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# **The Expression of Genericity in Languages with and without Articles**

Russian as Compared to English and Romance

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PhD Thesis

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*In the memory of Felix Sergeevich Grishkun,  
who initiated me into linguistics*



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## ABSTRACT

This thesis focuses on the phenomenon of genericity in Russian, a language without articles, in comparison to English and Romance, languages with articles. The main goal of this research is to study how genericity is encoded in Russian. It investigates whether the existing theoretical proposals for the analysis of generic nominals in languages with articles can be applied to languages without articles. I propose that there is direct and indirect reference to kinds. The former one means that the NP names a kind itself, while in the latter case the reference is to a sum of individuals that may be reinterpreted as referring to a kind.

I show that nominal-level genericity, i.e., direct reference to kinds, in Russian is encoded by means of morphophonologically singular bare nominals, which are devoid of semantic and syntactic Number. Unlike English and Romance, where such NPs are preceded by a definite article, in Russian these nominals are semantically indefinite, but being singleton sets they are characterised by uniqueness. I argue that this uniqueness does not come as a result of an application of a semantic operator, it is 'ontological'. I analyse definitional sentences in Russian as an environment where kind-referring NPs are found, showing that they are non-predicational copular sentences which express an identity/identificatiton relationship between two nominal concepts.

Next, I study plural nominals which refer to sums of individuals that under certain circumstances may have a generic reference (indirect reference to kinds). Such nominals are bare in English and Russian, and definite in Romance languages. The

source of genericity in this case is the type of predicate (kind-level for subjects and subject-experiencer for objects) or the type of sentence (characterising statement). I argue that, regardless of whether generic plurals are bare or overtly definite in a given language, they are characterised by maximality, identifiability and presupposition of existence, which makes them similar to nominals with a definite interpretation. They are different from NPs with a definite interpretation by the unboundedness of their domain: generic plurals cannot be restricted by spatiotemporal localisation or anaphoric anchoring. I propose that the ‘definiteness effects’ of generic nominals are encoded semantically by means of a definite article, as it is the case in Romance languages, or pragmatically by means of bare plural nominals in Russian (and possibly, in English).

Further, I address a more general question of a possible semantic analysis of bare nominals in Russian, because genericity is only one of the interpretations they may have. So, it is highly important to understand not only how this interpretation is derived but also what it is derived from. I argue that Russian bare nominals are semantically indefinite and the other interpretations (definite and generic) they can be associated with are inferred pragmatically. Bare nominals in Russian do not give rise to a presupposition of uniqueness, and their perceived definiteness is either the result of ‘ontological’ uniqueness, topicality, or familiarity of the referent.

## RESUM

Aquesta tesi se centra en el fenomen de la genericitat en rus, una llengua sense articles, i es compara la manifestació de la genericitat en llengües amb articles, com l'anglès i algunes llengües romàniques. L'objectiu principal d'aquesta recerca és estudiar com es codifica la genericitat en rus. Investigo si les propostes teòriques existents per a l'anàlisi dels nominals genèrics en llengües amb articles són també aplicables a les llengües sense articles. Proposo que la genericitat a nivell nominal permet fer referència a classes d'individus de manera directa o indirecta. Mitjançant el primer tipus un SN fa referència a una classe intensionalment, mentre que en el segon cas un SN fa referència a una suma d'individus que pot ser reinterpretada com a referent d'una classe.

Demostro que la genericitat a nivell nominal, o sigui, la referència directa a una classe, en rus es codifica mitjançant nominals escarits morfofonològicament singulars, per als quals el Nombre semàntic i sintàctic és absent. A diferència de l'anglès i les llengües romàniques, on l'expressió sintàctica de la definitud és necessària, en rus aquests nominals són semànticament indefinits. Tanmateix, com que són conjunts unitaris es caracteritzen per denotar unicitat. Argumento que aquesta unicitat no és el resultat de l'aplicació d'un operador semàntic, sinó que és 'ontològica'. Analitzo les construccions definidores en rus com un entorn en el qual es troben SNs amb referència a classe i demostro que són frases copulatives no predicatives que expressen una relació d'identitat/identificació entre dos conceptes nominals.

En aquesta tesi també estudio els nominals plurals que es refereixen a sumes

d'individus, els quals en determinades circumstàncies poden legitimar una referència genèrica indirecta a una classe. Aquests nominals són escarits en rus i en anglès, i definits en les llengües romàniques. La font de la genericitat en aquest cas és el tipus de predicat (predicats que seleccionen arguments que denoten classes i predicats psicològics amb subjecte experimentador) o el tipus d'oració (p.e., oració caracteritzant). Argumento que, independentment del fet que els plurals genèrics siguin escarits o obertament definits en una llengua determinada, semànticament es caracteritzen per la maximalitat, la identificabilitat i la pressuposició d'existència, la qual cosa els fa similars als nominals amb una interpretació definida. Els nominals plurals escarits del rus es diferencien dels nominals definits de l'anglès i de les llengües romàniques pel fet que s'interpreten en un domini no afitat: els plurals genèrics no poden ser restringits per la localització espacio-temporal o l'ancoratge anafòric. Proposo que els 'efectes de definitud' dels nominals genèrics es codifiquen sintàcticament i semànticament mitjançant un article definit en el cas de les llengües romàniques, o pragmàticament en el cas dels nominals plurals escarits del rus (i possiblement de l'anglès).

Finalment, discuteixo la qüestió més general de quines són les possibles interpretacions dels nominals escarits en rus, perquè la genericitat és només una de les interpretacions que aquests nominals poden tenir en aquesta llengua. Per això, és molt important entendre no sols com es deriva aquesta interpretació genèrica sinó també amb quina altra lectura es relaciona. Argumento que els nominals escarits del rus són semànticament indefinits i que les altres interpretacions (definides i genèriques) a les quals es poden associar s'infereixen pragmàticament. Els nominals escarits en rus no donen lloc a una pressuposició de singularitat, i la seva definitud (percebuda pels parlants) és una inferència ja sigui de l'assumpció d'unicitat ontològica, la topicalitat o la familiaritat del referent.

## ABBREVIATIONS AND NOTATION

*	ungrammatical sequence
#	infelicitous sequence
?	marginally acceptable sequence
(...)	optional sequence
(*...)	sequence must be omitted
*(...)	sequence cannot be omitted
1	first person
3	third person
ACC	accusative case
AUX	auxiliary
CL	clitic
DAT	dative case
DEM	demonstrative
DKP	derived kind predication
DOM	differential object marking
DP	determiner phrase

<b>F</b>	focus
<b>FEM</b>	feminine gender
<b>GEN</b>	generic operator
<b>GEN</b>	genitive case
<b>IND</b>	indicative mood
<b>INDEF</b>	indefinite
<b>INSTR</b>	instrumental case
<b>IPF</b>	imperfective aspect
<b>LOC</b>	locative
<b>MASC</b>	masculine gender
<b>NEUT</b>	neuter gender
<b>NOM</b>	nominative case
<b>NP</b>	nominal phrase
<b>NumP</b>	number phrase
<b>PART</b>	partitive
<b>PAST.PART</b>	past participle
<b>PF</b>	perfective aspect
<b>PL</b>	plural
<b>PP</b>	prepositional phrase
<b>PredP</b>	predicate phrase

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<b>PREP</b>	prepositional case
<b>PROGR</b>	progressive aspect
<b>PRO</b>	pronominal determiner phrase without phonological content
<b>QP</b>	quantifier phrase
<b>REFL</b>	reflexive
<b>SEV</b>	subject-experiencer verb
<b>SG</b>	singular
<b>SpecX</b>	specifier of head X
<b>SUBJ</b>	subjunctive mood
<b>TOP</b>	topic
<b>TopP</b>	topic phrase
<b>TP</b>	tense phrase
<b>VP</b>	verb phrase





# Chapter 1

## What is genericity?

### 1.1 Introduction

The present work is devoted to the study of genericity and its expression in Russian (a Slavic language that does not have articles) in comparison to languages with articles, such as English and Romance languages. The study of genericity is closely related to the study of other types of reference that nominals may have in natural language. As far as Russian is concerned, all types of interpretations are available for bare nominals<sup>1</sup> – definite, indefinite and generic. The interpretation is sensitive to the context of usage, but also depends on some other strictly linguistic factors, which I am going to discuss in this work.

#### 1.1.1 Genericity. Preliminary remarks

Genericity as a linguistic phenomenon is an important piece of a complex puzzle, which comprises human language and cognition. Genericity enables speakers of natural language to express generalisations and regularities about the world, about

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<sup>1</sup>The term ‘nominal’ is understood in this work as a variable for simple or modified nouns and is used as a synonym for ‘NP’ (noun phrase). Notice also that for now I do not deal with the DP vs. NP debate which revolves around the structure of languages without articles (Bošković 2005, 2008; Pereltsvaig 2007; Bošković and Gajewski 2008 and others), and use the label NP for any nominal expression. I come back to this issue in Subsection 3.5.3.

individuals, groups of individuals, events, states of affairs and situations. Cross-linguistically, genericity is expressed through a variety of forms, even though it is semantically universal. That is to say, every language has means to express the generic meaning (Cohen 2012, among others), but these means are rather different. Moreover, one and the same language may express genericity in more than one way (Behrens 2000, 2005).

Let us look at the examples of sentences that are considered to be generic in the languages under study. In Russian, only bare nominals can be used in such sentences (1a-1c).<sup>2</sup> In English a definite singular (2a), an indefinite singular (2b) or a bare plural (2c) are possible. Catalan, as a representative of Romance languages, uses a definite singular (3a), an indefinite singular (3b) or a definite plural (3c) nominal, disallowing for bare nominals. With respect to these data, it should be noted that, unlike languages without articles that make a distinction between definite, as in (2a) and (3a), and indefinite singular nominals, as in (2b) and (3b), Russian does not have articles as morphosyntactic means to express this difference, so bare singular nominals are used in both (1a) and (1b). It cannot be a priori decided whether a bare nominal in Russian corresponds to a definite or an indefinite nominal in languages with articles.

(1) *Russian*

- a. *Kompjuter– èto glavnoe izobretenie XX veka.*  
 computer this main invention XX century  
 ‘The computer is the main invention of the XX century.’
- b. *Treugol’nik imeet tri storony.*  
 triangle has three sides  
 ‘A/the triangle has three sides.’
- c. *Poljarnye medvedi belye.*  
 polar bears white

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<sup>2</sup>The grammatical information in the glosses of non-English examples is reduced to the relevant minimum throughout the thesis.

'Polar bears are white.'

(2) *English*

- a. *The computer is the key invention of the XX century.*
- b. *A triangle has three sides.*
- c. *Polar bears are white.*

(3) *Catalan*

- a. *L'ordinador és la invenció més gran del segle XX.*  
the.computer is the invention more big of.the century XX  
'The computer is the biggest invention of the XX century.'
- b. *Un triangle té tres costats.*  
a triangle has three sides  
'A triangle has three sides.'
- c. *Els ossos polars són blancs.*  
the bears polar are white  
'Polar bears are white.'

In this thesis, I concentrate on the way genericity is expressed at syntax-semantics interface in languages without articles, namely Russian, and compare it to languages with articles – English and Romance languages (most of my Romance examples are from Catalan, but I also recur to empirical data from Spanish, French and other languages). The majority of formal analyses of genericity in the linguistic literature have been developed on the empirical data of languages with articles, that is why I consider it important to study how the generic meaning is expressed in languages without articles, which comprise about half of all natural languages that exist in the world (Longobardi 2001; Dryer 2013a,b, among many others). In order to partially cover this theoretical gap, I study genericity in Russian setting the following overall goal of my work and putting forward several research questions.

### 1.1.2 Main goal, research questions and hypothesis

The main goal of this thesis is to propose an analysis of genericity in Russian as a language without articles and to contribute to the cross-linguistic study of this phenomenon. So as to achieve this goal I would like to address the following research questions:

- i How is genericity expressed in Russian as a language without articles (as compared to English and Romance languages)? What are the linguistic forms that can be used to refer to kinds in languages with and without articles? How can the variety of types of nominals with a generic reference be accounted for?
- ii What is the source of genericity in Russian? Is it comparable to languages with articles? Does this language manifest the phenomena of nominal-level and sentence-level genericity, described for languages with articles? (See Krifka and Gerstner 1987; Krifka et al. 1995)
- iii What are the available meanings of bare nominals in Russian? And how are these interpretations achieved?
- iv Which are the main factors for encoding genericity in Russian? Does the syntactic structure of a nominal phrase (e.g. the presence or absence of D- or Num-projection) play any role? How does definiteness as a semantic category interact with genericity?
- v What are other linguistic factors relevant for encoding genericity in Russian? Does information structure or the speaker's and hearer's world knowledge play any role?
- vi Is the meaning of a nominal in Russian context-dependent? What kind of context favours the rise of genericity?

- vii What is the contribution of the article in encoding genericity and other types of reference in languages with articles? How is it compared to languages without articles?

These questions may not have complete intransgressible answers in this thesis (and in general). However, I attempt to make a relevant contribution to the understanding of different types of reference in languages without articles, such as Russian, and compare them to languages with articles. The present work may serve as a solid starting point for many directions of further research.

In this thesis I defend the following main hypotheses:

- Nominal expressions in Russian may be of two types: either kind-referring or object-referring. Kind-referring NPs are expressions of nominal-level genericity, they directly refer to kinds, conceived as abstract integral entities without any internal structure. Such expressions are devoid of syntactic or semantic Number. Object-referring expressions, in their turn, have syntactic and semantic Number. They refer to instances (instantiations) of a kind, a maximal sum of which can be reinterpreted as referring to a kind. Number distinguishes between kinds and instances of a kind: numberless nominals denote in the domain of kinds, while nominals with Number denote in the domain of objects.
- Kind-referring nominals are frequently found in the definitional mode of speaking, i.e., in the meta-linguistic language used to explain the meaning of concepts. Definitions represent a mechanism of identification of one kind (concept) with another.
- Object-referring nominals may have different interpretations in Russian: indefinite, definite and generic. The indefinite reading is the underlying one and is derived semantically, while the definite and the generic ones result

from a process of pragmatic strengthening, which occurs in certain syntactic environments and discourse contexts.

- Object-referring nominals that may have a generic reading in Russian are bare plurals. They are characterised by maximality, identifiability and a presupposition of existence, which makes them similar to definites. However, unlike definites, they are not spatiotemporally localised nor discourse anchored.
- The rise of a generic interpretation on object-referring nominals is conditioned in Russian by the type of the predicate (kind-level for subjects and subject-experiencer for objects) and the type of sentence in which they occur (characterising statements).

### 1.1.3 The structure of the thesis

In order to analyse genericity as a linguistic phenomenon in Russian, to answer the research questions and to give support to the hypotheses stated in the previous subsection (1.1.2), I devise the following structure of the thesis.

In the remainder of Chapter 1, I give an overview of genericity as a cognitive and a linguistic phenomenon. I describe the semantic ontology adopted in this work, which comprises kinds and objects (individuals) and state the difference between them, which consists in the absence/presence of spatiotemporal localisation. Kinds in this work are conceived as abstract sortal concepts. Then, I look into the distinction between nominal-level and sentence-level genericity, which represent two separate linguistic phenomena cross-linguistically. Nominal-level genericity is the expression of direct reference to kinds, while sentence-level genericity is a generalisation about properties (characterising sentences) or events (habitual sentences). Next, I review the main characteristics of generic sentences, stated in

the literature. After that I discuss the classification of predicates into kind-level, individual-level and stage-level, relevant for the study of genericity in natural language, as different types of predicates may require different types of arguments (kind-referring vs. object-referring). I show that this classification can be applied not only to English and Romance, but also to Russian.

Chapter 2 is dedicated to kind-referring nominals, i.e., nominal phrases that denote kinds directly. I first review the theory of definite kinds by Borik and Espinal (2012, 2015), where they claim that these nominals are definite numberless NPs found cross-linguistically. Then I investigate a typical context where definite kinds appear – definitional sentences (Seres and Espinal 2019b). I analyse canonical definitions as copular sentences of type ‘NP1 is NP2’ that in Russian express an identity/identification relation between two kinds.

In the subsequent chapters, I focus on plural nominals, which may have either a generic or an individual reference, i.e., bare plurals in Russian and English, and definite plurals in Romance. I claim that these nominals refer to a (maximal) sum of individuals, which in certain contexts can be analysed as referring to a kind. The reference to a kind in such cases is indirect, that is, it is carried out through a sum of its representatives.

In Chapter 3, I study such nominals in subject position. In this position they get interpreted generically when they function as arguments of kind-level predicates or as subjects of characterising statements, i.e., statements that express non-accidental properties, ‘principled connections’ (Prasada and Dillingham 2006, 2009; Prasada et al. 2012); essential, inherent, and definitional properties (Burton-Roberts 1977; Carlson 1977b, 1995; Krifka et al. 1995; Greenberg 2012; Pelletier 2009). I point out that the generic interpretation is similar to a definite one in the sense that plural nominals in the above-mentioned environments get interpreted as referring to a maximal set of individuals, which includes all (possible/relevant) instantiations



of a given kind in all possible worlds. The referent of these nominals is identifiable as it belongs to the common ground of the speakers and is characterised by having a presupposition of existence. I show that these definiteness effects are found on generically interpreted nominals cross-linguistically, however, they do not have to be semantically encoded by means of a definite article in all languages.

In Chapter 4, I focus on the same type of plural NPs, as the ones analysed in Chapter 3, but in object position. I claim that such nominals may get interpreted generically in the argument position of a certain class of predicates – psychological subject experiencer verbs (Seres and Espinal 2018), as such predicates due to their non-agentivity trigger an inclusive (maximal) reading of the plural object. I also study the cross-linguistic distribution and interpretation of bare nominals in object position, showing that they may be non-referential (or weakly referential), when they are found in characterising sentences.

In Chapter 5, I analyse other types of reference, such as definiteness and indefiniteness, focusing on Russian as a language without articles. I overview formal means of expressing definiteness in Russian and present an experimental study on the syntactic expression of definiteness in Russian and analyse its theoretical repercussions. Then, I compare definiteness interpreted nominals in English and in Russian. I show that the perceived definiteness in Russian may have a different nature from what is encoded by means of a definite article in languages with articles. I propose that the default interpretation of bare nominals in Russian is indefinite and a definite interpretation is achieved pragmatically. I review possible ways to derive definiteness in Russian.

Chapter 6 concludes the thesis. It summarises the main proposals and raises new questions which are worth investigating in the light of the conclusions reached.

This thesis also contains an appendix (Appendix A), which contains information on methodology and participants of an experimental study on the correlation

between linear syntactic position and interpretation of bare plural subjects in Russian, as well as examples of experimental items and results in figures. The discussion of the results and possible theoretical outcomes are presented in Chapter 5.

## **1.2 Genericity as a cognitive phenomenon**

Genericity may be studied as a linguistic phenomenon (that is, how reference to kinds or classes of objects is achieved in a given language), but also as a cognitive phenomenon. From the cognitive perspective, genericity is connected with the human ability of abstract thinking, generalising, classifying and talking about things that have no specific referent but represent a kind of things.

In the present subsection, I briefly discuss genericity from the point of view of cognitive psychology and then discuss kinds as cognitive and ontological primitives. Such an approach to kinds emphasises the importance of genericity for both cognitive psychology and linguistics. As Mueller-Reichau (2011: 53-55) states it, kinds are sortal concepts that belong to the general conceptual system and, thus, to the area of interest of cognitive psychology, but at the same time they are ontological primitives, i.e., possible referents of linguistic expressions (as in Carlson 1977b), and thus, can be studied by linguists.

### **1.2.1 Genericity and human thought**

Genericity is ubiquitous in human speech and reasoning, emerging in early development. Even though it has diverse representations cross-linguistically, as shown above in (1) – (3), genericity may be considered a unitary phenomenon of human thought (Collins 2015, 2018), that is, it forms part of human cognitive mechanisms regardless of the language. Many researchers (Cohen 2004; Leslie 2007, 2008; Prasada and Dillingham 2006, 2009; Prasada et al. 2012; Collins 2015, 2018) regard

genericity as a particular mode of thinking, viewing it as a primarily psychological (not a linguistic) phenomenon, not denying, however, the importance of studying the complexity of its linguistic manifestations.

The generic mode of thinking, in other words, the ability to form broad generalisations – usually on the basis of limited information – is a prominent feature of human cognitive capacities (Gelman et al. 2014), which manifests itself in early infancy. Some scholars (Leslie 2007, 2008; Gelman 2009, among others) even claim that generic generalisations (e.g. *Bears eat honey.*) are a default and innate mode of generalisation as they are cognitively primitive, whereas quantificational generalisations (e.g. *All/most/some bears eat honey.*) are more cognitively sophisticated and taxing. This hypothesis is known as *generics-as-default* and it predicts the ability of humans to identify whether or not a certain property is a characteristic of a given kind, to identify whether or not it is a striking property (see Subsection 1.5.3), and to segment counter-instances (i.e., exceptions) into positive and negative counter-instances. Generic sentences are considered to be an unmarked surface form, while quantified statements are marked (Leslie 2008: 24). These claims are supported by extensive experimental evidence, based on acquisition studies (e.g. Gelman et al. 2008) and adult processing of generic sentences (e.g. Leslie et al. 2011). However, it should be noted that the hypothesis that generics are cognitively primitive is revised and challenged in psycholinguistic experimental research by Lazaridou-Chatzigoga et al. (2015). Sterken (2014) also provides empirical and theoretical arguments against viewing generics as cognitive primitives. In this work, I do not make any claims with respect to the question whether generic generalisations are cognitively default or not, but emphasise their importance for human cognition in general.

### 1.2.2 What are kinds?

Speaking about genericity as a human ability to think and talk not only about specific objects of the real world, but also about kinds, which represent classes of objects, it is important to define the notion of *kind*, or *genus*. Kinds are abstract constructs postulated in philosophy, cognitive science, linguistics, etc. in order to account for the phenomenon of genericity. Being mental (i.e., belonging to human thought), kinds may be conceived and modelled in various ways. As Chierchia (1998b: 350) in his seminal work on cross-linguistic reference to kinds puts it, “kinds are whatever your favourite worldview says they are.”

From the cognitive point of view, kinds can be understood as sortal concepts that form a “mental catalogue”, which is developed in human beings during their cognitive genesis, when they are confronted with the real world of objects (Mueller-Reichau 2011: 35).<sup>3</sup> This “mental catalogue” serves to categorise and individuate objects of the real world. Mueller-Reichau (2011: 24) explains these two processes in the following way: “categorisation means to identify the identity of an object as an instance of a (familiar) kind”, while “individuation means to *reidentify* the identity of an object as a (familiar) object.” The capacity to reidentify objects is highly relevant for human cognition. Based on the objects of the real world, humans develop the “mental” world of kinds (Mueller-Reichau 2011: 35). A remarkable fact about human cognition, as Prasada (2012) argues, is that, although we see a limited number of particular individuals, we are able to generalise, characterise, and speak about kinds or species based on these individuals.

It is important to notice that by means of language speakers may refer to either particular objects of the real world or to abstracts concepts (kinds) by virtue

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<sup>3</sup>According to Stanford Encyclopedia of Philosophy, some of the main characteristics of sortals include the following: i) they answer the question “what is it?” for things of that kind; ii) they specify the essence of things of that kind; iii) they give identity and non-identity among items of that kind (Grandy 2016).

of which they sort the objects (Mueller-Reichau 2011: 101).<sup>4</sup> Thus, kinds can be viewed as a result of generalising over instances, “but the product of this generalisation abstracts away from instantiations and semantically behaves like an entity without any internal structure” (Borik and Espinal 2015: 183).

Kinds, unlike their instantiations, are mental, or abstract, by nature, and do not exist in space or time (Mueller-Reichau 2011, following Carlson 1977b). However, it is important to emphasise that kinds still exist, in the sense of their existence in the mind of the speaker (Mueller-Reichau 2011: 153).

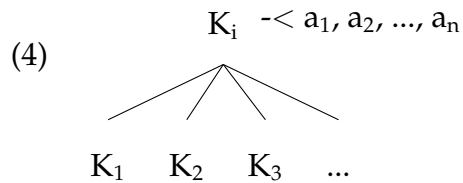
The existence in space and time,<sup>5</sup> that is, spatiotemporal localisation, is what distinguishes objects from kinds. Every object is a realisation (instance) of a kind, but not every kind has object instances in the real world (e.g. *round squares* do not exist). Such understanding of kinds (as being cognitively and ontologically prior to objects) may be comparable to the *generics-as-default* hypothesis discussed in Subsection 1.2.1.

Prasada (2016) underlines the dual function of kinds (concepts) for human cognition: they provide the means to think about indefinitely many things as instances of a kind (both actually and potentially existing) and the means for thinking about a single abstract kind which contains the instances. Thus, kinds have the following representation:

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<sup>4</sup>While Mueller-Reichau (2011) does not make a distinction between kinds and concepts, some researchers do. For instance, Krifka (1995) claims that kinds are similar to concepts – both are abstract entities related to real objects. However, kinds have to be well-established in the background knowledge of the speaker and the hearer, while concepts can be construed from scratch. “Kinds form a subset of the more comprehensive sets of concepts.” (Krifka 1995: 402). In this work, I follow Mueller-Reichau conceiving kinds as abstract sortal concepts: maturation and language acquisition lead human beings to “sort (physical) objects into kinds of objects, following the linguistic practice of the social group with which we grow up” (Mueller-Reichau 2011: 35).

<sup>5</sup>It should be noted that the existence in space and time does not only apply to the real world; it is also possible in hypothetical, imaginary and counterfactual worlds.



The kind ( $K_i$ ) projects an aspect structure ( $a_1, a_2, \dots, a_n$ ), which represents the properties that the kind has in virtue of being that kind of thing. These properties are called *principled connections* to the kind (Prasada and Dillingham 2006) and can be extended to the instances of the kind ( $K_1, K_2, K_3$ , etc.) Properties that differ between instances of a kind are not determined by the kind: they are unsystematic and understood to be accidental.

Kinds in this model are considered to be atomic (i.e., having no internal structure) and integral (see also Fodor 1998), distinguished from one another by the content that they project and not by numerical identity. Instances, however, are numerically distinct (Prasada 2016).

The distinction between kinds and their instances is relevant not only from the cognitive perspective but also from the linguistic one. As I further argue in Chapters 2-4 of this thesis, languages make a distinction between direct reference to kinds as atomic abstract entities and indirect reference to kinds, i.e., reference to a sum of their instances. My hypothesis is that morphosyntactic and semantic Number plays a crucial role in distinguishing the two components of Prasada's cognitive model (kinds and its instances), represented in (4), in natural language.

### 1.3 Genericity as a linguistic phenomenon

Genericity in natural language is the expression of reference to kinds. This phenomenon has been extensively studied since 1970s (Lawler 1973; Dahl 1975; Carlson 1977a,b; Krifka and Gerstner 1987; Krifka et al. 1995; Dayal 2004; Mari et al. 2012 and many others). Nevertheless, as Behrens (2005) puts it, genericity

“still belongs to those areas of linguistics which are poorly understood and extremely controversially disputed”. It is also important to mention that genericity has mostly been studied on the empirical data from Germanic (such as English and German) and Romance languages: Italian (Longobardi 2001), French (Beysade 2005), Spanish (Borik and Espinal 2015) and Brazilian Portuguese (Müller 2002; Dobrovie-Sorin and Oliveira 2008; Cyrino and Espinal 2015). However, genericity in languages without articles is understudied and does not have a long tradition to look back on. The research on articleless languages has been done by Dayal (2004, 2011a) drawing on the empirical data from Hindi and Russian, Topolinjska (2006) on Polish (in comparison with Macedonian), and Filip (1993), Filip and Carlson (1999) on Czech. In modern Russian linguistics, genericity has received very little attention. The lack of research into genericity in languages without articles is one of the reasons why this topic is relevant for a theoretical linguistic investigation, which I undertake in the present thesis.

In the following subsections, I briefly review the theoretical background for the study of genericity in natural language and describe the semantic ontology that I adopt for this work.

### 1.3.1 Theoretical background

Even though genericity is found in every attested human language, cross-linguistically there are different grammatical, semantic and pragmatic tools to encode this type of meaning. These tools may include lexical semantics of items, pragmatic knowledge, grammatical marking of (in)definiteness and quantification, syntactic position of the NP, and case marking on the nominal. It is important to point out that no language with a specific syntactic or morphological marker of genericity has been described in the linguistic literature (Behrens 2005, Collins 2015).<sup>6</sup> Moreover,

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<sup>6</sup>It should be noted that Behrens (2005) herself proposes some counter-examples to this claim, e.g. the Bavarian language that has two paradigms of the definite article which are complemen-

genericity may not be expressed in a unique way in any given language (Behrens 2000, 2005). Forms used for expressing genericity within one language may be synonymous, but only partially, that is, they are never fully interchangeable in all possible (generic) contexts (Behrens 2005). For instance, the bare plural NP in (5a) and the definite singular NP in (5b), used for expressing generic reference in English, are both felicitous in subject position of the predicate *be on the verge of extinction*, which is a kind-level predicate (the classification of predicates is discussed in Section 1.6). However, these two generically interpreted nominal expressions do not freely alternate in object position of subject experiencer verbs, e.g. *love*, in (6a) vs. (6b). The reasons for this lack of interchangeability are discussed in Chapter 4 and they are related to restrictions that psychological verbs put on their arguments.

- (5) a. Rhinos are on the verge of extinction.  
       b. The rhino is on the verge of extinction.
- (6) a. I love rhinos.  
       b. \*I love the rhino.

Consequently, the questions that arise in relation to examples (5)-(6) and that are relevant for the study of genericity as a linguistic phenomenon concern the repertoire of linguistic means employed to express genericity and the differences between them. I discuss these questions in Chapters 2-4 of this thesis, analysing the distribution and interpretation of Russian bare nominals and comparing them to their bare or definite counterparts in English and Romance.

Another issue that comes up with regard to genericity in natural language is whether it is a single unified phenomenon, as it is viewed in psychology and cognitively associated with a generic and an anaphoric use (see Scheutz 1988; Kolmer 1999), or German Sign Language, for which Perniss (2001) points out the existence of a marker exclusively dedicated to the expression of genericity. These cases, however, still need a more detailed investigation. Nevertheless, the existence of a specific grammatical marker for genericity in a particular language can never be excluded.



nitive science (see Subsection 1.2.1), or not. Apparently, sentences with generically interpreted NPs can be used to describe a wide variety of phenomena: habits, dispositions, rules (of games, etc.), cultural norms, etc. and to give definitions of different concepts. According to Carlson (2011: 1165), these notional differences do not determine true semantic distinctions, and empirical facts from natural languages prove that there is a single semantics that is put into use in a variety of ways (see Section 1.4).<sup>7</sup> In this work, I follow Cohen (1999), Leslie (2007, 2008), Nickel (2008), among many others, who assume that genericity is a unified phenomenon instantiated by means of generic sentences.

### 1.3.2 Semantic ontology

In order to account for various linguistic manifestations of genericity, it is important to define the semantic ontology, as linguistic expressions are expected to reflect, at least partly, some ontological categories. In natural language, kind reference is contrasted with reference to objects, which are two types of entities of the semantic ontology proposed by Carlson (1977b). For him both kinds and objects are abstract entities. The difference between them, according to Carlson (1977a: 442), is the following: “Kinds can be here and there, whereas normal individuals are generally confined to one location”. These individuals may further have spatiotemporal realisations as “stages”. These ontological types also differ according to predicates which can select them (See Section 1.6).

For the purposes of this work, I adopt a less fine-grained semantic ontology that contains only kinds and objects (individuals),<sup>8</sup> following Kratzer (1995);<sup>9</sup> Krifka (1995); Mueller-Reichau (2011); Borik and Espinal (2015), and many others.<sup>10</sup> Thus,

<sup>7</sup>However, see Sterken (2015), who proposes counterarguments to the assumption of unity of genericity as a semantic phenomenon.

<sup>8</sup>In this work, *object* as an ontological type is used as a synonym to *individual* or *object individual* or *individual entity*.

<sup>9</sup>Kratzer (1995) considers stages to be interpretative effects, not ontological primitives.

<sup>10</sup>See also the type/token distinction proposed by Vergnaud and Zubizarreta (1992)

I consider the domain of entities (i.e., referential expressions)<sup>11</sup> to consist of kind-referring entities of type  $\langle e^k \rangle$  and object-referring entities of type  $\langle e^o \rangle$ .<sup>12</sup> However, Carlson's (1977a) three-way distinction of the ontology is still applicable in my work as it is reflected in his classification of predicates into kind-level, individual-level and stage-level, according to the type of entity that appears in the argument position of the predicate. This classification is relevant for the study of genericity and is discussed in detail in Section 1.6.

Regarding the difference between kinds and individuals, Chierchia (1998b: 348) says that "kinds are similar to individuals [...] but their spatiotemporal manifestations are typically 'discontinuous'". Chierchia (1998b) treats kinds in a similar way as proper names, giving them the semantic type  $\langle s, e \rangle$ . The only difference between the two for him is that the entity designated by a proper name is spatially continuous, while a kind term denotes a discontinuous entity, so both are spatially localised entities.

According to Krifka (1995: 402), kinds are abstract entities that are well-established in the background knowledge of the participants of communication and in English they are referred to by definite NPs (e.g. *the bear*), and they are organised in taxonomic hierarchies. Krifka et al. (1995: 66) introduce a relation  $R$ , which relates objects to kinds/concepts. This relation is expressed by the formula  $R(x, k)$ , where  $x$  is a specimen of the kind  $k$  (cf. Mueller-Reichau (2011): individuals as instantiations of abstract kinds).

In this thesis, I use a two-fold semantic ontology, consisting of kinds and objects (individuals), where the latter may instantiate the former. Crucially, I assume that

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<sup>11</sup>Referentiality is understood as a semantic value; it expresses the existence of an object or a set of objects in the universe of discourse and this object determines the contribution of an NP to the calculation of the truth-value of a sentence containing that phrase (Carlson 2011: 1166). Traditionally, an expression is considered to be referential if it designates an individual entity in some domain of interpretation (Ihsane 2008).

<sup>12</sup>This goes against Russian linguistic tradition, in which kind terms are considered to be non-referential expressions (Mueller-Reichau 2011: 66).

only objects may have a spatiotemporal localisation.

In the following subsection, I look at how reference to kinds may be manifested in natural language at different levels of linguistic representation: nominal phrase, sentence and text.

## 1.4 Types of genericity

As was mentioned in Section 1.3, genericity is a complex phenomenon, which has various manifestations in natural languages. Even though it can be treated as a unified phenomenon, from the point of view of both cognitive psychology and the theory of language (see Subsection 1.2.1), linguists (see, for instance, Krifka and Gerstner 1987; Krifka et al. 1995, among many others) generally distinguish two sub-phenomena, which may be referred to as genericity:

- kind-referring NPs in which genericity comes from the noun phrase itself (D-genericity);
- propositions which describe a general property or regularity concerning the subject; in such cases genericity comes as a feature of the whole sentence (I-genericity).

