta-grid of the predicate head (i.e., the A° or the N°). Yet, the LOCALITY OF θ-MARKING PROBLEM is avoided too since the seemingly non-local process of θ-marking from the AP (or NP) predicate to the Spec-vP is now reduced to two independently motivated strictly local processes of θ-identification (between the thematic position of the copular v° and its AP/NP complement) and θ-marking (from v° to the Spec-vP).

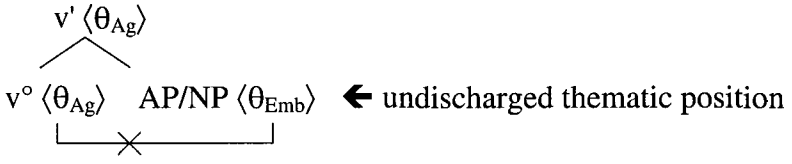
Thus, this analysis allows us to account for the contradictory conclusion drawn at the end of section 3.2.1.4 above. In particular, arguments of adjectival and nominal predicates pattern semantically with the internal arguments of stative intransitive verbs because both types of arguments (which I unified under the term Embodiment) originate in a theta-grid of a major lexical category denoting a stative property. This latter class of items includes adjectives and nouns, as well as stative intransitive verbs. On the other

hand, Embodiment arguments of adjectival and nominal predicates pattern syntactically with external (i.e., Agent) arguments of transitive and unergative verbs because both types of arguments are projected / θ-marked in Spec-vP, whether a copular vP, as with Embodiment arguments of adjectival and nominal predicates, or a causative vP, as with external arguments of transitive and unergative verbs.

To rephrase, Embodiment arguments of adjectival and nominal predicates have a θ-role the two components of which come from two different sources: the argumental variable comes from v°, whereas the thematic index comes from A°/N°. As a result, Embodiment arguments of adjectival and nominal predicates pattern semantically with internal arguments of stative intransitive verbs because the semantic component of their θ-role (i.e., the thematic index) comes from a similar source (i.e., a major lexical category). On the other hand, they pattern syntactically with external arguments of unergative and transitive verbs because the syntactic component of their θ-role (i.e., the argumental variable) comes from the same source (i.e., the v°).

Now consider the two remaining problems: the COPULAR-CAUSATIVE MISMATCH PROBLEM and the DP PROBLEM. Let us start with the COPULAR-CAUSATIVE MISMATCH PROBLEM. The key to the solution to this problem is the distinction that can be now drawn between two v°s: the copular one and the causative one. The former has an incomplete theta-grid lacking a thematic index, whereas the latter has a complete theta-grid. Furthermore, there is no need to rely on selectional restrictions in order to capture the fact that each v° must combine with their proper complements; these restrictions fall out from the analysis itself. Consider what would happen if each type of v° were to take a wrong type of complement. If a causative v° were to take an AP or an NP complement, the resulting structure would crash because the AP/NP would fail to discharge its thematic position.

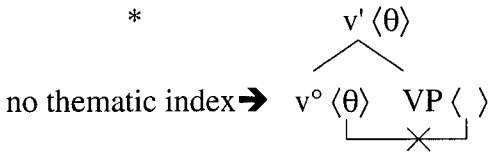
(190) *



Recall that under the analysis proposed here, the AP/NP discharges its thematic position through θ-identification with the thematic position in the theta-grid of the v°. However, in the case of a causative v° with an AP/NP complement, θ-identification is impossible because both elements have complete theta-grids with distinct thematic indices: the v° has an Agent position, whereas the AP/NP has an Embodiment position. As discussed above, two distinct thematic positions – here, an Agent position and an Embodiment position – cannot θ-identify. As a result, the AP/NP fails to discharge its thematic position, and remains a "dangling predicative expression" in violation of the Theta Criterion (see section 3.1).

Similarly, a copular v° cannot take a VP complement. Since a VP has no undischarged thematic positions (all thematic positions in the theta-grid of the V° being discharged internally to the VP), there is nothing for the copular v° to θ-identify with. Without θ-identification, the copular v° lacks a thematic index and cannot be interpreted. ("⟨ ⟩" in the diagrams below stands for a fully discharged grid).

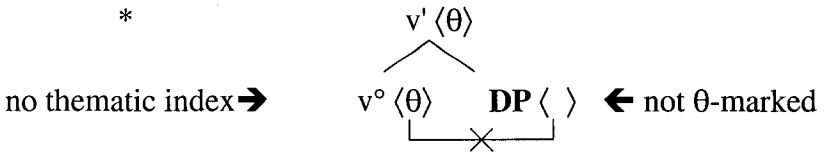
(191) *



To recap, the causative v° cannot occur with an AP or an NP complement and the copular v° cannot occur with a VP complement because in both cases θ-identification fails to occur resulting in an undischarged thematic position or an incomplete thematic position that cannot be interpreted. This solves the COPULAR-CAUSATIVE MISMATCH PROBLEM.

Finally, consider the DP PROBLEM. Crucially, a copular v° cannot take a DP complement, as a result of which post-copular DPs must be analyzed as appearing in a different structure from that in which post-copular APs and NPs occur. How is a DP complement to a v° ruled out? Since the DP has no undischarged thematic positions, θ-identification between the DP and the copular v° is impossible, and as a result the copular v° cannot be interpreted for the want of a thematic index. This resolves the DP PROBLEM.

(192) *



To sum up, I have shown how the analysis proposed here resolves the four problems identified earlier. Under this analysis, the thematic position which is discharged to the Spec-vP in rich copular sentences is in essence "shared" between the predicate head (i.e., the AP or the NP) and the copular v°: the argumental variable comes from the v° and the thematic index from the AP/NP (and ultimately, from A°/N°).

Finally, it should be noted that since the copular v° takes a predicative expression (an AP or an NP) as a complement, it can c-select the category of its complement. Thus, under the analysis assumed here nothing prevents the existence of a language with two copular v°s: one selecting an NP complement and the other selecting an AP complement. Possible examples of such a language include Èdó and Norwegian. According to Baker and Stewart (1997), there are two copular elements in Èdó: *rè* appears with nominal complements (it is unclear from their description if *rè* appears with NPs or DPs or both), whereas *yé* appears with adjectival complements. In Norwegian small clauses as discussed by Eide and Åfarli (1999), *som* appears as the head of the small clause obligatorily only if its complement is an NP; with AP predicates *som* is obligatorily absent, as illustrated below with data from Eide and Åfarli (1999:160).

(193) a. Vi fant [Marit (*som) naken].
we found Mary *som* naked
'We found Mary naked.'

b. Vi fant [Marit *(som) nervevrak].
we found Mary *som* nervous-wreck
'We found Mary a nervous wreck.'

A possible analysis of these data is to postulate two copular v°: *som* and ∅, where the former c-selects an NP complement, whereas the latter c-selects an AP complement. Eide and Åfarli (1999:162) propose a similar analysis: for them, *som* is syntactically present with both NP and AP complements, but its phonetic realization (overt or

non-overt) depends on whether it functions as an abstract Case licenser, given the assumption that only nominal constituents require abstract Case (for a further discussion of case in copular sentences, see chapter 4 below).

A similar solution may also be proposed to deal with the "present tense problem" in Russian. The problem is the following: even though instrumental NPs (including long adjectives like *umnym* 'intelligent.INSTR') and short adjectives, which are clearly APs, behave very similarly in all other respects (including their semantics), only the short adjectives are allowed with the phonetically null present tense copula. Instrumental NPs are ungrammatical in the same context.[106] This is illustrated below.

(194) a. Saša umën.
Sasha intelligent.SF
'Sasha is intelligent.'

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[106] There are certain exceptions to this generalization: Instrumental NPs are grammatical in the present tense (i.e., with a null copula) only in three kinds of cases: (i) with certain nouns denoting occupations in the presence of a temporal or locative adverbial, such as *zdes'* 'here' or *sejčas* 'now'; (ii) with a tiny set of nouns meaning 'cause, reason'; or (iii) certain tautological constructions. For a discussion of these examples, the reader is referred to Nichols (1981:125, 208, 266), Bailyn and Rubin (1991), Fowler (1997), and Geist (1999).

(i) Saša zdes' studentom. (cf. (194c) in the main text)
Sasha.NOM here student.INSTR
'Sasha is here as a student.' [Bailyn and Rubin 1991:121, fn.10]

(ii) Vsemu vinoj moja večnaja neobdumannost'.
all.DAT fault.INSTR [my eternal rashness].NOM
'My perpetual rashness is to blame for everything.' [Turgenev, cited in Fowler 1997:152]

(iii) Družba družboj, a služba služboj.
friendship.NOM friendship.INSTR but duty.NOM duty.INSTR
'Friendship is friendship, but duty is duty.' [Nichols 1981:208]

b. * Saša umnym.
Sasha intelligent.INSTR
intended: 'Sasha is intelligent.'

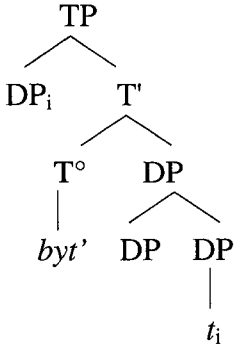
c. * Saša studentom.
Sasha student.INSTR
intended: 'Sasha is a student.' [Bailyn and Rubin 1991:121, fn.10]

These data can be accounted for by postulating two copular v°s, one selecting an NP complement and the other one selecting an AP complement. The former but not the latter can appear in the present tense; in other words, there is a gap in the tense paradigm of the v° that selects an NP complement, which results in the impossibility of sentences like (194b-c) above. Here, I will leave this solution as a tentative proposal because of the obvious disadvantage of increasing the number of lexical entries for copular elements in a language.

3.3. Interpretation of Bare Copular Sentences

In this section, I will investigate the issues related to the interpretation of bare copular sentences. So far, I have claimed that bare copular sentences involve DPs as the post-copular phrases and that they have the following structure:

(195)



Furthermore, neither the DPs nor the copula in a bare copular sentence have (undischarged) theta-grids. In section 2.1.1, I have established that DPs are saturated expressions, namely, that they do not have undischarged thematic positions. Moreover, the copula in this structure cannot have a theta-grid by virtue of its being a functional category (here, T°). Therefore, if the structure above is the correct structure for bare

copular sentences, as I claim in this dissertation, the interpretation of such sentences cannot derive from the usual processes of thematic interpretation established through predication.

Instead, such sentences have a special type of interpretation, the so-called identity or equative interpretation. In particular, a bare copular sentence is true if and only if the referent of the pre-copular DP and that of the post-copular DP are identical. For example, the sentence in (196a) is true if and only if "there is someone who is the best cook in town and Griswold is that person" (Fiengo and May 1994:22). In other words, this sentence asserts that the two DPs *Griswold* and *the best cook in town* are coreferential.

(196) [$_{DP1}$ Griswold] is [$_{DP2}$ the best cook in town].

The semantic representation of a bare copular sentence is given below (I ignore the issue of the representation of tense; the correct temporal interpretation is derived by quantification over or predication of the situation variable *s*).

(197) a. The king is the culprit.

b. $\exists s\ [\iota\ x\ (\text{king}\ (x,\ s))\ \&\ \iota\ y\ (\text{culprit}\ (y,\ s))\ \&\ x=y]$

The obvious next question is where the coreference comes from. Two approaches have been taken in the literature. One approach, adopted by Zamparelli (2000), derives the coreference between the two DPs from a last-resort operation in the semantic component. This operation applies to a symmetrical copular structure, like the one proposed in this dissertation; it coindexes the two DPs and maps them onto the identity function (i.e., $\lambda x \lambda y[x=y]$). Even though this analysis gets the desired result, it is does not follow from anything else in the theory. Furthermore, it is not clear how semantic coreference relates to syntactic coindexing, governed by the Binding Theory.

Another approach is to derive the coreference between the two DPs in bare copular sentences from the special meaning of the copular element itself. This approach has been taken (in various guises) by many previous studies, including such traditional grammarians as Benveniste (1966), Halliday (1967), Higgins (1973), Quirk and Greenbaum (1973), as well as more formal works of Montague (1973), Doron (1983), Bailyn and Rubin (1991), Fiengo and May (1994), Carpenter (1997), to name only a few.

Informally, this approach maintains that the copula takes two argument DPs and denotes that they are coreferential. Therefore, I will call this approach the "identity *be* approach". In this approach, a distinction is drawn between two lexical items: the copula that appears in bare (equative) copular sentences and the one that appears in rich (predicative) copular sentences have separate lexical entries, with distinct meanings. For reasons of parsimony, it is preferable not to split the copula into two distinct lexical items, wherever possible. Furthermore, this approach fails to account for the wide-spread homophony of the identity copula with its predicative counterpart. Finally, it is unclear if this approach can account for the distribution of case-marking in copular sentences – the main empirical problem investigated in this dissertation (for an attempt to account for the case-marking problem within this approach, see Bailyn and Rubin 1991, and for criticism and discussion, see chapter 4 below).

In this chapter, I will develop an analysis of the identity interpretation that avoids the aforementioned problems. I propose to derive the coreference from syntactic coindexing (as in Fiengo and May 1994), which is itself forced by the properties of the syntactic structure, in particular, the way it is merged. Therefore, the identity interpretation in my analysis is not assigned to these sentences in an *ad hoc* fashion. Before I proceed to explicate my analysis, I will discuss some insights of Fiengo and May's (1994) analysis, which will constitute the basis for my account.

3.3.1. Fiengo and May (1994): Coindexing vs. Coreference

Fiengo and May (1994) draw an important distinction between coindexing and coreference. The former is a syntactic relation and is subject to syntactic conditions (such as Binding Theory), whereas the latter is a semantic relation. Crucially, there is no one-to-one correspondence between coindexing and coreference: while coindexing entails coreference, the opposite is not true. In other words, lack of coindexing does not entail lack of coreference. This is so because syntactic coindexing is only one possible source for semantic coreference. According to Fiengo and May (1994), there are two main sources for coreference: in addition to syntactic coindexing, coreference can derive from extra-syntactic information. For example, coreference can be derived from pragmatics, as

in the following example from Fiengo and May (1994:3), originally due to Higginbotham (1985:569-570). Suppose that Kim sees a man leaving the room, but she cannot see his face. She asks Sandy who that person is, and Sandy replies:

(198) I don't know, but he put John's coat on.

Here is an apparent paradox: according to Principle C of the Binding Theory (which requires R-expressions to be free, i.e., unbound), *he* and *John* in the above example cannot be coindexed. However, in the reading that Sandy implies, given the extra-linguistic context, *he* and *John* refer to the same person. This reading can be derived from the application of pragmatic principles: assuming that Sandy is being cooperative, Kim can deduce the following. First, in accordance with Grice's (1975) Maxim of Quality, Sandy does not want to commit herself to a statement which she does not have sufficient evidence to support, namely that the person who has left the room is John. But, assuming that Sandy obeys the Maxim of Relevance, one can deduce that the person who has left the room is John. Otherwise, the information that the person who has left has put on John's coat is irrelevant in the conversation.

The distinction that Fiengo and May draw between coindexing and coreference solves this apparent paradox: Principle C governs the syntactic relation of coindexing; it bans coindexing between *he* and *John*, but says nothing about the coreference between the two.

(199) Principle C: R-expressions must be free everywhere.

Free = not bound

(200) Binding (standard definition, to be changed below)

α binds β iff (i) α and β are coindexed, and (ii) α c-commands β.

According to Fiengo and May (1994), the two DPs flanking the copula in identity statements are not coindexed in the syntax (following Fiengo and May's 1994 notation, here and below, I will use numbers for referential indices).

(201) $[\text{Griswold}]_1$ is $[\text{the best cook in town}]_2$.

The coreference between the two DPs does not derive from any syntactic information (i.e., coindexing), but rather from the meaning of the copula *be* itself. In essence, the "identity" copula *be* takes two argument DPs and denotes that they are coreferential. This approach has two desirable consequences. First, Principle C of the Binding Theory is satisfied because the two DPs are not coindexed in the syntax. Therefore, they cannot bind one another, and are therefore free, as required by Principle C. Second, an identity sentence is informative since it asserts that X=Y, and not X=X.

There are, however, two serious objections to this approach. First, if the copula is said to take the two DPs as its arguments, it must θ-mark them. However, as Rapoport (1987:139-140) has noted, "it is not exactly clear which theta-roles the copula would assign, and how the identity relation would be derived from that assignment" (see also Heggie 1988). In essence, relegating coreference requirement to the meaning of the copula does not explain why the identity copula appears with two DPs, whereas a different, non-identity copula appears when the post-copular phrase is an NP or an AP. Second, the "identity *be*" approach requires the two DPs to be arguments of the copula, which means that the copula is a lexical category. Yet, in the structure I propose for bare copular sentences in this dissertation, the two DPs are not arguments of the copula. As will be shown below, there is an advantage to treating the copula that appears with two DPs as a functional category, essentially a tense marker. In what follows, I will show that an analysis that derives coreference in bare copular sentences without introducing a separate lexical item for an identity *be* is possible and will provide some arguments to show that such an analysis is indeed preferable to the "identity *be*" analysis.

To recap, Fiengo and May (1994) propose an analysis which is based on two main ideas. First, a distinction is drawn between a syntactic relation of coindexing and a semantic relation of coreference. Second, Fiengo and May propose that in identity copular sentences the coreference between the two DPs flanking the copula is derived from extra-syntactic information, namely, from the lexical meaning of a special copular element – the identity *be*. In the analysis to be presented below, I will adopt the first claim but not the second one. In fact, I will propose that coreference between the two DPs in bare copular sentences is derived from syntactic coindexing.

3.3.2. Indices as Features

According to Fiengo and May's (1994) claim (which I adopt in this dissertation), coindexing is a syntactic relation. This means that referential indices must be present in syntax. However, as has been mentioned above, syntactic computation can deal only with features (see also Chomsky 1998:116). This, in turn, implies that a referential index must be a feature. This idea is also found in Fiengo and May (1994:xii), who propose to "understand indices to be a structural part of the 'feature component' of a category in a phrase marker".

Here, I propose that a referential index is a feature which enters into syntactic computation from the lexicon through a numeration, much like all other features. Furthermore, I propose that the referential index is a feature of D°; this is a development of the claim that referentiality is associated with the functional D-layer rather than with the lexical N-layer, argued for in section 2.1.2 above. Within the framework of Distributed Morphology (Halle and Marantz 1993), this can be expressed as follows: the referential index is a separate feature in the lexicon, but in the derivation it is bundled with other features to be expressed by D°, such as (in)definiteness. It should also be noted that referential index is understood here as an independent feature, rather than as a bundle of other features, such as [gender], [number], and [person], as is assumed in Pollard and Sag (1994); see also Svenonius (1993a).

An interesting question arises as to the number of possible referential indices. It appears that natural language would require a potentially infinite number of referential indices in order to express reference to a potentially infinite number of entities in the world. However, it is not possible for the lexicon to contain an infinite number of referential indices, for the obvious space limitation reasons. In order to resolve this paradox, I propose that the number of referential indices is curbed by processing limitations. It is never possible to set up an infinite number of referents in any given discourse; thus, the number of referential indices used in a given discourse is limited by processing limitations. Therefore, there is no need for the lexicon to contain an infinite number of referential indices. Rather, the lexicon must contain a limited (even if large) number of referential indices, corresponding to the maximal number of referential indices

that can be used in any given discourse. In other words, the lexicon need not contain a separate index for each and every entity in the world; rather, the same index can be used for different entities in different discourses. For example, the same index can encode reference to John in one discourse and to Mary in another discourse. Thus, the number of referential indices in the lexicon is not infinite, though I will not venture to estimate their exact number.

This analysis of referential indices as features in the syntax is further supported by studies of sign languages.[107] In sign languages, entities are represented in discourse through use of space. According to MacLaughlin (1997:58-59),

> ... a referential entity can be associated with a location in the signing space, and this location is then used during the discourse to refer to that entity. These spatial loci are relevant to a variety of grammatical processes, including pronominal reference, possessive relations, and agreement.

These spatial loci can be used for both manual and non-manual marking; the former includes pointing with an index finger or a thumb to encode pronominal reference, pointing with an open handshape to encode possessive reference, and modifying the starting and the end points of movement of some verbal signs to encode agreement. The use of spatial loci with non-manual marking involves head tilt and eye gaze directed towards the relevant location.

According to MacLaughlin (1997:59; see also references cited therein), "spatial loci reflect the abstract grammatical feature *person*". However, the use of spatial loci in sign language is different from the expression of the grammatical feature [person] in spoken languages in that the latter distinguish only among first, second, and third persons, whereas sign language is capable of distinguishing a much larger number of spatial loci. Instead, I suggest that spatial loci in sign language can be analyzed as overt realizations of

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[107] The discussion of reference in sign languages is based primarily on studies of ASL (American Sign Language) and ISL (Israeli Sign Language). I thank Dawn MacLaughlin and Irit Meir, respectively, for illuminating discussions of these two sign languages.

referential indices. As with referential indices, the number of potentially distinguishable spatial loci is not infinite and is curbed by processing limitations. Moreover, spatial loci serve to keep track of entities in the discourse, which is exactly what referential indices do. Another suggestive fact is that "only specific noun phrases may be associated with a location in space; non-specific noun phrases (which do not assert existence of any referent) cannot be established in space" (MacLaughlin 1997:137).[108]

The use of spatial loci as expressions of referential indices provides further support for the claim that referential indices are present in the syntax (and therefore, in the lexicon), and against the alternative view that referential indices are present only in semantic representations (i.e., outside of the domain of computational syntax). Since spatial loci are involved in articulation of the index sign, they must be accessible to the PF component. Let us consider what this means in terms of Chomsky's Inclusiveness Condition (1995:228, 2000:113-114). The Inclusiveness Condition states that "no new features are introduced by C_{HL}" (Chomsky 2000:113). Chomsky claims that the Inclusiveness Condition "rules out... indices", but remarks that "questions arise if they enter into interpretation and function significantly within the computation" (Chomsky 2000:114). My answer to this question is affirmative. Given that referential indices are accessible at PF, they must be present in the syntax; then, they are available at both PF and LF interfaces. Thus, sign languages provide additional support for the claim that referential indices are features involved in the syntactic computation.

If a referential index is a feature, it is subject to the same restrictions that apply to other features. Now, recall from section 2.2.3 that in order for Merge via union (or intersection) to apply, the two input constituents must have the same feature

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[108] Interestingly, an index sign can express more than just a referential index. In these cases, its articulation is modified in a variety of ways. For example, "the path that the index finger traces as it moves to its final location can vary, conveying distance and 'route' information about the location" (MacLaughlin 1997:118). This is very much in accordance with the generalization that sign language is 3-dimentional (rather than linear, as spoken language is) and can express several bits of information simultaneously (cf. MacLaughlin 1997 and Talmy 2000).

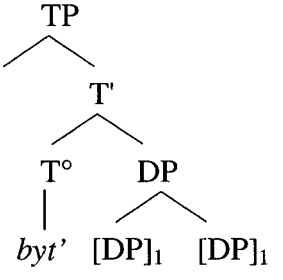
compositions. Therefore, if an index is a feature, the two input DPs in a symmetrical structure must have the same indices (i.e., they must be coindexed). According to my analysis, the following indexing obtains:

(202) [Griswold]$_1$ is [the best cook in town]$_1$.

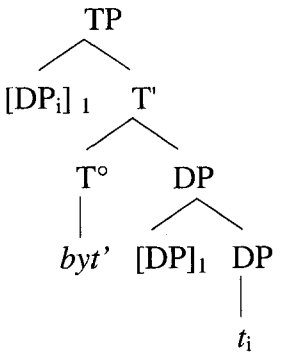
To recap, the coreference between the two DPs in identity sentences derives from two facts: (i) that the two input constituents in a symmetrical structure must have the same features, and (ii) that a referential index is a feature. Furthermore, the coreference does not derive from the special meaning of the copula *be* (and in the structure I propose, *be* is just a tense marker).

Finally, note that under this analysis the two DPs in bare copular sentences apparently violate Principle C of the Binding Theory. As has been mentioned above, Principle C requires R-expressions to be free (i.e., not bound). However, if the two DPs in the symmetrical structure are coindexed, at least one of them is not free. If Principle C applies to lower copies (i.e., base positions), as in (203a), both DPs c-command and therefore bind each other. If Principle C applies to higher copies (i.e., surface positions), as in (203b), the pre-copular DP (which appears in Spec-TP position) binds the post-copular DP.

(203) a. Principle C applies to base positions:



b. Principle C applies to surface positions:



In order to avoid these Principle C violations, I propose to amend the definition of binding. The intuition behind this amendment is that binding is essentially an asymmetric relation. If the grammar is assumed to allow only asymmetrical structures (as has been assumed in GB and standard minimalist literature), the traditional definition of binding would suffice. However, if symmetrical structures are to be allowed in the grammar (as I have argued in section 2.2), these constructions need to avoid mutual binding by the two symmetrical phrases. Note that this amended definition of binding makes reference to copies of α and β, presupposing the copy theory of movement.

(204) Binding (revised definition)

α binds β iff

(i) α and β are coindexed AND

(ii) at least one copy of α c-commands at least one copy of β AND

(iii) the lowest copy of α and the lowest copy of β do not mutually c-command each other.

Note that this revised definition of binding does not undermine the empirical coverage of Principle C (or of the other Principles of the Binding Theory). The only kind of structure where the standard and the revised definitions have different results is the one involving symmetrical structures, in which allowing apparent violations of Principle C is a desirable result.

Let us consider some specific cases. In asymmetric structures, binding will be established as with the old definition of binding. For example, in *John and Mary seem to each other to be stupid* the anaphor *each other* (i.e., β) is bound by the subject *John and Mary* (i.e., α) because α and β are coindexed, at least one copy of the antecedent (here, the highest copy in the specifier of matrix TP) c-commands the anaphor, and the lower copies of both the anaphor and the antecedent (here, the copy in the small clause) do not mutually c-command each other. Thus, the necessary binding relations are established, and the sentence is grammatical.

Now consider a symmetrical structure, as in *John is the culprit*. This sentence contains two R-expressions which need to be free. Let us see how the revised definition of binding applies here. Obviously, the two DPs are coindexed. Moreover, at least one copy of *John* (namely, the copy in Spec-TP) c-commands at least one copy of the other DP, *the culprit*. However, clause (iii) of the revised definition guarantees that there is no binding here. This is so because the lower copy of *John* and the lower copy of *the culprit* (namely, the copies in the position of merger) **do** mutually c-command each other. Therefore, *John* does not bind *the culprit* in this sentence. (Note that it can be easily established that *the culprit* does not bind *John* either.) Thus, an apparent violation of Principle C is avoided.

Now consider anaphor binding in symmetrical structures. What makes sentences like **Himself is John* ungrammatical? Consider Principle C first. According to Principle C the R-expression *John* must be free, and it is. Let us consider how the revised definition of binding applies in this case: the anaphor *himself* and the R-expression *John* are coindexed, and at least one copy of *himself* (the one in the Spec-TP) c-commands at least one copy of *John*. However, the lower copies of *himself* and *John* **do** mutually c-command each other; therefore, *himself* does not bind *John*. As a result, *John* is free, thus satisfying Principle C. However, Principle A is not satisfied in this sentence, resulting in its ungrammaticality. According to Principle A, the anaphor *himself* must be bound. The only element it can be bound by in this sentence is *John*. Even though the anaphor *himself* and its potential antecedent *John* are coindexed and at least one copy of *John* c-commands at least one copy of *himself* (the one in the position of merger); clause (iii) of the revised definition of binding is not satisfied: the lower copies of *himself* and of

John **do** mutually c-command each other which means that *John* cannot bind *himself*. As a result, the anaphor is not bound, violating Principle A. This results in the ungrammaticality of this sentence.

The next obvious question involves the grammaticality of the following sentence:

(205) *John is himself.*

If this sentence is a bare copular sentences like the ungrammatical **Himself is John*, it should be ungrammatical as well. Since the lower copies of *John* and *himself* mutually c-command each other, binding does not apply and the anaphor is not bound, in violation of Principle A of the Binding Theory. So why is this sentence grammatical? My answer is that (205) is not a bare copular sentences but is rather a rich copular sentences. Thus, it does not have the equality reading asserting that *John* and *himself* refer to the same person. Rather, it has a two possible predicational readings: (i) where John is asserted to be (or behave like) his usual self, and (ii) where John plays himself (in a theatrical context). Two facts support this proposal. First, as mentioned in Fiengo and May (1994:35), the negated version of (205) – *John is not himself* – is not contradictory. Second, it is interesting to note that Russian counterpart of (205) is possible only with the instrumental marking on the anaphor.[109]

(206) a. Ivan byl samim soboj.
Ivan was self.INSTR self.INSTR
'Ivan was himself.'

b. * Ivan byl sam soboj / sebja.
Ivan was self.NOM self.INSTR / self.ACC
intended: 'Ivan was himself.'

Thus, I maintain that the grammaticality of *John is himself* does not contradict the revised definition of binding proposed here, which excludes the possibility of mutual binding in symmetrical structures. This revised definition relies on the intuition that

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[109] The anaphoric *sebja* has no nominative form.

binding is essentially asymmetric. Therefore, even though the two input DPs in symmetrical copular sentences are said to be coindexed in syntax (and not simply coreferential in semantics), they do not violate Principle C of the Binding Theory.

3.3.3. Nominative Post-Copular DPs are not Always Individual-Level

In the previous section, I have proposed an analysis according to which a post-copular DP in a bare copular sentence is interpreted as coreferential with the pre-copular DP. This coreference has been argued to derive from coindexing in syntax, which is itself a result of the requirement that the two input constituents in a symmetrical structure have the same features. Furthermore, both pre-copular and post-copular DPs are associated with presuppositions of existence and uniqueness. Recall further that post-copular DPs in Russian bare copular sentences appear with the nominative case marking (see section 2.1.2.2 above). Thus, under the analysis proposed here sentences with the NOM-NOM pattern have an equative interpretation. In this section, I will show that this analysis accounts for the facts concerning the interpretation of bare copular sentences in Russian better than its competitor, namely, the analysis that reduces the meaning differences to the individual- vs. stage-level distinction.

First, note that the claim that copular sentences with the NOM-NOM pattern have equative interpretation is not obvious *a priori*. It is easier to see that this is the case with sentences like (207a) than (207b).[110]

(207) a. Mark Tven byl Samuèl Klements.
Mark Twain.NOM was Samuel Clements.NOM
'Mark Twain was Samuel Clements.'

b. Piter byl doktor.
Peter.NOM was doctor.NOM
'Peter was a/the doctor.'

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[110] Here and below, English translations should not be taken as expressing exactly the meaning of Russian examples.

However, sentences like (207b) pass the coordination test for an equative reading, from Holmberg (1993:130).

(208) a. Peter is a teacher, and Lisa is a teacher, too.

b. ?? Peter is the teacher, and Lisa is the teacher, too.

This tests shows that a non-unique property in non-equative sentences can be attributed to more than one individual, but a unique property denoted by a definite DP in an equative copular sentence cannot. A similar contrast is found in Russian copular sentences.

(209) a. Piter byl doktorom, i Andrej tože byl doktorom.
Peter was doctor.INSTR and Andrew too was doctor.INSTR
'Peter was a doctor, and Andrew was a doctor too.'

b. ?? Piter byl doktor, i Andrej tože byl doktor.
Peter was doctor.NOM and Andrew too was doctor.NOM
intended: 'Peter was the doctor and Andrew was the doctor too.'

Thus, sentences with the NOM-NOM pattern behave like equative sentences rather than as predicative sentences. Now, let us consider the alternative account which claims that the differences in meaning between bare and rich copular sentences reduce to the individual- vs. stage-level distinction.

It has been long noted in the literature on Russian that the two types of copular sentences, identified here as rich and bare copular sentences (with instrumental and nominative marked post-copular phrase, respectively), do not mean exactly the same thing. However, there is an extensive debate in the literature (both traditional and generative) as to the exact nature of these meaning differences. Traditional literature uses terms like "identity", "characteristic", "status", "function", "essential quality", "appearance", "concreteness", "temporal" to describe the meaning differences between sentences with nominative and instrumental post-copular phrases (for a good overview of traditional literature on the subject, see Nichols 1973:7-17). Generative literature, on the other hand, focuses on describing the differences in terms of stage-level vs. individual-level predicates. The most widely accepted generalization is that sentences with an instrumental post-copular phrase denote transient, temporary, or changeable

properties, whereas sentences with a nominative post-copular phrase denote characteristic, permanent, or non-changeable properties (see Peshkovskij 1914/56, Jakobson 1936, Rozental' 1976:37, Wierzbicka 1980, Bailyn and Rubin 1991, Smith 1999, to name only a few). For example, Wierzbicka (1980:119) characterizes the meaning differences as follows:

> ... the nominative case is used when the predicate nominal denotes a property seen as essential and inalienable; the instrumental case is used when the predicate nominal denotes a property which is seen as transient and inessential.

For example, the nominative predicate nominal in (210a) denotes an inalienable property, whereas the instrumental predicate nominal in (210b) denotes a transient property, which is emphasized by the use of temporal adverbial modifier (the examples are from Bailyn and Rubin 1991:120).

(210) a. Tatjana Ilinična Ovsjanikova byla ženčina vysokogo rosta.
[Tatjana Ilinichna Ovsjanikova].NOM was woman.NOM [tall height].GEN
'Tatjana Ilinichna Ovsjanikova was a tall woman.'

b. V prošlom godu Tatjana byla studentkoj.
in last year Tatjana was student.INSTR
'Last year Tatjana was a student.'

In recent years this generalization has been reformulated in terms of the distinction between stage-level (SL) predicates and individual-level (IL) predicates (for instrumental and nominative predicates, respectively); see, for example, Geist (1999). However, the use of these terms to characterize the distinction expressed through case marking in Russian is problematic. In particular, properties that are clearly inherent and non-changeable can be expressed by instrumental phrases, as in the examples below (from Geist 1999:7). Similar examples are also found in Rozental' (1976:38) and Comrie and Stone (1978:118).

(211) a. Anna byla dočerju vrača.
Anna was daughter.INSTR doctor.GEN
'Anna was a doctor's daughter.'

b. Sergej byl levšoj.
Sergej was lefthanded.INSTR
'Sergej was left-handed.'

Thus, the sentence in (211a) is true and can be used felicitously even if Anna never stopped being a doctor's daughter (which would be possible only if her parent was no longer a doctor). Similarly, the sentence in (211b) does not necessarily imply that Sergej switched to being right-handed (which would be possible since many Russian children are forced to acquire right-handedness since left-handedness has been thought to be a sign of mental retardation). Note furthermore that the instrumental is possible even if the inherent nature of the property in question is expressed overtly in the sentence:

(212) On byl prirožděnnyj muzykant / prirožděnnym muzykantom.
he was [born musician].NOM / [born musician].INSTR
'He was a born musician.' [Geist 1999:7]

On the other hand, nominative post-copular phrases can denote properties which are not necessarily individual-level. In this example, the properties of being tall and thin are not inherently individual-level: people can easily grow (especially, at young age) and gain weight (sometimes way too easily).

(213) Ona byla vysokaja i xudaja.
she was tall.NOM and thin.NOM
'She was tall and thin.'

This is particularly clear in the case of idiomatic post-copular noun phrases, which must appear in the nominative (cf. Geist 1999:15), even if the temporary nature of the property is expressed explicitly in the sentence.[111]

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[111] So far, I have no explanation for the fact that idiomatic post-copular noun phrases must appear in the nominative, even after copular like verbs that otherwise always take instrumental complements (see

(214) V detstve ona byla krov' s molokom, no posle Aušvica ona tak
in childhood she was blood.NOM with milk but after Auschwitz she still
i ostalas' koža da kosti.
EMPH remained skin.NOM and bones.NOM
'In her childhood, she was milk and roses, but after (being in) Auschwitz she remained forever skin and bones.'

To recap, it appears that the distinction between changeable and non-changeable properties does not capture the contrasts expressed by Russian case marking. Speakers who are not linguists usually characterize sentences with instrumental post-copular phrases as implying temporary nature of the property denoted by the instrumental phrase, especially in meta-linguistic contexts of explicit comparison with nominative. For example, when faced with the following contrast, speakers feel that the sentence in (215a) expresses a more permanent characteristic of Ivan than (215b).

(215) a. Ivan byl xrabryj soldat.
Ivan was brave.NOM soldier.NOM
'Ivan was a brave soldier.'

b. Ivan byl xrabrym soldatom.
Ivan was brave.INSTR soldier.INSTR
'Ivan was a brave soldier.'

Under the analysis developed in this dissertation, in (215a) there is no verbal predication. Therefore, the event variable cannot come from a verb (either V° or v°). Instead, it must come from the nominals themselves. Thus, past tense is interpreted as applying to the unique individuals denoted by *Ivan* and *xrabryj soldat* 'brave soldier'. This explains speakers' intuition that for this sentence to be used felicitously, Ivan must be dead. Furthermore, since the two DPs are coreferential, they denote the same

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examples in the main text and Appendix B). One possible explanation is that idiomatic expressions need to appear in the citation form (see discussion in section 4.2.2.2 below). I will leave this issue open for further research.

individual, which results in the impression that the nominative post-copular DP denotes an individual-level property. Finally, according to the analysis proposed in this dissertation, the coreference relation between the two DPs is established only for some limited situation (or state of affairs), which is located in time by the tense marking. Therefore, (215a) does not presuppose the existence of a unique brave soldier in the whole world, but only the existence of a unique soldier in that situation. To recap, by uttering this sentence, the speaker asserts that in some past situation there existed a unique Ivan and a unique brave soldier and that these two were one and the same person.

In contrast, (215b) involves verbal predication (through v° head of the small clause). Therefore, tense marking applies to the predication itself indicating that Ivan's having the property of being a brave soldier happened in the past. However, it does not limit the extent of the span in which the property of being a brave soldier applies to Ivan. Therefore, the sentence can be used felicitously even if Ivan was a brave soldier throughout his whole life. As a result, sentences with instrumental post-copular phrases need not assert the stage-level nature of the property in question. This explains the grammaticality of the sentences in (211) and (212) discussed above. By uttering these sentences, a speaker asserts that the individual denoted by the pre-copular DP had a certain property in some past situation, but makes no commitment as to whether he or she had that property prior or following the span of that situation. Thus, the effect of temporariness arises mostly from a meta-linguistic comparison with the nominative.

To recap, sentences with nominative post-copular phrases need not denote properties which are inherently individual-level, and sentences with instrumental post-copular phrases need not denote stage-level properties. The analysis proposed in this dissertation allows us to account for the speakers' intuitions about these sentences without relying on the distinction between changeable and non-changeable properties. Moreover, these intuitions are shown to follow from the independently required syntactic structures of these sentences.

3.4. Summary

In this chapter, I have discussed issues related to the interpretation of rich and bare copular sentences. I have argued that the structures proposed for these two types of copular sentences account for differences in their interpretation. With respect to rich copular sentences, I have argued for the following points:

- Rich copular sentences are interpreted on a par with non-copular sentences, through thematic discharge.
- A distinction is drawn between argumental variables and thematic indices.
- The copular v° has its own theta-grid, but its thematic position has only an argumental variable and no thematic index.
- The theta-index is acquired by v°'s thematic position as a result of thematic transfer (which is analyzed as index transfer, following Samek-Lodovici 1999) through θ-identification.
- Predicative NPs/APs discharge their Embodiment position through θ-identification with the theta-grid of v°.
- Consequently, copular v° cannot take a DP as its complement, because a DP has no theta-grid, and θ-identification (and as a result, thematic transfer) would fail, resulting in an uninterpretable structure.

With respect to bare copular sentences, I have made the following claims:

- The interpretation of bare copular sentences does not involve any thematic discharge.
- A distinction is drawn between syntactic coindexing and semantic coreference (following Fiengo and May 1994).
- The two DPs in a bare copular sentence are interpreted as coreferential because they are coindexed in the syntax (contra Fiengo and May 1994).
- The requirement that the two DPs are coindexed is not random; it follows from two facts: (i) that indices are features and (ii) that the two input constituents in a symmetrical structure must have the same feature compositions.

- A-binding is an inherently asymmetric relation; accordingly, it is defined as involving only asymmetrical c-command.

Finally, I have argued that the thematic module of the grammar is located at LF and consists of the Theta Criterion which bans dangling predicative expressions and dangling referential expressions.

4. Case Relations

> Cases are one of the most irrational parts of language.
> – Jespersen

In the previous chapters, I have investigated the structure and the interpretation of the two types of copular sentences: bare and rich copular sentences, which are identified in Russian by nominative and instrumental case marking on the post-copular phrase, respectively. In this chapter, I will address the question of why bare copular sentences exhibit nominative post-copular phrases, while rich copular sentences appear with instrumental post-copular phrases.