This distinction is adopted by many scholars working in formal semantics and philosophy of language (Declerck 1991; Carlson 1995; Cohen 1999; Greenberg 2004; Pelletier 2009, among others).

“D” in “D-genericity” stands for “definite”, as this kind of genericity is expressed by so-called definite singular nominal phrases in English (Krifka and Gerstner 1987: 4), as illustrated in (7).

(7) *The whale* is a mammal.

“I” in “I-genericity” stands for “indefinite” (Krifka and Gerstner 1987: 4) alluding

to the fact that subjects of generic statements about representatives of a kind have a non-definite form in English, i.e., a bare plural (8)<sup>13</sup> or an indefinite singular (9).

(8) *Whales* are mammals.

(9) *A whale* is a mammal.

Subsequent research based on English and other languages showed that the above-mentioned two types of genericity do not necessarily correlate with the definiteness/indefiniteness of a nominal phrase, for example, if (8) is translated into Catalan (10) or another Romance language, the subject NP is definite in the sense that the nominal is preceded by a definite article.

(10) *Les balenes* són mamífers.  
the whales are mammals

As for Russian, which does not have a system of articles to overtly express the definiteness/indefiniteness contrast on the nominal, the terms “D-genericity” and “I-genericity” are even less suitable. Both types of genericity are expressed by bare nominals (11). Notice that the Russian sentence in (11a) may be equivalent to either (7) or (9) in English.

- (11) a. *Kit- èto mlekopitajuščee.*  
whale that mammal  
'The/a whale is a mammal.'
- b. *Kity- èto mlekopitajuščie.*  
whales that mammals  
'Whales are mammals.'

In order to avoid the terminological confusion and to use terms that can be applied cross-linguistically, *D-genericity* is substituted by *reference to kinds* in the literature

<sup>13</sup>It is important to notice that bare plural nominals in English are not always interpreted as indefinite. Moreover, researchers, such as Krifka et al. (1995), Lyons (1999), Carlson (2011), Heim (2011), claim that bare plurals may have a definite interpretation in generic sentences. So, the term “I-generic” does not appear to be the most suitable to refer to this phenomenon.

(e.g. Krifka et al. 1995), and as for I-genericity, the term *characterising (generic) statement* is used. Link (1995) uses the term *Proper Kind Predication* for D-genericity, referring to statements that are about a particular kind and *Derived Kind Predication* for I-genericity, i.e., statements that are considered to make generalisation about an object or a group of objects, representatives of a certain kind. Katz and Zamparelli (2005) propose the distinction between *nominal genericity* and *predicate genericity*. The former is about the ontological difference between kinds and objects, while the latter is understood as a semantic mechanism of generalising over particulars. In this work, I am using the terms *nominal-level genericity* and *sentence-level genericity* to refer to these two types of genericity.

It should be noted, however, that even though there are two types of genericity, they are not completely separate linguistic phenomena, and have something in common. As Krifka et al. (1995) state it, kinds (i.e., nominal-level generic expressions) represent the abstraction from particular objects, whereas characterising sentences (i.e., sentence-level generic expressions) are the abstraction from particular events and facts. However, for an adequate analysis of genericity in natural language, it is important to keep the two phenomena apart, bearing in mind that they may co-occur, as it happens in definitional generic sentences, discussed in Chapter 2.

In the present subsection, I have discussed terminological issues, related to the two subtypes of genericity. Next, I give an overview of the two phenomena (nominal-level and sentence-level genericity) and also present the cases where they co-occur. After that, I briefly review one more level of analysis of genericity – text-level, which involves both types of genericity mentioned above.

### 1.4.1 Nominal-level genericity

Nominal-level genericity is found in statements about kinds. In such sentences the NP refers directly to a kind (*genus*), but not to an individual or a group of individuals that represent a kind.

Mari et al. (2012: 26) propose two types of relationship between a kind and its instances. Kinds may be accessed directly, i.e., without mentioning their instances, or indirectly, i.e., by referring to the maximal sum of their instances. In this work I call the former case *reference to kinds*, while the latter is *generic reference*.<sup>14</sup> Nominal-level genericity is the former case. In such cases the nominal itself is considered to be a source of genericity.

As was noted above (see Subsection 1.3.1), natural languages do not generally possess specific linguistic means, such as a generic determiner, to express genericity in the nominal domain (see also Mari et al. 2012). Languages with articles tend to use the definite article to express direct reference to kinds, see the examples from English (12) and Catalan (13). Russian, as a language without articles, predictably uses a bare nominal (14).

(12) The quagga is extinct.

(13) El quaga està extingit.  
the quagga is extinct

(14) Kvagga isčezla s lica zemli.  
quagga disappeared from face earth.GEN  
'The quagga is extinct.'

Moreover, it has been pointed out (Jaber 2014) that kind-referring NPs cross-linguistically are semantically definite, regardless of their morphosyntactic form. This

<sup>14</sup>A similar kind of distinction is found in cognitive psychology, regarding intensional and extensional types of reasoning. The intensional reasoning concerns the representation of a concept (kind) in the mind, through knowledge of its characteristics and properties, while the extensional reasoning about a concept concerns the set of things in the world that a person would consider as falling under the concept term (Hampton 2012; Prasada 2016). See also Subsection 1.2.2.

goes in line with Borik and Espinal's (2015) theory of definite kinds, reviewed in Section 2.2 of this thesis.

Another important feature of definite kind-referring NPs, proposed by Borik and Espinal (2015), is the absence of syntactic or semantic Number on such NPs (see Subsection 2.2.3). However, number morphology may be present on the nominal without any semantic repercussions. It has been argued that, due to the property of being numberless, definite kind-referring NPs do not allow access to any instantiations of kinds. Mari et al. (2012: 32) also point out that the presence or absence of Number seems to play a crucial role in kind formation and in the way a kind is related to its instances.

When discussing the linguistic means of reference to kinds, it is important to keep in mind that there is no agreement among semanticists on what kinds exactly are (as opposed to object individuals). In this work I follow Borik and Espinal's theory of definite kinds (2015), where kinds are conceived as abstract integral entities with no internal structure, not as a set of subkinds; and they do not allow access to any instantiations. This understanding of kinds explains why kind-referring NPs are felicitous in combination with such predicates as *to be/become extinct*, *to be widespread* (for subjects), or *to invent*, *to exterminate* (for objects). They are kind-selecting predicates, which do not admit existential inferences, and thus, cannot be applied to NPs referring to individuals, as shown (15).

- (15) a. #My dog is extinct.  
b. #A dog is extinct.  
c. #This dog is extinct.

In a certain context, the examples in (15b) and (15c) may be accepted with a subkind reading, though. In this work, subkinds are conceived as individual entities whose meaning is coerced to a subkind reading due to the requirements of the

predicate.<sup>15</sup> Subkinds are not members of taxonomic kinds, as kinds are considered to be integral entities, devoid of any inner structure. Unlike kinds, subkinds are specified for morphosyntactic Number and are combined with an overt determiner (Borik and Espinal 2012, 2015). Notice that the subkind interpretation also emerges in the presence of overt morphological Number, as illustrated in (16).

(16) These (two) rhinos are almost extinct.

The ‘kind of’ insertion also requires overt morphological Number, thus, the NP gets a subkind reading, as shown in (17).

(17) This kind of rhino is almost extinct.

Kind-level predicates, as proposed in Carlson (1977b), syntactically select for kind terms as arguments, assigning a property to the respective kind. Kind-referring NPs are found not only in subject position (12), they may also occur as objects (18).

(18) Marconi invented the radio.

NPs with a kind reading are also found in sentences with other than kind-level predicates, and this is where the semantic contribution of the NP can be seen (example from Carlson 2011: 1155). In (19) it is impossible to interpret the subject nominal as referring to a particular individual potato.

(19) The potato was first cultivated in South America.

Definite NPs with direct reference to kinds are called *kind-referring* or *NPs with a kind reading* in this work. Russian kind-referring NPs will be discussed in detail in Chapter 2. Such NPs should be distinguished from NPs with indirect reference to kinds, which refer to a maximal sum of instances of a kind. Such NPs will be called *generic NPs* or *NPs with a generic reading*. They represent a different type of

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<sup>15</sup>In this thesis I am not concerned with subkinds, dealing with just kinds and their instantiations. For more details on subkinds the reader is referred to Borik and Espinal (2012, 2015).



genericity, discussed in the following section devoted to genericity that arises at a sentence level (not an NP). Furthermore, in Chapters 3 and 4 I present a detailed analysis of Russian NPs with a generic reading.

### 1.4.2 Sentence-level genericity

Unlike nominal-level genericity, whose source is the NP itself, sentence-level genericity comes as a feature of the whole sentence. Such sentences are called characterising (Krifka et al. 1995) and represent a wide-spread phenomenon in language. Speakers use characterising sentences to talk about regularities that hold of individuals, events, states or situations and to make generalisations about the world. Characterising (generic) statements denote “propositions which do not express specific episodes or isolated facts, but instead report a kind of general property, that is, report a regularity which summarises a group of particular episodes or facts” (Krifka et al. 1995: 2). Characterising sentences are generalisations about individuals, which may be either instances of a kind (20) or prototypical individuals (21)<sup>16</sup> or particular individuals (22), as the corresponding Russian, English and Catalan examples illustrate.

- (20) a. Sobaki edjat kosti.  
       dogs eat bones  
       b. Dogs eat bones.  
       c. Els gossos mengen ossos.  
       the dogs eat bones

- (21) a. Sobaka est kosti.  
       dog eats bones  
       b. A dog eats bones.  
       c. Un gos menja ossos.  
       a dog eats bones

---

<sup>16</sup>Krifka et al. (1995) claim that indefinite singular NPs in English, like *a dog*, in (21b) cannot refer to kinds, they refer either to subkinds or individuals.

- (22) a. Fuji est kosti.  
Fuji eats bones.  
b. Fuji eats bones.  
c. En Fuji menja ossos.  
the Fuji eats bones

It should be noted that the subject of a characterising sentence may be expressed by any type of NP: definite kinds,<sup>17</sup> definite or indefinite singular NPs, NPs specified by a demonstrative, quantified NPs, proper names and plural NPs. Such variability corroborates the idea that genericity in this kind of statements is not associated with a particular type of NP, but rather comes from the type of sentence, i.e., characterising statement which is about an essential property of the subject, regardless of what the subject denotes.

In this work, when analysing sentence-level genericity, I focus on the type of sentences represented in (20): their subject is a plural nominal (a sum of individuals), which has a generic reference, i.e., it refers to a kind indirectly, through a (maximal) sum of instances of this kind (Borik and Espinal 2015).

Such a treatment of plural nominals is different from the one postulated in the influential works on English generic expressions by Carlson (1977a) and Chierchia (1998b), according to which, English bare plurals refer directly to kinds, not to object individuals, and are assumed to be a default way to refer to kinds in English. However, in this thesis I follow Borik and Espinal (2015: 170) who state that bare plurals are neither the default, nor the most common, nor the standard way to refer to kinds cross-linguistically. Moreover, they do not denote kinds, but a sum of representatives of a kind. The generic reading of such nominals, unlike the kind reading of NPs in the previous section, does not come from the NP, rather it is the result of the interaction between the NP and the VP (Pelletier 2009). Borik and

<sup>17</sup>If the subject of a characterising statement is a definite kind, it will represent a case of two types of genericity combined together, that is, the sentences ascribes some property to a kind-referring NP, see Subsection 1.4.3.

Espinal (2015) propose the term *V-driven genericity* for the cases when the generic meaning is constrained by the type of predicate. V-driven genericity is a type of coercion by which the predicate forces a shift in meaning on the denotation of a nominal phrase in an argument position. This phenomenon is postulated for Spanish, but it can be extended to other languages. As far as Russian is concerned, in Section 3.2 I show that the interpretation of the plural nominal depends on the type of predicate (kind- or individual-level vs. stage-level), as well as on the type of sentence (characterising vs. particular) and contextual factors, such as the presence or absence of anaphoricity and spatiotemporal localisation.

Characterising (generic) statements are distinguished from episodic predications (23) that attribute an accidental property to a particular individual or a group of individuals, or report isolated events, situations or states. The subject of (23) can never get a generic reading, it can only be interpreted existentially, as the predicate is stage-level, that is, it describes a temporal stage of an individual, anchoring it to a certain space and time.

(23) Dogs are eating bones.

In Russian, one and the same predicate may be interpreted as either characterising or episodic (see the English translations of (24)),<sup>18</sup> while the interpretation of the subject may be either generic or existential with respect to the type of predicate. The definite interpretation is not excluded in either case.

(24) Sobaki edjat kosti.  
 dogs eat bones  
 ‘Dogs eat bones.’/‘Dogs are eating bones.’/‘The dogs eat bones.’/‘The dogs  
 are eating bones.’

---

<sup>18</sup>Notice that there may be even more possibilities for translating this sentence if the interpretations of the object are also taken into consideration. Such interpretations are discussed in Chapter 4.

Characterising (generic) sentences may be subdivided into two classes of predication: habituais (derived from episodic predicates) and lexically characterising predicates (Krifka et al. 1995; Katz and Zamparelli 2005; Boneh and Doron 2012, Teichman 2015).<sup>19</sup> In both cases, the plural subject (bare in English and Russian, and definite in Romance) gets a generic interpretation.

Habituais contain a verb that denotes a set of particular events, e.g. *barking, eating, flying, smoking events*, as the verb *eat* in (25a). Such predicates may also occur in episodic statements, referring to particular events (25b). In English, a present-tense episodic statement, unlike a habitual one, usually contains a verb in the progressive aspect form (25b).

- (25) a. Dogs eat meat.  
 b. Dogs are eating meat.

Habitual sentences, like the ones in (25a), represent a double generalisation. Firstly, these sentences express a generalisation about individual dogs being meat-eaters (i.e., a characterising reading), which can be understood as a generalisation over individuals that are characterised by a habitual or a dispositional property (Dobrovie-Sorin and Beyssade 2012). Secondly, it is a generalisation about events of eating meat by individual dogs (i.e., a habitual reading) (see also Carlson 2011: 1156).

Lexically characterising sentences do not make any generalisations over events but report some “general” property of the subject. Such sentences contain stative predicates, e.g. *know, love, hate, have, cost, weigh, know* etc. (26a), which cannot be used in episodic contexts (i.e., they cannot be used in a progressive periphrasis), as illustrated in (26b), or predicates of copular sentences (e.g. *be a mammal, be*

<sup>19</sup>It has been argued that some languages exhibit morphological differences between habitual sentences and other types of generic sentences, e.g. West Greenlandic (Van Geenhoven 2003), Modern Hebrew (Boneh and Doron 2008) and Czech (Filip and Carlson 1999). Russian frequentative verbs with the *-iv/-yv* suffix can be considered to express habituality: *vidyvat'* ‘to see repeatedly’, *xaživat'* ‘to go somewhere repeatedly/from time to time’, *našivat'* ‘to wear repeatedly’. However, their use is rather limited in Russian.

*intelligent*, as illustrated in (26c)). These are individual-level predicates in Carlson's (1977) classification.

- (26) a. Dogs have a tail.  
 b. \*Dogs are having a tail.  
 c. Dogs are intelligent.

Both habitual and lexical characterising predicates may express a dispositional generalisation. Laca (1990) points out that this is especially typical of characterising sentences about artefacts. The subject of dispositional generalisations can be expressed either by a generic plural (27a) or an indefinite singular (27b) in languages with articles.

- (27) a. Boats float.  
 b. A boat floats.

As was stated with regard to (21), the indefinite singular subject of generic sentences refers to a prototypical individual. The indefinite provides a free variable (Heim 1982), which is existentially bound if there is spatiotemporal localisation (28a) (also see Chierchia 1995; McNally 1998). Otherwise, it denotes an unspecific entity to which a certain ability is attributed (28b) and it has an explanatory value, that is, *bark* denotes an ability of *a dog*. Thus, the example in (28a) is associated with an existential reading, while (28b) has a universal reading. Notice, however, that a habitual interpretation cannot be attributed to the subject of (28b) as habits can only be attributed to specific entities on the basis of observation of their repeated action (Mari et al. 2012: 62).

- (28) a. A dog barks in this house.  
 b. A dog barks.

It has also been claimed that sentences with indefinite singular subject express law-like essential properties (Dahl 1975; Burton-Roberts 1977; Greenberg 2002, among

others) and, thus, can be considered definitional generic statements (Krifka 2012). I will come back to this issue in Section 2.4.2.

There are also several lexico-grammatical means that are used to enforce ‘a characterising flavour’ on a sentence (Krifka et al. 1995: 7), such as adverbs (*usually, typically, always, sometimes, rarely, never, etc.*); the construction *used to* in the past tense; the use of agentive nouns as predicates (e.g. *Cats are mice-catchers.*); the use of deverbal adjectives with the suffix *-able* (e.g. *Puppies are lovable.*); the middle voice (e.g. *Cotton shirts wash easily.*); as well as special lexical items (e.g. *have an inclination to, have the habit of, have the disposition to, tend, etc.*)

### 1.4.3 Mixed cases

It is important to mention that the two types of genericity (nominal genericity and sentential genericity) can co-occur, which may be another argument in favour of considering genericity a unified phenomenon in language, regardless of its different manifestations. Sentences where nominal and sentential genericity is combined express a regularity that is true of members of a certain kind and that is predicated directly to the kind (Pelletier 2009). Let us have a look at sentences such as the one in (29). The subject is an expression of nominal-level genericity, i.e., a definite kind; and the property of *containing vitamin C* is characteristic of all instances of this kind.

(29) The potato contains vitamin C.

Example (30) represents a definitional generic sentence that belongs to this mixed type. The meaning of a concept (that corresponds to a kind), defined by such sentences, is explained through the most salient, essential properties of this kind, i.e., a characterising predication. The semantic and syntactic characteristics of definitional generic sentences are discussed in Chapter 2.

(30) The polar bear is a wild animal that lives in the Arctic.

Another phenomenon related to genericity that is found in natural language is the use of lexical units such as *kind of*, *sort of*, *type of*, etc. These are items that are claimed to express lexical genericity (Carlson 1977b, 2011). Mueller-Reichau (2011: 89) calls them “explicit kind-level predicates”. They can usually be omitted from sentences without any change in meaning.

(31) The largest (kind of) mammal is the whale.

(32) The plane is a (type of) flying machine.

#### 1.4.4 Text-level genericity

Behrens (2000, 2005) introduces another level of linguistic analysis relevant to genericity – the level of text. A sentence that contains an NP with a kind or a generic reading, whose predicate characterises this NP, may be uttered in isolation and understood as generic. However, very frequently such sentences are embedded in a generic text. “A generic text comprises generalised knowledge about a particular kind or about a particular stereotype situation. This kind or this situation constitutes the paragraph topic of the generic text in question.” (Behrens 2005: 289). Examples of such texts are found in encyclopedias, textbooks, manuals, etc.

(33) *The dingo* is a type of dog that is native to Australia. Its taxonomic status is debated and it is classified as *Canis familiaris* or *Canis familiaris dingo* or *Canis lupus dingo* or *Canis dingo*. The first British colonists to arrive established a settlement at Port Jackson in 1788 and recorded *dingoes* living there with indigenous Australians. Although members live in the wild, it is regarded as a feral dog, as it descended from domesticated ancestors [...] <sup>20</sup>

<sup>20</sup>Example from Wikipedia <https://en.wikipedia.org/wiki/Dingo>, accessed on 16/12/18.

The generic text in (33) characterises the kind *dingo*. It contains different types of nominal expressions that are interpreted generically and refer – directly or indirectly – to this kind: the definite NP, the bare plural and the Latin name of the kind. The latter can also be considered a kind-referring NP, which names a kind directly. The use of a Latin name for kind denotation is found in many languages, however, it is stylistically restricted: Latin names of kinds are typical of scientific texts and rarely occur in speech.<sup>21</sup> The use of different linguistic expressions referring to the same kind may also be considered a piece of evidence for the treatment of genericity as a unified linguistic phenomenon, having different manifestations (as has been previously proposed in Subsection 1.2.1).

Text-level genericity is a complex phenomenon, which is out of the scope of the present work. In order to account for this complexity, one first has to understand genericity at a nominal-level and at a sentence-level, and then accommodate it in a wider context of a text/discourse. For the purposes of this work, I focus on isolated sentences that contain nominals with a kind or generic reference. In the following section, I summarise the main characteristics of such sentences, which have been outlined in previous research into genericity in natural language.

## 1.5 Main characteristics of generic sentences

In Subsection 1.4.2, I have shown that sentence-level genericity manifests itself through so-called characterising statements, the ones that describe a property or a regularity concerning the subject (which can be expressed by various types of NP). In this section, I look only at sentences which contain a subject nominal interpreted as either kind-referring or generically-referring (referring to a maximal sum of instantiations of a kind). They are a type of characterising sentences; in this work,

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<sup>21</sup>For more information on Latin names of kinds see Carlson (2011: 1172) and also Subsection 2.3.3.



I call such sentences *generic*. Quantitatively speaking, the vast majority of generic uses of noun phrases, i.e., plural nominal expressions with a generic reading, are found in characterising statements (Zamparelli 2002: 14). That is why I dedicate a section to their characteristics, relevant to an understanding of their nature and of the propensity of their subjects to be interpreted generically.

Characterising sentences are generalisations over patterns of regularities that represent groups of non-accidental facts, episodes, or state of affairs. According to Nickel (2008), characterising generic sentences have a form *As are F*.<sup>22</sup>

(34) Dogs are intelligent. = It's characteristic for dogs to be intelligent.

(35) Bears eat honey. = It's characteristic for bears to eat honey.

Unlike particular sentences, which express statements about “particular events, properties of particular objects, and the like” (Krifka et al. 1995: 3), a characterising sentence expresses a generalisation based on properties that are not tied to a particular object or event, but rather to any object or event which satisfies the descriptive content of the NP or VP used. The characteristics of generic sentences that I review in the following subsections are cross-linguistic, so for the sake of simplicity I use English examples most of the time.

### 1.5.1 Essential property description

Generic sentences are characterising, so their predicates describe ‘essential’ properties of the subject entity. Such properties have been called “non-accidental” by Dahl (1975), “essential” (Gelman 2003), properties that express “a principled connection” to a kind (Prasada and Dillingham 2006). Behrens (2005), in her turn, claims that properties expressed by characterising sentences are not necessarily

<sup>22</sup>Note that any predicate, not necessarily a copular construction, can replace ‘are Fs’, e.g. ‘lay eggs’, ‘bark’, and can be paraphrased as *It's characteristic for As to be F*.

“essential” but they are prototypical, i.e., properties of “typical” or “normal” members of a given kind.<sup>23</sup>

The property is considered essential if it is shared by any (relevant) individual member of a *genus* (Declerck 1991: 95). There is no exact definition in the literature of what an ‘essential’/‘non-accidental’ property is, but the test for descriptive vs. definitional generic statements (Krifka 2012) (see Subsection 2.4.2) helps to establish this difference, at least for English (examples from Lawler 1973):

- (36) a. Madrigals are polyphonic.  
 b. A madrigal is polyphonic.  
 c. Madrigals are popular.  
 d. ?? A madrigal is popular.

The examples in (36) show that ‘being popular’ is an accidental property of madrigals, which in terms of Prasada (2016) is a statistical property, simply prevalent among instances of a kind. ‘Being polyphonic’, on the other hand, is an essential or ‘central’ property of madrigals, or a principled property in terms of Prasada (2016). It is a property that kinds and its instances have by virtue of being this kind of thing. Only predicates that express an essential property can combine with indefinite singular nominals, which denote any prototypical member of a kind, and thus, cannot be ascribed a statistical property, deduced from a plurality of instances of a kind. It should be noted, however, that this test is not valid for languages without articles, such as Russian, as the bare singular nominal can either be interpreted as indefinite (referring to a prototypical member of a kind) or as definite (referring to a kind itself).

The predicate, which expresses a characterising property is normally individual-level (see Subsection 1.6.2), i.e., it is true throughout the existence of the individual, which is the subject of the sentence. According to Heim (2011: 1000),

<sup>23</sup>For normality-based theories of genericity, see Greenberg (2007); Nickel (2008, 2016).

individual-level predicates force a presuppositional reading of its subject (see Subsection 3.5.5), which can be explained by the following reasoning: if the speaker ascribes certain characteristics to the subject entity, she must be aware of the existence of this entity (be it individual or kind).

Characterising statements should be distinguished from direct kind predication, i.e., sentences that contain a kind-level predicate (see Subsection 1.6.1). A crucial difference between them is that, unlike the former (see Subsection 1.5.3), the latter do not admit any exceptions. *Dodos are extinct* means that all representatives of the kind *dodo* are out of existence, otherwise, it would be rendered false, while *Dogs are intelligent* may have exceptions and still be true.

### 1.5.2 Non-quantificational character of generic sentences

Generalisations in natural language may be expressed either by quantificational (37) or by generic (38) statements. However, these two ways of expression are essentially different.

(37) All/some/most penguins live in the Antarctic.

(38) Penguins live in the Antarctic.

Quantificational generalisations are quantitative and can be modelled through set-inclusion relations, while generic generalisations are not reducible to these terms (apart from Cohen 1999). Generic sentences do not involve any cardinality of individuals (Collins 2015). While quantificational statements refer to a quantity that satisfies a certain property, generic statements are about certain properties that are characteristic of a kind. The truth of generic sentences, unlike quantificational ones, is not determined by how things are for a given specific number of individuals.

Generalising in generic sentences, according to Carlson (2011: 1162), is of intensional character, as it goes beyond samples in the extension, which makes it

difficult to evaluate the truth conditions of a generic statement in the present circumstances one has access to.

The non-quantificational character of generic sentences defines their resistance to contextual restrictions, which was first reported Krifka and Gerstner (1987). Contextual restriction is a mechanism by which a quantificational statement is interpreted with respect to specific individuals mentioned in the previous context (Etxeberria and Giannakidou 2010; Lazaridou-Chatzigoga et al. 2015). Generic expressions differ from universal quantifiers as they cannot be contextually restricted.

- (39) Context: There are lions and tigers in this cage.
- a. Every lion is dangerous. = Every lion in this cage is dangerous.
  - b. Lions are dangerous.  $\neq$  Lions in this cage are dangerous.

Declerck (1991: 86) notes that if a generic sentence is not limited by contextual restrictions, the largest possible set is the generic set, which includes not only members of the kind in the present actual world, but also those living in the past and in the future or in imaginary and counterfactual worlds.

### 1.5.3 Tolerance of exceptions

Tolerance of exceptions is another characteristic that distinguishes generic sentences from universally quantified ones, even though generic statements may have the universal flavour (Krifka et al. 1995). As it was noticed in Declerck (1991: 86), the generic statement in (40) is naturally interpreted as the universally quantified one in (41) but is not truth-functionally equivalent to this sentence. (40) is basically interpreted as ‘all normal beavers build dams’ or ‘it is typical of beavers to build dams’. It would be interpreted as true, even though there may be some beavers that do not build dams. However, (41) is false if there is just one beaver that does not build dams.

(40) Beavers build dams.

(41) All beavers build dams.

One of the questions that raises a lot of controversy concerning generic sentences is how many exceptions they are able to tolerate and still be true (Pelletier 2009: 9). It seems that there is no clear answer to this question. Leslie et al. (2011: 19) proposes a classification of generic sentences according to the number of exceptions that they may tolerate. They may be ‘quasi-definitional’, allowing no exceptions, e.g. *Triangles have three sides*. They may also be ‘majority characteristic’, e.g. *Tigers have stripes*, or ‘minority characteristic’, allowing for more than 50% of exceptions e.g. *Lions have manes*. They may also be ‘majority’,<sup>24</sup> e.g. *Cars have radios*, or ‘striking’, allowing for a vast majority of exceptions, e.g. *Sharks attack people*.<sup>25</sup> Generic generalisations, like the ones mentioned above, have to be distinguished from false generalisations. They have the same form as generic sentences, but are not true, e.g. *Canadians are right-handed*.

The nature of the tolerance of exceptions that generic sentences manifest is not clear either. Collins (2015, 2018) suggests that this property may be related to genericity being a psychological phenomenon and does not necessarily have linguistic grounds. However, Collins (2015: 373) also notes that the tolerance of exceptions may be different depending on the predicate: some generic sentences express necessary or even analytic truths, e.g. *Tigers are mammals/A bachelor is an unmarried man*, so they do not admit exceptions. Other generic sentences, however, are easier to be judged as true, even though they admit exceptions. The sentence

<sup>24</sup>The difference between *majority characteristic*, *minority characteristic* and *majority* depends on whether the property is essential (or ‘principled’, in terms of Prasada and Dillingham 2006, 2009). In the first two cases it is essential, while in the latter one it is only statistically prevalent among members of the kind but there is no principled connection.

<sup>25</sup>Notice that the disposition to generalise strikingly negative information on the basis of even a single event appears to be a pervasive aspect of our thinking and, thus, much more prominent than generalisations concerning neutral or positive information, which require the instances or events to occur with a more significant regularity (Leslie 2017).

*Mosquitoes carry the West Nile virus* is judged to be true, even though it is only a small percentage (about 1%) of mosquitoes that has this property.<sup>26</sup> And this is due to the property being striking, which is a psychological, not linguistic, effect.

This difference in the percentage of exceptions that generic sentences may tolerate leads to the uncertainty and considerable variation in truth judgments of generic sentences across speakers (Cohen 1999).

In general, the question of truth-conditions of generic sentences is quite problematic. Mueller-Reichau (2011) explains it by the fact that truth-conditional semantics translates the linguistic meaning to real objective conditions, while the meaning of generic sentences is the result of abstracting away from real conditions.

#### 1.5.4 Generic sentences as categorical judgments

Carlson (2011) points out that most instances of generic sentences are categorical judgements (in terms of Kuroda 1972, Sasse 1987 and Ladusaw 1994). A categorical judgement is the one that reflects the traditional logical and philosophical paradigm of subject-predicate division. According to Kuroda (1972: 154), the categorical judgment is assumed to consist of two separate acts, one the act of recognition of that which is to be made the subject, and the other, the act of affirming or denying what is expressed by the predicate about the subject. And thethetic judgement is simply a recognition or a rejection of the material of a judgement. This distinction also correlates with the contrast between the speaker's presupposition of existence for the subject of a categorical judgement and an existential entailment for the subject of athetic judgement (Kuroda 1972; Ladusaw 1994), and with the strong (referential)/weak (quantificational) distinction of interpretation of NPs in subject position of categorical andthetic judgments respectively (Ladusaw 1994).

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<sup>26</sup>As reported in Lazaridou-Chatzigoga et al. (2015)

The bi-partite structure of categorical judgements is similar to the topic/focus division (also see Krifka et al. 1995), unlikethetic judgments that have only one part (*this holds*). The subject of categorical statements – in this case an NP with a kind or a generic reading – is the topic (Behrens 2005; Carlson 2011: 1161). It should be noted that topics, which represent given information, display a strong association with definiteness (Reinhart 1981; Erteschik-Shir and Strahov 2004; Behrens 2005, i.a.) or identifiability (Lyons 1999). Thetic sentences with a single part structure are topicless or all-new sentences. Most instances ofthetic judgements that occur in natural languages are episodic.

As will be shown in Chapter 3, information structure of a sentence plays a significant role in providing conditions for facilitating a generic reading on nominals (Krifka 2003; Carlson 2011: 1179). Subject nominals with a generic interpretation are usually interpreted as topics, and in some languages which overtly mark topicality, this topic-marking is obligatorily found on generic nominals, e.g. the marker (-*wa*) in Japanese (Brockett 1991).

### 1.5.5 Law-like character of generic sentences

Generic sentences report some kind of regularity: patterns, not singular events or situations (Dahl 1975; Krifka et al. 1995). They may express rules induced on statistical grounds, according to the principle “the behaviour determines the rule” (42) or those that come into existence as a definition, according to the principle “the rule determines the behaviour” (43) (Mueller-Reichau 2011: 7-8).

(42) The bear eats honey.

(43) The bear is a wild animal.

The law-likeness of a statement is determined in philosophy by its ability to support counterfactuals (Cohen 2002: 11, 25-26).

- (44) a. Copper wires conduct electricity.  
 b. Coins in my pocket are made of copper.
- (45) a. If this were a copper wire, it would conduct electricity.  
 b. If this coin were in my pocket, it would be made of copper.

The truth of (44a) entails (45a), so it is felicitous; while (45b) cannot be inferred to be true from (44b). Sentences with generically interpreted nominals, unlike sentences with existentially quantified expressions, support counterfactuals and are, thus, law-like.

Generic sentences express certain rules of everyday life or social norms; unlike the laws of physics, these rules are not objective. That is why there can be some exceptions to these rules (Mueller-Reichau 2011: 6), which is a very prominent feature of generic sentences (see Subsection 1.5.3).

### 1.5.6 Temporal unboundedness and atelicity of generic sentences

(Temporal) unboundedness,<sup>27</sup> even though not well defined in semantics, is a central feature of generics (Declerck 1991; Cohen 1999; Mari et al. 2012, i.a.). This is a property by which such a sentence is true not relative to a time interval with definite bounds, but rather relative to an indefinitely large interval, or even in a timeless way (Mari et al. 2012: 42). Krifka et al. (1995) point out that generic sentences are stative, meaning that they express a property, not a specific event in time. Behrens (2005) calls generic sentences *time-stable*.

Unboundedness is connected with the above mentioned law-like (or nomic) character of generic sentences (Dahl 1975: 99) (see Subsection 1.5.5), as laws do

<sup>27</sup>Notice that unboundedness may be not only temporal. Declerck (1991) points out that generics are also characterised by domain unboundedness. The unbounded character of generics is considered a pragmatic issue and depends on interpretive rules requiring that the information conveyed by an utterance be maximised (the maximal-set principle and the inclusiveness principle (Declerck 1991: 83-84)).



not refer to any particular event but express general patterns of occurrence of some events. Unlike the truth of sentences reporting particular events, the truth of generic sentences is not relative to bounded time intervals (Mari et al. 2012: 42).

The property of temporal unboundedness is considered to be essential for the generic meaning, and explains why generic sentences cannot be modified by temporal (and spatial) adverbs, as illustrated in (46).

(46) ? Dogs bark today.

Generic sentences, being characterising, do not exhibit any special grammatical marking cross-linguistically (Krifka et al. 1995: 6).<sup>28</sup> On the contrary, sentential genericity is commonly associated with the most unmarked tense and aspect (Dahl 1985, Comrie 1985), which are also called *gnomic*. The gnomic aspect is considered neutral by not limiting the flow of time to any particular conception, such as *continuous*, *habitual*, *perfective*, etc. As for the tense, the gnomic is considered neutral by not limiting action to the past, present, or future.

The verbal predicate is generally in the present simple tense in characterising sentences (47), which does not imply any temporal restrictions. If generic sentences refer to time, they require a regular distribution of events along the time line (Cohen 1999). The use of the past tense may create a lifetime effect, an inference that the subject is out of existence, as illustrated in (48). This sentence is interpreted as a generalisation about representatives of a kind, which are out of existence (the kind as an abstract sortal concept still exists, however, individual members of this species no longer exist in space or time).

(47) Bears eat honey.

(48) Dinosaurs ate kelp.

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<sup>28</sup>Contrary to this statement Filip and Carlson (1999) claim that there are languages that exhibit a formal marking of genericity, e.g. Guarani, Georgian, Kammu, Czech, Akan, Wolof, American Sign Language and others.

Even though generic sentences are considered to express 'timeless' truths and the present tense is preferred, other tenses may also be compatible with the temporal unboundedness. (Filip and Carlson 1999: 3-4, ex. 2b, c).

(49) Men were deceivers ever.

(50) The poet will go to any end to make a rhyme.

The 'timeless' flavour of (49), whose predicate is in the past tense, appears due to the adverbial modifier *ever* that induces temporal unboundedness. In (50) this effect is due to the dispositional reading of the verb in the future tense (see Subsection 1.5.7 below). Thus, temporal unboundedness of generic sentences is not only encoded by means of the verbal tense, but can also depend on other factors.

It should also be noted that kind-referring NPs may be compatible with temporal localisation: the verb in (51) is in the past tense and the sentence contains a temporal modifier.

(51) The dodo became extinct in the late XVII century.

Sentences like (51) are not counter-examples for the temporal unboundedness of generic sentences. (51) reports an episode concerning the kind referred to by the subject NP, this episode is ascribed a temporal location but not the kind-referring NP (Mari et al. 2012: 42). It can be contrasted to the example in (46) where the verb is in the present tense and temporal adverbial modification is infelicitous.

Aspect may be even more relevant than tense in establishing the characterising/particular distinction. The simple present (which is aspectually imperfective in the languages under study) is predominantly interpreted as habitual or generic, while progressive and perfective sentences tend to have a non-characterising interpretation. In Russian, where aspect is obligatorily expressed on the verb and represents a privative binary relationship (Jakobson 1984[1932]; Comrie 1976), the imperfective is semantically unmarked and is used in characterising sentences.

Atelicity is closely related to temporal unboundedness and to imperfectivity in Russian and Romance (Del Prete 2012). The imperfective denotes an unbounded period of time, unlike the perfective, which is time-bounded, and, thus, is more likely to express singular events or states. The Russian (52) and Catalan (53) examples show that only the subject of imperfective predicates (52a, 53a) can be interpreted generically, while in the case of a perfective predicate (52b, 53b) this interpretation is unavailable.<sup>29</sup>

(52) *Russian*

- a. Dinozavry eli vodorosli.  
dinosaurus ate.IPF kelp  
'Dinosaurs ate kelp.' or 'The/some dinosaurs ate kelp.'
- b. Dinozavry s'eli vodorosli.  
dinosaurus ate.PF kelp  
'The/some dinosaurs ate the kelp.'

(53) *Catalan*

- a. Els dinosauris menjaven algues.  
the dinosaurs ate.IPF kelp  
'Dinosaurs ate kelp.' or 'The dinosaurs ate kelp.'
- b. Els dinosauris van menjar algues.  
the dinosaurs ate.PF kelp  
'The dinosaurs ate the kelp.'

Notice also that in Russian the plural nominal in subject position in combination with a perfective predicate may be interpreted definitely or existentially (52b), while in Catalan only definitely (53b).

However, sometimes the perfective form is possible in generic sentences, see the Russian examples in (54) with the verb in the future perfective form. These are expressions of alethic modality, which indicates a logical necessity, i.e., in order

<sup>29</sup>I am using the Russian and Catalan examples here as the (im)perfectivity in these languages is expressed by means of verbal morphology, while this contrast is unavailable in English.

to fulfill certain requirements (e.g. to be a real friend, to be a good hostess), it is necessary that the subject individual do some things (e.g. not leave their friend in trouble, always feed guests). These examples are comparable to the one in (50), where the verb is in the future tense. The association of generic sentences with dispositions and necessity is discussed in the following subsection (1.5.7).

- (54) a. (Nastoljaščij) drug ne ostavit v bede.  
 (Real) friend not leave.PF in trouble  
 'A real friend won't leave you in trouble.'
- b. Xorošaja hozjajka vseгда nakormit gostja.  
 Good hostess always feed.PF guest  
 'A good hostess will always feed the guest.'

The empirical data presented in this subsection shows that the timeless and law-like character of generic sentences is often encoded by means of the most unmarked tense and aspect. However, other means, like modality or adverbial modifiers, may also come into play.

### 1.5.7 Association with dispositions, abilities and necessity

The predicate of characterising statements is usually expressed by a verb in the indicative mood (the most unmarked) that can be considered *gnomic*, that is, associated with the expression of a general truth (see Subsection 1.5.5 for the law-like character of generic sentences). Furthermore, generic sentences may have readings associated with possibility (Dahl 1975), disposition (Krifka et al. 1995), ability (Bhatt 1999). These are expressions of alethic modality (Maier 2017), which suffices for possibility and logical necessity. Thus, (55) can be interpreted as the potential ability/disposition of (female) ducks to lay eggs, while every individual duck does not need to lay eggs.

- (55) Ducks lay eggs.

The ability to express a certain modality, like in (54), is an important characteristic of generic sentences. They may express a (im)possibility and a logical necessity or a disposition and ability.

Sentences like ‘Beavers build dams’ may be interpreted as ‘Typical beavers build dams’ (general truth) or ‘If the subject individual is a beaver, it has to build dams’ (possibility/logical necessity) but also ‘Beavers have an ability to build dams’ (disposition/ability). Such dispositions seem to be independent of particular circumstances (Dahl 1975; Krifka et al. 1995). Menéndez-Benito (2005) calls them inner dispositions and proposes a covert modal operator *can* for them, so that (56a) can be interpreted as (56b). It should be noted that in general understanding dispositional mechanisms is rather challenging, and requires a great deal of empirical knowledge that is not obvious or immediately available (Leslie 2017).

- (56) a. Cats hunt mice.  
       b. Cats can hunt mice.

It is important to point out that the property ascribed by the predicate to the generic subject, as in (56b) is not required to be necessarily instantiated, thus, the existence of exceptions is predicted (for the tolerance of exceptions of generic sentences, see Subsection 1.5.3).

### 1.5.8 Generic vs. non-generic sentences in Russian

In the current section, I have reviewed the most relevant properties of generic (characterising) statements, i.e., sentences that express some kind of generalisation about the subject. These properties comprise genericity as a linguistic phenomenon cross-linguistically. I have shown that characterising statements are generalisations about sets of entities or situations, and unlike particular sentences, they do not report a specific event, but express some essential property. They are

also different from explicitly quantified general statements (with such quantifiers as *all, every, each*, etc.).

It is crucial to notice that in Russian one and the same sentence (e.g. *Sobaki lajut* ‘Dogs bark’) may be interpreted as either a particular sentence, like in (57), as characterising specific object individuals, like in (58),<sup>30</sup> or as characterising of a kind (through its instances), like in (59). The bare plural nominal subject may be associated with an indefinite reading, a definite or an indefinite one, or a generic reading, respectively.

(57) Context: On the phone.

Ja te**bj**a ne slyšu. Zdes’ *sobaki lajut*.  
I you.ACC not hear here dogs bark

‘I can’t hear you. Some/the dogs are barking here.’

(58) U nas doma živut Bobik i Žučka. *Sobaki lajut* po nočam, i my  
at us.GEN home live Bobik and Zhuchka dogs bark at nights and we  
ne možem spat’.  
not can sleep

‘At home there live Bobik and Zhuchka. The dogs bark at night, and we can’t sleep.’

(59) -Kakije zvuki proizvodjat domašnije životnyje?  
what sounds produce domestic animals

-*Sobaki lajut*, koški mjaukajut, popugai razgovarivajut.  
dogs bark cats meow, parrots talk

‘- What sounds do domestic animals make?

- Dogs bark, cats meow, parrots talk.’

How do Russian speakers choose the correct interpretation of the subject nominal? Apparently, they have to rely on the discourse context. The two relevant factors are the presence or absence of spatiotemporal localisation and anaphoricity.

<sup>30</sup>*Bobik* and *Žučka* are typical Russian dog names.

Spatiotemporal localisation (or anchoring) represents spatial locations and times involved or referred to in an utterance. It usually manifests itself through the presence of an adverbial modifier indicating a place or a time. As was stated in Subsection 1.2.2, kind entities differ from individual entities by the absence of spatiotemporal localisation. Thus, the generic interpretation (indirect reference to a kind) of bare plurals is disallowed when the utterance is spatiotemporally localised. In (57) the spatiotemporal localisation is realised through the use of the deictic element *zdes'* 'here' and the situation of a phone call involving immediacy, which is reflected in the use of the progressive aspect in English (see the translation of this sentence), but it is not marked morphologically on a Russian verb. In (58) the spatiotemporal localisation is carried out by means of adverbial modifiers *doma* 'at home' and *po nočam* 'at night'.

As was mentioned before, another relevant factor for the interpretation of bare nominals is anaphoricity (or anaphoric reference). Anaphoricity also acts as a localising factor for a referent in a given situation. It provides an unambiguous definite reading for the bare nominal, based on the presence of the referent in the preceding discourse. For instance, in (58), the proper names of dogs are present in the context, which make the bare nominal *sobaki* 'dogs' be interpreted as definite. If there is no previous mention of the referent in the immediate context, as in (57), the bare nominal is interpreted as indefinite when the referent is novel or unknown to the speakers. The definite interpretation, however, is still possible, if the referent is identifiable to the participants of the conversation, being present in the utterance situation. This kind of phenomenon is called situational definiteness (Hawkins 1978; Schwarz 2012, among many others). Thus, it can be said that direct anaphoricity is a sufficient but not a necessary condition for definiteness in Russian.

Anaphoricity may also be associative (also known as bridging or inferrable def-

initeness) (Clark 1975; Hawkins 1978; Schwarz 2012, among many others). Consider the interpretation of bare plurals *sobaki* ‘dogs’ and *kosti* ‘bones’ in example (60).

- (60) Context: On Sundays we eat lamb. We don’t throw anything away because there’s an animal shelter nearby.

*Sobaki* edjat *kosti* s udovol’stviem.  
dogs eat bones with pleasure

‘The dogs eat the bones with pleasure.’

In example (60) *sobaki* ‘dogs’ is situationally interpreted as *the dogs from the animal shelter*. The definiteness of *kosti* ‘bones’ is inferrable from encyclopedic and common ground information. The use of inferrable definites is similar to both situational and directly anaphoric uses, but the referent relates to the previous context in somewhat indirect way. The antecedent is not the referent of the definite itself, but stands in some salient relationship to it, e.g *lamb* is not directly anaphoric with *bones*, but it can be inferred that the speaker means *the bones that are left from the lamb*.

Anaphoricity (both direct and associative) and situational definiteness can be understood as a type of familiarity (in the sense of Christophersen 1939, Heim 1982, Kamp 1981). According to this approach, the referent of the definite description is known/familiar to both the speaker and the addressee. This common knowledge may arise from the previous mention of the referent or the immediate situation (Heim 1982), but also from a more general shared knowledge of the participants of communication (Christophersen 1939). Definites are assumed to pick out an already existing referent from the discourse, whereas indefinites introduce new referents.<sup>31</sup>

<sup>31</sup>Familiarity is proposed to be one of the sources of definiteness in Russian. See Subsection 5.5.5 for a detailed discussion.



In order to explain the notion of familiarity Heim (1982) uses the metaphor of indexed file cards on which a piece of information about the discourse referents is written. The introduction of a new referent, associated with indefiniteness, means “starting a new card”, while the mention of a familiar referent means “updating a suitable old card”. This is illustrated in (61). The file card *puppy* is introduced in (61a) and then updated in (61b).

- (61) a. Kim bought a puppy<sub>i</sub>.  
 b. The puppy<sub>i</sub> is really cute.

A broader approach to familiarity was presented by Roberts (2003) who proposed to distinguish between strong and weak familiarity. Strong familiarity is similar to Heim’s understanding of familiarity, i.e., when the discourse referent is familiar due to the previous mention. Weak familiarity, by contrast, means that a referent can be familiar due to other reasons, e.g. global familiarity in the general culture and world knowledge, or “contextual existence entailments” (Roberts 2003: 304).

In this work, I use the term “familiarity” only for cases of strong familiarity. For weak familiarity I use the term “identifiability” (Lyons 1999); this phenomenon is discussed in detail in Subsection 3.5.5.

As far as genericity is concerned, nominals cannot be interpreted generically in the cases of strong familiarity. For instance, it would be possible for the sentence in (60) to be interpreted as generic (*Dogs eat bones with pleasure*) only if it were uttered out of the blue, i.e., without any preceding context. However, the generically interpreted nominal *dogs* would be still identifiable.

The contrast between the possible readings of bare plural NPs in Russian, as exemplified in (57) - (59), shows that the interpretation of such nominals is truly context- or situation-dependent. In Chapters 3 and 4, I focus on the contexts which favour a generic interpretation, and then in Chapter 5, I review questions related to definite vs. indefinite readings of bare nominals in Russian.

## 1.6 Classification of predicates

In the previous section, I have discussed characterising sentences with generic subjects. Such sentences contain predicates that are true throughout the existence of the entity that they characterise. These predicates are important for encoding the generic reading of the subject, which may have some other readings as well. In this last section of the introductory chapter, I present the classification of predicates that is relevant for the account of genericity that I present in the subsequent chapters, as the type of predicate may influence the interpretation of its arguments. This classification was proposed by Carlson (1977b) for the English language, and it reflects the semantic ontology adopted in Carlson's work (see Subsection 1.3.2). Predicates in this classification are subdivided into kind-, individual- and stage-level with respect to the type of arguments that they require.<sup>32</sup>

### 1.6.1 Kind-level predicates

According to Carlson (1977b), a k-level predicate is true of a kind as a whole but cannot be applied to its individual instances. Such predicates form the most well-defined class cross-linguistically; they are also the least numerous.

Most typical k-level predicates in English are, for example, *be rare*, *be widespread*, *be numerous*,<sup>33</sup> *be/become extinct*, *be on the verge of extinction*, *die out*, *come in different forms*, *be indigenous to*, etc.

K-level predicates select for kind entities of type  $\langle e^k \rangle$ . As the property of *being extinct* cannot be predicated of an individual *dodo*, as in (62b),<sup>34</sup> the sentence in (62a) must express the property of *extinctness* of a kind. Mueller-Reichau (2011: 91) points out that such predicates involve a semantic component that blocks their

<sup>32</sup>These types of predicates are further abbreviated as k-level, i-level and s-level.

<sup>33</sup>The first three are also considered to be distributional predicates (Carlson 2011) or frequency predicates (Mueller-Reichau 2011).

<sup>34</sup>Captain Dodo is a Disney character.

spatiotemporal localisation, which is the characteristic that distinguishes instantiations of kinds (individual objects) from kinds. That is why proper names (62b) and indefinite singular nominals (62c), which refer to individuals, are incompatible with such predicates.

- (62) a. The dodo is extinct.  
 b. #Captain Dodo is extinct.  
 c. ?A dodo is extinct.

It is important to notice that English indefinite NPs, which cannot generally appear in subject position of k-level predicates (62c), can be admitted in this position with a taxonomic interpretation, i.e., referring to a subkind (Mueller-Reichau 2011). However, examples (63a) - (63b) show that k-level predicates can be applied to indefinite NPs with certain modifications.

- (63) a. A dodo is a kind of bird, now extinct.  
 b. A dodo is an extinct bird.

Nevertheless, indefinite NPs can never combine with distributional k-level predicates (Carlson 2011: 1171, ex.40).

- (64) A grizzly bear is ??common/??widespread/?rare.

Plural nominal expressions with a generic reading, however, seem to have no restrictions in appearing in subject position of k-level predicates. This fact gives evidence to the hypothesis (proposed in Borik and Espinal 2015 for Spanish and argued in Section 3.5 for Russian) that such nominals refer to kinds, even though indirectly i.e., through a sum of individual representatives of a kind. In this case it is the predicate that coerces the meaning of the nominal from individual to kind (see V-driven genericity in Borik and Espinal (2015)).

- (65) Bears are widespread.

(66) Dodos are extinct.

K-level predicates do not admit quantified expressions as their subjects. The only possible interpretation of such expressions in combination with k-level predicates is the one of subkinds. The infelicity of quantified expressions in this position gives additional evidence to genericity being different from quantification (as discussed in Section 1.5).

(67) ?Some/?most/?all dogs are wide-spread.

Moreover, sentences that contain k-level predicates cannot be modified by an overt adverb of quantification (68a), as opposed to an i-level predicate in (68b) (for more details see Cohen 2001).

- (68) a. Dogs are #always/#usually/#sometimes wide-spread.  
 b. Dogs are usually intelligent.

We have seen k-level predicates which select for kinds as their external arguments; however, there are also k-level predicates which require kinds in internal argument position. They are such verbs as *invent*, *discover*, *exterminate*, etc. in English. (69) illustrates that, just like in subject position, a definite kind is admitted in object position of a k-level predicate, although an indefinite singular is not.

(69) Bell invented the telephone/#a telephone.

It has been noticed, however, that k-level predicates may sometimes admit indefinite singulars in object position, e.g. *to invent a pumpkin crusher* (Dayal 2004), which challenges the assumption that such predicates admit only definite kind-referring NPs. To address this mismatch, Mueller-Reichau (2011) points out that there is a fundamental difference between predicates, such as *to be extinct* and *to invent*. The former imposes a familiarity condition on the argument,<sup>35</sup> while the latter allows

<sup>35</sup>Mueller-Reichau (2011: 80): “the speaker presupposes the existence of instances of the kind X as known to the hearer”.

for reference to novel kinds. By the use of an *invent*-predicate the existence of instances of the kind is asserted, while in the case of an *extinct*-predicate the existence of instances of the kind is presupposed (ibid.: 80).<sup>36</sup>

Unlike the subject position of k-level predicates, where the use of either definite kinds (62a) or generic plurals (66) seem to be unrestricted, generic plurals are not admitted as internal arguments of *invent*-/*discover*-predicates (70). The reason for such a restriction is not very clear (this might be a lexical restriction), but this restriction seem to be cross-linguistic (also found, for instance, in Russian, see Subsection 1.6.3).

(70) #Bell invented telephones.

The existence of the above-mentioned restriction on the distribution of plural nominals may be one of the arguments to support the idea that generic plurals are not just mere plural variants of morphologically singular nominals with a kind reading, as the distinction in distribution may signal a distinction in reference.

Some k-level predicates require both the subject and the object slot to be filled with a generically referring nominal, admitting both definite kinds (71a) and generic plurals (71b), while indefinite singular expressions are excluded from both argument positions (71c), e.g. *evolve*.

- (71) a. The elephant evolved from the mammoth.  
 b. Elephants evolved from mammoths.  
 c. #An elephant evolved from a mammoth.

To sum up this subsection, k-level predicates form a limited lexical class. The distribution of nominal expressions in their argument positions may vary: they gen-

<sup>36</sup>It is important to point out here that Mueller-Reichau (2011) does not accept Carlsonian predicate classification. Instead, he proposes an alternative view, according to which, all predicates are k-level, and they allow for kind-referring arguments and object-referring arguments, in this case the latter are interpretable as representatives of a kind. K-level predicates may be converted to i-level predicates by means of spatiotemporal localisation.

erally admit either definite kinds, or generic plurals, or both. Indefinite singulars are also found in argument positions of such verbs, however, they may only have a subkind reading. It is important to highlight that such predicates do not allow their arguments to refer to individual objects, as they do not license any existential inference. The existence of the kind, referred to by the argument, is presupposed (with the exception of predicates such as *invent* and *discover*, which allow reference to novel kinds).

### 1.6.2 Individual- and stage-level predicates

I-level predicates include verbs as *know*, *love*, *resemble*, etc. and adjectives as *blond*, *intelligent*, *altruistic*, etc. Such predicates are true throughout the existence of an individual; they select for kinds (72a) or individuals (72b) (i.e., types  $\langle e^k \rangle$  or  $\langle e^o \rangle$ ).

- (72) a. The elephant weighs up to 7 tonnes. *i-level*  
 b. Arjuna the elephant weighs 5.5 tonnes.

In the past tense an i-level predicate gives rise to a lifetime effect (the subject is assumed to be out of existence), as illustrated in (73). In this case, the kind as an abstract concept still exists (and can be named) while its instantiations do not exist any more.

- (73) The mammoth weighed up to 8 tonnes.  $\Rightarrow$  Representatives of the kind *mammoth* are out of existence.

As for s-level predicates, some examples are such verbs as *speak*, *arrive*, *wait*, etc. and such adjectives as *tired*, *drunk*, *available*, etc. S-level predicates are true of a temporal stage of an individual and only select for individual entities of type  $\langle e^o \rangle$  and never for kinds (unlike i-level predicates).

- (74) The dolphin is intelligent. *i-level*  
 (75) The dolphin is tired. *s-level*

The subject of (74) may be interpreted as referring to the dolphin as a kind of animal or as a characteristic of a particular individual dolphin (known to the speaker and the hearer), while the subject of (75) cannot refer to a kind, it is interpreted as referring to an individual dolphin.

As for bare plurals (76), which in English have either a generic or an existential interpretation, the subject of an *i*-level predicate can have only a generic interpretation (76a), while an existential one is excluded; and the subject of an *s*-level predicate may have both interpretations (76b).

- (76) a. Firemen are altruistic. *i*-level  
 Interpretation: 'Firemen are usually altruistic.', but # 'There are firemen altruistic.'
- b. Firemen are available. *s*-level  
 Interpretation: 'Firemen are usually available.' and 'There are firemen available.'

The distinction between *i*-level and *s*-level predicates in the original Carlson's (1977a) classification relies on the ontology that he adopted, i.e., the type of argument that the predicates select. Kratzer (1995), however, argues that *i*-level and *s*-level predicates differ in argument structure, i.e., *s*-level predicates have an extra argument position for events or spatiotemporal locations (Davidson 1967) that *i*-level predicates lack. This is shown in (77) for the lexical entries *altruistic* and *available*. The lack of the Davidsonian argument may be the cause of a lifetime effect that is produced when an *i*-level predicate is used in the past tense, as illustrated above in (73).

- (77) a. altruistic:  $\lambda x[\text{ALTRUISTIC}(x)]$  *i*-level  
 b. available:  $\lambda x \lambda e[\text{AVAILABLE}(e, x)]$  *s*-level

Another difference between i-level and s-level predicates, mentioned in the literature (Ladusaw 1994; McNally 1998; Jäger 2001), is that the former ones can only build categorical judgments, while the latter ones can build both categorical andthetic judgements.<sup>37</sup>

However, the i-level/s-level distinction is not always clear and many predicates are difficult to classify unambiguously. In addition, the relevance of the distinction itself has been a topic of debate (see Krifka et al. 1995; Higginbotham and Ramchand 1997; Jäger 2001; Maienborn 2004, among others).

Chierchia (1995), Kratzer (1995), among others, proposed several syntactic tests for s-level predicates in English in order to distinguish them from i-level predicates. These tests include *there*-insertion (see the contrast in the interpretation of the bare plural nominal in (76a) vs. (76b)), perception reports, predicative adjuncts, spatiotemporal modification, *when*-conditionals, etc.). However, these tests do not work well for all predicates (moreover, not all of them can be applied cross-linguistically) and there are quite a few counterexamples.

For instance, the predicate *love* behaves as an i-level predicate: its bare plural subject is interpreted only generically (78a) and, as predicted for i-level predicates, it fails the test of perception report (78b). However, it may also express temporary properties and fail to give rise to lifetime effects (78c), which is unexpected for an i-level predicate.

- (78) a. Kids love toys. (*only generic*)  
 b. \*I saw the kid love a toy.  
 c. Mike loved the new toy I gave him last week, but then he lost interest.  
      $\nRightarrow$  Mike is dead.

The existence of counterexamples may suggest that i-level and s-level distinction is not a unified phenomenon, and at least partially depends on pragmatic factors.

<sup>37</sup>For more details on categorical/thetic distinction see Section 1.5.



In fact, Carlson (1977b) himself suggests that there may be no clear distinction between the two types of predicates and i-level predicates can be derived from s-level predicates (e.g. *bark, eat, sleep*) when a sentence is interpreted as a generalisation over episodes described by this predicate. So, even though the verb *bark* is s-level, it may function as an i-level predicate if it is used in a characterising sentence, which represents a generalisation about a set of entities or situations, like (79). Such sentences are distinguished from particular sentences, which report a specific event, like (80).<sup>38</sup>

(79) Dogs bark. *i-level*

(80) Dogs are barking. *s-level*

There is also cross-linguistic evidence that supports the distinction between these two types of predicates that comes from Romance languages, such as Catalan, Spanish and Portuguese. These languages show an alternation between the two copular verbs, *ser* (81a) and *estar* (81b), the former corresponding to i-level predication and the latter to s-level (as claimed in Escandell-Vidal and Leonetti 2002, Fábregas 2012, Roy 2013, Silvagni 2017 i.a.).

(81) *Spanish* *i-level*

- a. Esta fruta es verde.  
 this fruit is green  
 'This fruit is green.' (= of green colour)

- b. Esta fruta está verde.  
 this fruit is green  
 'This fruit is green.' (= not ripe) *s-level*

Nevertheless, it should be noted that there is a significant inter- and intra-linguistic variation regarding the *ser/estar* alternation in the above mentioned languages,

<sup>38</sup>Main properties of characterising generic sentences are discussed in Subsection 1.4.2 and Section 1.5.

which does not always make it a very reliable test for the i-level/s-level predicate distinction.

In this subsection, I have revised the main characteristics of i-level predicates and s-level predicates in English and the differences between them, which can be based on a semantic principle (see Carlson's ontology) or some syntactic evidence (see tests proposed in Kratzer 1995, Chierchia 1998b, i.a.). I have also shown that the distinction between the two classes of predicates is not always well-defined, neither in English, nor in Romance languages. In the following subsection, I see if Carlson's predicate classification can be applied to Russian.

### 1.6.3 The three-way distinction of Russian predicates

Carlson's classification of predicate was proposed for English, but, being based on a semantic ontology (see Subsection 1.3.2), it is supposed to apply cross-linguistically (if one believes that the semantic ontology is universal). Let us look at how the three classes of predicates are represented in Russian and whether they have similar characteristics to their English counterparts.

As it was stated above (in Subsection 1.6.1), the group of k-level predicates is rather limited cross-linguistically. In Russian, it includes such predicates as *byt' / nahodit'sja na grani isčeznovenija* 'be on the verge of extinction', *byt' redkost'ju* 'be a rarity', *polučit' bol'soe rasprostranenie* 'get widely spread', *proizrastat'* 'grow, be widespread (about plants)', *vodit'sja* 'be found, live (about animals)', *byt' zanesënym v Krasnuju knigu* 'be on the Red List of threatened species'.<sup>39</sup> All of these predicates only select for generic expressions as their arguments.

In Russian, k-level predicates admit only bare nominals as their arguments (82a), without any demonstratives, quantifiers, numerals, possessives (*actualisers* in Padučeva's 1985 terms) (82b). In the latter case, a subkind interpretation is in-

<sup>39</sup>The last three predicates generally apply to natural species.

ferred.

- (82) a. V lesu voditsja volk.  
in forest is.found wolf  
'In the forest, the wolf is found.'
- b. #V lesu voditsja odin volk.  
in forest is.found one wolf

However, like in English (62c), non-bare arguments may have a subkind interpretation. Thus, (83a) is interpreted as (83b), with the kind noun *vid* made explicit.

- (83) a. Ètot volk rasprostranën.  
this wolf widespread
- b. Ètot *vid* volka rasprostranën.  
this kind wolf.GEN widespread  
'This (kind of) wolf is widespread.'

K-level predicates that select for generic expressions in object position also exist in Russian, and they correspond to the above-mentioned English ones: *izobreatat'* 'invent', *otkryvat'* 'discover', *istrebljat'* 'exterminate' (see Subsection 1.6.1). Moreover, like in English, *invent-/discover-*predicates do not generally admit plural nominals in their internal argument position, as illustrated in (84).

- (84) a. Babbage izobrël komp'juter.  
Babbage invented computer  
'Babbage invented the computer.'
- b. # Babbage izobrël komp'jutery.  
Babbage invented computers

However, there are cases when both singular and plural nominals are admitted as internal arguments interchangeably. Such instances, even though rather scarce, are found in the Russian National Corpus ([www.ruscorpora.ru](http://www.ruscorpora.ru)). The choice of the singular or plural form is probably related to encyclopedic knowledge of the speaker and characteristics of the object denoted by the expression. For instance, in (85), the use of plural may be possible because the object is relatively small and

easy to be reproduced; while Babbage's Analytical Engine, mentioned in (84) is quite a bulky complex mechanism (which opened the path for further computer engineering).

- (85) V 1938 godu akademik S.I. Vavilov izobryël ljuminescentnye lampy.  
 in 1938 year academician S.I. Vavilov invented luminescent lamps  
 'In 1938 academician S.I. Vavilov invented luminescent lamps.'

As far as the group of i-level predicates is concerned, it includes such verbs as *vospityvat'* 'educate', *prepodavat'* 'teach', *rukovodit'* 'direct, lead', *upravljat'* 'govern', *pitat'sja* 'feed on something', *kollekcionirovat'* (*marki*) 'collect (stamps)', *sledit' za čis-totoj* 'keep clean', etc., and also verbs of loving/hating,<sup>40</sup> such as *ljubit'* 'love', *ne-navidet'* 'hate', *uvelkat'sja* 'be keen on', *ispytyvat' otvraščenie* 'have aversion', etc. Such verbs cannot express the 'actual present' (in terms of Bulygina and Šmelev 1997), or the progressive present, i.e., when the speech time and the event time is the same (see example (86) from Bulygina and Šmelev (1997: 36)).

- (86) #Elena Mixajlovna rukovodit v koridore svoim aspirantom.  
 Elena Mixajlovna directs in corridor her PhD.student.INSTR  
 intended: 'Elena Mikhailovna is directing her PhD student in the corridor.'

Russian s-level predicates include the following expressions: *vidnet'sja* 'be seen', *belet'* 'shew white', *upletat'* 'stodge', *rejat'* 'flutter, waver', *parit'* 'hover', *razvevat'sja* 'fly (about a flag)', etc. Such predicates are not able to express the gnomic (timeless) present; they only express the 'actual present.'

However, it is important to notice that for most Russian imperfective verbal predicates there is no lexical difference between i-level and s-level. So, the verb shifts between the two levels depending on the context, yielding either a characterising reading or an event reading of a sentence. See the variants of the English

<sup>40</sup>Such verbs are also called psychological subject-experiencer verbs (SEVs) (see also Seres and Espinal 2018, 2019a). The interpretation of internal arguments of such verbs is discussed in Chapter 4.

translation of the same Russian sentence in (87).<sup>41</sup>

- (87) Medvedi edjat mäd.  
 bears eat honey  
 ‘Bears eat honey.’/‘Bears are eating honey.’

Perfective verbs in Russian would normally belong to s-level as they refer to single finished events.<sup>42</sup> They cannot appear in characterising or habitual sentences (see Section 1.5 for details).

## 1.7 Concluding remarks

In this introductory chapter, I have stated the main goal of this thesis: to propose an account of genericity (as reference to kinds) in Russian, a language without articles, as compared to languages with articles, such as English and Romance languages. I have also defined the research questions that help me to achieve this goal. I have formulated the main hypotheses that I defend in this work. Then, I have given an overview of the structure of this thesis, which consist of six chapters and an appendix.

I have stated that genericity as reference to kinds is both a cognitive and a linguistic phenomenon, which has been claimed to be universally present in natural languages, even though its expression varies inter- and intra-linguistically. Kinds in this work are understood as abstract mental concepts as opposed to objects which are localised in space and time. Objects instantiate kinds, inheriting their essential properties. Reference to kinds in natural language may be carried out directly by definite kind expressions, which represent a phenomenon of nominal-level genericity, and indirectly by plural nominals that refer to individuals (a maxi-

<sup>41</sup>There are more possible translations depending on the referential status of the nominals. I give only two translations in order to illustrate the contrast between the characterising and the event reading. In this example I am not concerned with the referential status of the NPs.

<sup>42</sup>The absolute majority of Russian verbs can be unmistakably classified as either perfective or imperfective by Russian native speakers (for more details see Borik 2006).

mal sum of them) but can acquire a generic reading in certain contexts. Generically interpreted nominals may be found in subject position of characterising (generic) sentences. The source of genericity in this case is not the nominal itself, but rather the whole sentence; this phenomenon is called *sentence-level genericity*.

I have reviewed the main properties of characterising sentences that contain either definite kinds or generically interpreted plurals as subjects. Such sentences are analysed as categorical judgments, which ascribe an essential property to the subject by means of an individual-level predicate. They are non-quantificational and law-like, and are characterised by atelicity, temporal unboundedness, tolerance of exceptions and association with dispositions. I have shown that in order for a Russian sentence with a bare subject nominal to be interpreted as characterising generic, it has to lack spatiotemporal or anaphoric anchoring.

I have also given an overview of the classification of predicates into kind-level, individual-level and stage-level, relevant for this work. Kind-level predicates select only generically referring nominals as their arguments; individual-level predicates select both kinds and individuals and are true throughout the existence of these; stage-level predicates, in their turn, can only be applied to individuals and express their temporal stages. This classification is not entirely consistent, and the difference between the classes of predicates may not always be easily established, however, it has high theoretical importance for understanding genericity as a linguistic phenomenon, as it brings up the ontological difference between kind entities and individual entities. Moreover, the above-mentioned three-way division of predicates can be applied cross-linguistically, not only to English. I have shown that this classification is also relevant for Russian, even though most imperfective verbs in Russian can be interpreted as either i-level or s-level, depending on the discourse context.



# Chapter 2

## Kind-referring nominal phrases

### 2.1 Introduction

In this chapter, I look at the first type of genericity briefly described in the previous chapter, namely, nominal genericity (NP-level genericity or D-genericity). As it was stated before, kind-referring NPs are the ones that make a direct reference to kinds. They name kinds, i.e., they are names of kinds, and in this respect, they are similar to proper names, which directly name individuals (cf. Chierchia 1998b for the affinity between kind terms and proper names). I review Borik and Espinal's (2015) theory of definite kinds – numberless definite nominal phrases with a direct reference to kinds. After that, I discuss a typical discourse environment where definite kinds may appear, which is definitional sentences. I review general characteristics of definitions, compare them to descriptive generic sentences. Then, I focus on semantic and syntactic properties of canonical definitions in Russian, which are expressed by means of copular sentences. I show that such sentences are non-predicational and they establish an identity/identification relation between two concepts, expressed by kind-referring nominals. These concepts belong to the background knowledge of the speaker and are characterised by identifiability and presupposition of existence.