The chapter is organized as follows: after introducing the debate on the nature of case and Case Theory (in section 4.1), I will discuss rich and bare copular sentences in sections 4.2.1 and 4.2.2, respectively. For each type of sentence, I will show that the structures proposed in this dissertation (see section 1.6) provide an easy account for the distribution of case marking. Furthermore, I will show that my analysis is superior to its alternatives in accounting for the distribution of case marking. In particular, I will show that the structure proposed in this dissertation for rich copular sentences (i.e., involving a lexical head v°) is superior to the one which involves a functional head Pred°, as proposed by Bailyn and Rubin (1991). In addition, I will show that a symmetrical structure I propose for bare copular sentences is preferable to an asymmetrical structure in which the two DPs are arguments of the copula *be* (this latter analysis would rely on "identity *be*" semantics, as discussed in section 3.3.1 above).

4.1. Case Theory

In this section, I will investigate issues related to the Case Theory module of the grammar. The next section is concerned with Case Theory as conceived at both the GB and Minimalist stages of the theory. Section 4.1.2 discusses the nature of the nominative case, and section 4.1.3 discusses the relation between Case and argumenthood.

4.1.1. Case Theory in GB and Minimalism

Case Theory (and in particular, its relation to morphological case marking) played a much more prominent role in GB than it does in Minimalism. In this section, I will briefly outline the Case Theory module in these two frameworks.

In GB, the central principle of Case Theory has been the Case Filter, the aim of which is to rule out nominals in inappropriate syntactic positions. Yet, the nature and exact formulation of the Case Filter has been debated in the literature. The original Case Filter of Rouveret and Vergnaud (1980) and Chomsky (1981, up to ch.6) rules out caseless noun phrases with phonetic content, regardless of their thematic status. However, this view of the Case Filter was quickly replaced by another one: Chomsky (1981:336) proposed that the Case Filter derives from the Theta Criterion and applies to θ-marked noun phrases independently of their phonetic content. This revision of the Case Filter became known as the Visibility Condition, since Case marking was treated as making a noun phrase visible for Theta marking. Note that the two versions of the Case Filter have different domains of application and, presumably, apply at different levels of representation: the original Case Filter applies at S-structure (or PF) and the Visibility Condition has been interpreted as applying at LF. Obviously, having two Case Filters with different domains of application within one Case Theory is problematic; however, the choice between the two formulations of the Case Filter (the original Case Filter and the Visibility Condition) is not trivial, and the consequences of this choice for the rest of the grammar are far-reaching. Thus, even though the Visibility Condition has been widely accepted as the correct formulation of the Case Filter, some have claimed that the original formulation applying to all overt noun phrases is the correct one (see Lee 1989), whereas others (e.g., Franks 1995, ch.7, and the references cited therein) have argued that both versions of the Case Filter are necessary. Thus, the debate on whether Case Theory is relevant at PF or LF is far from settled (see also Falk 1997).

The standard GB Case Theory proves to be problematic in two important respects. On the theoretical level, attention within the GB framework has shifted to Abstract Case, thus largely ignoring morphological case marking. Much of the Case Theory in GB has been based on English and similar languages, which do not exhibit much morphological

case marking. Thus, case has been taken to be a licensing condition regulating the distribution of nominals and the relevance of morphological case marking in describing the distribution of nominals has been undervalued. The result on the empirical level has been that certain case-related phenomena have been ignored. One such phenomenon is case marking on post-copular phrases. According to the Visibility Condition, post-copular nominals, which are not θ-marked, need not be marked with Abstract Case either. But, whether post-copular nominals are marked with Abstract Case or not, there are languages in which they clearly bear morphological case marking (e.g., Russian, Icelandic, Arabic, Korean, Finnish, to name only a few).

The lack of consensus as to the nature of Abstract Case (i.e., the Case Filter debate mentioned above) has led to the lack of consensus as to the source of the morphological case marking on post-copular nominals. The solution available in the framework of the Visibility Condition is to treat such case marking as a morphological default in the absence of Abstract syntactic case resulting from an independent morphological well-formedness requirement on nouns. However, this approach fails to account for two uncontroversial facts. First, some case-marking on post-copular phrases is morphologically marked, and therefore, cannot be treated as morphological default (e.g., instrumental case in Russian, or accusative case in Arabic). Second, at least some case-marking on post-copular phrases has been argued to be indicative of certain syntactic configurations (see Lee 1989, Maling and Sprouse 1995, Comrie 1997). Therefore, the morphological default analysis is clearly insufficient. Thus, it can be safely concluded that the Visibility Condition as it is formulated by Chomsky (1981, ch.6) has to be modified.

The Minimalist Program of Chomsky (1995) inherited much of GB's bias toward Abstract Case at the expense of the discussion of morphological case marking. Case is considered by Chomsky (1995:278-279, see also Chomsky 2000:102, 119) "the formal feature par excellence" because it is always [–Interpretable]. Thus, in this framework nominative is treated on a par with accusative as a structural case par excellence. But, as will be shown in the next section, nominative has a special status in language.

4.1.2. On the Nature of Nominative Case

As mentioned in the previous section, the mainstream Minimalist theory considers nominative on a par with other structural cases (most commonly, accusative, and potentially also genitive and dative). For example, Chomsky (1995:277) suggests that [assign nominative Case] is a formal feature on T°, whereas [assign accusative Case] is a formal feature on the verb. Others have treated Case as a [–Interpretable] instantiation of an otherwise [+Interpretable] feature on a noun phrase. For example, Pesetsky and Torrego (2000) propose to analyze nominative case as a [–Interpretable] instantiation of Tense on the noun phrase. This proposal is crucial to their explanation of the T-to-C asymmetry. Furthermore, they speculate that accusative case is also *u*T on D (i.e., an uninterpretable Tense feature on D°), with "the choice of case morphology ... taken to reflect the order in which the DPs enter into an attract relation with T" (cf. Chomsky 2000:123). In contrast, Svenonius (2001) proposes to analyze accusative case as a [–Interpretable] instantiation of Aspect on the noun phrase (cf. Pereltsvaig to appear, b).

However, this view of nominative marking has been challenged in the literature. The alternative view is that nominative has a special status in the theory. This idea is by no means new. It goes as far back as Aristotle and Panini, and appears time and again in the linguistic writings of Hjelmslev and Jakobson. For a discussion of pre-generative accounts of nominative as a special case, the reader is referred to Blake (1994:31-32, 40, 65-67).[112] More recently, a more radical version of this view has been argued for by Falk (1991, 1997, 1998), Bittner and Hale (1996), Weerman (1996), Neeleman and Weerman (1999), who have claimed that the special nature of the nominative case is not restricted to the morphological component, but is true of nominative in the syntax as well. Here, I will adopt the weaker position, namely, that nominative is unmarked morphologically, rejecting the stronger position that nominative is also different from other cases from the syntactic point of view. Below, I outline the arguments in support of this view.

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[112] Curiously, some grammars of classical languages (such as Woodcock's 1959 thorough grammar of Latin) omit nominative from their discussions of the case system of the language.

First, as noted in Blake (1994:31), Dixon (1994:56, 62), Weerman (1996:8-11), Falk (1997:5) and Neeleman and Weerman (1999:64-67), there is a cross-linguistic correlation between nominative and the lack of overt morphemes: "if any case has zero realization (or a zero allomorph) it will be nominative" (Dixon 1994:62). In fact, this generalization goes back to Greenberg's (1963:95) "Universal 38. Where there is a case system, the only case which ever has only zero allomorphs is the one which includes among its meanings that of the subject of the intransitive verb" (cited in Dixon 1994:57). Neeleman and Weerman (1999:64-67) argue that the so-called nominative morphemes are expressions of declension class, gender and number, rather than case. Therefore, they are typically found in fusional languages, like Icelandic, Latin or Russian, but not in agglutinative languages like Turkish (Japanese is one counterexample that comes to mind). Note that this argument bears on the morphological status of the nominative but does not necessarily support the claim that nominative has a special status in syntax, as has been argued by Falk (1997) and Neeleman and Weerman (1999).

Second, nominative is the citation form, namely, the form used when the nominal appears in no syntactic context (see Blake 1994:31, Dixon 1994:62, Falk 1997:5).[113] For example, nominative is the form used for nominals in Left Dislocations (external topics), in answers to *Čto èto?* 'What is this?' questions, and in tag questions, as in the following Russian examples (and possibly also in vocatives and XP-utterances, such as *Pozhar!* 'Fire!).[114]

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[113] As a curious note, it should be added here that the most attrited speakers of American Russian and American Polish use genitive as the citation form (see Polinsky 1994:10). I have no explanation for this fact.

[114] This generalization is true not only of Russian but of other languages with case morphology as well. For example, Left Dislocated phrases in Hebrew appear in the nominative case as well, regardless of the case of its associate pronoun within the clause.

(i) (*Et) ha-šotrim, ani lo ohevet otam.
ACC the-policemen I not like them
'As for the policemen, I don't like them.'

(216) a. Viktor | ja s nim včera govorila.
Victor.NOM I.NOM with him.INSTR yesterday talked
'Victor, I talked to him yesterday.' [McCoy 1998:233]

b. Čto èto? – Moja novaja kniga.
what this my.NOM new.NOM book.NOM
'What is this?' – 'My new book.'

c. Ty prijdëš, pravda?
you will-come truth.NOM
'You will come, right?'

The third argument in support of the special status of nominative has to do with agreement. It is observed that agreement is generally with a nominative nominal (see Falk 1991:199-207, 1997:6-7, Weerman 1996:6-8, Neeleman and Weerman 1999:63-64). It should be noted here that this observation is restricted to the so-called "single argument agreement" as opposed to "multiple argument agreement" (see Falk 1997:24-28) and does not apply to participial agreement (as in Romance languages; see Neeleman and Weerman 1999:64).

The fourth argument involves case patterns in relative clauses; it is mentioned in Weerman (1996:14-15) and Neeleman and Weerman (1999:68-69). In this construction, there are two case requirements: the requirement of the matrix clause on the case of the noun and the requirement of the embedded clause imposed on the relative operator. In a situation where the two requirements conflict languages differ in the strategy they employ. For example, Russian allows for a mismatch in case between the noun and the relative operator. Other languages require that one case wins over the other. As discussed by Neeleman and Weerman (1999:69), if one of the cases happens to be nominative, it "never overrules any other case, while any case can overrule nominative". There is also an

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However, in languages like English, where case distinctions are preserved only in the pronominal paradigms, the situation is somewhat muddled by the strong/weak pronoun distinction. Thus, in English Left Dislocated phrases (if pronominal) are accusative: *? Him, I've never heard the rumor that Mary likes him.*

additional strategy, which is employed, for example, by colloquial Russian. It allows one to avoid the case mismatch (in some sentences) by deleting – in the phonological sense – the relative operator, which would be marked for case, and pronouncing the complementizer *čto* 'that' instead. However, this strategy is not possible in all relative clauses. Notably, it is possible if the relative operator would be marked nominative, and it is impossible if the relative complementizer is marked dative, instrumental or genitive. Contrary to what is claimed by Pesetsky (1998:369), the speakers I have consulted (and myself as well) do not accept *čto*-relative clauses if the relative operator would be marked accusative. Such sentences are judged severely degraded even compared to *čto*-relative clauses with the relative operator in the nominative (which are perceived as slightly degraded by many speakers as well). These judgments are schematized in (217) below, and the relevant examples are given in (218). The strikethrough symbolizes elements which are not pronounced.

(217) a. … [$_{CP}$ ~~which.NOM~~ that …]

b. * … [$_{CP}$ ~~which.ACC~~ that …] [cf. Pesetsky 1998:369]

c. * … [$_{CP}$ ~~which.DAT~~ that …]

d. * … [$_{CP}$ ~~which.INSTR~~ that …]

(218) a. Ira govorila s mal'čikom, ~~kotoryj~~ čto govorit po-ispanski.
Ira spoke with boy.INSTR ~~which.NOM~~ that speaks Spanish
'Ira spoke with the boy that speaks Spanish.' [Pesetsky 1998:369]

b. * My ne znali o knige, ~~kotoruju~~ čto opublikovala naša firma.
we not knew about book.PREP ~~which.ACC~~ that published our company
intended: 'We didn't know about the book that our company published.'
[Pesetsky 1998:369; judgment mine]

c. * Staryj professor, ~~kotoromu~~ čto ty pomog, ljubit pel'meni.
old professor.NOM ~~which.DAT~~ that you helped likes dumplings
intended: 'The old professor that you helped likes dumplings.'
[Pesetsky 1998:369]

d. * Zavod, ~~kotorym~~ čto on sejčas vladejet, ran'še nazyvalsja
factory.NOM ~~which.INSTR~~ that he now owns formerly was-called
"Krasnyj Oktjabr'".
Red October

intended: 'The factory that he now owns was formerly called *Red October.*' [ibid]

Pesetsky's explanation for the impossibility of not pronouncing the relative operator when it is marked for dative, instrumental or genitive is the non-recoverability of such deletion. Contra Pesetsky's claim the accusative patterns with other non-recoverable cases and not with nominative, which is once again set apart by this construction, further supporting the claim about the special status of the nominative.

The last piece of evidence in support of the special status of the nominative comes from language acquisition and attrition facts. As discussed in Weerman (1996:15-16) and Neeleman and Weerman (1999:69-70), nominative is the first case to appear in first language acquisition. In particular, it is true of child acquisition of Russian; as noted in Slobin (1966:134, 136), the first forms of nouns in acquisition are nominative singular, with accusative and genitive appearing next around 1;11-2;0, and dative and instrumental around 2;0-2;2 (prepositional case is acquired last).[115]

As a mirror image of first language acquisition, where nominative case marking is acquired first, in language attrition, nominative is retained last. According to Polinsky (1996, 1997, 1998), speakers of American Russian lose much of the case system and use nominative forms to replace the lost case forms.[116] Thus,

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[115] Similar order of acquisition of nominative, accusative and dative for Japanese and German are reported in Eisenbeiss (2001).

[116] American Russian is the language of Russian(-speaking) immigrants in the USA who have acquired Russian as their first language but then switched to English as their primary language; most of the American Russian speakers in Polinsky's study came to America as children or young teenagers. American Russian is to be distinguished from Emigré Russian, which is the language of first generation Russian immigrants in the

> ... American Russian develops a two-case system (nominative and accusative). While the nominative becomes the multifunctional case, the accusative is specialized as the case of the indirect object and in some instances is used to encode the direct object. [Polinsky 1996:43, 1997:381]

In particular, speakers of American Russian tend to substitute nominative forms for accusative, genitive, dative or prepositional forms required by selecting prepositions in Full Russian (Polinsky 1996:32, 1997:379-380), as well as instead of accusative forms in the direct object position (especially in the presence of an indirect object).[117] Some illustrative examples are given below:

(219) a. complement of P (from Polinsky 1996:34; cf. Polinsky 379-380)

American Russian:

Moj deduška byl na mirovaja vojna.
my.NOM grandfather.NOM was on world.NOM war.NOM

USA who grew up speaking Russian, came to America as adults, and continue using Russian as their primary language. For a more detailed discussion of the differences between American Russian and Emigré Russian, the reader is referred to Polinsky's studies.

[117] Note also that the American Russian data in Polinsky's study further support the case feature system argued for by Neeleman and Weerman (1999). According to their system, nominative is unmarked, accusative bears the feature [+case] and dative is [+case, +dependent]. Thus, nominative is unmarked with respect to accusative and accusative is unmarked with respect to dative. Polinsky (1996, 1997) describes American Russian data as an Argument Case Shift whereby dative forms are replaced by accusative and accusative forms by nominative. In other words, in American Russian each case form is replaced by the next less marked one. See example (219b) in the main text.

Interestingly, in the historical development of English, the dative forms of pronouns like *him* and *them* replaced the accusative forms (I thank Jonathan Bobaljik and Peter Svenonius for bringing this up to my attention). However, these facts do not necessarily challenge Neeleman and Weerman's proposal, as the diachronic development of English pronoun system was affected by phonological as well as purely morphological factors.

Full Russian:

Moj deduška voeval/byl na mirovoj vojne.
my.NOM grandfather.NOM fought/was on world.PREP war.PREP
'My grandfather fought in World War [II].'

b. direct object of ditransitive verb (from Polinsky 1996:41; 1997:380-381)[118]

American Russian:

Ja pokazyvaju tebja moja sobaka.
I.NOM show.IMPERF.PRES you.ACC my.NOM dog.NOM

Full Russian:

Ja pokažu tebe svoju sobaku.
I.NOM show.PERF.FUT you.DAT self's.ACC dog.ACC
'I am going to show you my dog.'

Polinsky (1995:95-96) notes that loss of case morphology and substitution of nominative for other cases forms is also characteristic of reduced versions of Lithuanian, Polish, and Tamil.

To sum up, evidence outlined above shows that the nominative case has a special status in the grammar. In particular, it is the unmarked form in the nominal paradigms. In

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[118] In addition to the Argument Case Shift, this example illustrates two other phenomena characteristic of American Russian: (i) lexicalization of aspect, and (ii) loss of reflexive. With respect to the lexicalization of aspect, speakers of American Russian use verbal aspect to encode Aktionsart rather than perfectivity (the way Full Russian does). Thus, Polinsky (1996:54, 1997:384) notes that "verbs that do not imply a natural limit, such as processes and states, are lexicalized in the imperfective form"; in (219b) the verb 'show', which does not imply an end-point is used in the imperfective form instead of the perfective form that would be used in Full Russian. With respect to the loss of reflexives, Polinsky (1996:46; cf. Polinsky 1997:384) states that "the possessive reflexive *svoj* is consistently replaced by the regular possessive pronoun of the respective person". In (219b), *svoja* 'self's.F' is replaced by 1st person singular possessive pronoun *moja* 'my.F'.

the next section, I will come back to the question of what allows certain nominals to be unmarked for case (i.e., to be nominative).

4.1.3. Case and Argumenthood

The question of the distribution of case is tightly connected to the issue of the *raison d'être* of case. In this section, I will briefly outline the history of the debate on this matter. In early GB, Case Theory had a number of theory-internal tensions. The first tension arose around the question of the domain of application of the Case Filter – the main principle of the Case Theory at the time. As discussed in section 4.1.1 above, some believed that the Case Filter should apply to all overt nominals regardless of their thematic status, whereas others have seen the Case Filter as applying to only those nominals that are to be assigned a θ-role. Another tension arose from the non-unified analysis of what has been considered as the two structural cases: nominative and accusative. In early GB, nominative was assigned under m-command to the specifier position of a functional head T°, whereas accusative was assigned under c-command (or government) to the complement position of a lexical head V°. Once again, two lines of analysis have been taken to resolve this contrast. The main trend in later GB and Minimalism has been to treat nominative as the prototypical case and to assimilate the analysis of accusative to that of the nominative. Under this approach, accusative (and potentially, other cases as well, e.g., dative) are analyzed as checked (rather than assigned) in the specifier position of a functional head. For example, accusative has been analyzed as checked in the specifier of Agr_OP (Mahajan 1990, Chomsky 1991, 1995:ch.2, among others) or AspP (Travis 1991, 1992, Borer 1994, 1996, among others).[119] An alternative approach is to treat accusative as the prototypical case and associate case in general with lexical rather than functional heads; this approach has been taken by Falk (1997). This approach receives additional support from the claim that nominative has a special

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[119] Ramchand (1997) argues for analysis where accusative (direct case in Scottish Gaelic) is associated with the Spec-VP position governed by Asp°.

morphological status (as discussed in the previous section). This is the position I will adopt in this dissertation.

The two controversies are not unrelated. In the framework where case is associated with functional heads and where its *raison d'être* is to motivate movement (as in *The Minimalist Program*), it is not unreasonable to assume that case is associated with the position where the nominal is to be pronounced, and therefore to treat case as a property of overt nominals regardless of their thematic status, in line with the original interpretation of the Case Filter (see Rouveret and Vergnaud 1980, and Chomsky 1981, up to ch.6). On the other hand, if case is associated with lexical heads, it is not unreasonable to assume that case is related to the thematic status of the nominal, in line with the Visibility Condition of Chomsky (1981, ch.6). Under this approach, nominals need to be case marked in order to be visible to the thematic component.

As mentioned above, I consider the nominative to be the unmarked form. Therefore, the question arises as to what allows certain nominals to be unmarked for case. In this dissertation, I maintain that there are two sets of nominative nominals: (i) those whose nominative is licensed by a certain syntactic configuration, and (ii) those that need not be marked for case at all. The former set of nominatives includes nominative subjects and nominative objects (in languages like Hindi, Finnish, Icelandic, and Old Russian); as for the latter set, I claim in this dissertation that both noun phrases in bare copular sentences (i.e., sentences of the form *DP is DP*) belong to this set.