## 2.2 The theory of definite kinds (Borik and Espinal 2015, 2019)

Following Borik and Espinal (2015, 2019), kind-referring NPs in this work will be called “definite kinds”. In the literature such expressions have also been referred to as “definite generics” (Carlson 1977b) or “singular generics” (Chierchia 1998b). I consider Borik and Espinal’s term to be more adequate to denote this phenomenon because such NPs are devoid of either semantic or syntactic Number (as it is shown in Subsection 2.2.3), thus, calling them “singular” appear to be misleading. The term “generics” may also be understood in different ways, both as referring to nominals with a generic interpretation<sup>43</sup> and as referring to characterising sentences. In this work I use it to refer to generically interpreted NPs.

The idea that a definite NP with a generic reading denotes a kind or a species itself, while a plural expression refers to a sum of representatives of the kind, can be traced back to Jespersen (1927). This idea is further developed in Borik and Espinal’s (2015, 2019) works on definite kinds in Spanish and Russian. I adopt their analysis for my work as well.

As it was postulated in the previous chapter, kinds are abstract sortal concepts, which are not spatiotemporally localised, while individual objects are. Individual objects are considered to be instantiations of kinds. However, it should also be noted that kinds do not necessarily need to have instantiations; they may exist only in the “mental” world (Mueller-Reichau 2011).

Following Borik and Espinal (2015), I consider kinds to be integral undivided entities with no internal structure. Thus, kinds are not conceived as sets of sub-kinds. This view is different from the taxonomic understanding of kinds adopted

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<sup>43</sup>As it was stated in the previous chapter, the term “kind-reference” is used in this work for describing direct reference to kinds, while “generic reference” is used for reference to individuals, representatives of a kind, whose (maximal) sum may be intensionalised and, thus, they may refer to kinds under certain conditions, which are described in Chapters 3 and 4; generic reference is indirect reference to kinds.

in Carlson (1977b), Krifka (1995), Krifka et al. (1995) and others. Being integral and having no internal structure means that kinds, unlike individual entities, cannot be structured as a lattice, as proposed in Link (1983).

In the languages with articles that I focus on in this work (English (1) and Romance languages, such as Catalan (2)) kind-referring NPs occur with a definite determiner. Borik and Espinal (2015) claim that all languages that have determiners (null or overt) would allow for definite kinds, so kind-referring NPs in Russian (3) as an articleless language would appear as bare, however, there might be a null definite determiner present in their structure.

- (1) The rhino is on the verge of extinction.
- (2) El rinoceront està en perill d'extinció.  
the rhino is in danger of extinction
- (3) Nosorog naxoditsja na grani isčeznovenija.  
rhino is situated on verge extinction

Borik and Espinal (2019) postulate the same syntactic (4a) and semantic (4b) structure for definite kind arguments in languages with and without articles.

- (4) a.  $[_{DP}D[_{NP}N]]$
- b.  $[[\text{Def } N] = \iota x^k [P(x^k)]]$ ,

where P corresponds to the descriptive content of a noun N, and  $x^k \in K$  (i.e., the domain of kinds).

The proposed structure shows that definite kinds are syntactically and semantically definite and are represented as full DPs cross-linguistically.

In this work, I adopt the analysis of definite kinds, proposed by Borik and Espinal (2015, 2019) for English, Romance and Slavic languages. Most probably the analysis can be extended to other groups of languages as well. In this section, I briefly recapitulate the main points of the theory of definite kinds.

### 2.2.1 The denotation of a common noun and type-shifting

According to Borik and Espinal (2015), definite kinds are built by means of an iota operator (which corresponds to a definite article in languages with articles and is assumed to be covert in articleless languages) to the denotation of a common noun, which is a property of a kind.<sup>44</sup> This claim is supported by empirical facts, based on pronominalisation, number neutral interpretation and adjectival modification of nouns (Borik and Espinal 2019: 6). It is important to notice that if the denotation of a common noun is a property of a kind, it has no inherent number information.

This claim goes contra Carlson (1977a,b), Zamparelli (1995) and many others, who consider that the denotation of a common noun is a kind entity. Partee (1987), Chierchia (1984, 1998b) and many others, however, claim that common nouns denote properties and not entities, but they are defined as denoting properties of individuals, not properties of kinds.

In accordance with Borik and Espinal's (2015, 2019: 7) theory, the meaning of a common noun has the following representation:

$$(5) \quad \llbracket N \rrbracket = \lambda x^k [P(x^k)],$$

where P stands for a property corresponding to the descriptive content of N, and  $x^k$  is a kind entity, such that the property P applies to  $x^k$ .

Following Partee and Rooth (1983), Partee (1987) and Krifka (2003) it is assumed that the NP denotation may be type-shifted between entities, properties and quantifier type denotations. It is also assumed that determiners perform the type-shifting function (Longobardi 1994; Chierchia 1998b, i.a.). However, there can also be covert type-shifting, which is understood as a 'last resort' principle (Chierchia 1998b), i.e., it applies only when other compositional mechanisms fail and there is a type-mismatch. The covert type-shifting is blocked when there are other overt

<sup>44</sup>For the discussion of the denotation of a common noun see also Dobrovie-Sorin and Oliveira (2008); Espinal and McNally (2007, 2011); Espinal (2010).

tools for type-shifting, such as the definite article. In languages without articles type-shifting operations are always covert, and, thus, are never blocked, according to Mathieu (2009: 135). So, it is important to find logical and empirical motivation for postulating a certain type-shifting mechanism for this type of languages.

Partee (1987) proposes an iota type-shifting operator ( $\iota$ ), which maps a property  $\langle e, t \rangle$  onto an individual entity  $\langle e \rangle$ ; its meaning is represented in (6).

$$(6) \quad \iota : P \rightarrow \iota x[P(x)]$$

‘The unique  $x$  such that  $P(x)$  is true.’

In languages with articles this operator corresponds to the definite article, which maps a property onto the maximal/unique individual having that property (for the account of ‘uniqueness/maximality’ see Sharvy 1980, Link 1983). The meaning of the definite article can be represented as in (7):

$$(7) \quad \llbracket \text{the} \rrbracket = \lambda P: \exists x \forall y [P(y) \leftrightarrow x=y]. \iota x.P(x)$$

According to Borik and Espinal (2015; 2019), in languages with articles the definite article (represented by an iota operator) applied to a noun (which denotes a property of a kind) yields a unique kind entity. The iota operator is composed directly with the noun, yielding a definite kind expression ((8) is modelled on Borik and Espinal 2019: 8, ex. 7).

(8) *The rhino* is on the verge of extinction.

a.  $[_{DP} \text{the} [_{NP} \text{rhino}]]$

b.  $\llbracket \text{the rhino} \rrbracket = \iota x^k [\text{rhino}(x^k)]$

If it is assumed that a common noun denotes a property of kind, then this form would be the simplest way to refer to a kind. The NP *the rhino* would mean “the unique kind to which the property *rhino* applies”.

According to Mari et al. (2012: 27), the use of the definite article is required in kind formation because of the presupposition of uniqueness attached to the kind, i.e., there is one and only one kind called *rhino*.

The proposed analysis of definite kinds is extended to languages without articles, such as Russian. In the absence of articles Borik and Espinal (2019: 301) provide independent evidence for the semantic definiteness of the nominals in question, their ability to serve as arguments of *extinct*-type k-level predicates, which block the use of indefinite expressions, presupposing the existence of the kind entity in its subject position (see Subsection 1.6.1 for more details on kind-level predicates).

Moreover, Borik and Espinal (2019a: 304) claim that syntactically definite kinds in Russian are DPs, even though there is no overt realisation of the D-projection. The D-head is postulated for reasons of semantic uniformity. According to Ramchand and Svenonius (2008), this head is responsible for turning property-type expressions into argument-type expressions, and it can be underspecified for definiteness and specificity in languages without articles, like Russian.<sup>45</sup>

In this respect it may be also relevant to compare Russian as a Slavic language without articles with Macedonian (9) and Bulgarian (10) – two Slavic languages that have a definite article (the article is postpositive).<sup>46</sup>

(9) *Macedonian*

Nosorogot e na rabot na izumiranje.  
rhino.the is on edge.the on extinction

(10) *Bulgarian*

Nosorogăt e na praga izčezvane.  
rhino.the is on threshold extinction

<sup>45</sup>It should be noted that not all researchers accept the necessity of having a D-projection in languages without articles. There is a long-standing discussion in the literature between the supporters of one of the two approaches: the Universal-DP hypothesis (Longobardi 1994; Cinque 2005; Pereltsvaig 2007, 2013) and the Parametrised-DP hypothesis (Bošković 2005, 2008, 2012; Bošković and Gajewski 2008).

<sup>46</sup>I thank my informants Izabela Jordanoska for Macedonian and Jivko Darakchiev for Bulgarian examples.

The use of the definite article is obligatory in the case of definite kinds in these languages, just like in English and Romance.

### 2.2.2 The question of definite kinds in languages without articles

In the previous subsection, it was suggested that the analysis of definite kinds as semantically definite expressions in languages with articles can be extended to Russian. However, it is important to bear in mind that the question of definiteness/indefiniteness is not a trivial one for Russian as a language without articles.<sup>47</sup> It has been proposed in the recent literature that the semantics of definite descriptions in languages with articles may be different from the semantics of the descriptions that are perceived as definite in languages without article (Seres and Borik accepted; Šimík and Demian to appear). A detailed account of the differences between definiteness the two types of languages is presented in Chapter 5 of this thesis, where I defend the hypothesis that the perceived definiteness in Russian does not involve such concepts as uniqueness/maximality, generally associated with definite descriptions in languages with articles.

Should the absence of uniqueness hypothesis be on the right track for Russian, this would mean that the iota operator, which represents semantic definiteness in languages with articles, cannot be used in the representation of definite kinds, as proposed in the previous section. Following Heim's (2011) hypothesis for languages without articles, it has been argued in Seres and Borik (accepted) and Šimík and Demian (to appear) that semantically, all nominals in Russian are indefinite, and the definiteness effects are of pragmatic nature. The mechanisms for the pragmatic strengthening of indefinites that result in the perceived definiteness in Rus-

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<sup>47</sup>As far as languages with articles are concerned, it should also be noted that syntactic definiteness (an overt definite article) does not always straightforwardly encode the semantic definiteness, associated with such concepts as uniqueness/maximality, but also familiarity (identifiability). Furthermore, the absence of a definite article does not always lead to the absence of definiteness at interpretation (Lyons 1999). Questions related to (in)definiteness in different languages as discussed in Chapters 3 and 5 in more detail.

sian are discussed in Chapter 5.

In accordance with the indefiniteness hypothesis, Borik and Espinal (2019b) revise their analysis of definite kinds for Russian, proposing a new semantic representation, as illustrated in (11). This representation is based on the analysis of indefinite nominals as choice functions (Reinhart 1997; Winter 1997), which is applied to a predicate  $P$ , yielding a member satisfying this property.

$$(11) \quad \exists f(\text{CH}(f) \ \& \ f(P)(x^k)),$$

where  $P$  corresponds to a descriptive content of a noun.

Thus, as Borik and Espinal (2019b) propose, this choice function would apply to a kind property denoted by a common noun (see Subsection 2.2.1) and yield an element having this property. They also point out that this kind of analysis for numberless kind expressions in languages without articles would give the same result as an iota operator used for languages with articles: in both cases operators apply to a non-empty property to yield the only entity that has this property at the output.

Considering that the result of the derivation of definite kinds by means of an iota operator and a choice function is equivalent, in this work I adopt the latest version of the analysis that Borik and Espinal (2019b) propose. The semantics of Russian kind-referring NPs which does not involve an iota operator would go in line with the analysis of object-referring bare NPs that I present in Chapter 5, putting forward the hypothesis that Russian bare nominals are indefinite by default and other interpretations (definite and generic) are achieved pragmatically.

Regardless of whether kind-referring expressions in Russian are considered to be semantically definite or not, in this thesis I continue referring to them as “definite kinds” in order to show that they are ontologically equivalent to definite kinds in English and Romance. Moreover, there is one key characteristic that kind-referring expressions in languages with and without articles share; it is the absence

of semantic and syntactic Number, which is discussed in the following subsection.

### 2.2.3 The role of Number in kind formation

The presence or absence of Number on the nominal seem to play a crucial role in kind formation and in the way a kind is related to its instances (Mari et al. 2012: 32).

First of all, it is important to discern the difference between morphophonological Number marking on a nominal and syntactic Number.<sup>48</sup> The latter, as distinguished from the former, is necessarily interpreted semantically. Generally, in Germanic, Romance and Slavic languages NPs are morphologically marked for number (in languages that have case marking, the number marking usually comes as one cluster with Case).<sup>49</sup> This morphological marking does not have to correspond to a syntactic number projection and yield a singular or a plural interpretation of the NP (Borik and Espinal 2019; cf. Ionin and Matushansky 2006, Pereltsvaig 2013 for similar claims about Russian).

By suggesting that bare nominals denote properties of kinds (see Subsection 2.2.1) Espinal (2010) and Borik and Espinal (2015) hypothesise that no inherent number information is involved in the denotation of bare nominals and also in the denotation of definite kinds. Number is analysed by Borik and Espinal (2015) as an instantiation operator (cf. Carlson's 1977 Realization operator), which yields properties of individuals when it is applied to a common noun (a property of a kind). It is crucial to notice that this operator is not involved in the semantic composition of definite kinds, thus, they do not yield any singularity or plurality. As it was stated above, kind-denoting NPs are composed by direct application of an iota operator to properties of kinds.

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<sup>48</sup>Krifka (2003) introduces a slightly different distinction between two types of Number: the syntactic number, responsible for agreement, and the semantic number, which plays a role in the semantic composition of NPs.

<sup>49</sup>This is typical of inflectional languages, such as Russian.



An empirical test for the claim that definite kinds do not involve Number is based on the observation that they do not allow for any instantiations, unlike plural NPs with a generic reading (also noted in Carlson 1977b).

- (12) a. The rhino is on the verge of extinction. #Some of them are microchipped to prevent poaching. /#Some (rhino) is microchipped to prevent poaching.
- b. Rhinos are on the verge of extinction. Some of them are microchipped to prevent poaching.

The contrast in acceptability between examples (12a) and (12b) demonstrates that the definite kind expression cannot be a potential antecedent of a quantifier *some* because it does not license access to individual entities, neither pluralities nor atoms, as this quantifier requires. The felicity of (12b) demonstrates that a bare plural nominal, unlike a definite kind, has syntactic and semantic Number (see Chapter 3).

As for Russian, a piece of evidence for the absence of syntactic number on definite kinds is their inability to combine with *actualisers*, which include demonstrative pronouns, quantifiers, numerals, i.e., elements that carry number information. According to Padučeva (1985), such elements in Russian indicate the referential status of a nominal in the absence of articles. Combined with kind-level predicates, NPs with actualisers (13) are only acceptable if they are interpreted as subkinds.<sup>50</sup> They cannot denote a kind.

- (13) #Etot/ #Odin nosorog skoro isčeznet s lica zemli.  
 this/ one rhino soon will disappear off face earth  
 'This/one rhino will soon disappear off the face of the earth.'

A definite morphophonologically singular nominal in languages with articles may

<sup>50</sup>Subkinds are analysed in (Borik and Espinal 2015) as sets of individual entities whose denotation is coerced to subkinds by the selectional requirements of the predicate.

refer not only to a numberless kind (14a), but also to a singular unique individual (14b). These two types of expression have a different syntactic structure, represented in (14). The Number projection is only present in the syntactic structure of a nominal expression with an individual reference. It is crucial for the individual object interpretation (Borik and Espinal (2015: 189, ex.27)), as Number is conceived as an instantiation operator, which turns properties of kinds into properties of individuals that are then type-shifted by an iota operator to denote an individual (see Subsection 2.2.1). Notice that in line with the updated version of the theory of definite kinds for Russian (see Subsection 2.2.2) the D-head may have different semantics across language and contain various types of determiners that act as type-shifters.

- (14) a.  $[_{DP}D [_{NP}N ]]$  *kind*  
 b.  $[_{DP}D [_{NumP} Num[_{-PL}] [_{NP}N]]]$  *individual object*

The individual object interpretation of definite NPs is subject to contextual restrictions; it becomes salient in an adequate context (Declerck 1991: 82). The definite NPs in (15) and (16) cannot be interpreted as kind-referring because of the semantics of the entire sentence and because of the pragmatic conclusions that can be drawn from the context.

(15) I played with *the dog* yesterday.

(16) In the library: Pick up *the book* from the floor.

It is also obvious that reference to kinds is incompatible with spatiotemporal localisation, e.g., *yesterday*, *from the floor*, which is one of the most important characteristics that distinguishes kinds from individual objects, as was pointed out in Subsection 1.2.2.

The type of the predicate is also relevant in defining whether an expression denotes a kind or an individual (see Section 1.6 for the classification of predicates):

only kind-denoting expressions can be arguments of k-level predicates, while i-level predicates admit both arguments with individual reference and with kind reference. S-level predicates only select for individuals.

In this section, I have reviewed the semantic and syntactic analysis of definite kinds by Borik and Espinal (2012, 2015) who argue that direct reference to kinds cross-linguistically is carried out by means of morphophonologically singular (however, devoid of semantic or syntactic Number) nominals, which are overtly definite in languages with articles and denote a unique kind entity. The denotation of definite kinds is based on the application of an iota operator to properties of kinds. As far as Russian is concerned, I have shown that the same denotation of kind-referring expressions may be achieved by applying a choice function (as proposed in Borik and Espinal 2019b), thus, there is no need to postulate the semantic definiteness of such expressions in languages without articles. Now I move on to other types of expressions that can be considered kind-referring. After that, in Sections 2.4 and 2.5, I analyse definitional sentences, which represent of the most typical contexts, where kind-referring nominals may appear.

### **2.3 Kind-denoting expressions**

After an overview of definite kinds, given in the previous section, I now look at other types of expressions of nominal level genericity that name kinds directly – modified kinds and Latin names of kinds. I also review the question of whether there is a restriction on kind formation which depends on the (lexical) type of nominal, and claim that this restriction is of pragmatic nature, and does not depend on the nominal itself.

### 2.3.1 Modified kinds

A definite kind, modified by a classifying expression preserves its ability to refer to a kind (Borik and Espinal 2015: 196-197) and, thus, can be considered an expression of nominal-level genericity (see also Krifka et al. (1995)).

(17) *The Asian elephant* has been listed as endangered.

According to Borik and Espinal (2015: 196), a classifying expression (either an adjective or a prepositional phrase of type  $\langle\langle e^k, t \rangle \langle e^k, t \rangle\rangle$ ) combined with a noun denotes a subdomain of a kind, e.g., the kind *elephant* in (17) and its subdomain *Asian elephant*. When such an expression is further combined with the definite article (the iota operator), it becomes a DP that denotes a kind *the Asian elephant*. Modified kinds are more restricted than their non-modified counterparts (e.g. *the elephant*). The following representation of a modified kind expression is modelled on the one from Borik and Espinal (2019a: 312, ex. 27):

(18)  $\llbracket \text{the Asian elephant} \rrbracket = \iota x^k [(\text{Asian}(\text{elephant}))(x^k)]$

The relevant question here is what expressions are considered to be classifying. Relational adjectives (see McNally and Boleda 2004) can be such modifiers as they denote properties of kinds. Borik and Espinal (2015: 198-199) also suggest that the ability of an expression to be classifying depends on the background knowledge of the speaker, i.e., it is a pragmatic/encyclopedic restriction. The question of classifying expressions is also connected with the restriction on “well-established” kinds, discussed below (2.3.2), which also seem to have a pragmatic nature.

### 2.3.2 The question of “well-established” kinds

Definite kinds are often studied in comparison with plural nominals with a generic reference (which may be either bare, like in English and in Russian, or definite,

like in Romance languages). Many researchers, such as Longobardi (2001) and Longobardi (1994), Chierchia (1998b), Dayal (2004, 2011a), i.a., claim that plural expressions are the “default” way to refer to kinds.<sup>51</sup>

Reference to kinds, expressed through plural nominals, is taken to be default (at least in English) on the grounds that the use of generic plurals seems to be less constrained than other linguistic forms (Krifka et al. 1995; Dayal 2004; Mari et al. 2012), e.g., definite kinds, as illustrated in (19) and (20).

(19) a. #The green bottle has a narrow neck.

b. The coke bottle has a narrow neck.

(20) a. Green bottles have narrow necks.

b. Coke bottles have narrow necks.

Carlson (1977b), Krifka et al. (1995), among others, explain this constraint as a well-established kinds restriction. Ionin et al. (2011) use a similar term “well-defined kinds” for nominal expressions that may occur in a definite singular form and have a generic reference. Such expressions are generally described as limited to natural kinds, e.g. *the lion*, or artifacts, e.g. *the computer*.

However, there are arguments against this approach. Dayal (1992, 2004) showed that the definite kind from (19a) can be made acceptable with a contextual manipulation (21).

(21) The factory produces two kinds of bottles, a green one for medicinal purposes and a clear one for cosmetics. The green bottle has a long neck. The clear bottle . . .

Borik and Espinal (2015: 169) claim that a seemingly more limited distribution of definite kinds (as compared to plural generic nominals) is not related to any

<sup>51</sup>See also Ionin et al. (2011) for an experimental investigation of genericity in English, Spanish and Brazilian Portuguese.

linguistic constraints on the formation of kinds. If it were so, that would mean that not all common nouns are able to denote a property of a kind, and that would go against the basic theoretical assumption that common nouns have a unified denotation. Furthermore, in a more recent work Carlson (2011: 1181-1182) also points out that there are no linguistic restrictions on kind-formation, and almost any nominal can be made to refer to a kind.

The restrictions on the use of definite kinds in a given language depend on the encyclopedic knowledge of the participants of communication and their socio-cultural conventions, that is, it is a pragmatic and not a semantic restriction.

Collins (2015: 373) claims that there are no ontological restrictions on definite kind formation: any noun type within an appropriate projection (i.e., non-quantificational/non-demonstrative) belonging to any ontological realm, for example, species, natural kinds, artifacts, social roles/professions, activities, etc., can be formative of a kind.

It should be noted, however, that there are certainly some nominal expressions that do not appear to be able to be turned into kinds, e.g., *parts of this (particular) machine*, *people in the next room*, *books that John lost yesterday* (see Carlson 1977a, 2011). Such expressions refer to individual object entities that have a finite, delimited extension, beyond which the generalisation cannot go.

### 2.3.3 Latin names of kinds

There is one more type of construction used cross-linguistically that can be considered directly kind-referring. They are Latin terms that denote species, families, orders, phyla, etc., of natural kinds. Apparently, the use of this construction is limited to the scientific domain. According to Carlson (2011: 1172-1173, ex. 49), the semantics of such terms is most similar (or possibly identical) to the one of definite kinds, as analysed in this chapter (or “definite singulars” in Carlson’s terms).

- (22) a. *Acer rubrum* (= the red maple tree) grows 40 to 60 feet tall.  
 b. *Ursus Malayanus* (= the sun bear) is native to southeast Asia.

In fact, Latinate generic terms in English, which are generally used without the definite article, are conceived rather as proper names, while in Romance languages they are treated as real names of kinds and are used with a definite article (Borik and Espinal 2015: 195, ex. 36b).

- (23) *Spanish*

La *drosophila melanogaster* es típica del verano.  
 the *drosophila melanogaster* is typical of the summer

'*Drosophila melanogaster* is typically found in the summer.'

Naturally, Russian also makes use of Latin names of kinds in the same contexts. A foreign language term may be semantically equated to a Russian definite kind in a definitional copular sentence, like in (24).

- (24) *Russian*

*Ursus*– èto medved'.  
 ursus that bear

'*Ursus* is the bear.'

A detailed syntactic and semantic analysis of such sentences in Russian is given later in this chapter (see the section on definitional sentences in Russian (2.5)).

## 2.4 Kind-referring nominals and the definitional mode of speaking<sup>52</sup>

We have seen that the key characteristic of kind-referring NPs (namely, definite kinds) discussed in this chapter is their ability to appear in argument slots of kind-level predicates. Another linguistic environment where such NPs are normally found is definitional statements, that is, sentences aimed at explaining the meaning of a certain existing concept or introducing a new term.

Genericity in natural language provides the speakers with the ability to define different concepts in terms of language, to put it another way, to give definitions. Definitions are one of the most clear-cut cases, in which nominal phrases – the terms that are being defined – are interpreted generically, i.e., they have no specific referent in a real world, but rather represent a concept (a kind).<sup>53</sup> According to Carlson (2011: 1162), a word's definition always implies an intension. Generalising is intensional in its essence as it “goes beyond” samples in the extension. In definitional mode of speaking the NP, whose meaning is being rendered, refers to a kind, but not to an individual object.

In the case of definitional sentences the meta-linguistic function of language is manifested: definitional sentences do not communicate about the world but about the language that is used by the speakers. It should be noted that the definitional mode of talking is very important for language acquisition (Krifka 2012), although, obviously, it not the only way of acquiring the lexicon.

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<sup>52</sup>Sections 2.4 and 2.5 present some of the ideas published in Seres and Espinal (2019b) “Russian definitional generic sentences”. *Glossa: A Journal of General Linguistics*, 4(1), 59. DOI: <http://doi.org/10.5334/gjgl.760>. Parts of this research were presented as joint work with M.Teresa Espinal at SIGGRAM (UAH) and a CLT (Centre de Lingüística Teòrica) seminar (UAB) in 2019. The initial stage of this work was presented by Daria Seres at workshop “On the semantic contribution of Det and Num. (In)definiteness, genericity and referentiality” (UAB) in 2015, SIGGRAM (UAH) in 2016, and a LAK (Linguistischer Arbeitskreis Köln) seminar (University of Cologne) in 2018.

<sup>53</sup>Regarding the relation between kinds and concepts, it has been postulated that concepts describe kinds/categories, and kinds are reifications of conceptual descriptions (Mueller-Reichau 2011: 46-47).



### 2.4.1 General characteristics of definitions

*Definitions* (or *definitional sentences*) that explain the meaning of a lexical item are found in many different contexts: first of all, they are present in dictionaries, encyclopedias and textbooks, but also in speech both in academic and non-academic environments for pedagogical and practical purposes.

In this work, I am going to use the term *definition* in a very broad sense: it is a statement, which renders the meaning of a lexical entry. Thus, a definition is understood as a form of a meta-language that facilitates the use and comprehension of the meaning of the lexical entry in question.

Definitions have received philosophers' attention since ancient times. The theory of definition can be traced back to Aristotle (Gupta 2015). He pointed out that a definition gives the essence of a thing: "a definition is an account (logos) that signifies an essence" (cited from Cohen 2016). This essence is understood as a general, timelessly valid concept, different from an individual thing of our world of perception, which is the specific manifestation of this concept.

In formal linguistics, however, definitions are rather understudied. Their semantic and syntactic characteristics have not been well defined yet. Nevertheless, definitional sentences are an important phenomenon for the study of genericity in natural language as they represent a mixed type of generic sentence, where nominal and sentential genericity co-occur. The term to be defined is normally expressed by a kind-referring nominal (an entity without any spatiotemporal localisation), while the rest of the sentence contains essential or the most salient characteristics of the kind-referring NP, whose meaning is defined, thus, it is a characterising statement. Such sentences are not bound to specific times or worlds, they are atemporal and non-accidental (Greenberg 2002: 238), they represent general truths and are law-like.

From now on I will mainly focus on canonical definitions in Russian, like the

ones illustrated in (25), briefly observing this phenomenon in languages with articles as well and making it possible to extend the study further.

- (25) a. *Vepr'*– èto kaban.  
*vepr'*.NOM.SG.MASC that wild.boar.NOM.SG.MASC  
 'Vepr' is a wild boar.'
- b. *Vepr'*– èto vsejadnoje parnokopytnoje  
*vepr'*.NOM.SG.MASC that omnivorous even-toed  
 mlekopitajuščee.  
 mammal.NOM.SG.NEUT  
 'Vepr' is an omnivorous even-toed mammal.'

After looking at the structure and meaning of definitional generic sentences in Russian (see Subsection 2.5.3), I claim that they express an identity/identification relation between two nominal concepts.<sup>54</sup> In Russian canonical definitions are given in the form of a bi-nominative structure: NP1 – èto NP2 ('NP1 is NP2'),<sup>55</sup> i.e, a copular sentence. Such sentences are non-predicational, showing similarities to equative, identificational and specificational sentences. As far as Russian definitional sentences are concerned, I argue that (i) both NPs are kind-referring, whereas *èto* is non-referential; (ii) the copula maps a kind entity (the denotation of NP2) to itself (identity function); and (iii) the neuter element *èto* introduces a presentational function that maps the kind entity in postcopular position to a function that looks for another kind entity (the one corresponding to NP1) and composes a definitional generic sentence.

From a discourse perspective Russian definitional generic sentences may be viewed as contractions of a specific type of question-answer pair. Thus, NP1 can be considered a short form of a question and the rest of the sentence a short form of an answer. Consider (26) for (25).

<sup>54</sup>In this work I treat identity and identificational relations on a par with each other, since the analysis I propose applies similarly to both of them. This explains the use of the slash notation.

<sup>55</sup>In the labels used for nominal phrases in definitions – NP1 and NP2 – the number indicates the surface order.

(26) Q. What does *vepr'* refer to?

A. a. Èto<sub>[what vepr' refers to]</sub> BE kaban.

b. Èto<sub>[what vepr' refers to]</sub> BE vsejadnoje parnokopytnoje mlekopitajušĉee.

Under this perspective the dash used in (25) is a reflection of the sentence border between the Q-A pair, and the neuter pronoun *èto* would have a propositional discourse referent (see Krifka 2013).

#### 2.4.2 Definitional generic sentences vs. descriptive generic sentences

Before I move on to the analysis of definitional sentences, it is important to make a distinction between two types of generic sentences – definitional and descriptive ones (see Lawler 1973; Burton-Roberts 1977; Cohen 2001; Krifka 2012).

Descriptions presuppose that the language is fixed and is shared by all participants of a conversation, thus, making it possible for them to communicate about the world. In contrast, definitional sentences communicate about the language used by the participants, e.g., the speaker wants to introduce a new term or give a certain understanding of an existing term. Krifka (2012) analyses the following examples of descriptive (27) and definitional (28) generic sentences from Lawler (1973):

(27) Madrigals are popular.

(28) Madrigals are polyphonic.

Statement (27) asserts something about the world in which madrigals exist, while (28) provides some essential characteristics of madrigals. According to Burton-Roberts (1977), sentences like (28) can be rephrased as ‘to be a madrigal is to be polyphonic’, as they are meta-predications, which involve concepts (in the sense used by Frege (1892a)): the *polyphonic* concept is predicated of the *madrigal* concept. (27), in its turn, cannot be rephrased ‘to be a madrigal is to be popular’, as it does not involve meta-predication.

Another difference relevant for these two types of descriptions in English is that sentences, such as (29) do not admit indefinite singular nominals, while the sentence in (30) does.

(29) #A madrigal is popular.

(30) A madrigal is polyphonic.

The unacceptability of (29) can be explained by a nomicity constraint proposed by Lawler (1973): the generic reading of singular indefinites is possible only if the generalization expresses a property that is nomic, necessary, essential, inherent or analytic. Cohen (2001), however, suggests that rephrasing (29) makes it more acceptable, see (31), so this cannot be a real test for the distinction between the two types of generic sentences.

(31) A madrigal is a popular song.

The two kinds of statements – descriptive and definitional generics – are deeply intertwined. Sometimes one and the same sentence can have two interpretation. Krifka gives the following example and explanation:

(32) Boys don't cry.

“In the descriptive use, the speaker assumes a shared interpretation of boys, and wants to communicate to the addressee that under this shared interpretation, the generalization that the entities that fall under boys do not cry in the situations that could lead to crying. In the definitional use, the speaker proposes to the addressee to restrict the interpretations such that it holds that the entities that fall under boys do not cry when in situations that could lead to crying.” (Krifka 2012: 376).

It should be noted that definitions of the same term taken from different sources are not unique or exhaustive, they may contain different bits of information about the concept, represented by the lexical item which is defined (Rey 2000), and yet

generally they are still effective in explaining its meaning and use (Gupta 2015). Language users understand and use a potential infinity of sentences containing a term, once given a certain small amount of information about it.

Definitions presented in this subsection in (28) and (32) are partial in terms of Krifka (2012: 381); they are predicational. The definitions I analyse below are of a different type, such as the one illustrated in (25), and represent an identity/identification relationship between kind-referring expressions. They are called full, canonical (or classical) definitions.

### 2.4.3 Canonical definitions

The canonical (classical) definition is probably the most common one, when it comes to explaining the meaning of a word. It is a bi-nominal copular sentence of the type 'NP1 is NP2'. Such sentences represent an answer to the questions 'What is X?' or 'What does X mean/refer to?' Such questions establish a definitional mode of speaking and can be considered a canonical way of requesting a definition (Burton-Roberts 1986). The answer presupposes the knowledge of the meaning of X and the existence of the kind entity X.

The canonical definition consists of a name of the kind to be defined followed by BE and a list of the most salient characteristics of the prototypical object (Declerck 1988). It is also called Aristotelian definition (see Sager (2000) for Aristotle "Topics") and it allows a conventional *genus et differentia* interpretation (Cormack 1998), which is a type of an intensional definition. It is an analysis of a mental complex into one common notion and one or more different notions (Eringa 1981).

- (33) a. The tiger is a wild animal.  
 b. The cat is a domestic animal.

In (33a) and (33b) the genus (the common notion for both the *tiger*-kind and the *cat*-kind) is *animal* and the differentia is *wild* and *domestic*.

In such types of sentences, the precopular nominal that is defined is called the *definiendum*, and the postcopular NP is the *definiens*. The *definiens* consists of the head noun, representing the *genus* (class), and additional phrases as distinguishing the *definiens* from other possible subdivisions (subclasses) of the *genus* (Cormack 1998). Thus, the relationship between the *definiendum* and the *definiens* are the one of a hyponym and a hyperonym (set-inclusion, in Cormack's (1998) terms):

(34) The/A whale is a mammal.<sup>56</sup>

Additional elements of the *definiens* include adjectives, prepositional phrases, relative clauses, etc.:

(35) The whale is the largest mammal.

(36) The whale is a mammal that lives in the sea.

Another possible relationship between the *definiendum* and *definiens* is the one of set-identity (Cormack 1998) (37). That is a full definition as opposed to other types definitions the giving partial information about the *definiendum*. Full definitions involve either identity or identification between the kind-referring expression in the *definiens* and the one in the *definiendum*.

(37) An oculist is an eye doctor.

In terms of Seres and Espinal (2019b), sentences like (34) introduce an identification relation between two kind expressions, the first one corresponding to the *definiendum* and the other one corresponding to the genus part of the *definiens*. It can be rephrased as following: "As for the kind named by the noun *whale*, it is identified with the kind named by the noun *mammal*, but not the other way around". However, sentences like (37) are considered to introduce an identity relationship

<sup>56</sup>An indefinite singular nominal may be interpreted as being a representative of the kind, denoted by the noun, while the definite NP has a direct reference to the kind.

between two kind expression, one of them corresponding to the *definiendum* and the other one to the *definiens*, represented by a genus. In this case, the sentence can be rephrased as “As for the kind named by the noun *oculist*, it is identical to the kind named by the noun *eye-doctor*, and the other way around”.

## 2.5 Definitional generic sentences in Russian

Now let us look at canonical definitions in Russian, which represent an interesting phenomenon, as they are given in the form of a bi-partite structure NP1 - èto NP2 (‘NP1 is NP2’). In this structure both NPs are in the Nominative case; there is a low-boundary tone before *ètò* and a dash in writing, which signals the division between the *definiendum* and the *definiens*. In this section, I am going to analyse the structure and meaning of such sentences and show that they are non-predicational copular sentences, and that both NPs are kind-referring, while *ètò* (a pronominal element) is non-referential. This element introduces a presentational function that maps the kind entity in postcopular position to a function that looks for another kind entity (NP1) and composes a definitional generic sentence. The copula BE (which is generally covert in the present tense in Russian) maps a kind entity (NP2) to itself (identity function).

### 2.5.1 Copular sentences (brief overview)

Before I move to the analysis of canonical definitions in Russian (which are copular sentences with the surface structure: ‘NP1 - èto NP2.’), I briefly review the classification of copular sentences adopted in the linguistic literature in order to determine what type of copular sentence Russian definitional sentences are and what characteristics they have. It should also be noted that definitional sentences have generally been out of scope of the research on copular sentences cross-linguistically.

Copular sentences are generally subdivided into predicational (38) and non-

predicational ones (39) – (41). The latter include equative (or identity) (39), identificational (40), and specificational (41) sentences. The main difference between these sentences is that in (38) NP2 is non-referential, while in (39) – (41) it is referential.

- (38) Charles is a writer. *predicational*
- (39) Charles Dodgson is Lewis Carroll *equative (non-predicational)*
- (40) That’s Charles. *identificational (non-predicational)*
- (41) The problem is Charles. *specificational (non-predicational)*

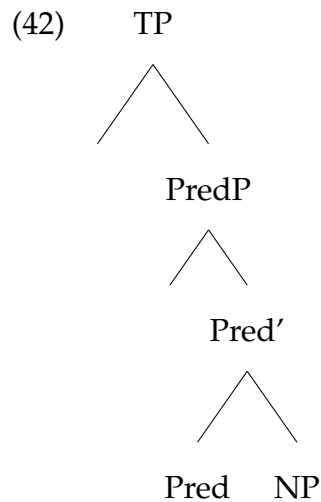
According to Higgins (1973), whose seminal work on copular sentences gave rise to various proposals for classification of copular sentences (such as Mikkelsen 2005, den Dikken 2006, Geist 2008a, Partee 2010, Woodard 2018, among others), the subject and predicate of these four types of copular sentences have different properties, which are summarised in the table below.

Table 2.1: Types of copular sentences (Higgins 1973)

Type	Subject	Predicate
Predicational	referential	predicational
Identity	referential	referential
Identificational	referential	identificational
Specificational	superscriptional	specificational

Syntactically, in copular sentences the predication is claimed to be mediated by the projection of a functional head Pred (Bowers 1993; Svenonius 1994; Adger and Ramchand 2003; and others), as represented in (42).





In the case of predicational, equative and identificational copular sentences, it has been proposed that a referential NP subject moves to a SpecTP position. By contrast, in specificational sentences it has been suggested in the literature (Mikkelsen 2005) that a predicative NP that bears a topic feature moves to SpecTP, the output of this movement being a sort of copular inversion structure in which NP2 may show non-canonical agreement with the copula in some languages. I come back to this issue in Subsection 2.5.3.

Identificational sentences have been sometimes considered a special case of specificational sentences (Mikkelsen 2005). Moreover, specificational sentences have been claimed to show different properties cross-linguistically. Partee (2010) shows that specificational sentences in English and in Russian differ at the syntactic level: in the former the syntactic subject is the NP1, while in the latter it is NP2. In Russian, NP2 is always in the nominative case and the verb agrees with it. However, the meaning and the information structure of specificational sentences is the same in both languages: NP1 expresses a property and NP2 is referential (type <e>); the precopular nominal is discourse-old (functioning as a topic), while the post-copular part expresses new information.

As for the semantics of copular sentences, referential NPs in (38) - (41) refer to

individual entities. Such reference is achieved by means of a proper name, a definite description or a deictic demonstrative pronoun. However, it is important to note that in the case of definitional sentences referential NPs have kind reference, as illustrated in (43).

- (43) a. The dodo was a bird. *predicational*  
       b. *Felis catus* is the cat. *non-predicational*

Let us have a closer look at canonical definitions as copular sentences. Very few researchers, who worked on copular sentences, took this type of sentences into account. Declerck (1988), for instance, considers them different from predicational sentences on the grounds that definitions are supposed to explain the contents of the concept or its use to the hearer, while predicational sentences are meant to ascribe some property to the subject (however, he does not elaborate on that idea).

Another researcher that singles out definitional copular sentences is Roy (2013). She does it on a purely semantic basis, considering them a subclass of predicational copular sentences. She argues that, based on interpretational differences, predicational copular sentences can be divided into three groups: characterising (they ascribe a property to an individual), situation-descriptive (they do not ascribe a property to an individual, but instead describe situations), and defining (they ascribe a property that is salient enough to “define” an individual as a particular member of a class of individuals) (Roy 2013: 35). She points out that such interpretational differences correlate with grammatical differences, based on the French data<sup>57</sup> in (44): in defining sentences the predicate is expressed by an indefinite singular nominal (44a); in characterising, by a bare singular (44b), and in situation-descriptive, by an adjective (44c).

- (44) *French*

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<sup>57</sup>These syntactic differences cannot be applied to Russian data, though, because Russian is a language without articles.

- a. Raymond est un acteur.  
Raymond is an actor
- b. Raymond est acteur.  
Raymond is actor  
'Raymond is an actor.'
- c. Raymond est génial.  
Raymond is brilliant  
'Raymond is brilliant.'

The omission of the article is clearly impossible in French in canonical definitions (45), which make them pattern with (44a), i.e., a “defining” sentence in Roy’s terms.

- (45) Le lion est \*(un) félin.  
the lion is a feline  
'The lion is a feline.'

As for Russian, the most fine-grained classification of copular sentences was proposed by Kondrashova (1996). She distinguishes equative, predicative, generic/definitive, locative, locative-possessive, existential, possessive copular sentences with respect to the interpretation of their lexical components. She claims that there are no major syntactic distinctions among these types of sentences and the difference is semantic.

In the next subsection, I move on to Russian definitional sentences, discussing where in the classification of copular sentences, discussed in this subsection, they belong, i.e., whether they are predicational or not. I show that they differ from predicational sentences not only semantically but also syntactically, manifesting similarities with equative, identificational and specificational sentences, i.e., copular sentences whose NP2 is referential.

### 2.5.2 Russian canonical definitions as non-predicational copular sentences

In this subsection, I am going to show that definitional sentences in Russian are non-predicational, and that they differ from predicational sentences not only se-



tense). This difference is not manifested in the present tense as there is no overt copula. According to Matushansky (2008), the nominative case on NP2 may have either a predicative (i.e., ascribing some property) or a sortal (i.e., classifying the subject as being of a particular kind) meaning, and thus, (49a), which has no overt copula, is ambiguous between the two readings. However, (49b) and (49c) with the past-tense copula are not: in the former one NP2 (in the nominative case) is interpreted as sortal, while in the latter NP2 (in the instrumental case) is predicative.

- (49) a. Puškin– velikij poet. *predicative or sortal*  
 predicative or sortal Pushkin.NOM.SG.MASC great  
 poet.NOM.SG.MASC  
 ‘Pushkin is a great poet.’
- b. Puškin byl velikij poet. *sortal*  
 Pushkin.NOM.SG.MASC was.SG.MASC great poet.NOM.SG.MASC  
 ‘Pushkin was a great poet.’
- c. Puškin byl velikim poètom. *predicative*  
 Pushkin.NOM.SG.MASC was.SG.MASC great poet.INSTR.SG.MASC  
 ‘Pushkin was a great poet.’

As for definitional copular sentences, the nominative/instrumental case alternation is not found in them, as both NP1 and NP2 of definitional generic sentences have to be in the nominative case, even when the copula is overt.

- (50) a. Dront– èto byla ptica.  
 dodo.NOM.SG.MASC that was.SG.FEM bird.NOM.SG.FEM  
 ‘The dodo was a bird.’
- b. \*Dront– èto byla pticej.  
 dodo.NOM.SG.MASC that was.SG.FEM bird.INSTR.SG.FEM

The nominative/instrumental case alternation of NP2 is a characteristic of predicational copular sentences (Rothstein 1986; Pereltsvaig 2001; Geist 2008a; Bailyn 2011; Bogatyreva 2014), but it is not found either in definitional (50) or in equative

(51) sentences.<sup>58</sup>

- (51) a. Ciceron-                    èto byl                    Tullij.  
           Cicero.NOM.SG.MASC that was.SG.MASC Tully.NOM.SG.MASC  
           ‘Cicero was Tully.’
- b. \*Ciceron                    byl                    Tullijem.  
           Cicero.NOM.SG.MASC was.SG.MASC Tully.INSTR.SG.MASC
- c. \*Ciceron-                    èto byl                    Tullijem.  
           Cicero.NOM.SG.MASC that was.SG.MASC Tully.INSTR.SG.MASC

Thus, I conclude that definitional copular sentences are similar to equatives, but the crucial difference between the two types of sentence is that in equatives NP1 and NP2 are assumed to express a co-referential relationship between individual objects, while definitions convey a relationship of identity/identification between the two kind-referring NPs.

One more syntactic characteristic of definitional sentences, which makes them different from predicational ones, is that the latter cannot contain an overt present tense copula, while the former ones may admit it in certain circumstances.

In Russian, the copula *est’* ‘be’ is generally omitted in the present tense in all types of copular sentences,<sup>59</sup> but it may be used for stylistic purposes (i.e., in philosophical statements, mathematical definitions, poetic or biblical sources).<sup>60</sup> It is important to notice that no matter whether the copula is overt or covert, NP2 is always in the nominative case, suggesting the sortal interpretation of the sentence.

<sup>58</sup>For more details on the syntax and semantics of equative sentences in Russian, see Geist (2008a)

<sup>59</sup>In the Russian linguistic tradition (Mel’čuk 2012: 86) copularless sentences are called *imennoe predloženie* (‘nominal sentence’) as they do not contain an overt verb, but only the two NPs.

<sup>60</sup>Copula omission is not an unusual phenomenon as it exists in many languages. In some languages it can be omitted absolutely freely. In other languages, as it is the case in Russian, it can be dropped only under specific grammatical conditions, such as in the present tense. Cantonese is an example of a language where the omission of the copula *haih* is not limited to any particular grammatical context (Pustet 2003: 34). The omission of the present tense copula has been also described in languages such as Jamaican Creole, Guyanais, Principense, African American Vernacular Language (Edwards 2006: 310). Copula omission in the present is also typical in early stages of the acquisition of English (Storhman 2013). In Classical languages, such as Latin, Ancient Greek and Sanskrit, copula-less sentences are said to express general truths (Mel’čuk 2012), and they are considered to be generic sentences.

- (52) a. Lingvistika- èto est' nauka./  
 linguistics.NOM.SG.FEM that is science.NOM.SG.FEM  
 \*naukoj.  
 science.INSTR.SG.FEM
- b. Lingvistika- èto nauka./  
 linguistics.NOM.SG.FEM that science.NOM.SG.FEM  
 \*naukoj.  
 science.INSTR.SG.FEM
- c. Lingvistika est' nauka./  
 linguistics.NOM.SG.FEM is science.NOM.SG.FEM  
 \*naukoj.  
 science.INSTR.SG.FEM  
 'Linguistics is a science.'

The sentences containing an overt present tense copula *est'* ('is') are not ungrammatical, however, they are rather infrequent. As the search in the Russian web corpus ruTenTen11 showed, the combination '*èto* + overt copula *est'* + noun' gave 1661 hits (0.10 per million), as compared to 1 579 721 hits (86.40 per million) for the same expression without *est'*.<sup>61</sup>

It is important to notice that the present tense copula may optionally appear in definitional but also in equative sentences, while it is obligatorily absent from predicational ones, as illustrated in (53a) vs. (53b).

- (53) a. Charles Dodgson- èto (est') Lewis Carroll.  
 Charles Dodgson that is Lewis Carroll.NOM.SG.MASC  
 'Charles Dodgson is Lewis Carroll.'
- b. Charles Dodgson \*est' pisatel'.  
 Charles Dodgson is writer.NOM.SG.MASC  
 'Charles Dodgson is a writer.'

In the past or future tense, the copula BE is obligatory in all types of copular sen-

<sup>61</sup>The Russian web corpus ruTenTen11 contains 14 553 856 113 words. It is available online through SketchEngine at <http://www.sketchengine.eu> (Kilgarriff et al. 2004). The search was performed in CQL (Corpus Query Language).

tences.<sup>62</sup> As for definitions, they are normally given in the present tense as being a generic sentence they are temporally unbounded. The past tense form, as illustrated in (50), creates a life-time effect, implying that representatives of the kind dodo do not exist anymore. However, the kind itself still presupposed to exist.

As for the syntactic structure of definitional sentences, I claim that the copula is always structurally present but it may be covert (see also Kondrashova (1996) and Bogatyreva (2014) who postulate a null copula BE in Russian). There are several pieces of empirical evidence for this. First, the overt copula may appear in some present tense sentences in Russian, as shown in (52a) and (52c).<sup>63</sup> Second, the copular verb *byt'* ('to be') is obligatory both in the past and in the future. Third, the full present tense morphological paradigm of the copular verb *byt'* existed in Old Slavonic and Old Russian (and still exists in other Slavic languages) (Kondrashova 1996). As for the synchronic appearance of the overt present tense copula, Kondrashova (1996) calls it "vestigial present-tense support" which remains from the full paradigm found diachronically. For all these reasons I consider it legitimate to postulate that the structure of present tense definitional sentences in Russian contains a null BE.

To sum up, in this section I have shown that Russian definitional sentences are non-predicational as they are syntactically different from predicational copular sentences. Unlike predicational sentences, they have a pronominal element *èto*

<sup>62</sup>Notice that in a large number of languages, the absence of present tense copula is correlated with the obligatory use of overt non-present tense copula forms (Nordlinger and Sadler 2007).

<sup>63</sup>It should be noted that, beyond the copula BE, definitional sentences also allow (next to the pronominal element *èto*) some non-copular verb (e.g., *značit'* 'to mean', *označat'* 'to refer'), as illustrated in (i).

- (i) a. *Amor*–*èto značit ljubov'*.  
amor this means love  
'*Amor* means love.'
- b. *Ursus*–*èto označacet medved'*.  
ursus this refers.to bear  
'*Ursus* refers to (the kind) bear.'



in between NP1 and NP2; they do not manifest the nominative vs. instrumental alternation of the postcopular NP in the presence of an overt copula; and they may admit an overt present tense copula. Considering the above-mentioned characteristics, it can be concluded that Russian definitional sentences pattern rather with equatives, which characteristically are non-predicational copular sentences. However, unlike equative sentences, which show co-reference between object entities, NPs in definitional sentences show co-reference between kind entities, either through identity or identification. Thus, if the nature of the entities expressed by the two NPs in a copular sentence is not taken into consideration, but only the type of relationship between them, definitions can be considered equative as they express co-reference.

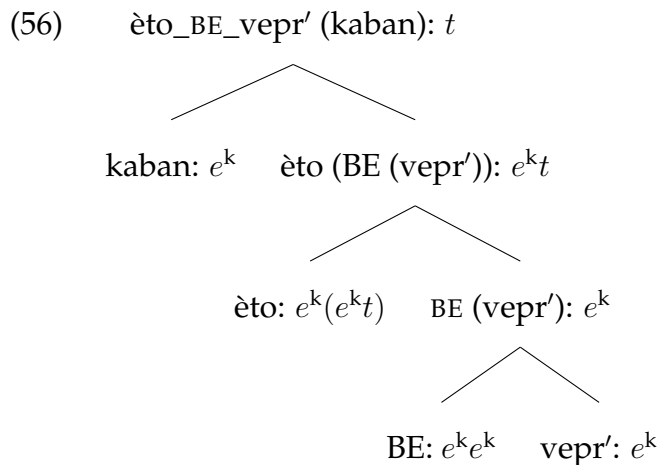
### 2.5.3 The structure and meaning of Russian definitional copular sentences

As stated in Subsection 2.4.3, definitions consist of two parts: the *definiendum* and the *definiens*. According to Krifka (2012), this division represents a special way of topic-comment arrangement, pervasive in human communication. To represent this structural organisation I postulate the following structure for Russian definitional sentences (both (55a) and (55b), as proposed in Seres and Espinal (2019b: 11). The components of this structure are discussed in the following subsection (see 2.5.4).

(54) [<sub>TopP</sub> [NP1] ... [<sub>PredP</sub> [*èto*] [<sub>Pred'</sub> [BE] [NP2]]]]

NP1 is the *definiendum*, i.e., the term whose meaning is being provided by the rest of the sentence (the *definiens*). I argue that it corresponds to an aboutness topic, similar to the logical subject of categorical judgments (see Subsection 2.5.4). On the other hand, the *definiens* delivers information about the *definiendum*. The *definiens* (*èto* BE NP2) is a copular sentence that is structurally equivalent to an identificational sentence (see (40)). *Èto* in this structure is a presentational pronoun





In this structure, NP1 is the topic that introduces a kind entity, to which a new concept, a second kind entity (NP2) is ascribed. The identity/identification between the two NPs takes place in two steps. First, BE introduces a type-neutral identity function that maps kind entities to themselves. Second,  $\text{\textless\textless to}$  takes as input the kind entity output of BE and gives as output a function that looks for a second kind entity with which it is identified. In that way meaning of definitional generic sentences in Russian is predicted to compose bottom-up (Seres and Espinal 2019b: 25).

In the following subsection I look at the parts of the structure presented in (54).

#### 2.5.4 Structural components of Russian definitional sentences

In this section I discuss the main components of the structure of Russian definitional sentences, presented in (54) and repeated here in (57) for convenience. These components are NP1, which is a Topic (specifying what a statement is about),  $\text{\textless\textless to}$  (a presentational pronoun), and NP2, which is the constituent that provides conceptual content to define NP1 and the reference with which NP1 is associated.



**The definiendum: NP1**

Being a name of a kind, NP1 denotes an abstract sortal concept, expressed by a definite kind (in Borik and Espinal’s terms (2015, 2019)), and it corresponds to an intensional atomic integral entity (type  $\langle e^k \rangle$ ). It should be noted that the notion of definite kind reflects how reference to kinds of things is expressed in natural language, which is coherent with Krifka’s (2012: 375) claim that “definitional generics restrict the language used to describe the world”.

The evidence for kind denotation of NP1 is their ability to appear in argument positions of kind-level predicates, as illustrated in (58a), such sentences with definite kinds can be rephrased in the form of a definition, as illustrated in (58b). *iPod* in (58b) is the name of a kind, i.e., it refers to a kind conceived as an integral entity, without access to instantiations or realisations of the kind (see Section 2.2).

- (58) a. Steve Jobs                                      izobrël   iPod.  
          Steve Jobs.NOM.SG.MASC invented iPod.ACC.SG.MASC  
          ‘Steve Jobs invented the iPod.’
- b. iPod–                                              èto gadžet,                                      koroyi izobrël   Steve  
          iPod.NOM.SG.MASC that gadget.NOM.SG.MASC which invented Steve  
          Jobs.  
          Jobs.NOM.SG.MASC  
          ‘The iPod is a/the gadget that Steve Jobs invented.’

In the same way, NP1 in (59) refers to a kind that is identified with another kind, which is the denotation of NP2.

- (59) Kaban–                                              èto dikaja svinja.  
          wild.boar.NOM.SG.MASC that wild   swine.NOM.SG.FEM  
          ‘The wild boar is the wild swine.’

Identity between kinds is also found cross-linguistically, as illustrated in the Catalan (60) and English (61) examples. The use of such sentences is rather common in the process of L2 acquisition.

- (60) El beç           és el bedoll.  
 the birch.tree is the birch.tree  
 'The birch tree is the birch tree.'

- (61) The maracuya is the passion fruit.

It should be noted that it is also possible for NP1 to be expressed by a generic plural term. In the examples (62a) and (62b) the *definiens* part of both sentences remains unchanged, regardless of whether the *definiendum* is singular or plural.

- (62) a. Kit–                           èto vid                           mlekopitajuščix.  
 whale.NOM.SG.MASC that kind.NOM.SG.MASC mammals.GEN.PL  
 'The whale is a kind of mammal.'
- b. Kity–                           èto vid                           mlekopitajuščix.  
 whales.NOM.PL.MASC that kind.NOM.SG.MASC mammals.GEN.PL  
 'Whales are a kind of mammal.'

The kind expression *kit* 'the whale' refers to a kind conceived intensionally as an integral entity, whereas the generic plural *kity* 'whales' refers to a kind conceived extensionally as a set of individuals that have the property of being whale (Borik and Espinal 2015: 183). So, my claim here is that the kind denotation of NP1 is matched in both examples with the kind mammal, here introduced by special lexical item *vid* 'kind' (see also Seres and Espinal 2019b: 13).

Beyond these semantic properties, it is important to notice that NP1 always gets the nominative case by default. According to Pereltsvaig (2001), Russian nominative case can be found in two types of nominals: i) those whose nominative is licensed by a certain syntactic configuration, and ii) those that need not be marked for case at all. I suggest that the NP1 found in definitional copular sentences belongs to the second type, being syntactically caseless; the nominative singular marking being only part of a morphophonological cluster, a default choice in the absence of a trigger of syntactic features.<sup>64</sup> NP1, being generated sentence initially

<sup>64</sup>See also Progovac et al. (2006) for Polish.

at the left-peripheral domain (i.e., in Top(ic)P(hrased)),<sup>65</sup> is found outside of the PredP/TP (see the structure in (57)). Thus, it is not marked structurally for case or involved in any feature checking operation. The nominative-singular morphology of NP1 is not an expression of syntactic case and number features, but rather a default choice in the absence of a trigger of syntactic features.

As for the information structure conveyed by definitions, NP1 is to be considered an aboutness topic. Definitions are about the definiendum, supplying information about the meaning of the term to be defined (Krifka 2012), and NP1 refers to an “entity that a speaker identifies, about which then information, the comment, is given” (Krifka 2008: 40).

Thus, definitions can be considered categorical judgments (in terms of Kuroda 1972; Sasse 1987; Ladusaw 1994), where NP1 is the logical subject, while the rest of the sentence (the PredP, part of a TP) corresponds to the logical predicate. Like subjects of categorical judgments, NP1s in definitional sentences are topics. Moreover, both NP1s in definitional sentences and subjects of categorical judgments have a strong reading with a presuppositional interpretation, i.e., a speaker’s presupposition of existence.

To sum up, semantically the *definiendum* (NP1) is interpreted generically and refers to a kind (conceived either intensionally or extensionally). Furthermore, it is interpreted as an aboutness topic similar to the logical subject of categorical judgments. This kind of analysis of NP1 is in line with the claim that in definitional sentences an identity is established between two kind expressions (e.g., *vepr’* and *kaban* in (55a)), and the sentence (55a) can be translated into English by saying “As for the kind named with the noun *vepr’*, it is identical to/identified with the kind named with the noun *kaban*.” In (55b) the kind *vepr’* is identified with the more

<sup>65</sup>Topic has first been defined as “a preposed element characteristically set off from the rest of the clause by ‘comma intonation’ and normally expressing old information somehow available and salient in previous discourse” (Rizzi 1997: 285).

inclusive kind *mlekopitajušče* ‘mammal’, which is restricted by modification *vsejadnoe parnokopytnoe* ‘omnivorous even-toed’. (55b) can be translated into English as: “As for the kind named by the noun *vepr*’, it is identified with the modified kind *vsejadnoe parnokopytnoe mlekopitajušče*.” In any case, the nominative case of NP is the default morphophonological form.

### The definiens: èto NP2

The *definiens* is the clause that follows and defines NP1 in the structure in (57). It consists, most commonly, of an overt demonstrative pronoun *èto* followed by an NP2 also in the nominative case. As for the copular verb, it may be overt or covert, but it is always present in the syntactic structure (see Subsection 2.5.2). This structure is similar to the one postulated for identificational copular sentences (Higgins 1973). Consider in this respect the similarities between the following examples. The *definiens* in (63a) is equal to the identificational sentence in (63b).

- (63) a. *Saranča– èto kuznečik.* *definitional*  
 locust.NOM.SG.FEM that grasshopper.NOM.SG.MASC  
 ‘As for the locust, it is a grasshopper’ or  
 ‘The locust is a grasshopper.’
- b. *Èto kuznečik.* *identificational*  
 that grasshopper.NOM.SG.MASC  
 ‘That is a grasshopper.’

Let us now analyse the main components of the definiens: NP2 and the pronominal element *èto*.

### NP2

As has been stated before, NP2 in the definiens has a kind reference (see Padučeva 1985: 128), which is associated with the kind reference introduced by NP1 by a semantic function of identity/identification between kinds. Identity/identification





Interestingly, in identificational sentences, as in (66) the copula, if it is overt, must also agree with the postcopular NP, but not with *èto*, which is defective for phi-features, since it is basically specified only for neuter gender.

- (66) Kto-to postučal v dver'. Èto byla/\*bylo  
 someone knocked in door that was.SG.FEM/was.SG.NEUT  
 Maša.  
 Masha.NOM.SG.FEM  
 'Someone knocked on the door. It was Masha.'

Such agreement with the NP in postcopular position is not uncommon cross-linguistically in inflectional languages. It is found not only in Slavic, but also in Romance and Germanic languages.

(67) *Catalan*

- a. Això és el meu problema.  
 this.SG.NEUT is the my.SG.MASC problem.SG.MASC  
 'This is my problem.'
- b. Això són els meus problemes.  
 this.SG.NEUT are the my.PL.MASC problems.PL.MASC  
 'These are my problems.'

(68) *French*

- a. C'est mon problème.  
 this.sg.masc.is my.SG.MASC problem.SG.MASC  
 'This is my problem.'
- b. Ce sont mes problèmes.  
 this.sg.masc are my.PL problems.PL.MASC  
 'These are my problems.'

(69) *German*<sup>66</sup>

- a. Das ist meine Schwester.  
 this.SG.NEUT is my.SG.FEM sister.SG.FEM  
 'This is my sister.'

<sup>66</sup>Examples from Rutkowski (2006: 173).

- b. Das                    sind meine Freunde.  
     this.SG.NEUT are    my.PL friends.PL.MASC  
     ‘These are my friends.’

English, however, is different, as the copula in this language must agree with the precopular nominal.

- (70) a. This is my friend.  
       b. \*This is my friends.  
       c. \*This are my friends.  
       d. These are my friends.

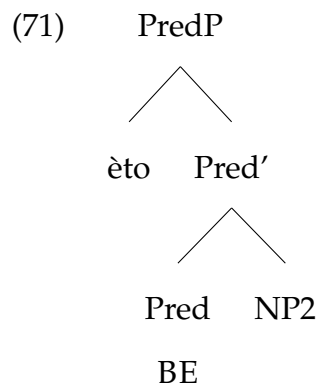
Examples in (65) - (70) illustrate a contrast between canonical NP1 agreement (e.g., in English) and non-canonical (or inverse) NP2 agreement (e.g., in Russian, Catalan, French and German) in bi-nomial copular sentences. This phenomenon has been widely discussed in syntactic literature by Moro (1997) for Italian, Heggie (1988) for French and English, den Dikken (1998) and Heycock (2012) for Germanic languages, Costa et al. (2004) for Portuguese, among others, providing different explanations for this phenomenon, based on inversion.

Alsina and Vigo (2014), in their turn, explain the difference between English and Catalan as reflecting a parametric choice with respect to the possibility of subject-complement inversion around the copula. In copular inversion languages, NP1 and NP2 are regarded by these authors as co-subjects and the NP that triggers agreement is the one that ranks higher in the Person-Number Hierarchy, that is, the one that is more prominent in terms of features, in spite of occupying a postcopular position. By contrast, in non-copular inversion languages, like English, the agreeing NP will always be the precopular one, as illustrated in (70).

A parallel proposal is developed by Béjar and Kahnemuyipour (2017: 465), who postulate an alternative account of NP2 agreement that dissociates it from the syntax of inversion: “NP2 agreement arises when the phi-feature structure of NP1 is

defective relative to the probe, with specificational contexts being just a subset of the relevant ones”.

This proposal may be extended to Russian definitional copular sentences. In this case *èto* corresponds to the so-called NP1 of copular sentences, generated by external merge in SpecPredP, while NP2 is the complement of Pred.



Given that *èto* is a morphosyntactically neuter invariant pronoun, it can be assumed that it is defective and has a minimal phi-structure [iGender:Neuter] that allows its occurrence in an argument position, but does not trigger agreement. The agreement with the copula is triggered by the postcopular NP2, which can be explained by its non-defective status, that is, its higher prominence in terms of phi-features: it is specified for Number and Gender.

In the next subsection I consider additional properties of *èto*.

### Èto

As Padučeva (1985) puts it, *èto* is one of the mysteries for both lexicographers and syntacticians of the Russian language. It is an invariable pronoun, identical or homophonous with the so-called neuter nominative form of the demonstrative pronoun (*ètot* NOM.SG.MASC, *èto* NOM.SG.NEUT, *èta* NOM.SG.FEM). *Èto* can refer deictically to some external auditory or visual stimulus, as illustrated in (72) (from Reeve (2010: 199, ex.83a)).

(72) (There was a knock on the dinner table.)

*Èto Nikanor*                                  *uronil*    *ložku na kleänku.*  
that Nikanor.NOM.SG.MASC dropped spoon on oilcloth

‘That was Nikanor who dropped a spoon on the oilcloth.’

It has been stated above (2.5.3) that in definitional generic sentences NP1 is an aboutness topic that introduces a kind-referring nominal, generated in TopP (i.e., at a left-peripheral sentential domain).

In accordance with this claim, it could be suggested that *èto* is a resumptive-like pronoun for the left-peripheral NP1 (cf. analysis of *èto* for equatives in Geist (2008a)). However, there are reasons to think that this is not the case.

Two types of left-dislocation have been distinguished in colloquial Russian (Reeve 2010; Pereltsvaig 2001): left-dislocation proper (73a) and pronoun-doubling (73b). In both these structures the resumptive is a personal pronoun, which agrees with the topicalised element in Gender and Number, and also in Case in pronoun-doubling constructions.

(73) a. *Ivan,*                                  *ja ego*                                  *ljublju.*  
Ivan.NOM.SG.MASC I him.ACC.SG.MASC love  
‘Ivan, I love him.’

b. *Ivana,*                                  *ja ego*                                  *ljublju.*  
Ivan.ACC.SG.MASC I him.ACC.SG.MASC love  
‘As for Ivan, I love him.’

Definitional sentences, as illustrated below in (74a) have similarities with sentences with left-dislocation (73a). However, in the case of definitional sentences there is no grammatical Gender or Number agreement between *èto* and NP1, because *èto* is not specified for these morphosyntactic features: it is a neuter pronoun. Note that (74b), which shows Case-Number-Gender agreement with the topicalised constituent, is ungrammatical.

- (74) a. Lev–                                    èto dikoe životnoe'.  
 lion.NOM.SG.MASC that wild animal.NOM.SG.NEUT  
 'The/a lion is a wild animal.'
- b. \*Lev–                                    ètot                                    dikoe životnoe'.  
 lion.NOM.SG.MASC that.NOM.SG.MASC wild animal.NOM.SG.NEUT

These examples show that despite the similarities in appearance, *èto* cannot be considered a resumptive pronoun, since it does not agree with the left-peripheral topic.<sup>67</sup> Following Diessel (1999) and Rutkowski (2006), I suggest that such demonstratives do not exactly resume NP1 as they are morphosyntactically neuter and semantically do not refer to the entity introduced by NP1.

The use of the neuter pronoun *èto* in definitional sentences is similar to the one of bare demonstratives in subject position of identificational sentences (Moltmann 2013). Semantically, it is a presentational pronoun, for it introduces a presentational function: the neuter pronoun *èto* has the reference to an entity but is not by itself referential. That is, it introduces the identity of the entity referred to by the postcopular NP2, which is related to the entity referred to by the topic NP1. This means that this pronoun has a specific semantic function: a function that relates the kind entity denoted by NP2 to a unique kind entity in the context (NP1).

Padučeva (1985: 185), in her turn, explains the presentational use of *èto* in binominative sentences in the following way: an antecedent introduces an object, relating it to a certain concept (in Frege's sense). The purpose of *èto* is to ascribe a new concept, introduced by the second nominal component of the *èto*-clause, and

<sup>67</sup>However, the absence of agreement between a resumptive and the dislocated element it resumes is not always obligatory, as observed in French and English identificational sentences, such as those exemplified in (i) and (ii).

- (i) *French*  
 Sa passion,                    c'est                    les femmes.  
 his passion.SG.FEM it.SG.MASC.is the women.PL.FEM  
 'His passion is women.'
- (ii) *English*  
 The tallest girl in the class, it/that is Molly.

to identify it to the old one. And that is the sense of identification.

The syntactic status of *èto* in copular sentences is also debatable. I posit that in definitional generic sentences it occurs in subject position of the copula verb BE. However, some researchers (Citko 2008, for Polish *to*; Geist 2008a, Babaitseva 2004, for Russian) consider it to be a pronominal copula, even though it may co-occur with the verbal copula, as in (52a) and (52c) or with a non-copular verb.

Based on Polish, where the overt verbal copula is rather typical, Citko (2008) suggests that *to* is involved in a double copula (pronominal + verbal) construction. Nevertheless, this analysis does not seem to be correct to account for the current status of *èto* in Russian definitional sentences, as I argue further.