Consider first those nominative nominals that are said to be licensed by a certain syntactic configuration. The question is what configuration licenses these nominative nominals. There are two approaches to this issue. According to Bittner and Hale (1996), "the distribution of K-less nominals is constrained by a filter that requires ... c-command and government by ... C". This accounts for the tendency of nominative nominals to appear in Spec-TP position. Note though that this analysis is empirically indistinguishable from the classical GB analysis, according to which nominative is a case feature checked in Spec-TP.

However, this approach is inadequate in accounting for the distribution of nominative objects. In particular, there is evidence that nominative objects do not appear in Spec-TP. For example, in Icelandic nominative objects co-occur with oblique subjects, as in the examples below.

(220) a. Barninu batnaði veikin.
the.child.DAT recovered the.disease.NOM
'The child recovered from the disease.' [Smith 1994:678]

b. Henni leiðist Haraldur.
her.DAT is-bored-by Harald.NOM
'She is bored by Harald.' [Maling and Sprouse 1995:177]

As Zaenen and Maling (1982) show, oblique subjects in Icelandic are real Spec-TP subjects (cf. Sigurðsson 1989).[120] Unlike topics, oblique subjects in Icelandic can raise, bind reflexives and appear immediately after a finite verb (for supporting data and further discussion, the reader is referred to Zaenen and Maling's paper). Thus, oblique subjects appear in Spec-TP, whereas nominative objects appear in some other position.[121]

Further evidence for the claim that nominative objects do not appear in Spec-TP comes from agreement patterns in Hindi, which is a split ergative language. In Hindi, the subject can be either ergative or nominative, depending on the tense/aspect of the verb, and the object can be either accusative or nominative (absolutive), depending on the definiteness/specificity of the object. Therefore, there are four possible case patterns for transitive clauses in Hindi.

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[120] It is not true that the so-called "oblique subjects" are cross-linguistically in Spec-IP. For example, this is not the case in German or Russian. For a discussion of "oblique subjects" in Russian and evidence that they are not in Spec-IP position, see Neidle (1988:68-72).

[121] Nominative objects in Icelandic can trigger agreement on the verb but only in number (Taraldsen 1995:214), and are restricted to 3 person. Oblique subjects do not trigger agreement on the finite verb at all.

(221) a. subject.NOM – object.ACC
b. subject.ERG – object.ACC
c. subject.ERG – object.NOM
d. subject.NOM – object.NOM

The pattern that is of interest to us here is the last one, namely, the one where both the subject and the object are nominative. As shown in the example below, in this case the agreement on the finite verb is with the subject rather than the object. Given the normal assumption that agreement on the finite verb is established in Spec-Head configuration, this suggests that in such sentences the subject appears in Spec-TP, and the object appears in some other position.

(222) laṛkiyãã roṭii khaatĩĩ hãi.
girls bread eating be.3.PL
'The girls eat bread.' [Falk 1997:13]

To sum up so far, I have presented some arguments to show that nominative nominals need not appear in Spec-TP. Therefore, the analysis that allows nominative nominals to be licensed in Spec-TP is insufficient. In order to account for nominative objects, Falk (1997) amends the proposal of Bittner and Hale (1996) in such a way as to allow nominative nominals in contexts where accusative would normally be expected. According to his analysis, nominative objects are syntactically accusative, but this marked case is replaced by the unmarked nominative in the discourse component. Additional support for this analysis comes from Old Russian data involving coordinated nominative and accusative objects (in the example below, the case marking on *dom" moj* lit. 'house my' is underdetermined between nominative and accusative due to syncretism in the nominal paradigm).

(223) I tobě bylo v"ěxavši v Kiev" brata moego jati i syna
and you.DAT was.N entered in Kiev brother.**ACC** my.**ACC** to-seize and son.**ACC**
moego i žena moja, i dom" moj vzjati.
my.**ACC** and wife.**NOM** my.**NOM** and house.NOM/ACC my.NOM/ACC to-take
'It was for you, having entered Kiev, to seize my brother, my son and my wife and to take my house.' [Jakab 2001:2]

Note, however, that in the absence of a well defined set of discourse conditions that allow for nominative objects this approach lacks the power to make empirical predictions.

Another approach that has been taken to account for nominative objects is based on the idea that objects can be nominative if there is no other nominative phrase in the clause, in particular, if the subject is either non-nominative (as in the Icelandic examples above and Old Russian example in (224a) below), or absent (as in Old Russian infinitival in (224b) and Finnish imperatives in (225) below).

(224) a. Korolju bylo ta ruxljad' dati.
king.DAT was [that property].NOM give.INF
'It was necessary for the king to give back that property.' [Babby 1991:40]

b. Po kotoroj reke plyt', ta i voda pit'.
on which river float.INF this.NOM EMPH water.NOM drink.INF
'You have to drink the water in the river you're swimming in.' [ibid]

(225) a. Syö kala!
eat.IMPER fish.NOM
'Eat fish!' [Falk 1997:17]

b. Maija söi kala- n.
Maija.NOM ate fish- ACC
'Maija ate fish.' [ibid]

This idea has been developed in the "dependent case" analysis of Marantz (1992/2000), the "case in tiers" analysis of Maling (1993) and "case competition" analysis of Nelson

(1998). According to all of these analyses, nominative non-subjects (e.g., nominative objects) are dependent on the absence of a nominative co-argument, usually subject).

However, none of these analyses can account for the NOM-NOM pattern in copular sentences.[122] The analyses that restrict nominative nominals to the Spec-TP position (as in Bittner and Hale 1996, Falk 1997) predict that nominals in post-copular positions should be case-marked. The only possible exception is an analysis that allows both nominative noun phrases to appear in multiple Spec-TP positions (at some level of representation). Such an account is argued for by Bailyn and Citko (1999); however, as discussed below in section 4.2.2, this analysis has serious drawbacks.

Turning to the alternative approach that allows nominative non-subjects in the absence of a nominative subject (cf. Marantz 1992/2000, Maling 1993, Nelson 1998), this approach predicts post-copular noun phrases to be non-nominative as well since these elements co-occur with nominative subjects/pre-copular elements. This prediction accounts only for half the facts: it accounts for languages in which nominals in post-copular positions are marked with non-nominative morphology. However, within this framework it is unexpected to find a cross-linguistic tendency for nominative nominals in post-copular positions. This goes against the facts: as noted in Comrie (1997:39), "in many languages, the subject of a copular clause stands in the nominative case, and so does the nominal predicate". With respect to Russian, instrumental post-copular phrases are expected in this framework, but not nominative ones.

This brings me back to the second set of nominative nominals, mentioned above, namely, those nominals that need not be marked with case at all, and therefore appear with the default morphological marking (i.e., the nominative). As has been mentioned in section 4.1.2 above, nominals that appear outside of any syntactic context that would require a particular case marking appear as nominatives. For instance, this is true of Left Dislocations, tag questions (*pravda?* 'truth?'), and possibly also vocatives and

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[122] Note also that these analyses have nothing to say about the NOM-NOM pattern in Hindi sentences, as in (221d) in the main text. I have no account of these sentences either.

XP-utterances. In this dissertation, I will argue that this is also true of both pre- and post-copular phrases in bare copular sentences, namely, sentences of the form *DP is DP*. The idea is that only those nominals that function as arguments need to be marked with case. This idea is reminiscent of the Visibility Condition of Chomsky (1981, ch.6). As discussed in chapter 3 above, in bare copular neither the pre-copular phrase nor the post-copular phrase is an argument; therefore, neither phrase needs to be marked with case, and both appear as nominatives.

Let us now consider this Visibility approach to (some) nominative nominals in more detail. According to this approach, the *raison d'être* of case is to make arguments visible for thematic interpretation, or in other words, to identify arguments in some overt way. This approach which relates case marking with semantic roles of nominals pre-dates Chomsky's theory and goes back to antiquity. For example, Greek and Latin grammarians thought that cases correspond to such functions as direct and indirect object, and so on. Panini's *karaka* theory (discussed in Blake 1994:65-67) related Sanskrit cases to "semantic relations holding between nouns and verb", including object, instrument, destination, source, and locus. The same idea has figured prominently in various modern theories. For example, Fillmore (1968) maintained that there is connection between "underlying syntactic-semantic relationships" – which he called "cases" – and overt case marking. Likewise, Anderson's (1977) Localist Case Grammar and Starosta's (1971, 1988) Lexicase model sought to find connections between semantic roles and case marking. The same idea is found in Chomsky's Visibility Condition, as discussed above.

It should be noted here that a theory that seeks to establish a one-to-one correspondence between semantic roles and case marking fails in the face of facts.[123] As is well known, the same case marking can appear on nominals that bear different semantic roles. For example, in Russian Agents (usually with modal meaning), Experiencers, Goals, Benefactives, and Possessors can be all marked with dative case, as illustrated below:

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[123] This is even more true if we allow for doubly θ-marked phrases. See fn. 79.

(226) a. Bez tebja mne, ljubimyj moj, letet' s odnim krylom.
without you me.DAT beloved my fly.INF with one wing
'Without you, my beloved, I will fly with one wing.' [Pugacheva; song]

b. Maše xolodno.
Masha.DAT cold
'Masha is cold.' (lit. 'To Masha cold.')

c. Ivan poslal Maše pis'mo.
Ivan.NOM sent Masha.DAT letter.ACC
'Ivan sent Masha a letter.'

d. Ivan spek Maše tortik.
Ivan.NOM baked Masha.DAT small-cake.ACC
'Ivan baked a small cake for Masha.'

e. Ivan slomal Maše časy.
Ivan.NOM broke Masha.DAT watch.ACC
'Ivan broke Masha's watch.'

Therefore, a theory which relates semantic roles and case marking has to be limited to imperfect correspondences. In a more abstract view, case marking does not indicate specific semantic roles; in other words, case marking does not encode thematic indices (in the terminology adopted in section 3.2.2.1 above). Rather, case marking indicates that the nominal is to be interpreted as having some θ-role (as will be discussed below, I will adopt the view that case marks nominals which are arguments whether or not they are θ-marked). Within recent generative frameworks, this approach is taken by Falk (1997) and Neeleman and Weerman (1999). For the former, case identifies arguments at PF, and for the latter it identifies arguments in the syntax proper.[124]

The approach relating case marking to thematic status of the nominal becomes particularly attractive in light of the following two claims: (i) that Theta Theory applies at

LF, and (ii) that thematic assignment is "flexible", that is, the same θ-role can be associated with a nominal in different structural positions. These points have been established in the previous chapters: in section 3.1, I have argued for locating Theta Theory at LF; in section 3.2.1 we have seen evidence that the phrase interpreted as Embodiment can appear in either Spec-VP (with stative intransitive verbs) or Spec-vP (with adjectival and nominal predicates). For a further discussion of "flexibility of syntax", the reader is referred to Neeleman and Weerman (1999). Within their framework, the mapping procedure "by which constituents ... can be associated with semantic functions ... must refer to functional markers present on arguments, that is, to case. Crucially, it cannot refer to fixed structural argument positions", which Neeleman and Weerman argue not to exist at all (Neeleman and Weerman 1999:3).[125] To recap, case is a marker of arguments in the syntax. According to the definition of arguments adopted in section 3.1, an argument is a constituent which is a complement or a specifier to a lexical head. Thus, it can be said that case-marked (i.e., non-nominative) nominals are selected by lexical heads, whereas nominatives need not be selected by lexical heads.

To sum up so far, I maintain that nominals appear as nominatives either if they appear in a particular structural configuration (as with nominative subjects and nominative objects, see the discussion above) or if they are not arguments. In other words, this approach predicts that, everything else being equal, post-copular nominals should have nominative case marking. But, as will be discussed in detail below, things are seldom truly equal, and thus some post-copular nominals are treated on a par with argument nominals in that they are marked for case.

In the remainder of this chapter, I will show that this approach to case marking in general and the nominative case in particular allows us to account for the distribution of case marking in Russian copular sentences. Before I proceed, I wish to note that even

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[124] Note that if case is taken to be a PF property, only overt nominals are expected to be case-marked, more in line with the original formulation of the Case Filter.

[125] Neeleman and Weerman (1999:7-8) assume the existence of two ways of licensing arguments: either the argument is functionally marked (i.e., case-marking) or the predicate is (i.e., agreement-marking).

though this approach to case as a marker of syntactic argumenthood is not adopted in the classical Minimalist theory (cf. Chomsky 1995), it is not in any contradiction with the basic tenets of Minimalism. Moreover, it is possible to incorporate this approach into the Minimalist reasoning about language. For instance, the idea that case marking is a way of identifying arguments in syntax is found in Martin (1999:17-18), who proposes that the existence of [–Interpretable] features such as Case is motivated by the needs of bare output conditions. According to him, "Case exists in the grammar to serve as the necessary label to make sets of +Interpretable features formally distinct". In other words, "bare output conditions demand that the +Interpretable features of arguments in the same domain be formally distinguishable at LF, and it is Case that provides that solution".

4.2. Case Marking in Copular Sentences

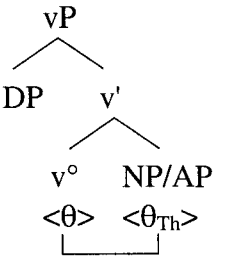
So far, I have assumed that rich copular sentences in Russian are distinguishable from bare copular sentences by the instrumental vs. nominative case marking on the post-copular phrase. In section 2.1.2.2, I have shown that instrumental post-copular phrases have no position for D°; in other words, they are always NPs and not DPs. In this section, I will address the question of why the post-copular phrase in a rich copular sentence has instrumental case marking, whereas the post-copular phrase in a bare copular sentence is marked nominative.

Note that, given the assumptions about the relation of case and argumenthood (discussed in the previous section), this distribution of case marking goes against one's immediate expectations: since DPs are referential expressions, which NPs are not (as discussed above in section 2.1.1), one would expect DPs to be argumental and therefore marked with (non-nominative) case, and NPs to be predicative and not marked with case (i.e., appear with nominative case marking). However, the actual facts are exactly the opposite: post-copular DPs in bare copular sentences appear with nominative case marking, whereas post-copular NPs in rich copular sentences appear with non-nominative (i.e., instrumental) case marking. Thus, the goal of this section is to show that, regardless of their referential status, DPs in bare copular sentences are not argumental (in the relevant sense), whereas NPs are argumental.

4.2.1. Rich Copular Sentences

The goal of this section is to answer the question of why the post-copular phrase in rich copular sentences is marked instrumental. This question can be subdivided into two halves: (i) why the post-copular NP is marked for (non-nominative) case at all; and (ii) why this case is realized morphologically as instrumental. Let us start with the first half of the question. Recall from the previous chapters that I have proposed the following structure for rich copular sentences in Russian:

(227)



In this structure, the post-copular NP (or AP) is a complement of v°, which in its turn hosts the copula verb *byt'* 'be' in Russian.[126] The subject of the copular sentence is generated in the Spec-vP, where it is θ-marked by v°. Recall further that I have argued that the thematic positions of v° and NP undergo the process of θ-identification by which the thematic index of NP's thematic position is transferred to the thematic position of v°, thus creating the impression of v° helping the NP to discharge its Embodiment position to the subject DP. Finally, recall from section 3.1 that I proposed the following definition of an argument:

(228) An ARGUMENT is an element in a complement or a specifier position of a lexical head.

According to this definition the post-copular NP is an argument of v° since it is a complement of a lexical head. Being an argument, the post-copular NP must be marked with case. Furthermore, the post-copular NP is not in a position where it can have

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[126] I assume that in Italian v° is null and the copula verb *essere* 'be' appears in a higher auxiliary-like node. Whether or not the copula verb appears in v° is irrelevant for the current discussion.

structural nominative case (see discussion in section 4.1.3 above). This explains why it is not nominative.

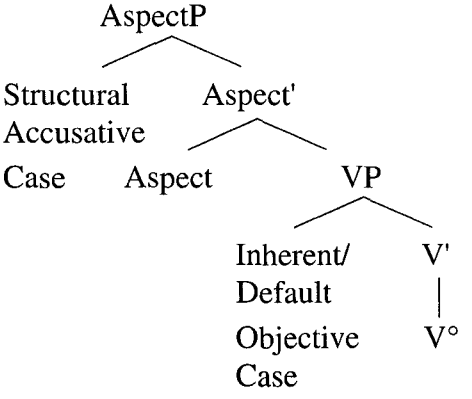
Now consider the second half of the question, namely, why the case marking on the post-copular NP is instrumental rather than, say, accusative, dative, or genitive. One possible answer would be to treat the choice of case marking as an idiosyncratic property of the given item. This is in fact the approach taken by Bailyn and Rubin (1991), according to whom the functional Pred° assigns instrumental case when it is phonetically null. In their analysis, Pred° is a functional head (they do not assume that only lexical heads can assign θ-roles or case, as I do in this dissertation). Therefore, they cannot relate instrumental case marking by Pred° to any other instrumental case marking, for example, by verbs. In this dissertation, I have proposed that the instrumental case marking on the post-copular NP originates with the v°, which is a verb, albeit a deficient one. Therefore, it would be nice to find a parallelism between the instrumental case marking by v° and instrumental case marking by other verbs in the language. In what follows, I will propose that the two kinds of instrumental case marking can, in fact, be seen as closely similar.

4.2.1.1. Case marking on internal arguments of verbs

Consider first the case marking by verbs of their internal arguments. In Pereltsvaig (2000), I have argued that there are three types of case for internal arguments of verbs: (i) Structural Accusative Case, (ii) Default Objective Case, and (iii) Inherent Case. The morphological realization of these cases is determined as follows. The Structural Accusative Case is realized cross-linguistically as accusative. The morphological realization of the Default Objective Case is determined on language-by-language basis; for instance, in Russian it is realized as accusative (i.e., non-distinct morphologically from the Structural Accusative Case), whereas in Finnish it is realized as partitive (i.e., distinct from the Structural Accusative Case). Finally, the morphological realization of the Inherent Case is determined by the lexical idiosyncratic properties of a particular predicate; in Russian, inherent case marking includes genitive, dative and instrumental (but see the discussion below). In Pereltsvaig (2000), I proposed to associate these three kinds of cases with two structural positions. Structural Accusative Case is associated with

the Spec-AspP, where the relevant kind of aspect is the so-called inner aspect (cf. Verkuyl 1972, 1993, Travis 1992; this kind of aspect is also known as lexical aspect – cf. Dahl 1985, Arad 1998, Cinque 1999 – or situation aspect, cf. Smith 1991), as opposed to the outer aspect (also known as grammatical aspect or viewpoint aspect). In contrast, both Default Objective Case and Inherent Case are associated with the Spec-VP, the position which is θ-marked as Theme.[127] This is schematized below:

(229)



[Pereltsvaig 2000:162]

Note that under this analysis, the nominal appearing in Spec-AspP is an argument, which means that (under the assumptions made in this dissertation) Asp° is a lexical head. This is, however, not implausible since the projection of Inner Aspect (i.e., the AspP) is "sandwiched" between two lexical projections: vP and VP. According to the Proper Head

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[127] The claim that (Structural) Accusative Case is related to (Inner) Aspect (i.e., Aktionsart) may be supported by data from American Russian (see fn. 116 and Pereltsvaig to appear, b). According to Polinsky's (1996, 1997) study, American Russian exhibits two interesting phenomena: (i) lexicalization of aspect, and (ii) loss of accusative case. On the one hand, American Russian uses the morphological distinction between perfective and imperfective verbs to encode Aktionsart rather than perfectivity (as in Full Russian). For instance, "verbs of achievement and accomplishment are clearly favored in the perfective form" (Polinsky 1996:53, 1997:384), whereas "verbs that do not imply a natural limit, such as processes and states, are lexicalized in the imperfective form" (Polinsky 1996:54, 1997:384). On the other hand, American Russian exhibits a loss of accusative case marking on direct objects of verbs. Note further that it is not the case that this loss of accusative is a purely morphological phenomenon, since accusative forms are retained and are used instead of dative forms on indirect objects of ditransitive verbs. At this point, there is no solid evidence that the lexicalization of aspect and the loss of accusative case are indeed related, so I will leave this as a conjecture and a hypothesis to be further researched (see Pereltsvaig to appear, b).