Indeed, there is cross-linguistic evidence confirming that a pronoun can be re-analysed as a copula. This diachronic change has been described in Palestinian Arabic and Hebrew for a personal pronoun (*hu* SG.MASC ‘he/is’ and *hi* SG.FEM ‘she/is’) as pointed out in Rutkowski (2006: 151)), and in Mandarin for a demonstrative (*shì* ‘this/is’) (Li and Thompson 1977). In Modern Mandarin a demonstrative can combine with the pronominal copula (the reanalysed demonstrative pronoun). In (75a) *shì* functions both as a demonstrative and as a copula, in (75b) the demonstrative function disappears and *shì* functions as a copula indicating identity.<sup>68</sup>

- (75) a. *Old Mandarin*  
           Shì shì lie      gui.  
           this is violent ghost  
           ‘This is a violent ghost.’
- b. *Modern Mandarin*  
           Zhe shì lie      gui.  
           this is violent ghost

<sup>68</sup>See Van Gelderen (2015) for the copula cycle: demonstratives and intransitive verbs can be reanalysed as copulas at one stage of the copula cycle, having the possibility to disappear at the next stage.

'This is the violent ghost.'

In Russian or Polish the situation is different. The demonstrative *èto/to* cannot combine with the postulated copula *èto/to*. Examples (76) and (77) are clearly ungrammatical, which is evidence against the copular status of this demonstrative pronoun.

(76) *Russian*

\*Èto èto vrač.  
that that doctor.NOM.SG.MASC

Intended: 'This is a doctor'

(77) *Polish* (example from Rutkowski (2006: 169))

\*To to jest mój najlepszy przyjaciel.  
that that is my best friend.NOM.SG.MASC

'This is my best friend.'

If *èto* were a copula, then the following Russian examples would have to be grammatical with a predicational reading, but they are not.

(78) a. \*On etò vrač.  
he that doctor.NOM.SG.MASC  
'He is a doctor.'

b. \*On etò byl vračom.  
he that was doctor.INSTR.SG.MASC  
'He was a doctor.'

By contrast, example (78a) becomes grammatical with an identificational reading ('He is the doctor'), which is analysed by postulating *on* 'he' as a topic, *èto* as the subject of the copular sentence and *vrač* as the complement. In the past tense (i.e., when the verbal copula is overt) only sortal (non-predicational) reading of NP2 is possible in combination with *èto* (79). Note that NP2 is in the nominative case (the nominative/instrumental alternation has been discussed in Subsection 2.5.2).

- (79) On- èto byl vrač.  
 he that was doctor.NOM.SG.MASC  
 ‘As for him, he was the doctor.’

Taking into account the above-mentioned arguments, it can be concluded that *èto* is not a pronominal copula, but an element with a different function.

It has been shown in Subsection 2.5.2 that *èto* is also present in identificational and in equative copular sentences (Pereltsvaig 2001; Geist 2008a), but not in predicational ones. In this sense, Padučeva (1985: 177) claims that sentences with *èto* as the first component do not allow a predicative NP as their second component, since they require the second component to be referential (80a).

- (80) a. Èto povar. *identificational*  
 that cook.NOM.SG.MASC  
 ‘That’s the cook.’
- b. \*Èto povar po professii *predicational*  
 that cook.NOM.SG.MASC according.to profession

In definitional sentences the use of *èto* has been considered in the literature as either obligatory or strongly preferred (Kondrashova 1996: 38). It is crucial to notice that when *èto* is absent and the past tense copula is overt, NP2 takes the instrumental case. In that case the sentence becomes predicational and loses its definitional interpretation, as shown in (81b), which together with other arguments supports the conclusion that *èto* in these sentences is not a pronominal copula.

- (81) a. Dront- èto byla ptica. *definitional, non-predicational*  
 dodo.NOM.SG.MASC that was.SG.FEM bird.NOM.SG.FEM  
 ‘The/a dodo is a bird.’
- b. Dront byl pticej. *predicational*  
 dodo.NOM.SG.MASC was.SG.MASC bird.INSTR.SG.FEM  
 ‘The/a dodo was a bird.’

Notice that in Polish, where the overt verbal copula may be used not only in the





sense of Krifka et al. (1995) (see Section 1.4).

Semantically, definitional sentences introduce an identity/identification between two kind entities. Both NP1 and NP2 are kind-referring entities, whereas *èto* is not referential. The copula BE maps a kind entity (the one corresponding to NP2) to itself (identity function), while the presentational pronoun *èto* is a two-place relation that maps this kind entity into a function that looks for another kind entity (the one corresponding to NP1) to finally compose a definitional generic sentence.

I have argued that definitional sentences are copular sentences, and are non-predicational, showing similarities with equative, identificational and specificational sentences.

Syntactically, such sentences have a two-part structure, which consists of an NP1, the external topic (*definiendum*), and an *èto* [BE] NP2 identificational copular clause (*definiens*). NP1 has been postulated to be merged in SpecTopP with a default nominative case. By contrast, NP2 – merged with a non-defective phi-structure in complement position of Pred – has been argued to be responsible for non-canonical agreement with the copula. The defective neuter pronoun *èto* has been argued to be different from resumptive-like pronouns and has been postulated to merge in SpecPredP.

### 2.5.5 Definitions in languages with articles

Section 2.5.3 has been devoted to semantics and syntax of Russian definitional generic sentences. Definition as a type of copular sentences have been overlooked in linguistic literature, which motivated my study of this phenomenon. In the current subsection, I give a brief overview of definitional sentences in languages with articles, comparing them to Russian. I only look at canonical definitions here (see Subsection 2.4.3), i.e., copular sentences of the form “NP1 is NP2”.

In English NP1, or the *definiendum*, may be expressed either by a definite kind

(83a) or by an indefinite singular nominal (83b). This contrast is unavailable for Russian due to the absence of articles. An important question that arises here is whether there are any significant differences in the interpretation of the subject nominals in the following examples.

- (83) a. The dolphin is a mammal.  
 b. A dolphin is a mammal.

The appearance of a definite kind in subject position of a definition is expected (83a), since definitions are used to explain the meaning of concepts, and definite kinds denote sortal concepts, as has been stated in Section 2.2.

The interpretation of the subject nominal in (83b), however, is less straightforward. Apparently, an indefinite singular nominal in definitions does not have a reference to a subkind, as this would be counter-intuitive, as (83b) cannot mean “A subkind of dolphin is a mammal (and other subkinds possibly not).” Neither does it refer to a novel kind, like in *invent a pumpkin crusher* from Dayal (2004). According to Mueller-Reichau (2011: 86), the answer lies in the domain of pragmatics. In the definitional mode of speaking, i.e., an “encyclopedic” context, when the speaker is giving a definition of a certain concept, the speaker should be familiar with this concept. Thus, in such cases the indefinite phrase cannot implicate novelty. Another option for an indefinite nominal is to refer to a prototypical individual member of a kind. Thus, (83b) would be interpreted as “A prototypical dolphin is a mammal.”

It should be noted that predicates like *be a mammal* admit not only kind-referring subjects as in (83a), but also proper names (84a). However, proper names are not compatible with explicit kind-level predicates, as in (84b), while indefinite singulars are felicitous in such contexts (84c). It may be another reason to claim that, unlike the individual-denoting subject of (84b), the subject of (84c) (or (83b)) does not express individual reference.

- (84) a. Flipper is a dolphin/a mammal.  
 b. #Flipper is a (kind of) of mammal.  
 c. A dolphin is a (kind of) mammal.

Krifka et al. (1995: 10) point out that in such contexts the kind-referring interpretation has a priority. When an indefinite NP appears in the argument slot of such a predicate, it is interpreted as a kind, not a subkind (Mueller-Reichau 2011: 89). The “definitional” character of indefinite singular nominals in English was also pointed out in Cohen (2001) and Greenberg (2004). It is also important to notice that indefinite singular nominals are used in English in such questions as ‘What is X?’ or ‘What does X mean/refer to?’, which are canonical ways of requesting a definition (Burton-Roberts 1986), and in this case they cannot refer to a prototypical member of a kind.

(85) Q: What’s a wombat?

A: It’s a short-legged, muscular quadrupedal marsupial.

As Krifka et al. (1995: 86) claim, in a kind-oriented mode of speaking (and definitions may be considered to represent such a mode) NPs that are ambiguous between a kind reading and an object reading are generally intended to be interpreted at the kind-level. There are no rigid grammatical criteria for this mode of speaking though. It has a more pragmatic flavor.

NPs in definitional sentences generally resist a non-generic use, for example, unlike object-referring NPs, they cannot be spatiotemporally localised.

(86) #The/ #a parrot is a bird here.

The use of the past tense gives a lifetime effect, but no temporal localisation.

(87) The dodo was a bird.

Definitions can be considered a type of categorising sentences. The communicative goal of the speaker in categorising sentences is to inform about a certain categorisation of the respective object individual (Mueller-Reichau 2011: 95, ex.15, as illustrated in (88)).

- (88) a. Chomsky is an anarchist.  
 b. This bird is a stork.  
 c. I am a human being.

Definitions, however, are categorising sentences about kinds, not about individuals. In such cases, the semantically underspecified (but pragmatically familiar) kind initially underlying the subject term is being identified with the kind referred to by the postcopular NP (Mueller-Reichau 2011: 102).<sup>69</sup>

- (89) The/a wombat is a marsupial.

Thus, (89) can be explained by the following relation between the kinds: within the kind domain, there is the kind *wombat* and there is the kind *marsupial*, and they are identified with each other. This is in line with the claim by Seres and Espinal (2019b) about the identity/identification that is expressed by canonical definitions in Russian (see Section 2.5).

Recapitulating what I have said so far in this subsection, it is important to note that the subject of the definitional sentence (the definiendum, the term to be defined) has a generic reference, and in English, as a language with articles, it can be expressed either by a definite kind or by an indefinite singular nominal. In both cases, the definiendum implies familiarity; as Krifka (1995: 402) puts it, kinds are well-established in the background knowledge of the speaker and the hearer. This

<sup>69</sup>According to the analysis, proposed in Mueller-Reichau (2011: 109), the kind *wombat* in (89) would be a subkind of the kind *marsupial*, i.e., *wombat* is an element of the kind extension of the predicate *marsupial* and *wombat* is not identical to the kind *marsupial*.

effect is of pragmatic nature. It should be noted that such nominals do not need to be anaphoric in order to be familiar.

This familiarity effect is related to information structure of definitional sentences. The definiendum is the “aboutness topic” of a definition, i.e., an “entity or set or other semantic object that the statement delivers information about” (Krifka 1995). The formal evidence for this is that *definienda* tend to occur in the initial position of the sentence (cf. definitions in artificial languages of logic and mathematics, where the *definiendum* occupies the left-hand side of a formula).

In Romance languages the definiendum tends to be expressed by a definite NP, i.e., a definite kind, which is expected in the case of an aboutness topic.

(90) *Catalan*

El panda és un os.  
the panda is a bear

‘The panda is a bear.’

However, the use of indefinites is not excluded either, especially in the case of requesting a definition. The Catalan example (91) is equivalent to the English one, cited above in (85).

(91) Què és un uombat?  
what is a wombat

És un marsupial  
is a marsupial

As far as the *definiens* is concerned, it is important to notice that in Romance languages NP2 is expressed by an indefinite singular, while bare singulars, which have a predicative use, are excluded from this position. Dobrovie-Sorin and Beyssade (2012: 78) assume that the contrast between two distinct rules of predication: classifying (in the case of indefinite singulars) and attributive (in the case of bare singulars), as illustrated by Catalan examples in (92a) and (92b), respectively.

- (92) a. Un becarí és \*(un) estudiant de doctorat.  
 a fellow is a student of doctorate  
 'A fellow is a PhD student.
- b. En Joan és estudiant de doctorat.  
 the Joan is student of doctorate  
 'Joan is a PhD student.

Based on Dobrovie-Sorin and Beyssade (2012: 83), the sentence in (92a) can be analysed as non-predicational, establishing an identity between an entity denoted by the subject and an entity denoted by the postcopular NP, while the sentence in (92b) is predicational with a predicate that denotes a property. This contrast, presented in (92), however, is not available in the overt morphosyntax in English, as bare singulars are generally disallowed in this language.

The present subsection contains only some inceptive observations about definitional sentences in languages with articles, which represent a phenomenon not less complex than the one observed in Russian and analysed in Section 2.5. Summing up, languages with articles (English and Romance) use both definite kinds and indefinite singular nominals to denote concepts to be defined in a definitional statement, both of which can be used as equivalents of Russian bare nominals with kind reference. The former type of expression is expected to refer to a kind as an abstract sortal concept, while the latter is interpreted as kind-referring when it occurs in the definitional mode of speaking, while it normally denotes individuals. Thus, reference to a kind comes as a pragmatic effect, defined by the discourse context. Both types of expression refer to concepts that exist in the background knowledge of the speaker, and, thus, are characterised by familiarity and presupposition of existence.

## 2.6 Concluding remarks

This chapter has focused on nominal-level genericity, which is expressed by definite kinds – numberless definite nominals that directly refer to a kind as an abstract integral entity.

I have reviewed the theory of definite kinds proposed in Borik and Espinal (2015), which states that kind-referring expressions are derived by the application of an iota operator (which corresponds to a definite article) to the denotation of a common noun – property of a kind. As for definite kinds in Russian, a choice function analysis is proposed (Borik and Espinal 2019b), which accounts for the inherent semantic indefiniteness of bare nominals in this language. Cross-linguistically, kind-referring nominals are devoid of any number information (neither syntactic, nor semantic). They are selected as arguments by kind-level predicates, and are also found in definitions, which is a special mode of speaking. Definitions serve to explain the meaning of a concept, expressed by a definite kind, relating it to another concept.

I have discussed general characteristics of canonical definitions, which are known as *genus et differentia* and are expressed by means of a copular sentence: NP1 is NP2. The precopular part, the *definiendum*, is the concept whose meaning is explained. The rest of the sentence – the *definiens* – contains a copular verb (which does not have to be overt) and NP2 (a concept with which NP1 is identified). I have shown that definitional generic sentences are different from descriptive generic ones in the sense that the former ones give information about the language being used by participants of communication, unlike the latter ones which are about the world.

As for definitions in Russian, they have the form of a bi-nominative structure: NP1 – èto NP2 ('NP1 is NP2'). I have shown that such sentences are non-predicational, showing similarities to equative, identificational and specificational



sentences. I have also argued that both NPs in definitional sentences are kind-referring, whereas *èto* is non-referential. I have claimed that a copula BE maps a kind entity (the denotation of NP2) to itself (identity function), and that the neuter element *èto* introduces a presentational function that maps the kind entity in post-copular position to a function that looks for another kind entity (the one corresponding to NP1) and composes a definitional generic sentence.

# Chapter 3

## Generic plural nominals in subject position

### 3.1 Introduction

In the previous chapter, I focused on definite kinds – morphophonologically singular nominals with a direct reference to kinds. In the two chapters that follow I discuss another type of NPs that may refer to kinds – plural nominals. The hypothesis I defend is that their reference to kinds is indirect, that is, they do not denote a kind itself but they refer to a maximal sum of individuals, which, under certain circumstances, instantiate the kind. In this work, I use the term *generic reading* for such kind of interpretation of plural nominals. It is important to notice that the semantic composition associated with definite kinds and generic plural nominals is essentially different. While definite kinds are numberless (as was shown in Chapter 2), the denotation of generic plural involves plurality, i.e., reference to a sum of individuals.

In the languages under study generically interpreted plurals are bare (Russian and English) or definite (in Romance). I claim that, regardless of their syntactic function (subject or object), they always refer to a maximal sum of representatives

of a kind. In languages that use bare plurals maximality is achieved pragmatically, while for languages with definite plurals it is encoded by means of a definite article.

In the present chapter, I focus on plurals in subject position, aiming to state the conditions under which they obtain a generic interpretation, and in the following chapter, I analyse the same type of nominals in object position.<sup>70</sup> The conditions for a generic reading to appear on plural nominals differ depending on their syntactic function. In subject position plural nominals – bare in Russian and English, and definite in Romance – get a generic interpretation when they are arguments of kind-level and individual-level predicates. In the latter case, the type of sentence is also important – the generic reading of the subject arises in characterising sentences (see Section 1.5). As for the object position, plural nominals may get a generic interpretation when the predicate is expressed by a psychological subject experiencer verb (see Chapter 4). In all these cases the generic interpretation arises in the absence of spatiotemporal anchoring or anaphoricity/familiarity.

### 3.1.1 Indirect reference to kinds

The study of plural nominals has been a complicated and controversial subject both in linguistics and in logic. Nevertheless, the understanding of the semantics behind plural nominals is highly important, which is expressed in the following quotation from Link (1998: 19): “Plurals are all pervasive in language and hence cannot be regarded as an exotic type by anyone who wants to give a reasonably complete account of the structure of language.” In this work I aim to make a con-

<sup>70</sup>Parts of Chapters 3 and 4 were presented at the following international workshops and conferences: New Perspectives on the Form and Meaning of (Bare) Nominals (University of Sao Paulo), II Predoctoral Workshop of CCiL (UAB), Russian Grammar 2017 (University of Helsinki) and 14th Workshop on Syntax, Semantics and Phonology (WoSSP) in 2017; 40th Annual Conference of the German Linguistic Society (DGfS) and ReSSP 1 in 2018; The meaning of functional categories in the nominal domain (UAB) and Research Techniques and Approaches: New Journeys in Linguistics (RTANJ Linguistics 3) in 2019. I also gave talks at Kolloquium Slawistische Linguistik (HU, Berlin), RUESHeL Lab Meeting (HU, Berlin) and GLiF seminar (UPF, Barcelona) in 2019.

tribution to the understanding of the meaning of plural nominals in languages without articles (namely, Russian) as compared to languages with articles (English and Romance languages).

As was shown in the previous chapter, unlike other types of generic nominal expressions (e.g. definite kinds), generically referring plural nominals seem to have almost no restrictions in their distribution and are really wide-spread in natural language. This unrestricted distribution of generic plurals is explained in Moltmann (2013: 5) in the following way: instead of reference to abstract entities, such as kinds, natural language shows a preference for plural reference to particulars. Plural reference in this case means reference to different particulars at once, rather than reference to a single “plurality” of entities. Such expressions plurally refer to various instances (including possible instances) of the kind, thus, contrasting with the ones that do refer to kinds as single unique entities (i.e., definite kinds).

As was noted earlier, plural nominals with a generic reading in subject position appear as bare in Russian (1) and English (2), while in Romance languages, such as Catalan (3), they are preceded by a definite article.

- (1) Gepardy bystro begajut.  
cheetahs fast run
- (2) Cheetahs run fast.
- (3) Els guepards corren ràpid.  
the cheetahs run fast

In spite of the differences in their surface appearance, such nominals represent the same ontological object cross-linguistically, even though the nature of this object is controversial (see Dayal 2004, Heim 2011: 1008). This object can be viewed as a sum of all instances of a kind (Chierchia 1998b). According to Prasada (2012), when we think of something as an instance of a kind, we implicitly think of it as being the same as indefinitely many other things with respect to the kind of thing

it is. Some of these other instances may actually exist, while indefinitely many others exist only potentially.

In the present chapter, I claim that the sum of individual representatives of a kind is interpreted as maximal cross-linguistically, regardless of whether the plural nominal is preceded by the definite article or not. In languages that use generic definite plurals (Romance), maximality comes as a part of the semantics of the whole nominal phrase (i.e., the DP), while in languages with generic bare plurals (Russian and English) it comes as a pragmatic effect.

I propose that, unlike definite kinds, discussed in the previous chapter, plural nominals with a generic meaning do not refer to kinds directly, they denote individuals, whose sum may be interpreted as maximal and, thus, acquire a generic reading under certain circumstances (discussed in this chapter), i.e., they refer to kinds indirectly (also see Borik and Espinal 2015).

Furthermore, I review theoretical proposals concerning plural nominals with a generic reference in different languages and put forward my own hypothesis regarding Russian. I claim that Russian bare plurals with a generic meaning refer to a plurality, i.e., a sum of individuals, not to a kind as an abstract integral entity (see Subection 1.2.2). This type of reference involves both semantic and syntactic Number. Following Borik and Espinal (2015), I assume that Number is a Realisation operator, which turns properties of kinds (the meaning of a common noun, according to Dobrovie-Sorin and Oliveira 2008; Espinal 2010; Borik and Espinal 2015, 2019a) into properties of individuals.

Following Heim (2011), I assume that bare nominals in languages without articles are indefinite by default, and other readings come as the output of a pragmatic strengthening process.<sup>71</sup> In the case of bare plural subjects, a generic reading (as a pragmatic effect) is triggered by the type of predicate (kind-level) or by the type of

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<sup>71</sup>I will discuss Heim's hypothesis in more detail in Chapter 5.

a sentence (characterising). The subject of characterising sentences is interpreted as a topic (thus, they are categorical judgments in terms of Kuroda 1972, Sasse 1987, Ladusaw 1994). This position is not particularly well-suited for new discourse referents, that is why bare nominals in Russian have a ‘definite flavour’. In my analysis, I propose that the generic reading of bare nominals in Russian is similar to definiteness in the following aspects: maximality, identifiability and presupposition of existence. The definite interpretation of bare plural nominals arises when their domain is restricted (i.e., they keep an anaphoric relationship or are spatiotemporally localised), while the generic interpretation arises when the domain is unrestricted.

### 3.1.2 Definiteness and genericity

The affinity between definiteness and genericity has been pointed out in several theoretical works (de Swart 1994; Lyons 1999; Dayal 2004; Carlson 2011; Heim 2011, among others). Before discussing the characteristics of generically interpreted nominals, it is important to see what is understood by definiteness, i.e., what the main concepts behind this interpretation are.

There have been many approaches to definiteness in linguistics starting from Frege (1892a). A widely accepted view on definiteness in the formal semantic literature is based on the so-called theory of uniqueness. Uniqueness presupposes the existence of exactly one entity in the extension of the NP that satisfies the descriptive content of this NP in a given context, therefore, uniqueness entails existence.<sup>72</sup>

Plural definite nominals naturally violate the presupposition of uniqueness. In this case uniqueness is reformulated as inclusiveness (term coined by Hawkins 1978) or maximality (Sharvy 1980; Link 1983), which is understood as a reference to the totality of objects or mass in the context that satisfy the description.<sup>73</sup> Link

<sup>72</sup>With the notable exception of Coppock and Beaver 2015 proposal.

<sup>73</sup>I only deal with count nouns here; mass nouns are outside the scope of this work. However,

(1983) suggests that a definite plural nominal refers to a maximal individual in the domain, which is picked out by the definite article, i.e., a group which includes all individuals in the domain. Maximality can be construed as a special case of uniqueness as for any plural definite description there is exactly one entity that contains all the other entities as its parts.

In the case of generics maximality is related to their inclusive and unbounded character (Declerck 1988; Laca 1990; Lyons 1999), which means reference is to all (relevant/possible) instances of a kind in all possible worlds. Unlike the one of regular definite plurals, the reference set of a generic plural is not contextually restricted (however, it can be restricted pragmatically). So, the reference set of a generic nominal is unbounded and includes all entities that satisfy the descriptive content of the nominal. Even though the reference is to a maximal set (a totality) of instances of a kind, the number of its members cannot be defined as it includes referents in all possible worlds.

Another important approach to definiteness found in the literature is based on the notion of familiarity (Christophersen 1939, Heim 1982, Kamp 1981, i.a.); this notion has already been introduced in Subsection 1.5.8. According to this approach, the referent of the definite description is known to both the speaker and the addressee. This common knowledge may arise from the previous mention of the referent (familiarity) (Heim 1982) but also from a more general shared knowledge of the participants of communication (identifiability) (Lyons 1999). Uniqueness and presupposition of existence are also related to shared knowledge, which is crucial in order to single out the referent (Hawkins 1978), thus, the two approaches partially conflate.<sup>74</sup> Familiarity is not predicted for all definites; in particular, familiarity for definites in case of semantic uniqueness is not required. However, the

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they are predicted to behave like plurals (see Link 1983).

<sup>74</sup>For the combination of uniqueness and familiarity see, for instance, Farkas (2003) and Coppock and Beaver (2015).

uniqueness requirement is dropped in case of familiarity.

As far as generically interpreted nominals are concerned, they are not characterised by familiarity in the sense of the previous mention of the referent (direct or associative anaphora), but they are not novel either. They may be novel in the (narrow) discourse, but presumably they cannot be novel in common ground.<sup>75</sup> Nominals with a generic reading are usually identifiable, that is, kinds (to which these nominals refer) as abstract mental concepts are expected to be present in a shared ‘mental catalogue’ of conceptual information of the speakers. Identifiability is related to the presupposition of existence of generically interpreted nominals (von Stechow 1996). However, this existence is not anchored to any space or time.

A somewhat different understanding of definiteness, which can also be relevant for the interpretation of generics, is presented in von Stechow (1996, 2006). In his works the underlying principle of definiteness is the pragmatic concept of contextual “salience”. This approach is on the borderline between semantics and pragmatics: it is pragmatic in nature but has a semantic impact. In this proposal, the context contributes to the interpretation by forming a salience hierarchy among the potential referents (von Stechow 1996: 6). The context is associated with an ordering among the elements of subsets of the domain of discourse. Thus, the definite NP *the F* denotes the most salient *F* according to the situation *i* (von Stechow 1996: 17). The salience hierarchy is related to the information structure of a sentence, which is based on pragmatic activation, i.e., an element being immediately ‘given’, assumed by the speaker to be present in the hearer’s memory (Hajičová et al. 1998: 83). According to von Stechow (2011: 9), “an expression is definite if it unambiguously denotes or refers to one object, i.e., if the object can be identified as the only one that is denoted by the expression. The fixed reference of a definite expression depends on different grounds: it can be determined by lexical material, by

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<sup>75</sup>Notice that there may be exceptions to this assumption, for example, reference to novel kinds in combination with such verbs as *invent*. See the discussion in Subsection 1.6.1.



semantic rules or by pragmatic strategies.” In this approach, semantic definiteness is related to such notions as uniqueness, familiarity and salience, while pragmatic definiteness requires access to the common ground and to the identification of the referent.

The debate on what definiteness actually means in semantic terms still goes on. The referent of a noun has to exhibit at least one of the above-mentioned properties in order for interlocutors to single it out from all other alternative individuals satisfying the descriptive content of the NP. These properties are not conflicting, they all lead to successful identification or unequivocal reference to a particular individual entity or kind entity in the relevant context. In this thesis, I mainly rely on the understanding of definiteness as uniqueness/maximality, which is the most widely spread approach in the semantic literature.

Further in this chapter, I propose that in some languages (e.g. Romance) genericity and the definiteness effects related to it are encoded semantically (by means of a plural definite article), while in others (e.g. Russian and English) both maximality (inclusiveness) and identifiability are pragmatic issues, related to the speakers’ interpretation of certain sentences either as generic or non-generic.

### **3.2 Distribution and interpretation of bare plural nominals in Russian**

As was shown in Subsection 3.1.1, bare nominals in Russian and English, but not in Romance, may have a generic interpretation. In the current section, I review the distribution and possible interpretations of bare nominals in subject position in Russian, and in the following section, I compare them to bare plurals in languages with articles (English and Romance).

In order to define the factors that contribute to the rise of a generic interpretation in Russian bare plurals, I look at their distribution and interpretation in combi-

nation with different classes of predicates (based on Carlson's 1977 predicate classification, discussed in detail in Section 1.6). I show that bare plural nominals are always interpreted generically in argument positions of kind-level predicates and never interpreted generically in combination with stage-level predicates, which is predicted from the nature of such predicates. However, in combination with individual-level predicates, bare plural subjects in Russian may be interpreted definitely or generically (and in English only generically), while an indefinite interpretation is excluded. A definite interpretation arises in the presence of anaphoric or spatiotemporal anchoring, i.e., a contextual restriction. However, in the absence of these factors, bare plural subjects are interpreted generically; while the sentence in which they appear is interpreted as a characterising one (as opposed to particular sentences, see Krifka et al. 1995). Characterising sentences represent the case of *i*-genericity (sentence-level genericity, see Section 1.4 for an overview of different types of genericity).

### 3.2.1 Preliminary remarks

The meaning and distribution of bare nominals have been extensively studied on the data from Germanic (mainly, English) (Carlson 1977a,b; Krifka 2003, i.a.) and Romance languages (Dobrovie-Sorin and Laca 1996; Longobardi 2001; Espinal 2010; Beyssade 2011, among others), but research in articleless languages is still rather scarce. The reason for this might be that all nominals in languages without articles appear as bare and seemingly do not present any puzzle for the theory of reference. However, it is important to take into consideration that there may be structural differences among different types of nominals within a language. This is obvious for languages with articles, but the same claim can be made for languages without articles (see Pereltsvaig 2006).

Regarding the distribution of bare nominals across languages, Chierchia (1998b)

in his seminal work on reference to kinds proposed a Nominal Mapping Parameter, according to which nominals in different languages are lexically specified as  $[\pm\text{predicate}, \pm\text{argument}]$  depending on the syntactic role that they may have in a given language.<sup>76</sup> As specified by this parameter, Chinese, for instance, is  $[-\text{predicate}, +\text{argument}]$ , which indicates that bare nominals in this language can only appear in argument position. Slavic and Germanic languages are  $[\text{+predicate}, +\text{argument}]$ , so, bare nominals may serve as predicates and as arguments. Romance languages are  $[\text{+predicate}, -\text{argument}]$  (Chierchia 1998b: 400), which means they are not expected to allow bare nominals in argument position. A  $[-\text{predicate}, -\text{argument}]$  language is predicted to be impossible. The Nominal Mapping Parameter is postulated as a useful tool to describe the cross-linguistic variation with respect to bare nominals.

In Russian, a language without articles classified as  $[\text{+predicate}, +\text{argument}]$ , nominals, both singular and plural, appear in their bare form in different syntactic environments. Indeed, the distribution of bare nominals in Russian is practically unlimited: they can be predicates, arguments, and complements of prepositions.

Functioning as predicates, bare plurals are interpreted non-referentially as expressions of type  $\langle e, t \rangle$ . However, when they are used as arguments (type  $\langle e \rangle$  or  $\langle \langle e, t \rangle, t \rangle$ ), they may have a variety of different readings: generic, definite and indefinite (existential) (see the English translations in (4)). In the current chapter, I focus only on the interpretation of nominals in subject position (like *koški* in (4)), while the interpretation of objects (like *myšej* in (4)) is studied in Chapter 4.

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<sup>76</sup>Chierchia (1998b) suggests that languages are typologically different with respect to the denotation of a common noun, which can be either an entity or a property or both, and consequently, with respect to the syntactic role of a bare nominal. According to this approach, in languages where bare nominals denote kinds (which are entities), such NPs can serve as arguments of verbs, while in languages where bare nominals denote properties, a determiner is necessary for them to appear in argument position. In my work, I do not support the claim that the denotation of the common noun may differ across languages. Following Dobrovie-Sorin and Oliveira (2008); Espinal (2010); Borik and Espinal (2015, 2019a), I consider that common nouns denote properties of kinds cross-linguistically.

- (4) Koški lovjat myšej.  
 cats.NOM catch mice.ACC  
 ‘Cats catch mice.’ ~ ‘Cats are mice-catchers.’  
 ‘(The) cats catch (the/some) mice.’  
 ‘The/Some cats are catching the/some mice.’

In order to describe all the possible interpretations of Russian bare plurals in subject position in a systematic way, in the following subsections I look at how they combine with different types of predicates. As shown in Chapter 1, according to Carlson’s (1977) classification, a k-level predicate is true of a kind as a whole but cannot be applied to its individual members. Such predicates select for kind entities of type  $\langle e^k \rangle$ . I-level predicates are true throughout the existence of an individual; they select for kind entities or individual entities (types  $\langle e^k \rangle$  or  $\langle e^o \rangle$ ). S-level predicates are true of a temporal stage of an individual and only select for individual entities of type  $\langle e^o \rangle$ .

It is also important to recall here that all verbs in Russian have an inherent aspectual value (imperfective or perfective). As for imperfective verbal predicates, one and the same form can be interpreted as either i-level or s-level, depending on the context, and yield either a characterising/habitual reading or an episodic reading of the sentence respectively.<sup>77</sup> Perfective verbs are normally s-level predicates

<sup>77</sup>This is true not only for Russian, but for other languages as well. For example, the simple present form in Romance languages can be interpreted differently (see the English translation).

(i) *Catalan*

En Joan fuma.  
 the Joan smokes  
 ‘Joan smokes.’  
 ‘Joan is a smoker.’  
 ‘Joan is smoking.’

*habitual*  
*characterising*  
*episodic*

Notice that in order to express the episodic interpretation of the sentence, a progressive periphrasis (copular verb + gerund) can be used in Catalan. However, it is not obligatory (unlike in English).

- (ii) En Joan està fumant.  
 the Joan is smoking  
 ‘Joan is smoking.’

as they represent an event as realised (in the past) or as the one that is going to be realised with a high degree of certainty (in the future).

As far as Russian bare subjects are concerned, it is important to point out that, when they combine with intransitive verbs, they can appear either preverbally or postverbally, and the linear position may affect the interpretation of the nominal (as claimed by Fursenko 1970; Pospelov 1970; Krámský 1972; Chvany 1973; Szwedek 1974; Topolinjska 2009, among others, for Russian and other articleless Slavic languages). In the following subsections, I first discuss preverbal subjects in combination with different types of intransitive predicates (see Subsection 3.2.2) and then I move to postverbal subjects (see Subsection 3.2.3).<sup>78</sup> After that I look at transitive predicates and the interpretation of their bare subjects (see Subsection 3.2.4).

### 3.2.2 Preverbal bare plural subjects of intransitive verbs

#### Kind-level predicates

Russian bare plurals always get a generic interpretation when combined with kind-level predicates, as illustrated in (5).

- (5) *Sobaki široko rasprostraneny.*  
 dogs widely spread  
 'Dogs are widespread.'

This effect is expected and can be explained in terms of V-driven genericity, following the proposal by Borik and Espinal (2015: 218) for Spanish. In (5), the generic interpretation of the nominal does not come from the nominal itself (unlike in the case of definite kinds, discussed in Section 2.2), as the bare plural nominal does not refer to a kind, but to a sum of individuals (as discussed later in Section 3.5).

<sup>78</sup>The pre-/postverbal alternation of the bare subject in Russian and its consequences for the interpretation are discussed in detail in Chapter 5, which also includes the results of an experimental study.

The rise of a generic interpretation on a bare plural nominal results from its combination with a restricted class of predicates (k-level predicates in this case). This phenomenon is understood as a type of coercion, i.e., the predicate forces a shift in meaning of the nominals in its argument position in order for the argument to satisfy the selectional requirements of the predicate. The shift in meaning consists in intensionalisation (à la Chierchia 1998b) of the plural argument, which refers to a sum of individuals, in order for the nominals to denote a kind (in this case, indirectly).

It should be noted that kind-level predicates cannot combine with individual-denoting arguments whose meaning cannot be shifted to kinds, e.g. proper names. Proper names are rigid designators, that is, they designate the same object in all possible worlds in which that object exists and never designate anything else (see more details in LaPorte 2018), as in (6).<sup>79</sup>

- (6) #Bobik i Žučka široko rasprostraneny.  
 Bobik and Zhuchka widely spread  
 ‘Bobik and Zhuckha are widely spread.’

Non-bare nominals do not typically combine with k-level predicates either, as such nominals denote individuals and their meaning cannot be shifted. And if they do, they can only be interpreted as subkind-referring, but not as individual-referring, as in (7a). This type of interpretation can be overtly expressed by means of *vid* ‘kind’, a kind-referring lexical item, as illustrated in (7b).

- (7) a. Èti/Kakie-to sobaki široko rasprostraneny. *subkind/#individual*  
 these/some dogs widely spread  
 ‘These/Some (types of) dogs are widely spread.’

<sup>79</sup>Notice that (6) can be accepted if the proper names are pluralised but in this case they are not rigid designators but refer to dog names (not individual dogs) which are wide-spread.

- (i) Bobiki i Žučki široko rasprostraneny.  
 Bobiks and Zhuchkas widely spread  
 ‘Bobiks and Zhuckhas are widely spread.’

- b. Èti/Kakie-to vidy sobak široko rasprostraneny.  
 these/some kinds dogs.ACC widely spread  
 ‘These/Some kinds of dog are widely spread.’

### Individual-level predicates

Preverbal bare plurals in combination with i-level predicates may get various readings in Russian. Out of the blue, when the context is not defined (i.e., the reference domain is not restricted), the subject nominal in (8) is interpreted generically, without blocking other types of interpretation depending on the context.<sup>80</sup>

- (8) Sobaki lajut.  
 dogs bark  
 ‘Dogs bark.’

The subject nominal in (8) may also get a definite interpretation, i.e., ‘The dogs bark’, if the sentence is about a contextually salient group of dogs that is known to the speaker and the listener.

Moreover, the definite interpretation of the bare NP in (8) may combine with either a habitual or an episodic interpretation of the predicate due to the above-mentioned ability of imperfective verbal predicates in Russian to shift from s-level to i-level. Thus, the English translation of *Sobaki lajut* may either be ‘The dogs bark’ or ‘The dogs are barking’ in either a habitual (9a) or an episodic (9b) context.<sup>81</sup> (9a) = (58) from Subsection 1.5.8.

- (9) a. U nas doma živut Bobik i Žučka. Sobaki lajut po nočam, i  
 at us.GEN home live Bobik and Zhuchka dogs bark at nights and  
 my ne možem spat’.  
 we not can sleep

<sup>80</sup>It is important to point out that prosody may also play a significant role in the interpretation of bare nominals in Russian, however, its study is outside the scope of this work. I assume (if not explicitly stated otherwise) that Russian example sentences are pronounced with a ‘neutral’ intonation, which in Russian linguistic literature is referred to as IK1 (intonation contour 1) (Bryzgunova 1981) and is characterised by a falling tone at the end of a sentence.

<sup>81</sup>The indefinite interpretation of the preverbal subject in combination with an s-level predicate is not excluded either. However, it is not the most salient one. See the experimental data in Section 5.4 and Appendix A.

'At home there live Bobik and Zhuchka. The dogs bark at night, and we can't sleep.'

- b. U nas doma živut Bobik i Žučka. Uže noč', no sobaki  
 at us.GEN home live Bobik and Zhuchka already night but dogs  
*lajut*, i my ne možem spat'.  
 bark and we not can sleep

'At home there live Bobik and Zhuchka. It's night already, but *the dogs are barking*, and we can't sleep.'

In order to avoid the ambiguity of readings (generic vs. definite) for bare plural subjects in out-of-the-blue contexts, e.g. in (8), Russian language frequently uses an overt determiner (different from an article in languages with articles) to encode reference. The use of overt determiners is optional, and with plural expressions it yields a definite (10) or an indefinite (11) interpretation (depending on the determiner), but never a generic one. Notice that the subkind reading is available for the subject in (10).

- (10) Èti/naši sobaki lajut, no ne kusajut.  
 these/our dogs bark but not bite

'These/our dogs bark, but don't bite.'<sup>82</sup>

- (11) Kakie-to sobaki lajut na ulice.  
 some dogs bark in street

'Some dogs are barking in the street.'

The obligatory absence of a determiner on a bare plural nominal for it to be interpreted generically is connected to the unbounded character of generics (Carlson 1977a; Krifka et al. 1995; Mari et al. 2012, among others) (see Section 1.5 for details): the set of individuals representing a kind cannot be contextually restricted. It is also important to notice that kind-referring nominals (definite kinds) in languages with articles cannot be combined with any quantifier or determiner, apart

<sup>82</sup>Even though the subject is not generic here, such sentences represent a case of a sentence-level genericity (see Section 1.4). The subject NP has a definite reading. However, the whole sentence expresses a certain kind of generalisation, regularity or disposition.



from the definite article (*the* tiger vs. *every* tiger) (Borik and Espinal 2015). This is a piece of empirical evidence that makes it possible to differentiate between kind-referring nominals and individual-referring nominals. The former ones, being devoid of Number (see Subsection 2.2.3), do not allow for any reference to plurality/cardinality involved in the denotation of determiners/quantifiers. So, the reasons for incompatibility with determiners for generic plurals and definite kinds are different: the former resist contextual restrictions, while the latter cannot be combined with any reference to Number.

The absence of any overt determiner is a necessary, however, not a sufficient condition for the appearance of a generic reading on a nominal in Russian, as other types of reading are not excluded.

The interpretation of bare nominals, either definite or generic, in subject position i-level predicates can also be disambiguated by the use of an explicit expression of lexical genericity, such as *vid* 'kind', *tip* 'type', *klass* 'class', etc., which are infelicitous in combination with definitely referring nominals. This contrast is illustrated below in (12).

- (12) a. Sobaki (kak vid) očen' umnye.  
 dogs as kind very intelligent  
 'Dogs (as a kind) are very intelligent.'
- b. U nas doma živut Bobik i Žučka. Sobaki (\*kak vid) očen'  
 at us home live Bobik and Žučka dogs as kind very  
 umnye.  
 intelligent  
 'At home there live Bobik and Žučka. The dogs (\*as a kind) are very smart.'

### Stage-level predicates

The only case when the generic interpretation of the subject is excluded is in combination with s-level predicates. This is due to the nature of s-level predicates, whose

arguments need to be spatiotemporally localised, which is exactly what generic nominals lack (see Subsection 1.3.2 for the difference between kinds and individuals). The sentence in (13) contains a lexical s-level predicate, and the generic interpretation of the subject nominal is not possible – the most salient interpretation in this case is definite (however, an indefinite one is not excluded either).

- (13) Sobaki vidnejutsja vdaleke.  
 dogs are.seen in.the.distance  
 ‘The dogs are seen in the distance.’

It is also interesting to look at cases of conjunction of two predicates in one sentence. In the combination of an i-level predicate (*be intelligent*) with a k-level predicate (*be widespread*) the subject gets interpreted generically (14), while in the combination of the same i-level predicate with an s-level predicate (*be barking*) the interpretation of the subject is definite (15). However, a conjunction of a k-level and an s-level predicate is infelicitous (16).

- (14) Sobaki očen’ umnye i oni široko rasprostraneny.  
 dogs very intelligent and they widely spread  
 ‘Dogs are intelligent and (they) are widespread.’

- (15) Sobaki očen’ umnye i oni sejčas lajut na ulice.  
 dogs very intelligent and they now bark in street  
 ‘The dogs are very intelligent and they are now barking outside.’

- (16) #Sobaki široko rasprostraneny i oni sejčas lajut na ulice.  
 dogs widely spread and they now bark in street  
 ‘#Dogs are widespread and they are now barking outside.’

The combination of the two predicates is felicitous in (14) as both of them admit arguments with a generic reference; the combination in (15) is also felicitous because both predicates admit arguments with an individual reference. However, (16) is unacceptable as the two predicates require different types of arguments (kind-referring vs. individual-referring).

To sum up, in this subsection I have shown that the interpretation of preverbal bare plural nominals in subject position of intransitive predicates may indeed depend on the type of predicate. A generic interpretation always appears when the predicate is k-level, but is excluded in the case of an s-level predicate. I-level predicates can yield both a generic and a definite interpretation, which may be disambiguated by context. The change in the interpretation of Russian nominals related to the type of predicate with which they combine is comparable to V-driven genericity as a type of coercion, proposed in Borik and Espinal (2015) for Spanish (see Subsection 1.4.2).

### 3.2.3 Postverbal bare plural subjects of intransitive verbs

#### Kind-level predicates

Let us now look at the interpretation of postverbal bare plural subjects.<sup>83</sup> First and foremost, it should be noticed that postverbal subjects cannot be interpreted generically and, thus, are not generally felicitous in combination with k-level predicates, as illustrated in (17) and (18).<sup>84</sup> The reasons for this unacceptability, related to information structure, are discussed in Subsection 3.5.5.

- (17) #Široko rasprostraneny sobaki.  
widely spread dogs  
Intended: 'Dogs are widespread.'

- (18) #Na grani isčeznovenija naxodjatsja nosorogi.  
on brink extinction find.themselves rhinos  
Intended: 'Rhinos are on the brink of extinction.'

One of the factors that may license plural postverbal nominals in combination with

<sup>83</sup>The experimental work on the correlation between the linear syntactic position of Russian bare nominals in subject position and their interpretation is presented in Section 5.4.

<sup>84</sup>It is important to remark that prosody (stress) may license the appearance of generically interpreted bare plurals in postverbal position in combination with k-level predicates. This notwithstanding, prosody and intonation are out of the scope of my work.

k-level predicate is the presence of locative and temporal adverbials at the leftmost position of a sentence, as illustrated in (19).<sup>85</sup>

- (19) Zdes' široko rasprostraneny sobaki.  
 here widely spread dogs  
 'Dogs are widely spread here.'

### Individual-level predicates

As for i-level predicates, bare subjects do not normally appear in postverbal position with them either. The sentence in (20a) cannot be interpreted as a characterising or habitual statement about dogs. Therefore, only an episodic interpretation (i.e., the predicate is interpreted as s-level) is available.<sup>86</sup> This position may be licensed by a special prosody: a contrastive stress on the nominal or/and an overt contrast, as in sentence (20b). Locative and temporal adverbials in the leftmost position also make the appearance of a postverbal subject possible in a sentence interpreted habitually, see (20c).

- (20) a. Lajut sobaki.  
 bark dogs  
 Not: '(The/some) dogs bark.' Only: 'Some dogs are barking.'
- b. Lajut SOBAKI, a ne koški.  
 bark dogs but not cats  
 'It's dogs that bark, not cats.'

<sup>85</sup>Similarly, postverbal bare plural subjects in Catalan and Spanish may appear with unergative constructions if a locative adjunct is present. Notice, however, that bare plurals in Catalan can only be interpreted existentially and never generically.

(i) *Catalan*

En aquesta coral canten nens.  
 in this choir sing kids  
 'Kids sing in this choir.'

<sup>86</sup>Recall that, as was stated in Subsection 1.6.3, there is no lexical difference between i-level and s-level predicates for most Russian imperfective verbal predicates. Depending on the context, the verb shifts between the two meanings and yields either a characterising or an episodic reading of a sentence.

- c. V ètom dome vsega lajut sobaki.  
 in this house always bark dogs  
 '(Some) dogs always bark in this house.'

### Stage-level predicates

Bare nominals appear postverbally in combination with s-level predicates and get an existential interpretation (see the English translation of (20a)), while the generic or definite interpretation is excluded. See another example with a lexical s-level predicate, where the postverbal subject is interpreted existentially (21).

- (21) Vdaleke vidnejutsja sobaki.  
 in.the.distance are.seen dogs  
 'Some dogs are seen in the distance.'

The word order alternation of the basic components SV/VS with intransitive predicates brings out a contrast between the preferred generic/definite interpretation of preverbal subjects in combination with k-level (5) and i-level (8) predicates, and indefinite interpretation of postverbal subjects (21).

### 3.2.4 Bare plural subjects of transitive verbs

The situation is different for transitive verbs, as there is no word order alternation that can signal the change in the interpretation. Example (22) illustrates the neutral SVO word order in Russian (Švedova 1980; Geist 2010; Bailyn 2011, i.a.). The subject of such a sentence can have various readings (see the English translation), while the linear order of constituents stays unchanged.<sup>87</sup>

- (22) Sobaki edjat mjaso.  
 dogs eat meat  
 'Dogs eat meat.'/'The dogs eat meat.'/'(Some) dogs are eating meat.'/'The dogs are eating meat.'

<sup>87</sup>For now I am only concerned with the interpretation of the subject nominal; the nominal in object position may have different interpretations as well. Questions related to the interpretation of bare plural nominals in object position are discussed in Chapter 4.

As expected, the subject nominal in a sentence like (22) can get either a generic or a definite interpretation if the predicate is construed as i-level, and a definite or an indefinite interpretation if the predicate is construed as s-level, i.e., in the same way as the subject in sentences where word order alternation is possible.<sup>88</sup> A certain type of interpretation of a bare subject of a transitive verb is also reflected in the information structure of a sentence. See the differences in (23).

- |      |                                                |                         |
|------|------------------------------------------------|-------------------------|
| (23) | a. $\emptyset_T$ [dogs eat meat] <sub>F</sub>  | <i>indefinite</i>       |
|      | b. [dogs] <sub>T</sub> [eat meat] <sub>F</sub> | <i>definite/generic</i> |
|      | c. [dogs eat] <sub>T</sub> [meat] <sub>F</sub> | <i>definite/generic</i> |

(23a) could be the answer to the question “What is happening?”, in accordance with a common practice that consists in identifying the Focus as the element in the answer that provides the content to the *wh*-word in the question (Espinal and Villalba 2015). Structure (23) can be claimed to correspond to athetic statement (i.e., zero-topic or all-focus statement), and its preverbal subject, being part of Focus, is interpreted indefinitely. In (23b) and (23c), the subject is a Topic or part of a Topic, and, thus, is interpreted as a part of the sentence’s presupposition, which makes the definite interpretation more salient. A possible generic interpretation is facilitated by the context. As was shown in Subsection 1.5.8, genericity arises in the absence of anaphoricity (familiarity; Heim 1982) and spatiotemporal anchoring.

As can be seen from the empirical material presented in this subsection, the type of predicate plays an important role in encoding the interpretation of bare plurals in subject position: the preverbal subject is always interpreted generically in combination with a k-level predicate; it may be interpreted generically in combination with an i-level predicate (the conditions for a bare plural to be interpreted

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<sup>88</sup>To the best of my knowledge, there are no transitive k-level predicates that would require a generic subject, that is why in the examples I use a predicate that can be interpreted either as i-level or as s-level.

generically are discussed later in this chapter); and it is never interpreted generically if it is combined with an s-level predicate.

To sum up Section 3.2, the interpretation of bare plural subjects relates to the word order in sentences with intransitive predicates: while preverbal bare subjects are interpreted either generically or definitely, and an indefinite interpretation is excluded, postverbal bare subjects tend to be interpreted indefinitely, and a generic interpretation is difficult to obtain). However, the linear syntactic position is not sufficient to encode a certain reading. Moreover, the correlation between the position of a bare plural subject and its interpretation is not very strict and may be overridden by other factors, e.g. prosody or addition of other constituents. This correlation should be rather viewed as a tendency (a speakers' preference) than a means to encode a certain reading of the nominal in subject position. Questions related to the interplay between the word order and interpretation are discussed in Chapter 5 of this thesis.

### **3.3 The distribution and interpretation of bare plural subjects in English and Romance**

Having looked at the distribution and interpretation of bare plural subjects in Russian, I compare them to bare plural subjects in English and Romance. It should be noted that in this dissertation I remain neutral concerning the question of whether bare plurals in English are in fact DPs with null determiners (Longobardi 1994) or truly bare NPs (Baker 2003). My main claims only concern Russian.

#### **3.3.1 Bare plurals in English**

In English, bare plurals can be found both in predicate (24) and in argument position (25). In accordance with Chierchia's (1998) Nominal Mapping Parameter, English is described as a [+argument; +predicate] language, exactly like Russian.

(24) These animals are dogs.

(25) Dogs are rare.

When English bare plurals are combined with k-level (25) and i-level predicates (26), they are interpreted only generically. However, if they appear in the argument position of s-level predicates (27), they can only be interpreted existentially.

(26) Dogs bark.

(27) Dogs are barking.

The examples above show that English bare plurals in subject position are similar to Russian ones in their generic and existential reading. However, it is not possible for them to get a definite interpretation in any case (Carlson 1977a; Heim 1982, among many others).

One of the tests to distinguish between a generic and an individual reading of NPs proposed in Krifka et al. (1995: 13), following Lawler (1973) and Laca (1990), is the presence vs. absence of monotonicity effects, that is, the possibility to replace the NP in question by a 'less informative' one, without making the sentence false. NPs that refer to individuals show these effects (28a), while generic NPs do not (28b, c) (Krifka et al. 1995: 13, ex.30a-c).

(28) a. Berber lions escaped from the zoo.  $\Rightarrow$  Lions escaped from the zoo.

b. Berber lions are extinct.  $\nRightarrow$  Lions are extinct.

c. Berber lions are well adapted to cold weather.  $\nRightarrow$  Lions are well adapted to cold weather.

It should be noted that the same test is applicable not only to English, but it is also valid for Russian bare plurals and Romance definite plurals (and possibly, for other languages), as illustrated below in (29) and (30), respectively.



- (29) a. Berberijskie l'vy sbežali iz zooparka. ⇒ L'vy sbežali iz  
 Berber lions escaped from zoo lions escaped from  
 zooparka.  
 zoo.
- b. Berberijskie l'vy isčezli s lica zemli. ≠ L'vy  
 Berber lions disappeared from face earth.GEN lions  
 isčezli s lica zemli.  
 disappeared from face earth.GEN
- c. Berberijskie l'vy xorošo adaptirovany k xolodnoj pogode. ≠ L'vy  
 Berber lions well adapted to cold weather lions  
 xorošo adaptirovany k xolodnoj pogode.  
 well adapted to cold weather
- (30) a. Els lleons de Barbaria s'han escapat del zoo. ⇒ Els  
 the lions of Barbaria REFL.AUX.3PL escaped from.the zoo the  
 lleons s'han escapat del zoo.  
 lions REFL.AUX.3PL escaped from.the zoo
- b. Els lleons de Barbaria estan extingits. ≠ Els lleons estan extingits.  
 the lions of Barbaria are extinct the lions are extinct
- c. Els lleons de Barbaria estan ben adaptats al fred. ≠ Els lleons  
 the lions of Barbaria are well adapted to.the cold the lions  
 estan ben adaptats al fred.  
 are well adapted to.the cold

Another possible reading that English bare plurals may have, as suggested in Con-  
 doravdi (1992: 19, ex. 4), is a definite meaning (or “quasi-universal”). In such  
 cases, bare plurals can freely alternate with definite descriptions without any ob-  
 vious change in meaning. In (31), both plural NPs (the definite and the bare) cover  
 the entire set of entities in the context, that is, all students on campus.

- (31) In 1985 there was a ghost haunting the campus. (The) students were aware  
 of the danger.

Summing up, the available readings for English bare plurals are generic, existential  
 and “quasi-universal” (definite).

### 3.3.2 Bare plurals in Romance

As for Romance languages (Catalan, Spanish and French), which are are [-argument, +predicate] in Chierchia's (1998) classification, bare plurals appear freely in predicate position (32) and do not generally appear in argument position.<sup>89</sup> This is a crucial difference from English and Russian. An overt determiner is generally needed for argumenthood in Romance; bare plural preverbal subjects are ungrammatical, regardless of the type of predicate they combine with (see the Catalan examples in (33)).

(32) *Catalan*

Aquests animals són ratpenats.  
these animals are bats

'These animals are bats.'

- (33) a. \*Ratpenats són abundants al bosc./dormen als arbres.  
bats are numerous in.the forest/sleep in.the trees
- b. Els ratpenats són abundants al bosc.  
the.PL bats are numerous in.the forest  
'Bats are numerous in the forest.'
- c. Els ratpenats dormen als arbres.  
the.PL bats sleep in.the trees  
'Bats sleep in trees.' or 'The bats sleep in the trees./sleeping in the trees.'
- d. Uns ratpenats dormen als arbres.  
some bats sleep in.the trees  
'(Some) bats are sleeping in the trees.'

As it can be seen from examples (33b) and (33c), Catalan plural nominals preceded by a definite article can get either a generic or a definite interpretation. In combination with a k-level predicate they are obligatorily interpreted as generic (33b),

<sup>89</sup>Bare plural nominals in Spanish and Catalan may appear in object position, as will be shown in Subsection 4.2.2, and as a postverbal subject.

while with i-level predicates the interpretation of the plural subject can either be generic or definite (33c). For the definite interpretation a discourse referent must be already available in the preceding context. The indefinite interpretation of the subject is achieved when it is combined with an indefinite determiner (33d).

In French the existential interpretation is achieved when the bare plural nominal is combined with an indefinite determiner *des*, as illustrated in (34b), while the generically interpreted nominal is preceded by a definite article (34a).<sup>90</sup>

- (34) a. *Les chiens* aboient.  
 the.PL dogs bark  
 'Dogs bark.'
- b. *Des chiens* aboient dehors.  
 PART.PL dogs bark outside  
 'Some dogs are barking outside.'

Nevertheless, there are certain syntactic environments, where Catalan and Spanish bare plurals can be found in subject position. They generally appear in subject position of an unaccusative verb. In such cases, they appear only postverbally (see also Longobardi (2001) for Italian).

- (35) *Catalan*
- Arriben avions.  
 arrive planes
- 'Planes arrive.'

---

<sup>90</sup>It is interesting to notice a similar pattern in Finnish (a language without articles), where a bare nominal in subject position is interpreted generically if it is in the nominative case and existentially if it is in the partitive case (De Hoop 1992; Krifka et al. 1995: 117-118, ex.194)

- (i) a. *Koirat* haukkuvat.  
 dogs.NOM bark.PL  
 'Dogs bark.'
- b. *Koiria* haukku.  
 dogs.PART bark.SG  
 'Dogs are barking.'

Bare plurals in Catalan can also appear as postverbal internal subjects in unaccusative constructions, as illustrated in (36a) and (36b). However, in French nominals in such a sentence have to be preceded by an indefinite determiner (36c).

- (36) a. *Catalan*  
 Hi ha gossos al meu jardí.  
 there has dogs in.the my garden
- b. *Spanish*  
 Hay perros en mi jardín.  
 there.have dogs in my garden
- c. *French*  
 Il y a \*(des) chiens dans mon jardin.  
 it there has PART.PL dogs in my garden  
 ‘There are dogs in my garden.’

In all the cases where bare plural subjects are possible ((35), (36a) and (36b)) in Catalan and Spanish, they are interpreted only existentially, as denoting a non-specified number of individuals or a non-specified amount of stuff (Leonetti 2012). A generic (reference to a whole class) or a definite reading is impossible for them.

Unlike bare plurals in English, bare plurals in Romance cannot be a “quasi-universal” interpretation (Dobrovie-Sorin and Laca 2003). Note that in contrast to English, the subjects in (37a) and (37b) cannot be interpreted as denoting the students of a certain university or the farmers in a certain area (Leonetti 2012: 228, ex. 6a, b).

- (37) *Spanish*
- a. Se acerca el fin del semestre. \*Estudiantes están  
 REFL approach.3SG the end of.the term students are  
 agotados.  
 exhausted  
 ‘We are reaching the end of the term. Students are exhausted.’
- b. No había llovido en tres meses. \*Agricultores estaban inquietos.  
 not had rained in three months farmers were worried  
 ‘It hadn’t rained for three months. Farmers were worried.’

To sum up, bare plural subjects may appear in Catalan and Spanish only postverbally in unaccusative constructions. The only available reading for them is existential. In French bare nominal subjects are generally disallowed.

### 3.3.3 Bare plurals cross-linguistically. Summary

The comparison of the possible readings of bare plural subjects in Russian, English, Spanish, Catalan and French, discussed in Sections 3.2 and 3.3, is summarised in Table 3.1.<sup>91</sup> While Russian bare plural subjects may have all the three types of interpretation, French is the most restrictive, not allowing for bare plural subjects.<sup>92</sup>

Table 3.1: Possible readings of bare plural subjects

	Russian	English	Catalan/Spanish	French
Generic	✓	✓	✗	✗
Definite	✓	✗	✗	✗
Existential	✓	✓	✓(subject to licensing conditions)	✗

In Sections 3.2 and 3.3, I have shown different types of interpretation that bare plural subjects have in the languages under study. In the following sections of this chapter, I focus only on the generic reading of bare plural subjects in Russian and English, and their definite counterparts in Romance. The rise of the generic reading of the external argument depends on the type of predicate with which it combines. As was shown above, kind-level predicates trigger a generic interpretation of plural nominals in all the languages under study. This type of shift in meaning has been postulated in Borik and Espinal (2015) for Spanish as V-driven genericity. The generic meaning of a nominal is forced by the predicate which

<sup>91</sup>For the distribution and meaning of bare nominals in Italian see Longobardi (1994); Zamparelli (2002), i.a.

<sup>92</sup>Bare NPs can appear in subject position in French, but only when the NP is conjoined, as in (i) (Roodenburg 2004; Heycock and Zamparelli 2005; Robinson 2005: 1, footnote 1).

- (i) *Filles et garçons jouent ensemble.*  
 girls and boys play together  
 'Girls and boy play/are playing together.'

selects for a generic expression in its argument position. Based on the empirical data from English and Russian, I propose that this coercion mechanism can be applied to bare plural subjects in these languages. Collins (2018) also presents an account of genericity as a matter of coercion. Coercion predicts the possibility of co-predicational structures, kind- and individual-level predicates, as illustrated in (38) (example from Moltmann (2013: 10)).

- (38) Pink diamonds are rare, precious, desired by many, and owned only by a few.

The bare plural in subject position refers to a sum of individuals, which must be interpreted generically in combination with a k-level predicate. With individual-level predicates other interpretations are also possible. I hypothesise that the generic interpretation of plural subjects with i-level predicates arises when the whole sentence is interpreted as characterising of a kind. This is a case of sentence-level genericity (see Section 1.5).

### **3.4 The semantics of generic plural subjects in English and Romance**

In the current section, I briefly review different accounts from the linguistic literature for plural expressions in languages with articles (English and Romance) that can be interpreted generically. I further see if these accounts can be extended to Russian as a language without articles.

#### **3.4.1 Generic bare plurals in English**

For many years the main focus of research has been on English, where generically referring plural expressions are bare. Very often they are contrasted and compared with definite kinds, starting from Jespersen (1927) who pointed out the following



- (41) a. Dogs are barking.  
 b.  $\exists y[R(y,d) \ \& \ \text{bark}(y)]$

Chierchia (1998b: 349) in his seminal work on genericity claims that plural expressions (at least, in English) denote kinds: “It seems natural to identify a kind in any given world (or situation) with the totality of its instances”. Kinds are, thus, modelled as individual concepts of a certain sort: functions from worlds (or situations) into pluralities, the sum of all instances of the kind. Furthermore, Chierchia (1998b) claims that bare plurals are a default way of referring to kinds in English. This view on bare plurals in English is really influential in the linguistic literature (Dayal 2004, among many others). In this Chierchia’s analysis, kinds are derived from plural properties by the application of a down operator, also called nominalisation operator:  $\text{nom}/\cap$  (see also Partee (1987)). This operator nominalises predicative common nouns; it is applied to a plural property associated with a bare noun, turning it into a kind-referring expression. The down operator is an intensional version of the uniqueness/maximality operator (the iota operator  $\iota$ ) associated with the definite determiner (Dayal 2004; Mari et al. 2012). In Montague’s (1970) intensional logic the down operator is defined as follows:

$$(42) \quad \cap P = \wedge \iota x P(x)$$

Thus,  $\cap$  can be seen as the composition of  $\wedge$  with  $\iota$  (Chierchia 1998b: 351, footnote 10). Chierchia (1998b: 351) defines the down operator as represented in (43). It takes a plural property and its extensions in any given world or situation. The sum of these extensions gives the extension of the kind in all possible situations, that is, the kind itself.

- (43) For any property  $P$  and world/situation  $s$ ,  
 $\cap P = \lambda s \iota P_s$ , if  $\lambda s \iota P_s$  is in  $K$ , undefined otherwise,  
 where  $P_s$  is the extension of  $P$  in  $s$ , and  $K$  is the ontological domain of kinds.



Being intensional, the down operator maps a property to the greatest element in the extension of  $P$  in a world. The existential interpretation of English bare plurals in this analysis is the output of the Derived Kind Predication (DKP) rule that turns a kind-denoting argument into an existentially bound indefinite. Chierchia (1998b: 364) represents this rule in the following way:<sup>95</sup>

(44) If  $P$  applies to objects and  $k$  denotes a kind, then

$$P(k) = \exists x [\cup k(x) \ \& \ P(x)]$$

This rule is applied to bare plural nominals, when they appear in the argument slot of a stage-level predicate (which is a predicate that does not select for kinds), yielding instantiations of the kind in a given situation, as illustrated in (45) (from Chierchia (1998b: 364)).

(45) a. Lions are ruining my garden.

b. ruining my garden ( $\cap$ lions)

$$\Leftrightarrow (\text{via DKP}) \exists x [\cup \cap \text{lions}(x) \ \& \ \text{ruining my garden}(x)]$$

The DKP, applied in (45), results from a type mismatch between the predicate and its argument; it is not a lexical operation that depends on the predicate, but a type-shifter that applies when it is necessary. The DKP rule is predicted to function cross-linguistically.

As for characterising sentences, Chierchia (1995: 176) proposes an analysis with the covert generic operator (GEN), provided by  $i$ -level predicates,<sup>96</sup> which are claimed to be inherently generic. GEN is a dyadic syntactically covert variable-binding operator which quantifies over spatio-temporally bounded situations. A generic sentence can, thus, be understood as a description of individuals and rele-

<sup>95</sup>This rule contains an up, or predicativising operator ( $\cup$ ), which turns kinds into properties (see also Partee 1987).

<sup>96</sup>The generic operator (GEN) was first introduced in Farkas and Sugioka (1983) in order to account for the generic interpretation of sentences, cf. also Carlson's (1977) Gn operator.

vant situations that involve them. Sentences involving GEN are analysed as having a tripartite structure, as represented in (46). The restrictor specifies the domain over which the variables range, and the matrix (the nuclear scope) specifies the property that is attributed to the relevant members of the domain. The matrix is the base for generalisation.

(46) GEN [restrictor][matrix]

The meaning of GEN is similar to that of adverbs that introduce quantification over events (e.g. *always, generally*), and, thus, the sentence in (47a) can be paraphrased as ‘Generally, in relevant situations that involve dogs, dogs bark.’ Chierchia (1995) proposes the following logical form (47b) for the characterising sentence in (47a). Variables over instances of the kind *dog* are accommodated in the restrictor of GEN, and *C* is a free variable for ‘contextually relevant situations’, in which the instances of the kind *dog* are involved.

(47) a. Dogs bark.

b. GEN  $s,x$  [ $\cup \text{dog}(x) \ \& \ C(x,s)$ ][ $\text{bark}(x,s)$ ]

Another important view on genericity and plural nominals that needs to be mentioned is Krifka’s (1995; 2003). He argues that English bare plurals are ambiguous between being kind-denoting and indefinite (in the sense of Heim 1982). Hence Krifka claims that English bare plurals, being kind-denoting, may be arguments of k-level predicates and are analysed as names of kinds (48). As indefinites, they introduce free variables, which in the case of combination with i-level predicates are bound by the generic operator, introduced by the VP (49). As for s-level predicates, which exclude the habitual interpretation, the free variable is caught by the existential quantifier (50).

(48) a. Dogs are common.

- b. be-common (d)
- (49) a. Dogs bark.  
 b.  $\text{GEN}_{s,x} [\text{dogs}(s,x) \ \& \ \text{in}(s,x)][\text{bark}(s,x)]$
- (50) a. Dogs are barking.  
 b.  $\exists s,x[\text{dogs}(s,x) \ \& \ \text{barking}(s,x)]$

The analysis of sentences involving generic plural subjects in terms of the GEN operator has several problems.

The first one is that there is no agreement in the literature on the semantics of the generic operator, which is claimed to be responsible for the appearance of genericity in characterising sentences (with i-level predicates). Krifka et al. (1995: 45) enumerate several possible interpretations of GEN, without coming to any final conclusion. GEN might involve a quantification over *relevant* entities; over prototypical entities; might express stereotypicality; might denote a disposition or a habit; might express a constraint on a situation; and might indicate a non-monotonic inference rule. No unified semantics of GEN can account for all possible types of generic sentences.

Furthermore, there is no consensus in the literature on the domain of quantification of GEN. It may be understood as either quantifying over event-individual pairs (as in Chierchia 1995; Krifka et al. 1995), as illustrated in (51a), or over an individual variable, supplied by a plural nominal (Heim 1982; Diesing 1992), as illustrated in (51b).

- (51) a.  $\text{GEN}_{e,x}(\text{dogs}(x)\ \& \ C(e,x))[\text{bark}(e,x)]$   
 b.  $\text{GEN}_x(\text{dogs}(x))[\text{bark}(x)]$

Another problem with the GEN operator is that it does not have any morphosyntactic realisation, not only in English, but also in any other language, in which

genericity has been investigated (Liebesman 2010; Collins 2015, 2018). Thus, the question that arises in this respect is how hearers and also children learning a language know that the generic operator is present in sentences, such as (49) if it does not correspond to any linguistic device, which is involved in the expression of genericity, and, thus, is not accessible to them prior to the interpretation of a sentence (Declerck 1991; Lazaridou-Chatzigoga et al. 2015). If there is no linguistic evidence for GEN, then it can just be used to label the relevant phenomenon – genericity – but does not explain when and how this type of interpretation arises on nominals that may have other readings in a given language.

In my analysis of Russian generic bare plural nominals, I do not postulate GEN as a source of genericity. I claim that the generic interpretation arises as a pragmatic effect in certain discourse contexts.

### 3.4.2 Generic definite plurals in Romance

One of the main features that distinguishes the expression of genericity in Romance languages from English (described in the previous subsection) is the use of the definite article with a generic plural subject, as illustrated in (52).<sup>97</sup>

<sup>97</sup>In this work I focus only on count nouns, however, it should be noted that the same morphosyntactic difference – bare in English vs. definite in Romance – applies to mass and abstract nouns (which corroborates the idea of the postulated similarity between plural and mass nouns (see Link 1983)).