Movement Generalization (Li 1990), it is impossible to move a lexical category into a functional category and then back into a lexical category. Since movement from V° to Asp° to v° is attested, it must be the case that Asp° is not a functional category. This, in turn, means that a noun phrase generated in Spec-VP and moved into Spec-AspP is an argument of both the V° and the Asp°. Note that this type of multiple argumenthood is allowed by the revised Theta Criterion, as discussed in section 3.1.2 above. To recap, I propose that in addition to participant arguments (Agent, Theme, etc.) and the Event argument, verbs may have a Measure argument. This latter argument is canonically associated with the Spec-AspP position in the syntactic structure. The full consideration of the consequences of this proposal goes far beyond the scope of this dissertation, I will leave it for future research.

Going back to the structure in (229) above, note further that the reason for associating both the Inherent and the Default Objective Cases with the same structural position is that nominals specified for both kinds of case have the same θ-roles. However, if we assume a flexible theory of thematic assignment (as in Neeleman and Weerman 1999, and as assumed in this dissertation), there is no reason for associating both the Default Objective Case and the Inherent Case with the same structural position. In fact, it is possible to associate the Default Objective Case with the Spec-VP and the Inherent Case with the complement of V° position. Under this analysis, the verb can θ-mark both its specifier and its complement position as Theme.[128] Furthermore, a distinction is drawn between structural and inherent cases in terms of syntactic configurations: structural cases are associated with specifier positions, and inherent cases with complement positions (or either V° or P°). The revised structure is schematized below:

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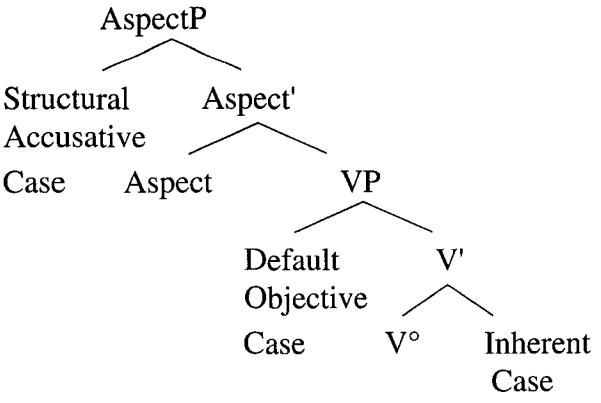
[128] It is also possible that nominals marked with Default Objective Case and those marked with Inherent Case have different θ-roles. However, I will not explore this possibility here.

(230)



This structure is supported by the possibility of having three nominal elements, one for each of the three Case positions.[129]

(231) On ves' večer veselil gostej svoimi šutkami.
he.NOM [all evening].ACC entertained guests.ACC [own jokes].INSTR
'He entertained the guests with his jokes all evening.'

Consider now the question of what determines which position a given nominal appears in and therefore which case it receives. In Pereltsvaig (2000), I have claimed that a direct object moves into the Spec-AspP position if and only if it has appropriate aspectual features, in particular, the [+Bounded] feature of Kiparsky (1998). In order for an object DP to be licensed in the Spec-AspP, both the DP and the verb (i.e., Asp°) have to be [+B(ounded)].[130] According to Kiparsky's (1998:284) definitions, post-copular NPs in rich copular sentences are unbounded (as are all bare NPs); therefore, we do not expect them to be assigned Structural Accusative Case. Note further that both the Structural Accusative Case and the Default Objective Case are associated with specifier positions, whereas the Inherent Case is associated with the complement position. Since the post-copular NP is not a specifier of v° but rather its complement, we do not expect it to be associated with either the Structural Accusative Case or the Default Objective Case.

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[129] Note that word order is not to be taken as indicative of the structure, since Russian word order is affected by pragmatic considerations.

[130] For a more detailed discussion, see Kiparsky (1998:280-288) and Pereltsvaig (2000).

Therefore, accusative case marking is excluded from the range of possible case markings for a post-copular NP.

The only other possibility is that the post-copular NP is marked with an Inherent Case. Still, there are three possible morphological realizations of Inherent Case in Russian: genitive, dative and instrumental. Here, I would like to argue that the choice of one of the three inherent case markings is not as arbitrary as is usually assumed. In this, my analysis will differ crucially from that of Bailyn and Rubin (1991). Instead, I will show that both genitive and dative are excluded from the range of possible case marking for the post-copular phrase in rich copular sentences. Therefore, it must be instrumental case that appears on such phrases.

4.2.1.2. Inherent case marking in Russian

It is traditionally assumed that inherent cases are idiosyncratic. However, it has also been noted (especially by Blauvelt 1980) that there are regularities in the case assigning possibilities for different verbs.

Consider dative case first. Some examples of verbs that take dative complements from Fowler (1996:523) are given below (aspectual pairs are given in the order imperfective / perfective):

(232)

blagoprijatstvovat' 'favor'	*zavidovat'* 'envy'
verit' / poverit' 'believe, trust'	*pomogat' / pomoč* 'help'
vnimat' / vnjat' 'heed'	*potakat'* 'indulge'
vozražat' / vozrazit' 'object'	*predšestvovat'* 'precede'
vredit' 'injure'	*prinadležat'* 'belong to'
vtorit' 'echo, repeat'	*protivorečit'* 'contradict'
grozit' / prigrozit' 'threaten'	*soputsvovat'* 'accompany'
dosaždat' / dosadit' 'annoy, vex'	*sočuvstvovat'* 'sympathize'

Both Blauvelt (1980) and Fowler (1996) note that dative-complement verbs have two distinguishing properties. First, dative-complement verbs do not passivize (unlike verbs that take instrumental or genitive oblique complements); see Fowler (1996). Thus, it has been proposed that dative arguments of such verbs do not occupy the same syntactic position as instrumental, accusative or genitive arguments. There is no agreement in the literature as to whether dative arguments are higher or lower than instrumental, accusative and genitive arguments. For example, Franks (1995) proposed that dative arguments are higher than other arguments, whereas Bailyn (1995) argued that dative arguments are lower than other arguments. In Pereltsvaig (to appear, b) I discuss this issue and decide in favor of the former approach, namely the one that takes dative arguments to be merged higher than the other arguments.

Second, dative complements have the meaning of Goal/Affectee.[131] Thus many dative-complement verbs (and only such verbs) can be paraphrased by a combination of a ditransitive verb and a noun corresponding to the root of the dative-selecting verb. For example, *doverjat'* 'trust' can be paraphrased with *okazat' doverie*, literally 'render trust'. Similarly, *navredit'* 'harm' can be paraphrased by *nanesti vred* 'bring harm', and *pomogat'* 'help' can be paraphrased by *okazat' pomošč* 'render help'. Examples of these paraphrases are given below.

(233) a. Im možno doverjat'.
them.DAT possible trust.INF
'They can be trusted.'

---

[131] Note that there has been a shift in case selection in the last 100 years or so. For example, the verb *blagodarit'* 'thank' "is often found with the dative case in nineteenth-century literature; in the current usage only the accusative is standard" (Comrie and Stone 1978:103). Conversely, the verb *l'stit'* 'flatter' switched from accusative objects (which can still be observed in the semi-idiomatic (ia)) to dative objects as in (ib); cf. Comrie and Stone (1978:105).

(i) a. l'stit' sebja nadeždoj
flatter self.ACC hope.INSTR
'flatter oneself with hope'

b. l'stit' Maše
flatter Masha.DAT
'flatter Masha'

b. Im možno okazyvat' doverie.
them.DAT possible render.INF trust.ACC
'They can be trusted.'

(234) a. Ne navredi, čelovek, ni berëze, ni morju ...
not harm.IMPER man not birch-tree.DAT not sea.DAT
'Do not harm, man, either a birch tree or the sea...'
[Rozhdestvensky, cited in Zolotova 1988:128]

b. Ne nanesi vred, čelovek, ni berëze, ni morju...
not bring harm.ACC man not birch-tree.DAT not sea.DAT
'Do not bring harm, man, to either a birch tree or the sea...'

(235) a. Krasnyj Krest pomogaet postradavšim ot zemletrjasenija.
Red Cross helps victims.DAT from earthquake.GEN
'The Red Cross helps earthquake victims.'

b. Krasnyj Krest okazyvaet pomošč postradavšim ot zemletrjasenija.
Red Cross renders help.ACC victims.DAT from earthquake.GEN
'The Red Cross renders help to earthquake victims.'

Since the post-copular NP in rich copular sentences is not a Goal/Affectee complement, it is not surprising that it does not appear with the dative case marking.

Let us now consider the so-called inherent genitive case. As discussed in Neidle (1982:400), some verbs – including *xotet'* 'want', *ždat'* 'wait', *iskat'* 'look for', *prosit'* 'ask for', *trebovat'* 'demand', and several others – take genitive objects optionally, while other verbs – including *dobivat'sja* 'achieve', *dostigat'/dostignut'* 'attain, reach.IMPERF/PERF', *želat'* 'wish', *dožidat'sja* 'wait for', and several others – do so obligatorily.[132] Examples illustrating verbs from the two classes are given below:

---

[132] Comrie and Stone (1978:103) note that verbs *bojat'sja* 'fear' and *doždat'sja* 'wait for' are often attested with accusative objects in colloquial Russian (the latter only with animate objects). This is part of a more general shift from inherent case marking on verbal complements to either accusative or PP complements,

(236) a. OPTIONAL GENITIVE

Andrej xočet supa / sup.

Andrew wants soup.GEN / soup.ACC

'Andrew wants some soup / the soup.'

b. OBLIGATORY GENITIVE

Pust' grjaduščie pokolenija dostignut sčastja / * sčastje.

Let future generations attain happiness.GEN / * happiness.ACC

'Let future generations attain happiness.' [Chekhov, cited in Zolotova 1988:35]

Following the ideas in Quine (1960:219-222), Neidle maintains that when an object is marked with genitive, it has a certain "quantificational force", unavailable for accusative objects. Furthermore, "intentional objects" of Quine (1960) always appear in the genitive case. This correlation between quantificational force and the choice of the genitive as opposed to the accusative is expressed in Neidle's analysis through the following two annotations (her analysis is set in the LFG framework):

(237) Assign to ... $(\uparrow OBJ) = \downarrow$ ...

the annotation $\left\{ \begin{array}{l} (\downarrow Case) = (-, \alpha, +) \\ (\uparrow Q) =_c \alpha \end{array} \right\}$

where both occurrences of α must have the same value. [Neidle 1982:400]

---

which "has operated, slowly, throughout the history of Russian and other Slavonic languages" (Comrie and Stone 1978:105). But see also fn. **Error! Bookmark not defined.**.

Neidle assumes the following 8-case system based on three binary features, as developed by Jakobson (1958/71).[133]

Table 7. Jakobson/Neidle case system for Russian
(from Neidle 1982:397; see also Blake 1994:40-42)

	[±M(arginal)]	[±Q(uantifying)]	[±A(scriptive)]
Nominative	–	–	–
Accusative	–	–	+
Genitive I	–	+	+
Genitive II	–	+	–
Locative II	+	+	–
Locative I	+	+	+
Dative	+	–	+
Instrumental	+	–	–

The annotations in (237) above encode that the case of the object depends on its quantificational force. The accusative case is characterized as [–M, –Q, +A] (or (–, –, +) in Neidle's notation), and the genitive I is characterized as [–M, +Q, +A] (or (–, +, +) in

---

[133] Genitive II is a special *u*-form of the genitive case (considered a separate case – usually called partitive – by some authors and a variation of the genitive by others) available for certain masculine nouns, such as *syr* 'cheese', *tabak* 'tobacco', *kon'jak* 'brandy', *čaj* 'tea' and certain others. It is somewhat archaic, its use has been decreasing dramatically since 1900s, and many (younger) speakers have no stable intuitions about it. Several studies also report discrepancies in frequencies between spontaneous production, on the one hand, and elicited production and judgment tasks, on the other hand (the frequency of Genitive II is much higher in the former than in the latter); see Comrie and Stone (1978:88, 104), Paus (1994), and the references cited therein.

Locative II refers to the special *u*-forms of certain masculine nouns selected by prepositions like *v* 'in' and *na* 'on/at', as opposed to the regular *e*-forms (e.g., *v lesu* 'in the woods', cf. *o lese* 'about the woods'). See Comrie and Stone (1978:89) and fn. 142 below.

Neidle's notation). The value relevant for determining the quantificational force is that of the [±Q] feature. Therefore, the notation in Neidle's formula means that an object DP whose quantificational force is "+" is genitive, whereas an object whose quantificational force is "–" is accusative.

There are certain problems with Neidle's (1982) analysis as formulated; however, the main generalization – that inherent genitive is related to quantificational force – appears to be on the right track.[134] This generalization has been further explored in Pesetsky (1982) and Pereltsvaig (1998b), where the analysis has been extended to other instances of non-canonical (i.e., non-adnominal) genitives, including partitive genitive, large quantity genitive, non-argument bare genitive, and the genitive of negation. The main idea of this analysis is that in all cases of apparently non-adnominal genitives, the genitive is assigned by a phonetically null quantifier, which is in its turn assigned accusative by the verb in the usual way. In other words, verbs never assign "inherent genitive". The existence of a null quantifier accounts for the above-mentioned generalization that non-canonical genitives (including the so-called "inherent genitive") correlate with quantificational force.

Going back to the rich copular sentences, it does not come as a surprise that the post-copular NP in these sentences does not appear in the genitive. The post-copular NP is a complement of a verb. Crucially, if there were a phonetically null quantifier in the post-copular phrase, being a kind of D°, it would bind the Embodiment position of the NP. This, in turn, would block θ-identification and make the structure uninterpretable due to the lack of thematic index associated with the v°'s thematic variable.

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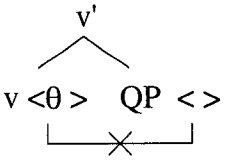
[134] The only exception to the correlation between quantificational force and genitive case marking is the verb *kasat'sja* 'touch', which obligatorily takes a genitive object even when no quantificational force is present. I know of no account for this phenomenon. Note, however, that in the 19th century this verb "also occurred with the preposition *do* ['up to'] (and less commonly with *k* ['toward'], or with a prepositionless dative)" (Comrie and Stone 1978:105).

(238) *



Blauvelt (1980) also notes that in additional to verbs with intensional meaning, the genitive-complement class of verbs includes some verbs that used to take ablative case in earlier stages of the language. These verbs have a meaning of removal or approach. Clearly, the copula in rich copular sentences does not fit this group.

To recap, we have seen that post-copular phrases in Russian do not fit with either dative or genitive complements. Thus, instrumental case marking is the only option left.

4.2.1.3. Instrumental case in Russian as inherent case

> The instrumental case is for contemporary grammarians the source of great anxiety.
>
> – Vinogradov, *Russkij Jazyk*

Consider first the kinds of verbs that select instrumental complements in Russian. The most striking fact about these verbs is that they do not belong to a unique semantic class in the same way that verbs that take genitive or dative complements do. In addition to copula-like verbs (for examples, see Appendix B), verbs that take instrumental complements include verbs of the following classes (for a list of verbs and examples see Appendix C):

(239) verbs of management and control
verbs of interest
verbs of possession
verbs of acquiring possession
verbs of transferring possession
verbs of exchange
verbs of changing the object of possession
verbs of smell and light emission (cf. Levin and Rappoport Hovav 1995:91)

verbs of body-internal motion with no change of state (cf. Levin and Rappoport Hovav 1995:226-227)

verbs of illness and suffering

verbs of filling

verbs of explanation

verbs of emotional treatment

frighten-type psych verbs

It appears then that instrumental is the "elsewhere" case marking for complements that get inherent case. The idea that instrumental case marking is somehow the default in Russian has been put forward before. For example, Jakobson (1958/1971) has developed a theory of case features in which the instrumental is the second most unmarked case after nominative. As shown in Table 7 above, the nominative is specified as [–M, –Q, –A], whereas instrumental is specified as [+M, –Q, –A]. Thus, in Jakobson's system, the difference between nominative and instrumental is only in the [±M] feature. Jakobson uses this property of his case system to account for a number of contexts where nominative and instrumental appear to alternate. In addition to the post-copular position, in the center of research in this dissertation, such contexts include (i) Agents (which are nominative in actives and instrumental in passives), as in (240), and (ii) the so-called weather-subjects in impersonal sentences (which are nominative if the subject is construed as agentive and instrumental if the subject is construed as non-agentive), as in (241); for a further discussion of the latter construction, see Salnikov (1977), Green (1980), Babby (1994), Soschen (2000), and the references cited therein.

(240) a. Glavnyj arxitektor podpisyvaet projekt.
chief.NOM architect.NOM sign.3.SG project.ACC
'The chief architect signs the project.' [Zolotova 1988:235]

b. Projekt podpisyvaetsja glavnym arxitektorom.
project.NOM sign.PASS chief.INSTR architect.INSTR
'The project is signed by the chief architect.' [ibid]

(241) a. Veter sorval kryšu.
wind.NOM tore-off roof.ACC
'The wind tore off the roof.' [Zolotova 1988:234]

b. Vetrom sorvalo kryšu.
wind.INSTR tore-off roof.ACC
'The roof was torn off by the wind.' [ibid]

To recap, Jakobson treated instrumental as the second unmarked case after nominative. Note, however, that in his system (see Table 7 above) there are three cases that can be seen as the second unmarked case after nominative; these cases include accusative and genitive II in addition to the instrumental (and it is hard to see why genitive II is to be considered relatively unmarked).

A similar idea is entertained by Kilby (1986), who proposes to treat instrumental case marking in Russian as the case for all the "leftovers" that can not be classified into well defined semantic classes which are assigned other case markings. The same idea is developed in the framework of Relational Grammar (RG; see Channon 1987, Fowler 1987, 1988, 1997). According to these analyses, Instrumental case in Russian is related to the notion of Chômeur. In RG, Chômeur is not a unified notion: an element with any grammatical function can become a Chômeur. For example, a *by*-phrase in passives is a 1-Chômeur (i.e., Subject turned Chômeur), whereas the second DP in a double object construction (e.g., *a falafel* in *I gave a hamster a falafel*) is a 2-Chômeur (i.e., a Direct Object turned Chômeur). Moreover, RG relates morphological case marking and the choice of prepositions to the grammatical function of the element at the final stratum; for example, in English, 3 (i.e., Indirect Object) is marked by the preposition *to*. Therefore, the claim that Russian Instrumental is a case marking of Chômeurs is equivalent to saying that Instrumental marks everything that is not a Subject, a Direct Object, or an Indirect Object at the final stratum.

Even though I do not adopt the view that all instrumental case marking is to be treated as "elsewhere case", I agree that instrumental is the "leftover" case marking among inherent cases in Russian. This claim is not incompatible with the idea that

accusative is the second most unmarked structural case after nominative (note that this idea is further supported by the facts concerning Argument Case Shift in American Russian; see fn. 117).

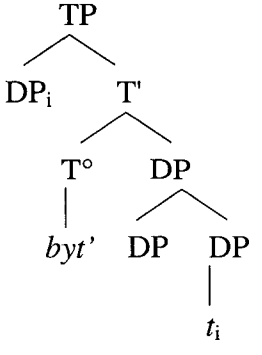
Going back to rich copular sentences, the post-copular NP here is a complement of v° but it does not fit into the lexico-semantic classes of verbs which take genitive and dative complements ("quantitative or intentional objects" and "Goals/Affectees", respectively). Therefore, it appears with the "leftover" inherent case marking, that is, the instrumental.

Crucially, since the copula verb *byt'* 'be' is taken to be an instance of v°, rather than a functional head Pred° (as in Bailyn and Rubin's 1991 analysis), it is possible to draw a parallel between its case assigning properties and those of other verbs that assign inherent cases. Thus, the instrumental case marking on the post-copular NP is not completely unexpected, but rather follows a more general patterns of inherent case assignment in the language. To sum up, under the analysis developed in this dissertation, there is no need for special stipulations about the case assigning properties of the head responsible for the instrumental case marking of the post-copular NP in rich copular sentences. In the next section, I will show that the other special stipulation of Bailyn and Rubin's (1991) analysis – the Rule A – or more widely adopted notion of "case agreement" is not necessary either.

4.2.2. Bare Copular Sentences

So far, I have argued that bare copular sentences have the following structure:

(242)



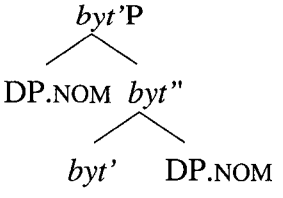
The crucial point about this structure is that the two DPs (the pre-copular and the post-copular ones) are merged in a symmetrical structure, which is itself a complement of a functional head hosting *byt'* 'be'. Furthermore, I have proposed a definition of argumenthood according to which an argument is an element in a specifier or complement position of a lexical head. Importantly, functional heads do not take arguments (in other words, their specifiers and complements are not arguments). Additionally, I have adopted a Case Theory in which case is taken to be a marker of argumenthood in overt syntax. According to this approach, non-arguments need not be (and in fact, are not) marked for case, and as a result they come out of the morphological component as nominatives.

With these assumptions in mind, it is very easy to see how case marking in bare copular sentences is accounted for. In essence, the account reduces to the following: since non-nominative noun phrases must be selected by lexical heads, noun phrases which are not selected by a lexical head (i.e., non-argument noun phrases) must be nominative. In other words, the lack of need for case is the result of the non-argument status of a given noun phrase.

4.2.2.1. Against the "agreement in case" analysis

In this section, I will compare the analysis developed in this dissertation to its alternative, widely accepted in the literature (Bailyn and Rubin 1991 is just one example). Under this alternative analysis, bare copular sentences (i.e., copular sentences with the NOM-NOM pattern) have a normal transitive structure. The copula in such sentences is a transitive predicate that takes two arguments (it is irrelevant for the argument at hand whether *byt'* 'be' is said to be a functional or lexical head, given that such approaches do not assume the definition of lexical heads as the only argument-taking categories, as is in fact assumed in this dissertation):

(243)



Under this approach, *byt'* 'be' in the NOM-NOM copular sentences is an identity copula distinct from the predicative copula (in the NOM-INSTR sentences). As such, it forms a distinct lexical item with special semantics. Essentially, the proponents of this approach assume (or explicitly argue for) the "identity *be*" analysis of the semantics of such sentences, as discussed in section 3.3.1 above. Crucially, since identity *be* has distinct semantics from that of the predicative *be*, there is no way to avoid proliferating the lexical entries for the copula, which in itself is a severe drawback of such analyses. In what follows, I argue that this alternative approach is also inferior to the one developed in this dissertation in terms of accounting for the case marking phenomena.

The first point to be noted is that the alternative approach treats both nominative DPs in bare copular sentences as arguments of the copula. As mentioned in section 3.3.1 above, the meaning of the copula is said to be imposing equation between the two arguments of the copula. Some analyses (e.g., Rapoport 1987) entertain the possibility that the copula assigns θ-roles to both DPs (although the nature of these θ-roles is often left imprecise). Under this assumption, it is impossible to maintain the other two assumptions I have argued for in this chapter, namely that (i) nominative has a special status, and (ii) that case correlates with argumenthood. As a result, the proponents of this alternative approach must treat nominative on a par with other cases. Consequently, they must have an account of why the second argument of "identity *be*" can appear in the nominative, whereas second arguments of other transitive verbs (say, *kiss* or *marry*) cannot. In other words, if "identity *be*" is treated as a normal transitive verb, the following contrast must be accounted for:

(244) a. Andrej byl pisatel'.
Andrew.NOM was writer.NOM
'Andrew was a writer.'

b. * Andrej videl pisatel'.
Andrew.NOM saw writer.NOM
intended: 'Andrew saw a writer.'

The usual account provided by the proponents of this alternative is that (certain) copular sentences allow for agreement in case between the subject and the predicate nominals (i.e., the pre-copular and the post-copular DPs).[135] This notion of "agreement in case" (or "case agreement") is often justified by the comparison with agreement in other morphological features, such as gender and number, which is illustrated below:

(245) a. Andrej – pobeditel' / * pobeditel'nica konkursa.
Andrew.M winner.M / * winner.F competition.GEN
'Andrew is the winner of the competition.'

b. Andrej i Maša – pobediteli / *pobeditel' konkursa.
Andrew and Masha winners.PL / * winner.SG.M competition.GEN
'Andrew and Masha are the winners of the competition.'

The flaw of this comparison is that further data shows that the pre-copular and the post-copular DPs do not necessarily agree in grammatical features such as "gender" (more properly termed "declension class") and number. For example, if the pre-copular DP denotes a female individual, the post-copular DP can be either masculine or feminine, as shown in (246a); speakers exhibit certain variation as to their preferences, but none admit

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[135] Fowler (1997:155-157) argues against the "agreement in case" analysis, based on the fact that "the only truly reliable examples of agreeing secondary predicates are adjectives". According to him, noun phrase secondary predicates never exhibit agreeing case.

(i) a. On vernulsja ugrjumym / ugrjumyj.
he.NOM returned gloomy.INSTR / gloomy.NOM
'He returned gloomy.' [Fowler 1997:155]

b. On vernulsja geroem / * geroj.
he.NOM returned hero.INSTR / hero.NOM
'He returned a hero.' [ibid]

However, the status of this generalization is not perfectly clear; Fowler himself cites several counterexamples. I have no explanation for these restrictions. For more discussion of the so-called "agreeing secondary predicates", see below in the main text.

that either form is unacceptable.[136] In some cases, where a distinct feminine form is unavailable, the masculine is the only possible variant, as in (246b).[137] Moreover, some nouns have only grammatically feminine forms (the so-called nouns of common gender, in Russian *suščestvitel'nye obščego roda*); these nouns can nevertheless be used as post-copular phrases with masculine pre-copular phrases, as shown in (246c).[138] Finally, (246d) is an example of a sentence with a mismatch in both grammatical gender and number of the two DPs.

(246) a. Maša – pobeditel' / pobeditel'nica konkursa.
Masha winner.M / winner.F competition.GEN
'Masha is the winner of the competition.'

---

[136] Note that a similar phenomenon is also attested in English (and possibly other languages as well). For example, at the 2001 Emmy Awards, Julia Roberts was referred to by one of the journalists as a "great actor", not a "great actress".

[137] Interestingly, the feminine form *sekretarša* 'secretary' corresponding to the masculine *sekretar'* 'secretary' is "used only for a secretary in an office, a shorthand-typist; the secretary of, for instance, a Party committee would be *sekretar'*, irrespective of sex" (Comrie and Stone 1978:166). This is part of a general pattern where feminine forms are reserved for low prestige occupations and masculine forms are used for high prestige occupations irrespective of the actual gender of the individual. The noun *tovariščˇ* 'comrade' "resolutely refuse[s] to allow derived feminine form" (Comrie and Stone 1978:163).

[138] This sentence has a somewhat colloquial ring to it, and some prescriptive grammars of Russian condemn it, recommending instead the following:

(i) Ètot mal'čik – takoj bol'šoj nerjaxa.
this.M boy.M such.M big.M sloven.F
'This boy is such a big sloven.'

b. Valentina Ivanova – sekretar' gorkoma i vernyj tovarišč po
[Valentina Ivanova].F secretary.M city-committee and loyal comrade at
partii.
party
'Valentina Ivanova is the secretary of the city committee and a loyal party comrade.'

c. Ètot mal'čik – takaja bol'šaja nerjaxa.
this.M boy.M such.F big.F sloven.F
'This boy is such a big sloven.' [Comrie and Stone 1978:77]

d. Italjanskie studentki – narod vesëlyj.
Italian.PL students.F.PL people.M.SG cheerful.M.SG
'Italian (female) students are cheerful people.'

Note that this phenomenon of apparent mis-agreement in gender and number is not restricted to Russian. For example, Salvi (1988b:232-233) gives similar examples from Italian. Similarly to (246a), in (247a), the masculine form *i soldati* is used for the post-copular phrase (rather than a possible feminine *le soldatesse*) to avoid marked opposition between male and female soldiers, which is not required in this context. In (247b), much as in (246b), the masculine form *i pilastri* 'the pillars' is used for the post-copular phrase since no corresponding feminine form is available. Finally, (247c), like the Russian (246d), shows a mismatch in number because in this case the plural pre-copular phrase is interpreted as a unitary group.

(247) a. Le donne sono i soldati del progresso.
the.F.PL women are the.M.PL soldiers of-the progress
'Women are the soldiers of the progress.'

b. Le donne sono i pilastri della società.
the.F.PL women are the.M.PL pillars of-the society
'Women are the pillars of the society.'

c. Gli emigranti sono il problema più scottante della nostra
the.M.PL emigrants are the.M.SG problem most burning of-the our
società.
society
'Emigrants are the most burning problem of our society.'

Finally, similar examples are also found in Germanic languages, for example, in Norwegian. The following examples, suggested to me by Peter Svenonius (p.c.), illustrate mismatches in gender and in number. For instance, in (248a) – set in the context of a family-run clinic – *onkelen* 'the uncle' is masculine, as indicated by the masculine definite suffix *-en*, whereas *jordmora* 'the midwife' is feminine, as indicated by the feminine definite suffix *-a*. Similarly, *tanta* 'the aunt' is feminine (cf. the feminine definite suffix *-a*), whereas *legen* 'the doctor' is masculine (cf. the masculine definite suffix *-en*); witness also the agreement on the possessive pronouns. In (248b), on the other hand, the mismatch is in number: *islandshester* is plural, as indicated by the plural suffix *-er*, whereas *en blanderase* 'a mixed race' is singular, as indicated by the singular indefinite article *en*. Note that the copula verb *er* 'is/are' shows no agreement (like other verbs in Norwegian).

(248) a. Onkelen min er jordmora og tanta mi er legen.
uncle.the.M my.M is midwife.F and aunt.the.F my.F is doctor.the.M
'My uncle is the midwife and my aunt is the doctor.'

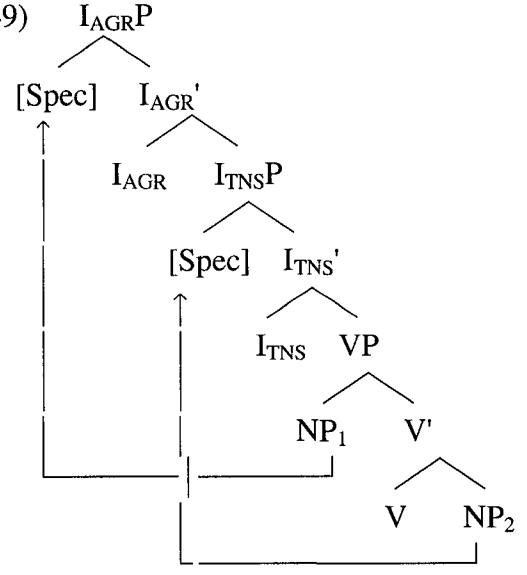
b. Islandshester er en blanderase.
Icelandic.ponies.PL is/are a.SG mixed.breed
'Icelandic ponies are a mixed breed.'

To recap, it appears that the agreement in gender and number in bare copular sentences is only semantic; in other words, both the pre-copular and the post-copular DPs refer to an individual of a certain gender and number. The whole issue of gender and number agreement in copular sentences is very complex and deserves a separate dissertation; crucially for the discussion here, it must be noted that the proposed "agreement in case" cannot be assimilated to agreement in gender and number.

Consider now how this "agreement in case" could be accounted for in technical terms. The simplest solution, adopted by Bailyn and Rubin (1991), Franks (1995), Comrie (1997), and others, is that *byt'* 'be' is somehow special in that it is the only head that allows "case transmission" from its specifier to its complement. This solution clearly lacks in generality; in a way, it restates the problem that *byt'* is the only verb which allows such "agreement in case" between its two arguments rather than solves it.

A more technical solution has been proposed by Fowler (1997:158-159). According to this analysis, the Infl node is split into two nodes – which Fowler dubs I_{AGR} and I_{TNS}. Both of these nodes bear the feature [±finite] which "is relevant to the case-licensing properties of both [nodes] ... Crucially, each has the potential to license Nominative case, providing two landing sites in a double-Nominative sentence". The structure proposed by Fowler (1997:158) is given below.

(249)

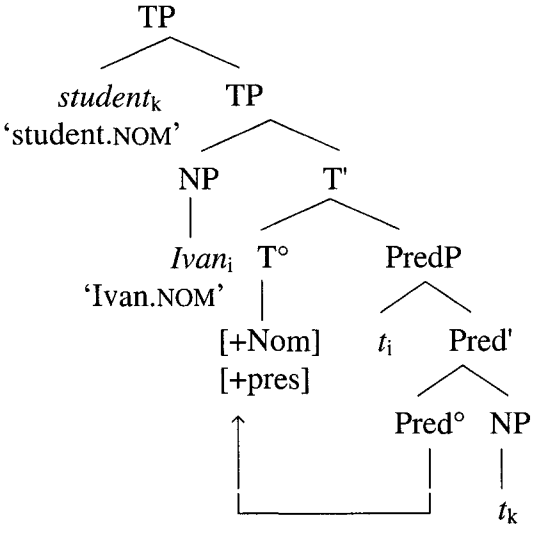


In addition to potential problems raised by AGR node (see Chomsky 1995:346-355), this analysis does not provide a satisfactory answer to the question of why double-Nominative sentences are possible only with *byt'* 'be' but not with other verbs like *videt'* 'see' or *pocelovat'* 'kiss', namely, it does not explain the contrast in (244) above.

Another alternative in the Minimalist framework has been proposed by Bailyn and Citko (1999). They propose that both DPs in the NOM-NOM copular sentences check their

nominative case in essentially the same position, namely, Spec-TP. In order to make this analysis possible, Bailyn and Citko allow multiple specifiers, which are not themselves unproblematic. According to Bailyn and Citko's analysis, the pre-copular phrase undergoes case-checking in overt syntax, whereas the post-copular phrase does so at LF. The resulting LF structure is given below (Bailyn and Citko 1999 ignore the differences between NPs and DPs):

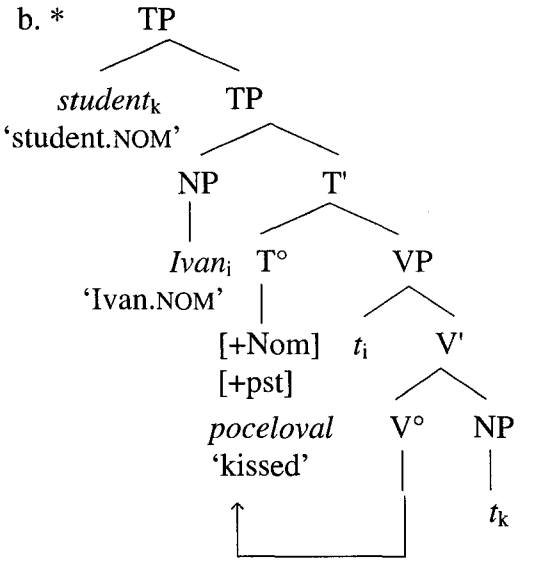
(250)



[Bailyn and Citko 1999:32]

Note that there is a potential technical problem with this analysis: T° can attract only the closest nominal, namely, the pre-copular noun phrase. Bailyn and Citko (1999) avoid this problem by extending the minimal domain of T° via head movement of Pred° to T°. Even though this analysis is dressed in the Minimalist terminology, it is still lacking an explanation for why such multiple case checking of nominative can happen when the predicate is *byt'* 'be' and not any other verb, say, *pocelovat'* 'kiss' (for the sake of exposition, I ignore here the potential intervening PredP):

(251) a. * Ivan poceloval student.
Ivan.NOM kissed student.NOM
intended: 'Ivan kiss a/the student.'



To recap, the failure of the "agreement in case" approach to account for the ungrammaticality of sentences like (251) is a serious problem with this analysis. Under the analysis developed in this dissertation, this problem is avoided by assuming that whenever pre-verbal and post-verbal DPs are arguments (as in (251)), they need to be marked with case. Therefore, the exceptional status of the pre- and post-copular phrases in NOM-NOM sentences in Russian is explained by the fact that these phrases are not arguments, whereas pre- and post-verbal phrases in normal transitive sentences are.

So far, I have argued that Bailyn and Citko's (1999) "Multiple Case Checking" analysis fails to account for the range of contexts where "agreement in case" cannot occur. Even worse, they also fail to account for the range of contexts where such agreement can occur. Outside the context of copular sentences discussed above, "agreement in case" occurs in some constructions resembling secondary predicates, as illustrated below:

(252) SECONDARY PREDICATE OF SUBJECT

a. My tancevali golye.
we.NOM danced nude.NOM
'We danced nude.' [Bailyn and Rubin 1991:106, fn. 5]

b. My tancevali golymi.
we.NOM danced nude.INSTR
'We danced nude.' [ibid]

(253) SECONDARY PREDICATE OF OBJECT

a. Ja našël ego pjanogo.
I.NOM found him.ACC drunk.ACC
'I found him drunk.' [Bailyn and Citko 1999:28]

b. Ja našël ego pjanym.
I.NOM found him.ACC drunk.INSTR
'I found him drunk.' [ibid]

Bailyn and Citko's (1999) analysis of such secondary predicate constructions resembles their analysis of copular sentences: the instrumental is checked under Merge (i.e., assigned in GB terminology) by Pred°, whereas "agreeing case" (i.e., nominative or accusative) results from multiple case checking. In the case of secondary predication of a subject, both the subject DP and the nominative secondary predicate (i.e., *my* 'we' and *golye* 'nude' in (252a)) check their nominative case in multiple specifiers of T°. Similarly, in the case of secondary predication of an object, both the object DP and the accusative secondary predicate (i.e., *ego* 'him' and *pjanogo* 'drunk' in (253a)) check their accusative case in multiple specifiers of Agr_O°.

What this analysis fails to take into account is that the so-called "agreeing secondary predicates" are not secondary predicates at all. Rather, they are appositive-like constructions. (Interestingly, Bailyn and Rubin 1991:106-107, fn. 5 propose to treat these constructions as appositives, whereas in the later work with Citko, Bailyn rejects this analysis but provides no arguments for doing so.) There are three crucial differences between the constructions with instrumental phrases, which are secondary predicates, and constructions with "agreeing phrases", which are appositive-like. First, as noted in Bailyn and Rubin (1991:106-107, fn.5), preposing such phrases results in sentences with different status. According to them, instrumental secondary predicates cannot be preposed, whereas "agreeing" ones can. Further investigation of the data shows that

instrumental secondary predicates can in fact be preposed, but only if they function as contrastive topics. There is no such requirement on preposing an "agreeing" appositive phrase; see also Nichols (1981a:359-360).

(254) a. Golye, my tancevali.
nude.NOM we.NOM danced
'Nude, we danced.' [Bailyn and Rubin 1991:106-107, fn.5]

b. $ Golymi, my tancevali.
nude.INSTR we.NOM danced
'Nude, we danced.'
[Bailyn and Rubin 1991:106-107, fn.5; judgment mine]

Secondly, as noted in Neidle (1982:402-403), instrumental secondary predicates are lexically restricted in ways that "agreeing" appositives are not; see also Nichols (1981a:122) and Schein (1995:52-53).

(255) a. * Ivan čitaet ugrjumym.
Ivan.NOM reads gloomy.INSTR
intended: 'Ivan reads gloomy.' [Neidle 1982:403]

b. Ivan čitaet ugrjumyj.
Ivan.NOM reads gloomy.NOM
'Ivan reads gloomy.' [ibid]

Thirdly, "agreeing" appositives are freer than instrumental secondary predicates in that they can appear with oblique arguments:

(256) a. * Ivan pomog Olegu pjanym.
Ivan.NOM helped Oleg.DAT drunk.INSTR
intended: 'Ivan helped Oleg drunk (Oleg is drunk).'

b. Ivan pomog Olegu pjanomu.
Ivan.NOM helped Oleg.DAT drunk.DAT
'Ivan helped Oleg drunk (Oleg is drunk).'

Fourthly, there are certain meaning differences between the two constructions: the instrumental secondary predicate implies the connection between the event denoted by the primary predicate and the state denoted between the secondary predicate. In contrast, "agreeing" appositives make no such implication. For example, in (257a) the instrumental secondary predicate that Ivan's being healthy resulted from his being in the hospital (i.e., this sentences implies that he went into the hospital sick), whereas in (257b) the nominative appositive has no such meaning; in fact, this sentence strongly suggests that Ivan went into the hospital healthy as well (note different translations).[139]

(257) a. Ivan vernulsja iz bol'nicy zdorovym.
Ivan.NOM returned from hospital healthy.INSTR
'Ivan returned from the hospital cured.'

b. Ivan vernulsja iz bol'nicy zdorovyj.
Ivan.NOM returned from hospital healthy.NOM
'Ivan returned from the hospital healthy.'

Similarly, Nichols (1981a:156) provides the following minimal pair, and comments that the contrast is due to the fact that "ordinarily the police would have found the man drunk and brought him home, while his friends would have been drinking with him and would have seen him get drunk or gotten him drunk."

(258) a. Milicija privela ego domoj pjanogo.
police.NOM brought him.ACC home drunk.ACC
'The police brought him home drunk.'

b. Druzja priveli ego domoj pjanym.
friends.NOM brought him.ACC home drunk.INSTR
'The friends brought him home drunk.'

To recap, the Multiple Case checking analysis of Bailyn and Citko (1999) fails to account for these differences between instrumental secondary predicates and "agreeing"

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[139] I am grateful to Kylie Skewes (p.c.) for discussing these sentences with me.

appositive-like phrases. In this dissertation, I will not discuss secondary predicates in great detail, but I will maintain that "agreeing secondary predicates" are not secondary predicates at all. Instead, I suggest that they should be analyzed as displaced appositives, analogously to the displaced adjective in the following example:

(259) Trudnuju on rešil zadaču.
complicated.ACC he.NOM solved problem.ACC
'It was a complicated problem that he solved.'

This analysis is supported by the fact that sentences with postposed "agreeing" phrases are most felicitous in the contexts where they are focused, in accordance with the general observation that focused constituents tend to appear clause-finally.

(260) On skazal eti slova pjanyj, potom gor'ko ob ètom požalel.
he.NOM said [these words].ACC drunk.NOM then bitterly about that regretted
'He said these words drunk and then bitterly regretted it.' [Nichols 1981a:133]

Going back to the bare copular sentences, I have claimed that the possibility of two nominatives comes from the fact that neither of the two nominals is an argument (i.e., a specifier or a complement of a lexical head). Therefore, according to the analysis developed in this dissertation, in bare copular sentences there is no "agreement in case", but rather the two noun phrases around the copular "agree" in their not needing to be marked with case. Once again, this analysis is preferable to its alternatives that view the copula in bare copular sentences as a transitive predicate in that it does not need to draw a lexical distinction between the copula of identity and the copula of predication. Therefore, I conclude that the analysis argued for in this chapter is superior to "agreement in case" analyses, which entail the "identity *be*" semantics for this construction.

4.2.2.2. Case-marking with copula-like verbs in Russian

In this section, I will briefly consider the facts concerning the case-marking with copula-like verbs in Russian. As mentioned in section 1.3.3 above, only "true copulas" *byt'* 'be' and *stat'* 'become' (the latter only in colloquial Russian) allow the NOM-NOM pattern. Other copula-like verbs always appear with an instrumental post-verbal phrase (in

standard Russian). Interestingly, the copula-like verb *javljat'sja* – which is appears to be synonymous with *byt'* 'be', but is associated with a higher register – does not allow the NOM-NOM pattern. Some examples of copula-like verbs are given below (for more examples, the reader is referred to Appendix B).

(261) a. On čislitsja pogibšim / * pogibšij.
he.NOM is-itemized-as perished.INSTR / * perished.NOM
'He is presumed dead.'

b. Ja čuvstvuju sebja molodoj / * molodaja.
I.NOM feel myself young.INSTR / * young.NOM
'I feel young.'

c. Voda javljaetsja složnym veščestvom / * složnoe veščestvo.
water.NOM is [compound substance].INSTR / * [compound substance].NOM
'Water is a compound substance.'

Consider how these facts can be explained under the analysis proposed in this dissertation. Since copula-like verbs are lexical heads, the constituents that they select are arguments by definition. Therefore, copula-like verbs cannot take a symmetrical structure as the complement. Thus, the only option for a copula-like verb is to appear in a structure similar to that of the rich copular sentences. As a result, copula-like verbs appear with instrumental complements.

The hypothesis that nominative has a special status as the unmarked nominal form (see section 4.1.2 above) explains the last peculiarity related to copula-like verbs. This peculiarity involves the copula-like verb *nazyvat'sja* 'be called', which sometimes allows the NOM-NOM pattern, depending on the word order. As illustrated below, if the copular sentence is inverted (i.e., if the new term introduced by the verb *nazyvat'sja* 'be called' precedes the verb), the case on the inverted noun phrase must be instrumental.

(262) a. Borom nazyvaetsja les, v kotorom rastut xvojnye
Pinery.INSTR is-termed forest.NOM in which grow.PL coniferous.NOM
derevja.
trees.NOM
'A forest in which grow coniferous trees is termed a pinery.'

b. * Bor nazyvaetsja les, v kotorom rastut xvojnye
Pinery.NOM is-termed forest.NOM in which grow.PL coniferous.NOM
derevja.
trees.NOM
intended: 'A forest in which grow coniferous trees is termed a pinery.'

However, if the new term introduced by the verb *nazyvat'sja* 'be called' follows the verb both the instrumental and the nominative case are possible, but the nominative is clearly the preferred option.[140]

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[140] It appears that instrumental is most felicitous on a new term that follows the verb *nazyvat'sja* 'be called' if the sentence contains the so-called verum focus, associated with the particle *i*, which can be roughly translated as 'in fact'. Nichols (1981:164-165) provides the following minimal pair (note that, according to Nichols 1981:165, nominative here is ungrammatical rather than marginal; I do not agree with her judgment):

(i) a. Èto i nazyvaetsja velosiped.
this.NOM EMPH is-called bicycle.NOM
'This is (what's) called a bicycle.'

b. Èto nazyvaetsja velosiped / ? velosipedom.
this.NOM is-called bicycle.NOM / bicycle.INSTR
'This is called a bicycle.'

(263) a. Les, v kotorom rastut xvojnye derevja, nazyvaetsja
forest.NOM in which grow.PL coniferous.NOM trees.NOM is-termed
bor.
pinery.NOM
'A forest in which grow coniferous trees is termed a pinery.'

b. ? Les, v kotorom rastut xvojnye derevja, nazyvaetsja
forest.NOM in which grow.PL coniferous.NOM trees.NOM is-termed
borom.
pinery.INSTR
'A forest in which grow coniferous trees is termed a pinery.'

According to Nichols (1981a:237-240) – and I agree with her observations on this – this preference is particularly strong if the new term is "a foreign or exotic word", "a title, epithet, or stock phrase"; it is also used when the new term is "an unfamiliar or new word, or when clarity is necessary, as when speaking to a child". Furthermore, "place names have a much greater propensity to be in the nominative. Foreign and exotic names are normally in the nominative, even if declinable".

This distribution of cases can be explained as follows: due to its lexical semantics, this verb introduces a new term (e.g., *bor* 'pinery' in the examples above). If this new term follows the verb, as in (263), it is assumed to be unknown to the hearer (in accordance with the generalization that new information appears clause-finally). In order to ease the comprehension and to avoid ambiguity, the citation form (i.e., the nominative form) is used in this case. The instrumental form selected by the verb is less preferable in this case. However, if the term *bor* 'pinery' precedes the verb (as in (262a-b)), it is assumed to be known to the hearer (in accordance to the generalization that old/given information appears clause-initially). Therefore, there is no need for the citation form to override the selectional requirements of the verb. As a result, the term *bor* 'pinery' must appear in the instrumental case. Note that this pragmatically-oriented analysis allows us to

account for the fact that Nichols' observations "are not absolute rules" (Nichols 1981a:240).

This optional use of the citation form overriding the case normally assigned by the selecting head is similar to the use of the citation form with toponymics. Even though there is a fair amount of variation between different classes of non-native toponymics in Russian, depending on their phonetic form, origin and frequency of use, most toponymics are used in the citation form (corresponding to the nominative case), even when selected by a preposition or a verb that requires a different case (for a detailed discussion, see Graudina et al. 1976:143-149). For instance, even though the inflected forms of *Osaka* are also attested, in the following example the nominative case is used instead of the prepositional case normally assigned by the preposition *v* 'in' (thus, the expected form would be *v Osake* 'in Osaka.PREP', which is also attested though more rarely than the citation form).[141]

(264) teatr kukol v Osaka
theater.NOM puppets.GEN in Osaka.NOM
'puppet theater in Osaka' [Graudina et al. 1976:146]

Let us now return to the verb *javljat'sja* 'be'. As mentioned above it appears to be synonymous with *byt'*, yet it does not allow the NOM-NOM pattern. The question is why it cannot be a real copular, namely, a functional head. My answer will have to do with the morpheme *-sja*. There is no agreement in the literature as to what the proper analysis of this morpheme is (it can function as an intransitivizing morpheme creating passives, middles, unaccusatives, or unergatives), but two main approaches can be discerned. Under either of these approaches a verb with *-sja* cannot be merged as a functional head. The first approach is to view *-sja* as operating on the thematic grid of the verb, either absorbing a θ-role or focusing a θ-role. This approach has been adopted by Isačenko (1960), Dik (1983), and A. Williams (1993), among others. Under this approach a verb

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[141] Similar facts are found with respect to the appositional construction like *v romane "Evgenij Onegin"* 'in the novel *Eugene Onegin*' and constructions with *nomer* 'number', as in Chekhov's short story title *Palata N°6* 'Ward number 6'. See Comrie and Stone (1978:112-117).

with *-sja* must have a theta-grid that *-sja* can operate on; therefore, by the definition of a functional head adopted in this dissertation such verb cannot be a functional head. Another approach to *-sja* takes it to absorb the accusative case (see Levin 1985). Under this approach, the verb with *-sja* must be a case assigner, and hence not a functional head. To recap, *javljat'sja* cannot appear with the NOM-NOM pattern because it cannot be merged as a functional head due to the presence of *-sja*.

To sum up, the analysis of bare copular sentences as symmetrical structures is preferable to one that treats such sentences as transitive structures with a special lexical item *be*. While both analyses have coherent semantics, the analysis I have argued for in this dissertation allows us to derive the correct reading from the syntax of the construction rather than from an independently stipulated lexical semantics of *be*. Furthermore, my analysis allows us to account for case marking in these sentences in a more empirically correct and more elegant way.

4.3. Summary

In this chapter, I have presented arguments in support of the claim that Nominative has a special status as a morphologically unmarked case. Furthermore, I have argued that case correlates with syntactic argumenthood. In other words, all and only argument nominals must be marked for case (i.e., non-nominative case marking or agreement with the predicate). Importantly, I have shown that this framework provides a coherent and non-arbitrary analysis of case marking in Russian copular sentences with both the NOM-NOM and NOM-INSTR patterns.

5. Conclusion

One's none;
Two's some;
Three's many;
Four's a penny
Five's a little hundred.

– *Mother Goose Rhymes*

In this dissertation, I have investigated copular sentences, focusing in particular on two languages – Russian and Italian. I have proposed that copular sentences come in two kinds: one associated with a "bare", symmetrical structure, and the other with "rich", asymmetrical structure. Whether a copular sentence belongs to one type or the other depends on the presence or absence of the functional D-layer in the post-copular phrase; thus, a post-copular DP entails a symmetrical structure, and a post-copular NP (or AP) entails an asymmetrical structure. Moreover, I have argued that in Russian "bare" copular sentences appear with the NOM-NOM pattern, whereas "rich" copular sentences appear with the NOM-INSTR pattern. The analysis proposed in this dissertation seeks to account for syntactic, semantic, and morphological properties of the two types of copular sentences.

The discussion in this dissertation is couched in the Minimalist framework. However, I have made some proposals and revisions regarding some of the Minimalist analytic tools. In particular, I have argued against the Antisymmetry Hypothesis, showing that allowing for certain symmetrical structures leads to a more parsimonious analysis of copular sentences. Furthermore, I have argued against the strong version of UTAH – the hypothesis that there is a one-to-one mapping between θ-roles and structural positions. I have shown that the highest arguments of stative intransitive verbs, on the one hand, and of nominal and adjectival predicates, on the other hand, are not merged in the same structural position with respect to their predicates. From this, I have concluded that a more flexible theory of thematic relations is required. A possible theory along these lines is indeed developed in this dissertation.

Finally, I have argued against the widely accepted "agreement in case" analysis of case-marking in NOM-NOM copular sentences. Instead, I have proposed that both nominative DPs are non-argumental, and as such need not be marked with syntactic case at all. As a result, they appear with nominative case, the morphological default. One of the biggest advantages of this analysis is that it allows us to avoid postulating a separate lexical item for the copula in NOM-NOM copular sentences – the so-called "identity *be*". Rather, the copula in both types of copular sentences can be subsumed under the same lexical item, and the differences between them are shown to result from the distinction between a lexical and a functional status.

One of the conclusions emerging from this analysis of the copula is that verbs can be divided into three categories: (i) full lexical verbs whose theta-grids contain both an argumental variable and a thematic index for each thematic position; (ii) lexical light verbs derived by index erasure (their theta-grids lack a thematic index); and (iii) functional "verbs" that have no theta-grids at all. Most copula-like verbs in Russian are shown to belong to the second category, whereas *byt'* 'be' and (in colloquial Russian) *stat'* 'become' are true functional copulas.

Given that the functional copula (in NOM-NOM sentences) does not have a theta-grid, the interpretation of such sentences cannot be derived from normal processes of theta-assignment and predication. Rather, I have proposed that the appropriate interpretation for such sentences comes from a syntactic coindexing between the two DPs flanking the copula. This coindexing in its turn is shown to derive from the symmetrical structure which requires that both DPs have the same feature composition. Furthermore, it is argued that a referential index is indeed a feature relevant for syntactic computation.

Even though this dissertation focuses on copular sentences in two languages, I hope that the proposals made here can be extended to other languages and other constructions.

Appendix A: Some Background on Russian Morphology

Nominal Morphology

Russian nouns are inherently marked for gender (and declension class) and inflect for number and case. There are three genders: masculine, feminine and neuter. The gender of animate nouns normally though not always corresponds to the sex of the noun's referent; the gender of inanimate nouns is idiosyncratic. There are two numbers: singular and plural. Some nouns lack forms for one or the other number. Russian has three declension classes (one of which subdivides into two subclasses according to the gender of the noun). Using traditional labels, I will call them 1a, 1b, 2 and 3.

Russian has six cases: nominative, genitive, dative, accusative, instrumental and prepositional.[142] The nominative is the citation form. Another feature relevant for case paradigms in Russian is animacy. With animate nouns, the accusative case form is the same as the genitive form but different from the nominative; with inanimate nouns, the accusative case form is the same as nominative but different from the genitive. This generalization is true for masculine and neuter nouns (declensions 1a and 1b in the table below) in both singular and plural. Note that like with grammatical gender, grammatical

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[142] Prepositional case is also sometimes called locative. Jakobson (1958/71) and Neidle (1988) include genitive II and locative II as separate cases. For a discussion of the problem of delimiting and counting cases in Russian, see Comrie (1986). Since genitive II and locative II are largely irrelevant for the present study, I remain agnostic as to whether they are to be treated as separate cases or marked versions of the genitive I and locative I, respectively. See also fn. 133.

There is also a question of whether a special vocative case is to be distinguished. Even though the historical Slavonic *è*-vocative (for declension 1a nouns) has lost its productivity (cf. *bože!* 'God!' from *bog* 'God.NOM'), "nouns ... ending in unstressed *-a/ja* have developed a special form with zero ending used in address, especially to attract the hearer's attention" (Comrie and Stone 1978:94), for example:

animacy (as relevant for morphological purposes) does not always correlate with the semantic animacy (i.e., the animacy of the noun's referent). The table below illustrates the case forms for nouns from different declension classes; here and below, the acute accept indicates main stress in polysyllabic words.

Table 8. Case-inflection for Russian nouns

singular	1a 'table' (M)	1b 'place' (N)	2 'country' (F)	3 'eyebrow' (F)
Nominative	stol	mésto	straná	brov'
Genitive	stolá	mésta	straný	bróvi
Dative	stolú	méstu	strané	bróvi
Accusative	stol	mésto	stranú	brov'
Instrumental	stolóm	méstom	stranój	bróv'ju
Prepositional	stolé	méste	strané	bróvi
plural				
Nominative	stolý	mestá	strány	bróvi
Genitive	stolóv	mest	strany	brovéj
Dative	stolám	mestám	stránam	brovjám
Accusative	stolý	mestá	strány	bróvi
Instrumental	stolámi	mestámi	stránami	brovjámi
Prepositional	stoláx	mestáx	stránax	brovjáx

For a more extensive discussion of Russian gender / declension class system, see Crockett (1976), Corbett (1982, 1988a, b, 1989), Comrie (1987), Beloshapkova (1989), Spencer (2000) and the references cited therein. For a more extensive information on Russian case system, see Jakobson (1936/71, 1958/71), Neidle (1988), Franks (1995) and the references cited therein.

(i)	vocative	nominative	translation
	Nin!	Nina	(proper name)
	Kol'!	Kolja	(proper name)
	mam!	mama	mother

Adjectival Morphology

Most Russian adjectives have two sets of forms: long forms (in Russian, *polnye prilagatel'nye*) and short forms (in Russian, *kratkie prilagatel'nye*). Both short and long forms exhibit gender and number inflection. In modern Russian only long adjectives inflect for case, whereas short forms are not case-marked.[143] As with nouns, the accusative form depends on the grammatical animacy (of the noun modified by the adjective). Table 9 and Table 10 illustrate declension forms of the adjective *staryj* 'old' (for a discussion of stress patterns in short adjectives, see Cohen 1988).

Table 9. Long Adjective declension

	masculine	neuter	feminine	plural
Nominative	stáryj	stároe	stáraja	stárye
Genitive	stárogo		stároj	stáryx
Dative	stáromu		stároj	stárym
Accusative	stáryj / stárogo	stároe / stárogo	stáruju	stárye /stáryx
Instrumental	stárym		stároj	stárymi
Locative	stárom		stároj	stáryx

Table 10. Short Adjective declension

masculine	neuter	feminine	plural
star	staró / stáro	stará	starý

It should be noted that not all adjectives have both short and long forms. Thus, certain adjectives (including relative adjectives – *otnositel'nye prilagatel'nye* – and qualitative adjectives with bases in *-sk-*, *-en'k-*, *-š-*, *-ov-*, *-l-*, *-n-*, and some other suffixes)

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[143] In Old Russian, however, short adjectives were marked for case. Some idiomatic expressions in modern Russian preserve short adjectives in modifier positions with their original case forms (examples from Kozyreva and Khmelevskaja 1972:19):

(i) a. na bosu nogu
on bare.**ACC** foot.ACC
'barefoot'

b. ot mala do velika
from small.**GEN** to big.**GEN**
'everyone; people of all ages'

c. sred' bela dnja
among white.**GEN** day.**GEN**
'in full daylight'

do not have short forms (see Kozyreva and Khmelevskaja 1972:21). On the other hand, there is a small set of adjectives that do not have (productive) long forms, but only short forms: *gorazd* 'able', *ljub* 'loved', *rad* 'happy', etc.; for a list, see Nichols (1981a:288-290). There are also pairs on short and long adjectives that have different meanings: in *mal'čik ploxoj* vs. *mal'čik plox* lit. 'boy bad' the long form means that the boy misbehaves and the short form means that the boy is very ill.

The distribution of short and long forms (illustrated below) is as follows: long adjectives can appear both in modifier and post-copular positions, whereas short adjectives can appear only in the post-copular position. They cannot function as nominal modifiers, as shown in (A1d). These facts are summarized in Table 11.

(A1) a. Dom novyj. LONG FORM POST-COPULAR
house.NOM new.NOM
'The house is new.'

b. Novyj dom stoit na gore. LONG FORM MODIFIER
new.NOM house.NOM stands on hill
'The new house stands on a/the hill.'

c. Dom nov. SHORT FORM POST-COPULAR
house.NOM new.SF
'The house is new.' [Moro 1997:54, his (81a)]

d. * Nov dom stoit na gore. SHORT FORM MODIFIER
new.SF house.NOM stands on hill
intended: 'The new house stands on a/the hill.'

Table 11. Distribution of adjective forms in modern Russian

position	long adjectives	short adjectives
post-copular	✓	✓
modifiers	✓	*

For a further discussion of Russian adjectives, see Kozyreva and Khmelevskaja (1972), Babby (1975), Siegel (1976), Crockett (1976), Comrie (1987), Beloshapkova (1989), Bailyn (1994), Spencer (2000) and the references cited therein.

Appendix B. Copula-like verbs in Russian

- videt'sja 'look, appear'

(B1) Starik na kartine Rembrandta videlsja mne čelovekom, znavšim
old-man.NOM on painting Rembrandt.GEN looked me.DAT man.INSTR knowing
stradanie.
suffering
'The old man in the Rembrandt looked to me like a person who had known suffering.' [Nichols 1981a:102]

- voobražat'sja/voobrazit'sja 'imagine'

(B2) On voobrazilsja mne geniem.
he.NOM imagined me.DAT genius.INSTR
'I imagined him a genius.' [Nichols 1981a:102]

- vygljzdet' 'appear'

(B3) On vygljadit zdorovym.
he.NOM appears healthy.INSTR
'He appears healthy.'

- vyxodit'/vyjti 'come out'

(B4) Pis'mo vyšlo xolodnym.
letter.NOM came-out cold.INSTR
'The letter came out cold.'

- delat'sja/sdelat'sja 'become'

(B5) Pesok delaetsja temnym ot vody.
sand.NOM becomes dark.INSTR from water.
'The sand becomes dark from water.'

Nichols (1981a:222) cites three examples of *delat'sja/sdelat'sja* with a nominative complement and attributes them all to "highly colloquial speech". One such example is given below:

(B6) On kakoj-to vovse durak delaetsja.
he some-kind altogether fool.NOM becomes
'He just turns into some kind of fool.' [Nichols 1981a:222]

- dovodit'sja 'be an X relative'

(B7) Ona dovoditsja mne trojurodnoj sestroj.
she.NOM is me.DAT second-cousin.INSTR
'She is my second cousin.'

- žit' 'live as, remain'

(B8) On žil bobylëm.
he.NOM lived bachelor.INSTR
'He lived as a bachelor.'

- zvat'sja 'be called'

(B9) On mečtoju zovëtsja ne zrja.
he.NOM dream.INSTR is-called not in vain
'It [the flower] is not called a dream in vain.'
[song from "Alen'kij cvetoček" animation movie]

- igrat' 'play as'

(B10) On igraet vratarëm.
he.NOM plays goalkeeper.INSTR
'He plays goalkeeper.' [Nichols 1981a:110]

- kazat'sja/pokazat'sja 'seem'

(B11) Paroxod izdali kazalsja točkoj.
steamboat.NOM from-afar seemed dot.INSTR
'The steamboat seemed a dot from afar.'

(B12) On vsju žizn' kazalsja zanjat.
he.NOM all life seemed busy.SF
'He seemed busy all his life.' [Nichols 1981a:295]

- nazyvat'sja/nazvat'sja 'be called, be termed'

(B13) Borom nazyvaetsja les, v kotorom rastut xvojnye derevja.
pinery.INSTR is-termed forest.NOM in which grow.PL coniferous.NOM trees.NOM
'A forest in which grow coniferous trees is termed a pinery.'

- obernut'sja 'turn into'

(B14) Obernulas' Vasilisa Premudraja seroj kukuškoj.
turned-into Vasilisa the-Wise [grey cuckoo].INSTR
'Vasilisa the Wise turned into a grey cuckoo.'
[Russian folktale, cited in Zolotova 1988:239]

- obratit'sja 'turn into'

(B15) Ivanuška obratilsja kozlënočkom.
Ivanushka turned-out goatling.INSTR
'Ivanushka turned into a goatling.' [Russian folktale]

- okazyvat'sja/okazat'sja 'turn out'

(B16) Mal'čik okazalsja xorošim muzykantom.
boy.NOM turned-out good.INSTR musician.INSTR
'The boy turned out to be a good musician.'

(B17) On okazalsja prav.
he.NOM turned-out right.SF
'He turned out to be right.' [Nichols 1981a:98]

- ostavat'sja/ostat'sja 'remain'

(B18) Ona vsegda ostaetsja spokojnoj.
she.NOM always remains calm.INSTR
'She always remains calm.'

(B19) On ostalsja nedovolen.
he.NOM remained dissatisfied.SF
'He remained dissatisfied.' [Nichols 1981a:98]

- pokazat'sja 'come across as'

(B20) On pokazalsja mne ustalym.
he.NOM came-across me.DAT tired.INSTR
'He came across to me as tired.'

- polučat'sja/ polučit'sja 'come out'

(B21) Na ètoj fotografii on polučilsja xudym.
on this photo he.NOM came-out thin.INSTR
'On this photo he came out thin.'

- počitat'sja 'be revered as'

(B22) Puškin počitaetsja velikim russkim poètom.
Pushkin is-revered-as [great Russian poet].INSTR
'Pushkin is revered as a great Russian poet.'

- predstavljat'sja/predstavit'sja 'seem'

(B23) Èto predloženie predstavljalos' nam zamančivym.
this.NOM proposal.NOM seemed us.DAT enticing.INSTR
'This proposal seemed to us enticing.'

- prevraščat'sja/prevratit'sja 'turn into'

(B24) Večerom dožd' prevraščaetsja v sneg.
evening.INSTR rain.NOM turns-into in snow.ACC
'In the evening the rain turns to snow.' [Nichols 1981a:97]

- prikidyvat'sja/prikinut'sja 'act as'

(B25) On prikinulsja ravnodušnym.
he.NOM acted-as indifferent.INSTR
'He acted indifferently.'

- pritvorjat'sja/pritvorit'sja 'pretend to be'

(B26) ... i pritvoritsja mužikom.
and will-pretend-to-be man.INSTR
'... and will pretend to be a man.' [Vladimir Vysotsky; song]

- rabotat' 'work as'

(B27) On rabotaet inženerom.
he.NOM works engineer.INSTR
'He works as an engineer.

- skazyvat'sja/skazat'sja 'claim to be'

(B28) On skazalsja bol'nym.
he.NOM claimed-to-be sick.INSTR
'He said he was sick.' [Nichols 1981a:101]

- slyt'/proslyt' 'gain the character of; have the reputation of'

(B29) On proslyl durakom.
he.NOM gain-the-character-of fool.INSTR
'He gained the character of a fool.'

- služit'/poslužit' 'serve as'

(B30) Ego optimizm služit mne oporoj.
his.NOM optimism.NOM serves me.DAT support.INSTR
'His optimism supports me.'

- smotret'sja 'look like'

(B31) Ona smotritsja molodoj.
she.NOM looks young.INSTR
'She looks young.'

- sostojat' 'work as' (archaic)

(B32) Ix otec sostojal svjaščennikom.
their.NOM father.NOM worked priest.INSTR
'Their father was a priest.'

- stanovit'sja/stat' 'become'

(B33) Veter stanovitsja xolodnym.
wind.NOM becomes cold.INSTR
'The wind becomes cold.'

(B34) On stal žestok i čërstv.
he.NOM became harsh.SF and tough.SF
'He became harsh and tough.' [Nichols 1981a:295]

Rozental' (1976:37-38) mentions that this verb is attested with nominative complement in colloquial speech and poetry, but not in standard literary language.

(B35) Govorjat, čto ja skoro stanu znamenityj russkij poèt.
they-say that I soon will-become [famous Russian poet].NOM
'It is said that I will soon become a famous Russian poet.'
[Essenin, cited in Rozental' 1976:38]

- sčitat'sja 'be reputed as'

(B36) On sčitaetsja xorošim organizatorom.
he.INSTR is-reputed-as good.INSTR organizer.INSTR
'He is reputed as a good organizer.'

Once again, Rozental' (1976:37-38) mentions that this verb is attested with nominative complement in colloquial speech and poetry, but not in standard literary language.

(B37) A ešče pervye bojcy ulicy sčitaetes', kotjata.
and still [first fighters].NOM street.GEN are-reputed-as kittens
'And still you are considered as the first fighters of the street, kittens.'
[Gorky, cited in Rozental' 1976:37]

Furthermore, Comrie and Stone (1978:119) mention that examples of this verb with a nominative complement are attested in nineteenth century literature, and cite the following example:

(B38) Ja grubijan sčitajus'.
I ribald.NOM is-reputed-as
'I am reputed as a ribald.' [Ostrovsky, cited in Comrie and Stone 1978:119]

- ustraivat'sja/ustroit'sja 'get a job'

(B39) On ustroilsja sud'ëj.
he.NOM get-a-job judge.INSTR
'He got a position as a judge.' [Nichols 1981a:110]

- čislit'sja 'be itemized as, be considered as'

(B40) On čislitsja pogibšim.
he.NOM is-itemized-as perished.INSTR
'He is presumed dead.'

- čuvstvovat'/počuvstvovat' sebja 'feel'

(B41) Ja čuvstvuju sebja molodoj.
I.NOM feel myself young.INSTR
'I feel young.'

- javljat'sja 'be' (formal register)

(B42) Voda javljaetsja složnym veščestvom.
water.NOM is compound.INSTR substance.INSTR
'Water is a compound substance.'

Nichols (1981a:218) cites one example of nominative complement of *javljat'sja* 'be', and attributes it to "an illiterate worker who attempts to imitate formal speech and uses the verb inappropriately and with the incorrect case":

(B43) Kto tebe perečit – ty ego kroj v golos, beri za kožu, esli ty
who you contradicts you him swear in voice take by skin if you

dispetčer javljaeš'sja.
dispatcher.NOM are

'If someone contradicts you, then you swear like hell, grab him by the skin, if you are a dispatcher.' [Nichols 1981a:218]

Appendix C. Other instrumental-complement verbs

Verbs of management and control:

pravit' 'govern', *rukovodit'* 'supervise', *upravljat'* 'manage', *komandovat'* 'command', *zavedovat'* 'manage', *rasporjažat'sja* 'handle', *vlastvovat'* 'control', *vedat'* 'manage', *dirižirovat'* 'conduct (orchestra)', and others:[144]

(265) Učites' vlastvovat' soboju.
learn.IMPER control.INF self.INSTR
'Learn to control yourself!' [Pushkin, cited in Zolotova 1988:243]

Verbs of interest:

zanimat'sja 'occupy oneself', *interesovat'sja* 'be interested in':

(266) Volodja zanimalsja fotografiej.
Volodja occupied-oneself photography.INSTR
'Volodja occupied himself with photography.'
[Paustovsky, cited in Zolotova 1988:244]

Verbs of possession:

vladet' 'own', *raspolagat'* 'have at one's disposal', *obladat'* 'have', *izobilovat'* 'replete with', and others:

(267) Ostrov Saxalin raspolagaet ogromnymi prirodnymi bogatstvami.
island Sakhalin has [great natural resources].INSTR
'Sakhalin island has great natural resources.' [Zolotova 1988:245]

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[144] Interestingly, some of these verbs, including *rukovodit'* 'supervise' and *dirižirovat'* 'conduct (orchestra)' have acquired the instrumental-assigning ability in the last century, whereas in the 19th century they "used to take the accusative" (Comrie and Stone 1978:104). This spreading of inherent instrumental is not unlike the spreading of dative marking on objects in Icelandic (the so-called "dative sickness", see Svenonius 2001 and the references cited therein). Also, it must be noted that this "instrumental sickness" goes against the general trend "from oblique objects towards accusative or prepositional objects" (Comrie and Stone 1978:104; see also fn. 132 above).

Verbs of acquiring possession:

obzavestis' 'get hold of', *razžit'sja* 'get hold of', *razdobyt'sja* 'take possession', *poživit'sja* 'steal possession', and others:

(268) Ja ne xotela obzavodit'sja veščami.
I not wanted get-hold.INF things.INSTR
'I didn't want to come into possession of too many things.'
[Grekova, cited in Zolotova 1988:246]

Verbs of transferring possession:

odarit' 'give as gift', *nadelit'* 'endow', *obdelit'* 'not endow', *obojti* 'not endow', *nagradit'* 'present (with gift, medal)', *snabdit'* 'provide', *zaplatit'* 'pay', *otplatit'* 'pay', *obespečit'* 'provide', *ssudit'* 'give as a loan', and others:

(269) Ego nagradili medalju.
him.ACC presented medal.INSTR
'He was presented with a medal.'

Verbs of exchange:

torgovat' 'trade', *menjat'sja* 'exchange', *obmenivat'sja* 'exchange', *delit'sja* 'share', *perekidyvat'sja* 'bandy', and others:

(270) Torgoval on ovoščami v lar'ke.
traded he vegetables.INSTR in stall
'He traded in vegetables at a stall.' [Astafjev, cited in Zolotova 1988:247]

Verbs of changing the object of possession:

zamenit' 'substitute', and others:

(271) Ja zamenil sjurtučok kurtkoj.
I substituted surtout.ACC coat.INSTR
'I substituted a coat for the surtout.' [Turgenev, cited in Zolotova 1988:247]

Verbs of smell and light emission: (cf. Levin and Rappoport Hovav 1995:91)

páxnut' 'smell', *paxnút'* 'smell.SMLF', *nesti* 'stink', *otdavat'* 'smell', *otsvečivat'* 'gleam', *vejat'* 'smell', *tjanut'* 'smell':

(272) I v pereulkax paxnet morem.
and in alleys smells sea.INSTR
'And in the alleys it smells of the sea.' [Blok, cited in Zolotova 1988:235]

Verbs of body-internal motion with no change of state: (cf. Levin and Rappoport Hovav 1995:226-227)

kačat' 'dangle', *maxat'* 'wave', *vertet'* 'spin', *vzmaxnut'* 'wave.SMLF', *kivat'* 'nod', *ševelit'* 'move', *krutit'* 'twist', *motat'* 'waggle', *trjaxnut'* 'shake up', *požimat'* 'shrug', *topat'* 'stamp', *morgat'* 'blink', *pobrjakivat'* 'dingle-dangle', and others:[145]

(273) Lošad' ševelila ušami.
horse move ears.INSTR
'The horse move his ears.'

Verbs of illness and suffering:

bolet' 'be ill', *mučit'sja* 'suffer', *stradat'* 'suffer', *zarazit'* 'infect', *zarazit'sja* 'get infected':

(274) Suščestvujut akuly, kotorye... nikogda rakom ne zabolevajut.
exist sharks which never cancer.INSTR not get-ill
'There exist some sharks that never get ill with cancer.' [Zolotova 1988:245]

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[145] Note that Levin and Rappoport Hovav (1995:138, 226-227) analyze verbs of smell and light emission and verbs of body-internal motion as unergative.

Verbs of filling:

polnit'sja 'fill itself', *napolnjat'sja* 'fill itself', *zasypat'* 'fill (with grain, etc.)', *usypat'* 'fill (with grain, etc.)', *zavalit'* 'fill (with objects)', *zabrosat'* 'fill by throwing', and others:

(275) Tropinka pokrylas' lužicami.
footpath.NOM covered-self puddles.INSTR
'The footpath got covered with puddles.' [Nosov, cited in Zolotova 1988:244]

Verbs of explanation:

ob"jasnjat' 'explain', *ob"jasnjat'sja* 'be explained', *opredeljat'* 'determine', *opredeljat'sja* 'be determined', *obuslovlivat'* 'condition', *obuslovlivat'sja* 'be conditioned', and others:

(276) Kaprizy pogody ona ob"jasnjala neradivostju meteorologov.
whims.ACC weather.GEN she.NOM explained negligence.INSTR meteorologists.GEN
'She explained the whims of weather by the negligence of meteorologists.'
[Zolotova 1988:241]

Verbs of emotional treatment:

ljubovat'sja 'admire', *vosxiščat'sja* 'admire', *dorožit'* 'cherish', *gordit'sja* 'be proud', *naslaždat'sja* 'relish', *obol'ščat'sja* 'be beguiled', *xvalit'sja* 'brag', *xvastat'sja* 'brag', *pomykat'* 'order about', *prenebregat'* 'neglect', *brezgovat'* 'strain at', *tjagotit'sja* 'be born down', and others:

(277) Zaljubovalsja ja pticej.
admire.INCEP I.NOM bird.INSTR
'I looked in admiration at a bird.' [Nosov, cited in Zolotova 1988:248]

***Frighten*-type psych verbs:**

divit' 'marvel', *vosxiščat'* 'delight', *zabavljat'* 'amuse', *poražat'* 'amaze', *radovat'* 'rejoice', *smutit'* 'confuse', *udivljat'* 'surprise', *utešat'* 'console', *utomljat'* 'tire', *smešit'* 'cause to laugh', *grozit'* 'threaten', *ugrožat'* 'threaten', *pugat'* 'frighten', and others:

(278) On porazil eë svoej original'nostju.
He amazed her [own originality].INSTR
'He amazed her by his originality.' [Chekhov, cited in Zolotova 1988:241]

Appendix D. Languages Mentioned

language	family	spoken in / official language of:
Arabic	South-Central Semitic	North Africa, Arabian Peninsula, Middle East[146]
ASL	sign language	North American deaf community
Basque	isolate	Northern Spain and South-West France[147]
Belorussian	East Slavic; Indo-European	Belarus, Lithuania, Poland
Bengali	Indo-Aryan; Indo-European	India, Bangladesh
Chichewa	Bantu; Niger-Congo	Malawi, Zambia, Zimbabwe, Mozambique
Dutch	West Germanic; Indo-European	The Netherlands, Antilles, Suriname
Èdó	Kwa, Niger-Congo	Nigeria, Benin[148]
English	West Germanic; Indo-European	UK, Ireland, USA, Canada, India, Australia, New Zealand, SAR, Philippines
Estonian	Baltic-Finnic; Finno-Ugric; Uralic	Estonia
Finnish	Baltic-Finnic; Finno-Ugric; Uralic	Finland, Sweden, Karelia (Russia)
Fon-gbe	Gbe; Kwa; Niger-Congo	Benin, Togo
French	Romance; Indo-European	France, Belgium, Switzerland, Canada, former French colonies in Africa and South America

[146] Various regional dialects of Arabic exhibit many linguistic differences. However, unless otherwise specified, claims made in this dissertation apply to most or all varieties of Arabic.

[147] The classification of Basque in the language family system is disputed. For more information on Basque, the reader is referred to <http://www.ehu.es/grammar/index.htm>.

[148] For more information on this language, see <http://www.arts.ubc.ca/ling/edo/uyi/>

Gã (Gan)	Kwa; Niger-Congo	Southeast coast of Ghana
Haitian Creole	French-based Creole	Haiti, Dominican Republic
Hebrew	North-Western Semitic	Israel[149]
Hindi/Urdu	Indo-Aryan; Indo-European	Northern India, Bangladesh, Nepal
Icelandic	North Germanic; Indo-European	Iceland
Igbo	Niger-Congo	Nigeria
Irish	Goedelic Celtic; Indo-European	Ireland, UK
ISL	sign language	Israeli deaf community
Italian	Romance; Indo-European	Italy, Switzerland, Malta[150]
Japanese	isolate	Japan, Brazil, USA
Korean	isolate	Korea, China, Japan, Kazakhstan, Uzbekistan
Latin	Romance; Indo-European	Ancient Roman Empire (extinct)
Lithuanian	Baltic; Indo-European	Lithuania, Belarus, Russia, Poland, Latvia, USA
Maltese	South Central Semitic[151]	Malta, Italy
Norwegian	North Germanic; Indo-European	Norway, Sweden, USA
Polish	West Slavic; Indo-European	Poland, Lithuania
Quechua	Quechumaran; Andean-Equatorial	Peru, Equador, Colombia, Bolivia, Argentina, Chile
Romanian	Romance; Indo-European	Romania, Moldova, Ukraine, Yugoslavia

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[149] In this dissertation, references are made to Modern Hebrew only.

[150] Paraphrasing Count Metternich, one might remark that "Italian is a linguistic expression" (Vincent 1987:279). Judgments original to this dissertation come from educated speakers from different geographical areas in Italy and are intended to reflect standard Italian. Wherever variation among speakers (or possibly between dialects) exists, it has been noted in the text.

[151] Maltese has been heavily influenced by Romance languages, mostly Italian and French, so that some researches reject its synchronic classification as a Semitic language.

Russian	East Slavic; Indo-European	Russia and former USSR republics, USA, Israel
Scottish Gaelic	Goedelic Celtic; Indo-European	Scotland
Serbian / Croatian / Bosnian	South Slavic; Indo-European	Yugoslavia, Croatia, Bosnia-Hercegovina
Slovak	West Slavic; Indo-European	Slovakia
Slovene	South Slavic; Indo-European	Slovenia
Sobei	Eastern Malayo-Polynesian; Austronesian	Indonesia
Spanish	Romance; Indo-European	Spain, the Americas, Equatorial Guinea
Squamish Salish	Central Coast Salish	in and around Vancouver (Canada)
St'át'imcets	Northern Interior Salish	southwest interior of British Columbia (Canada)
Swedish	North Germanic; Indo-European	Sweden, Norway, USA, Finland, Canada
Tamil	Dravidian	Southern India, Sri Lanka
Turkish	South Western Turkic; Altaic	Turkey, Cyprus, the Balkans
Ukrainian	East Slavic; Indo-European	Ukraine, Russia, Canada
Votic	Baltic-Finnic; Finno-Ugric; Uralic	Kingisepp area of St. Petersburg (Russia)

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