- (i) a. Life is hard.
- b. *Catalan*  
          La vida és dura.  
          the.SG.F. life is hard

It is interesting to notice that German uses mass nominals with a definite article in many contexts, where English uses bare ones, e.g. with abstract concepts, such as *die Schönheit* ‘beauty’, *die Liebe* ‘love’, or *die Wahrheit* ‘truth’, with historical developments, such as *die Industrialisierung* ‘industrialisation’, *die Globalisierung* ‘globalisation’, academic disciplines or other crafts, such as *die Linguistik* ‘linguistics’, *die Physiologie* ‘psychology’, *die Chirurgie* ‘surgery’, and *die Schreinerei* ‘carpentry’, etc. The sentence in (ia) is also translated into German with a definite article.

- (ii) Das Leben ist schwer.  
      the.SG.N life is hard

As Bosch (2006) puts it, there seems to be no difference with respect to definiteness in these cases, and also no difference between the referents of these expressions in English and German.

- (52) a. *Catalan*  
*Els* gossos borden.  
 the.PL.MASC dogs bark
- b. *Spanish*  
*Los* perros ladran.  
 the.PL.MASC dogs bark
- c. *French*  
*Les* chiens aboient.  
 the.PL dogs bark
- 'Dogs bark.'

Definite plurals in Romance have a generic interpretation, which is logically equivalent to the one of English bare plurals (Chierchia 1998b; Dayal 2004), therefore, it can be predicted that they would appear in similar non-generic contexts. However, as opposed to English bare plurals which are interpreted indefinitely in episodic sentences, they may only have a definite interpretation, i.e., they may refer to a specific group of individual entities whose existence is presupposed, as in (53a). The use of a definite article is obligatory in such cases in English as well (53b).

- (53) a. *Catalan*  
 \*(Els) gossos, és a dir, en Fuji i en Milou, estan bordant.  
 the dogs is to say the Fuji and the Milou are barking
- b. \*(The) dogs, namely Fuji and Milou, are barking.

Unlike English bare plurals, Romance plural definites cannot be interpreted existentially (Laca 1990; Longobardi 2001; Borik and Espinal 2015, among others). In order to achieve an existential reading in Catalan and Spanish an indefinite determiner (see (33d)) and in French an indefinite determiner (see (34b)) is used before the nominal. The impossibility of deriving the existential reading from the generic one means at least that the DKP rule (45), proposed by Chierchia (1998b), is not universally available, as discussed in Borik and Espinal (2015). So, some other semantic mechanisms need to be postulated for Romance languages.

According to Chierchia (1998b), English and Romance languages use different ways of deriving generic reference: the former by the application of the  $\text{nom}/\cap$  operator to a plural property (54a) and the latter by the application of an intensionalising operator ( $\wedge$ ) to a definite plural (54b). The definite plural, in its turn, is derived by means of an iota operator, which expresses maximality when applied to a plural noun (a plural property of individuals of type  $\langle e, t \rangle$ ), i.e., it yields the sum of all the individuals (type  $\langle e \rangle$ ) that satisfy the plural property. So, if P is a plural property, e.g. DINOSAURS,  $\iota P$  is the largest plurality of P (the plurality of all dinosaurs) (Sharvy 1980; Link 1983). The output of the two operations – the application of the  $\text{nom}/\cap$  and the intensionalised iota – is logically equivalent (see Subsection 3.4.1).

- |      |                                        |                |
|------|----------------------------------------|----------------|
| (54) | a. extinct ( $\cap$ dinosaurs)         | <i>English</i> |
|      | b. extinct ( $\wedge \iota$ dinosaurs) | <i>Romance</i> |

Following Chierchia's (1998) analysis of kinds across languages, Dayal (2004, 2011a) proposes a universal scale of definiteness (or scale of diminishing identifiability) for nominals in languages with articles (English and Romance languages) and without articles (Hindi and Russian).<sup>98</sup> The scale of diminishing identifiability depends on the lexicalisation of the down operator ( $\text{nom}/\cap$ ), canonically used for generic reference, and the iota operator ( $\iota$ ), canonically used for deictic and anaphoric reference. The difference between the two operators is that while the situation variable in  $\text{nom}/\cap$  is bound, that in the *iota* is free, leaving it to be bound by sentence-level existential closure (Bittner 1994), as illustrated in (55).

- |      |                                                       |
|------|-------------------------------------------------------|
| (55) | a. $\text{nom}: \lambda P \lambda s \iota x [P_s(x)]$ |
|      | b. $\text{iota}: \lambda P \iota x [P_s(x)]$          |

---

<sup>98</sup>The semantics of Russian generic plurals is discussed in the next section (3.5). It is important to mention here that Dayal's (2004) proposal is one of the first attempts to formally treat kinds in languages without articles.

The down operator is not lexicalised in English for generic plurals but the iota is lexicalised for definite kinds, singular and plural definite nominals. In Romance languages the down operator is lexicalised for plural generic expressions and the iota is lexicalised for singular expressions, but also for singular and plural definite nominals, thus, the definite article is ambiguous between the iota and the down operator.

Borik and Espinal (2015) elaborate an analysis for generic plural expressions in Romance languages, namely, Spanish, where they manage to avoid the ambiguity of the definite article, as postulated in Dayal (2004)). According to them, the definite article is not ambiguous, it only corresponds to the iota operator, which expresses maximality on plural nominals. Definite plurals are claimed to refer to a maximal sum of individuals, which can be intensionalised and, thus, become kind-referring (indirectly). Definite plurals with a generic reading are considered to be a case of V-driven genericity, that is, the interpretation of the plural nominal depends on the type of the predicate: both kind-level (56a) and individual-level (56b) predicates select for kinds as arguments, and, thus, the generic interpretation arises. In the case of s-level predicates, the subject is non-generic (56c). According to their theory, there is no need to postulate the GEN operator (see Section 3.4.1) for the semantic composition of generic sentences that involve definite plurals in Romance.

Let us look at the Spanish examples from Borik and Espinal (2015: 217, ex.64).

- (56) a. Los colibrís                    son abundantes en Costa Rica. *generic*  
           the hummingbirds are numerous in Costa Rica  
           ‘Hummingbirds are common in Costa Rica.’
- b. Los colibrís                    vuelan hacia atrás. *generic*  
           the hummingbirds fly towards backwards  
           ‘Hummingbirds fly backwards.’

- non-generic*
- c. Los colibrís                    están enjaulados.  
 the hummingbirds are    incaged  
 'The hummingbirds are incaged.'

The difference between the generic and non-generic interpretation is represented in the following formulae (Borik and Espinal 2015: 218, ex.66). In the first case the iota is intensionalised making it possible for the maximal sum of individuals to refer to a kind, and in the second case the reference is to a maximal sum of contextually given individuals.

- (57) a.  $\hat{\iota}x^o \exists x^k[\text{colibrí}(x^k) \ \& \ R(x^o, x^k) \ \& \ x^o \in \text{Sum}] \ \& \text{abundante}(x^o)$     *generic*  
 b.  $\iota x^o \exists x^k[\text{colibrí}(x^k) \ \& \ R(x^o, x^k) \ \& \ x^o \in \text{Sum}] \ \& \text{enjaulado}(x^o)$     *non-generic*

It is crucial to notice that the denotation of definite plurals in Romance, as exemplified in (57), involves number, which Borik and Espinal (2015) conceive as a Realisation operator (R) turning properties of kinds (the denotation of the common noun, see Subsection 2.2.1) into properties of individuals.<sup>99</sup> Thus, unlike definite kinds, which are devoid of Number, generic definite plural expressions in Romance are specified for plural morphosyntactic Number (Borik and Espinal 2015). Their structure can be represented in the following way:

- (58)  $[_{DP}D [_{NumP}Num_{[+pl]} [_{NP}N]]]$

It should be noted that definite plurals are used for generic reference not only in Romance, but in many typologically unrelated languages with articles, such as Arabic, Greek and Hungarian (see Behrens (2005) and Farkas and de Swart (2007) for details). Moreover, in Slavic languages that have articles (Bulgarian and Macedonian), plural nominals with a definite article have a generic reading with k-level predicates (59a), and a generic or definite reading with i-level predicates in characterising sentences (59b). As expected, bare plural nominals are interpreted exis-

<sup>99</sup>For more details on the original proposal concerning the Realisation operator see Carlson (1977a), and also Déprez (2005).



tentially (59c). So, English can be considered an odd language out, as far as the use of bare nominals for generic reference is concerned (Heim 2011: 1108).

(59) *Macedonian*

- a. *Nosorozite se na rabot izumiranje.*  
rhinos.the.PL are on verge extinction  
'Rhinos are on the verge of extinction.'
- b. *Kučinjata laat.*  
dogs.the.PL bark  
'Dogs bark.' or 'The dogs bark.'
- c. *Kučinja laat.*  
dogs bark  
'(Some) dogs are barking.'

To sum up, in this section I have compared generic plurals in English and in Romance that are logically equivalent and seem to refer to the same ontological object (Dayal 2004), i.e., the sum of all representatives of a kind, even though the expression of this type of reading is different. In English, the generic reference is expressed by bare plural nominals, and these nominals may also have an existential reading. In Romance, genericity is expressed by means of definite plurals, which can also be interpreted definitely. Russian generically interpreted plural nominals do not pattern with either of the two. They are bare (as Russian has no articles), but they can also have an existential and a definite reading. The semantics of Russian generic plurals is discussed in the following subsection.

### 3.5 An analysis of Russian generic bare plural nominals

The semantics of bare nominals in articleless languages in terms of genericity has been rather understudied. Chierchia (1998b) claims that generic plurals in Russian pattern with the English ones and gives a similar account for them, deriving the generic meaning by means of the  $\text{nom}/\cap$  operator. The existential interpretation

is further derived by means of Derived Kind Predication rule, as described in Subsection 3.4.1. However, Chierchia's approach cannot predict the possibility of the definite interpretation that Russian bare plurals may have, as shown in examples such as (9), (13) or (15) in Section 3.2.

Dayal (2004, 2011a, 2017a), revising Chierchia's approach, proposes a theory for Hindi and Russian (both are languages without articles). In these languages, according Dayal's approach, neither the iota nor the down operator is lexicalised on the scale of diminishing identifiability (see Subsection 3.4.2), so the type-shift is always covert. The difference between Chierchia's and Dayal's approaches to the meaning of bare nominals cross-linguistically is presented in (60).

- (60) a. Chierchia (1998b):  $\cap > \{\iota, \exists\} \Rightarrow$  bare NPs can only be kind terms.  
 b. Dayal (2004):  $\{\cap, \iota\} > \exists \Rightarrow$  bare NPs can be kind terms and definites, but not indefinites.

One problem with these approaches, including Dayal's, that postulate covert type-shifting for languages without articles is that there is no empirical evidence for it. Another problem with Dayal's theory is that it makes incorrect empirical predictions: a full-fledged indefinite interpretation would be impossible for Russian bare nominals.

However, in my proposal for the semantics of Russian bare nominals these expressions are considered inherently indefinite (following Heim 2011 and contra Dayal 2004, 2011a), and the generic and the definite interpretations, which are rather similar to each other, are the result of a pragmatic strengthening of the nominal. Thus, no covert type-shift is needed. The pragmatic strengthening that leads to the generic interpretation of plural subjects happens in specific contexts: when they appear in external argument position of k-level predicates, and when they are subjects of a sentence that is interpreted as characterising, and when there is no anaphoricity/bridging or spatiotemporal localisation involved (the reference

domain is unbounded). The definite interpretation arises in the cases of familiarity (anaphoric reference), topicality (related to givenness) and ontological uniqueness of the nominal, as extensively discussed in Subsection 5.5.5.

In the following subsections, I focus on the semantic composition of generic bare nominals. I show that they involve semantic and syntactic Number. Then I review the possible type shifting operators which can be applied in order to achieve individual denotation of plurals (conceived as sums of individuals). I show that there is no empirical evidence for either an iota or a  $\text{nom}/\cap$ , but the existential quantifier analysis may be valid for Russian bare nominals, as the presence of this quantifier is identified by the scopal properties of bare plurals. I further show that a generic reading is derived pragmatically, this type of interpretation includes such characteristics as maximality, identifiability and presupposition of existence for bare plurals. It is distinguished from definiteness by the absence of spatiotemporal or anaphoric anchoring.

### 3.5.1 Number in generic bare plurals

First of all, let us look at the semantic composition of Russian bare plurals. Following Espinal and McNally (2007), Dobrovie-Sorin and Oliveira (2008), Espinal (2010), Borik and Espinal (2015) and other scholars, I assume that the denotation of a common noun is a property of a kind (see Subsection 2.2.1 for the formal representation of the denotation of a common noun).

If a common noun denotes a property of a kind, it has no inherent number information, so, the first semantic ingredient that is necessary to postulate for Russian plurals is Number.<sup>100</sup> It is involved in the semantic composition and acts as a realisation or instantiation operator (R) (cf. Carlson 1977a; Déprez 2005) turning properties of kinds of type  $\langle e^k, t \rangle$  into properties of individuals of type  $\langle e^0, t \rangle$

<sup>100</sup>This analysis is inspired by Borik and Espinal's works (2012, 2015, 2019).

(Espinal and McNally 2007; Espinal 2010; Borik and Espinal 2012, 2015). An overt Number determines the realisation of bare nominal expressions as singular individuals (reference to atoms) or as plural individuals (reference to sums).<sup>101</sup> The meaning of morphosyntactically plural nominals can be represented in the following way (Borik and Espinal 2015: 188, ex. 23b):

$$(61) \quad \llbracket \text{Num}^{+PL} \rrbracket = \lambda P \lambda x^o \lambda x^k [P(x^k) \ \& \ R(x^o, x^k) \ \& \ x^o \in \text{Sum}]$$

The presence of Number on generic bare plurals in Russian is empirically proven by the fact that they license access to individual entities. This can be seen from a discourse semantic relationship that is established between the indefinite partitive pronoun *nekotorye* ‘some’ and the bare plural nominal as its potential antecedent (62a).<sup>102</sup> In this respect generic bare plurals are different from definite kinds, which are numberless (as discussed in Subsection 2.2.3) and do not allow such licensing (62b).

- (62) a. *Nosorogi* naxodjatsja na grani isčeznovenija. *Nekotorye*  
rhinos.NOM.PL are.found on verge extinction.GEN some  
special’no oxranjajutsja v zooparkax.  
on.purpose are.guarded in zoos.  
‘Rhinos are on the verge of extinction. Some (of them) are specially  
guarded in zoos.’
- b. *Nosorog* naxoditsja na grani isčeznovenija. \**Nekotorye*  
rhino.NOM.SG is.found on verge extinction.GEN some  
special’no oxranjajutsja v zooparkax.  
on.purpose are.guarded in zoos.  
Intended: ‘The rhino is on the verge of extinction. Some (of them) are  
specially guarded in zoos.’

The same holds true for reciprocal constructions, which can occur only with semantically plural antecedents (63a), but not with definite kinds (63b), which are

<sup>101</sup>The denotation of a plural individual has been modelled as a lattice structure, i.e., a partially ordered set whose elements are all individuals in this set and all their possible sums (Link 1983, Partee et al. 1993).

<sup>102</sup>Examples (62a) and (62b) are modelled on the examples from Borik and Espinal (2016).

devoid of Number.

- (63) a. *Nosorogi*      *agresivny*      *po otnošeniju drug k drugu.*  
 rhinos.NOM.PL aggressive.NOM.PL in relation    one to another  
 'Rhinos are aggressive towards one another.'
- b. \**Nosorog*      *agresiven*      *po otnošeniju drug k drugu.*  
 rhino.NOM.SG aggressive.NOM.SG in relation    one to another  
 Intended: 'The rhino is aggressive towards one another.'

Moreover, generic plural expressions can serve as antecedents to plural personal pronouns, interpreted existentially, as illustrated in (64a) (Bronnikov 2007: 7, ex.14),<sup>103</sup> which is impossible for definite kinds (64b).

- (64) a. *Tykovy*      *xranjatsja*      *dolgo, poetomu Nikita kupil ix*  
 pumpkins store.themselves long    that.is.why Nikita bought them  
*mnogo.*  
 many  
 'Pumpkins can be stored for a long time that's why Nikita bought many  
 of them.'
- b. \**Tykva*      *xranitsja*      *dolgo, poetomu Nikita kupil ix*  
 pumpkin store.themselves long    that.is.why Nikita bought them  
*mnogo.*  
 many  
 Intended: 'The pumpkin can be stored for a long time that's why Nikita  
 bought many of them.'

As shown in examples (62a), (63a) and (64a), Russian generic bare plurals, indeed, license access to individual entities, having morphosyntactic Number which is interpreted semantically, whereas definite kinds do not.

<sup>103</sup>Carlson (1977a: 432, ex. 82a, b) shows the ability of English generic bare plural to serve as antecedents for pronouns understood non-generically and vice versa.

- (i) a. Lemmings are protected by law, but Mick goes ahead and traps them anyways.  
 b. Mick traps lemmings, even though he knows they are protected by law.

### 3.5.2 Possible type-shifters

At this stage of semantic composition, after Number has been applied to the denotation of a common noun, we have properties of individuals,  $\langle e^0, t \rangle$ . In order for them to function as arguments they have to be type-shifted to  $\langle e \rangle$  (individual objects) or to  $\langle \langle e, t \rangle, t \rangle$  (generalised quantifiers) (Partee 1987; Chierchia 1984, 1998b, and many others). The possible type-shifting operators are  $\text{nom}/\cap$  (nominalization operator, also called “down operator”),  $\iota$  (iota operator) and  $\exists$  (existential operator) (Partee 1987; Chierchia 1998b; Dayal 2004). As was pointed out in Subsection 2.2.1, in languages without articles all type-shifting operations are covert. The main challenge, thus, is to find logical or empirical motivation for postulating a certain operator in Russian or other articleless languages.

Let me first consider the possibility of having the  $\text{nom}/\cap$  for the derivation of generic bare plural nominals in Russian. The only test that Chierchia (1998b) proposes for the presence of the “down” operator is the ability of bare plurals to serve as arguments for kind-level predicates. The analysis involving a “down” operator would predict the derivation of the existential reading of bare plurals in Russian (through DKP), but would not explain the possibility of having a definite interpretation, associated with an iota operator. Moreover, as the  $\text{nom}/\cap$  is not lexicalised, the option of having an intensionalised iota (as in Romance languages) in its place cannot be excluded. So, I will not assume that there is  $\text{nom}/\cap$  in Russian because of the absence of any independent empirical evidence for its existence, apart from the mere existence of bare plurals themselves.<sup>104</sup>

The next option is the use of the iota operator, which has been postulated for definite kind formation cross-linguistically (see the theory of definite kinds by Borik and Espinal 2015, 2019a, reviewed in Section 2.2) and for generic definite

<sup>104</sup>Notice that there is no empirical evidence for this operator in English either, apart from the existence of bare plurals, which are “anomalous” for a language with articles.

plurals in Romance languages (see Subsection 3.4.2). At first sight, the presence of the iota, associated with the definite determiner in languages with articles, is rather plausible for Russian, as bare plural nominals in this language seem to pass several tests for definiteness.

First, let us look at Löbner's (1985) test for definiteness, according to which, two identical non-coreferential nominals with a definite reading cannot occur in the same sentence without yielding a contradiction (e.g. #*The dogs are sleeping and the dogs are not sleeping*). The prediction here is that in order to be acceptable the two nominals have to be indefinite (*Some dogs are sleeping and some dogs are not sleeping*). As it can be seen from example (65) two identical non-coreferential bare plural nominals cannot occur in the same sentence in Russian.<sup>105</sup>

- (65) #*Sobaki spjat i sobaki ne spjat.*  
 dogs sleep and dogs not sleep  
 'The dogs are sleeping and the dogs are not sleeping.'

It should be noted, however, that Coppock and Beaver (2015) and Gillon (2015) claim that the above-mentioned Löbner's test does not necessarily show definiteness (conceived as uniqueness/maximality) but rather referentiality (type <e> denotation), which is also possible for indefinite nominals, as discussed in Subsection 5.5.2.

Another hallmark for definiteness is the ability of nominals to be used deictically and anaphorically, which Russian bare nominals have, as illustrated in (66). However, the definite reading is restricted by the linguistic and extra-linguistic context and, thus, cannot serve as a test for definiteness on its own.

<sup>105</sup>This test goes against Dayal (2004: 407, ex. 26b) who claims that the following example is valid in Russian. As a native Russian speaker (and my judgement is also confirmed in Bronnikov 2006), I find this sentence ill-formed.

- (i) *V ètoj kletke tigry edjat i tigry spjat.*  
 in this cage tigers eat and tigers sleep  
 'In this case the tigers are eating and the tigers are sleeping.'

- (66) *Sobaki, Bobik i Žučka, lajut.*  
 dogs Bobik and Zhuchka bark  
 ‘The dogs, Bobik and Zhuchka, are barking/bark.’

Russian bare plurals also pass the test for definiteness as maximality, proposed in Gillon (2015: 183). A definite nominal would be expected to refer to the whole subset that was already introduced, i.e., to all entities in the context, such as *three bears* in example (67).

- (67) *On uvidel pjat' volkov i tri medvedja. On ubil*  
 he saw five wolves.GEN.PL and three bears.GEN.SG he killed  
*medvedej, #no odin ubežal.*  
 bears.ACC.PL but one escaped  
 ‘He saw five wolves and three bears. He killed the bears, #but one escaped.’

However, this test only works for the cases of anaphoricity (which is one of the sources of definiteness for Russian bare nominals, as shown in Subsection 5.5.5) and cannot be applied to all cases where bare nominals appear.

Summing up, it can be seen that there is not enough empirical evidence to postulate the semantic definiteness (an iota operator) for Russian bare plural nominals. However, the definiteness effects may appear in the contexts where the reference set has been already introduced (anaphoric contexts). It should also be noted that in all the examples (65) – (67) the bare plural nominal cannot be interpreted generically. Moreover, as was shown in Section 3.2, the generic interpretation of bare plural nominals arises in the absence of anaphoricity.

Another option for type-shifting is the existential quantifier, which turns properties of individuals  $\langle e^0, t \rangle$  (the meaning of the common noun after the application of realisation operator) into the argumental type  $\langle \langle e, t \rangle, t \rangle$ , representing an indefinite (existential) reading of a nominal. The meaning of the existential quantifier can be represented as in (68) (from Dayal 2004: 413, ex. 35d) (see also Partee 1987; Chierchia 1998b; Coppock and Beaver 2015).



$$(68) \quad \exists = \lambda P \lambda Q \exists x [P_s(x) \ \& \ Q_s(x)]$$

The  $\exists$  operator is identifiable with respect to its scopal properties (a test proposed in Carlson 1977a; Dayal 2004, 2011a). A *bona fide* indefinite nominal would be able to have both wide and narrow scope. According to this test, Russian bare plural nominals may be considered indefinite as they may have both wide and narrow scope, for instance, with respect to modal operators. In (69), both interpretations (*want* >  $\exists$  and  $\exists$  < *want*) are available, even though the narrow scope one is easier to obtain.

- (69) Ivan xočet poznakomit'sja s kino-zvëzdami.  
 Ivan wants meet with movie-stars  
 'Ivan wants to meet movie-stars.' and 'There exist movie-stars that Ivan wants to meet.'

Moreover, it should be noted that in some cases only a wide-scope interpretation is available, as in (70a), which is taken from Bronnikov (2006: 6, ex. 24), modelled on Carlson's (1977: 11, ex. 18). In order to obtain the narrow-scope interpretation, the bare plural direct object has to be marked for the genitive case, as in (70b).

- (70) a. Ivan ne zametil pjatna na polu.  
 Ivan not noticed spots.ACC on floor  
 'There were spots on the floor that Ivan didn't notice.'
- b. Ivan ne zametil pjaten na polu.  
 Ivan not noticed spots.GEN on floor  
 'Ivan didn't notice spots on the floor.'

In this work, I propose that the default interpretation of bare nominals in Russian is indefinite, and the other interpretations (generic and definite) are pragmatically derived. This hypothesis is based on Heim's proposal (2011: 1006), which states that in languages without articles bare NPs "may simply be indefinites". The questions of (in)definiteness in languages without articles and the empirical, as well as

experimental, evidence for the proposed hypothesis are discussed in Chapter 5 of this thesis.

I claim that the two pragmatically derived readings – definite and generic – are very similar, being characterised by maximality, identifiability and presupposition of existence.<sup>106</sup> However, in the case of definitely interpreted nominals the domain is contextually restricted, while in the case of generics it is unrestricted. I will talk about it in detail in Subsections 3.5.4, 3.5.5 and 3.5.6, but before that I would like to say a few words about the syntactic structure of Russian bare plurals.

### 3.5.3 Syntactic structure of generic bare plurals

The syntactic structure of nominal phrases in languages without articles has been a matter of a long-standing debate in the literature. The core question of this debate is whether nominals in articleless languages are DPs or NPs. The answer to this question corresponds to either the Universal-DP hypothesis (Longobardi 1994; Cinque 2005; Pereltsvaig 2007, i.a.) or the Parametrised-DP hypothesis (Bošković 2005, 2008; Bošković and Gajewski 2008). The first hypothesis states that all nominal arguments in all languages are projected as full DPs, even though D may be null. The second one argues that there are two types of languages: the ones with articles, which project arguments as full DPs, and the ones, which project NPs.

Without taking any stance in the DP/NP debate, I propose the following minimal structure (71) for generic bare plurals in Russian. This structure does not involve any covert determiner, but it shows the presence of syntactic number on the nominal, which has empirical evidence, as discussed in Subsection 3.5.1.

(71) [<sub>NumP</sub>Num [<sub>NP</sub>N]]

<sup>106</sup>Dayal (2004) argues that articleless languages, such as Russian and Mandarin, show an affinity between a definite reading and a generic one, to the exclusion of the indefinite readings. She claims that bare nominals in articleless languages are ambiguous between a definite and a generic reading (Dayal 2004, 2017a). Agreeing with Dayal on the close link between definiteness and genericity, in this work I argue that the indefinite interpretation of bare nominals in Russian is not excluded, moreover, it is the default one (see subsections 5.5.2 and 5.5.4).

However, if I had to take a side in the above mentioned debate, I would adopt Pereltsvaig's (2006) proposal, according to which nominal arguments can differ in 'size', i.e., have different types of syntactic structure: full DPs or smaller nominals (QPs, NumPs or NPs).

The arguments that support this hypothesis are the following. Generic bare plurals in Russian pass all the tests for a full DP-structure proposed in Pereltsvaig (2006): control of PRO, licensing of anaphors, substitution by pronominal elements and presence of non-restrictive relative clauses. Thus, a full DP structure with a null determiner may be postulated for generic bare plurals in Russian, which will also reflect the strict syntax-semantics mapping. This null determiner will, thus, have the semantic properties of an indefinite determiner and will be semantically interpreted by means of an operation of existential closure, i.e., it will be the holder for the covert  $\exists$ . Notice that in Subsection 2.2.2 the null determiner in the syntactic structure of Russian kind-referring nominals is interpreted as a choice function, which is another semantic mechanism postulated for the derivation of an indefinite reading (Reinhart 1997). The difference between the existential quantifier and the choice function is tackled in Subsection 5.5.2.

$$(72) \quad [{}_{DP}\emptyset[{}_{NumP}Num[{}_{NP}N]]]$$

I postulate the indefinite null determiner (but not a definite one), as definiteness (or genericity) of bare nominals in Russian arises as a result of pragmatic strengthening in certain contexts and, thus, does not correspond to any covert syntactic determiner.

In the following subsections, I discuss the semantic and pragmatic characteristics of generically interpreted bare plural nominals in Russian: maximality, identifiability and presupposition of existence. These characteristics make them similar to definites.

### 3.5.4 Maximality

One of the characteristics that generic and definite plurals share is maximality. It can be understood as inclusiveness or the totality of reference. A discourse referent is considered to be maximal if it ranges over all entities that satisfy its descriptive content, within a contextual restriction for definites and with no contextual restriction for generics. The understanding of definiteness of plural nominals in languages with articles as inclusiveness can be traced back to Vendler (1967), who claimed that definite NPs imply ‘completeness’. Subsequently, Hawkins (1978) proposed that the definite article has an ‘inclusive’ reference, i.e., definite NPs “refer to the totality of the objects or mass in the relevant shared set” (Hawkins 1978: 159). According to Sharvy (1980), *the* applied to plural expressions indicates ‘totality’.<sup>107</sup> However, in languages that use generic bare plurals, the perceived maximality has to have a different source, not the definite article.

Stating the equivalence (in terms of truth-conditions) of the interpretation of generic definite plurals in Romance and generic bare plurals in English, Robinson (2005) claims that in the former case maximality comes from the maximality operator (GEN), while in the latter case it is exhaustive quantification over situations which is introduced by the generic operator, as suggested by Heim (1990). As there is no maximality imposed by the determiner on bare plurals in English, quantification over situations yields the same effect. It provides a minimal situation for each individual, which, summed together, give the largest plural individual denoted by the bare nominal that instantiates the kind (Robinson 2005: 113-114). The problem with this approach is the same as stated in Subsection 3.4.1: the GEN operator has

<sup>107</sup>The meaning of this ‘normal’ use of the definite article is captured by the maximalization operator (Max) (see Sharvy 1980; Link 1983; Chierchia 1998a, and others). This operator returns the single largest possible element in a set. Assuming that plurals denote the set of all plural individuals that can be formed with the denotation of the corresponding singular count noun (a set of singular individuals), Max will pick out the largest plural individual in this denotation, or will be undefined when no such element is present (Zamparelli 2002: 6).

no linguistic realisation in any described language; moreover, there is no agreement in the literature on the meaning of GEN and the semantic effects that it has on the interpretation of a sentence that supposedly contains such an operator.

I propose that maximality in generic nominals can be seen as a pragmatic effect. The generic reference can also be understood as an inclusive one (Declerck 1988; Laca 1990, among others) in the sense that it involves reference to all the instantiations of a kind, both atoms and sums, and the interpretation of a sentence is not contextually restricted to a bounded domain (Carlson 1977a; Leslie 2007; Teichman 2015). Declerck (1986: 182) claims that in order for a generic meaning to arise the domain must be unbounded, i.e., the set of elements to which the predication applies is not restricted by the context.<sup>108</sup> The unbounded character of generics, according to Declerck (1991: 83-84), depends on interpretative rules that ensure the information conveyed by an utterance is maximised: maximal-set principle and inclusiveness principle. The first principle requires that the maximal set of entities is referred to, and the second one requires the application of predication on a set  $X$  to all members of  $X$ .

Declerck (1991: 80) claims that a generic set is the maximal set of entities satisfying a particular description. The generic set of dogs is, therefore, the set of all entities that satisfy the description *dog* in any possible world. That is how maximality relates to unboundedness. The proposed maximal-set principle stipulates that “when the speaker uses a description referring to a set, the hearer has the right to assume that the intended set is the largest possible set of entities satisfying the description and the NP-inherent and contextual restrictions”. This principle follows from Grice’s (1975: 45) Maxim of Quality, that is, if a statement is applicable only to a subset of a set, then it is misleading to use it in connection with the

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<sup>108</sup>Domain restriction is generally understood as a variable that restricts the set of individuals that match the NP description to those within the context of the discourse (Westerstahl 1985; von Stechow 1994; Gillon 2015, among others).

set as a whole. And a statement about a set as a whole will not be interpreted as only applicable to a particular subset of this set. Consider (73) and (74).

(73) Dogs bark. = All (relevant/possible/normal) dogs bark.

(74) Dogs are barking.  $\neq$  All dogs are barking.

It is widely acknowledged that the interpretation of a nominal is sensitive to the context in which it is uttered (Westerstahl 1985; von Stechow 1994; Giannakidou 2004; Gillon and Armoskaite 2012, among others). In (73) the reference of the NP is restricted neither by the form of the NP itself (there is no overt determiner to restrict the domain of reference), nor by the context, nor by pragmatic factors. So, the hearer will conclude that the reference here is to the largest set of entities satisfying the description of dogs, i.e., the generic set. However, in (74) the reference of the NP is restricted by the temporal anchoring (the progressive aspect and the present tense of the verb) and the description gets interpreted existentially. Heim (2011: 1108-1109) also claims that generic bare plurals in English are interpreted as maximal pluralities, which in her view may be equivalent to kinds. Heim proposes that generic NPs can be treated as unrestricted definites. In such cases the overt definite/indefinite distinction is neutralised and the surface realisations are dissociated from an abstract determiner with a [ $\pm$ DEF] feature, and the [+DEF] feature is just spelled out as zero.

It should be underlined that the maximal reading of the subject in (73) is achieved at the time of utterance (at its interpretation), therefore, it is a pragmatic effect, which is different from the maximality associated with the definite article. It is also important to notice that the maximal-set principle is applied within the boundaries of the relevant-member restriction (Declerck 1991: 83), which may explain the tolerance of exceptions (see Section 1.5 on the main characteristics of generic sentences). Thus, statements such as *Whales give birth to live young*, are consid-

ered acceptable, even though it is only true about female representatives of the kind *whale*. So, the relevant-member restriction largely depends on the pragmatic knowledge of the world that the interlocutors have.

The maximal vs. non-maximal interpretation of bare nominals may also depend on world knowledge, i.e., on whether the hearer is familiar or not with the kind (and essential properties of its representatives) that the speaker mentions (also see Subsection 3.5.5). (75a) may be interpreted as a characterising sentence about all relevant representatives of the kind *dog*, while (75b) may only be interpreted as a statement about particular (rather exceptional) cats.

- (75) a. Sobaki lajut.  
       dogs bark  
       'Dogs bark.'
- b. Koški lajut.  
       cats bark  
       '(Some) cats bark./ (Some) cats are barking.'

If the appearance of the generic interpretation is sensitive to speakers' background assumptions and expectations about the characteristics of the kind in question, it can be concluded that maximality in bare plurals (in English and in Russian) is of a pragmatic nature.

### 3.5.5 Identifiability

The perceived definite reading of generics plurals is also related to their identifiability (Lyons 1999), which means that the hearer can identify the referent used by the speaker. In order to be identified generics do not need to be 'old', that is, previously mentioned in the immediate discourse, but there has to be some kind of reference to them in the context of an utterance. Such context includes previous utterances but also the speech situation (the location, the interlocutors and their assumptions about the world, salient objects, etc.). The context is what includes

a shared encyclopedic knowledge of the speakers or a shared ‘mental catalogue’ of conceptual information, which is part of the ‘common ground’ (Stalnaker 1978). Stalnaker (2002) defines ‘common ground’ as presumed background information that participants in a conversation share, i.e., something that they presuppose or take for granted (see also Allan 2013). ‘Common ground’ may include some items that have been explicitly introduced in the preceding discourse, physically salient objects in the local environment, but also cultural and encyclopedic knowledge (Clark and Marshall 1981).

Characterising sentences, in which the bare plural subject is interpreted generically, suggest that the speaker has to have some background conceptual knowledge of the subject. To put it another way, in order to characterise a kind (or a concept), one needs to have an idea of what this kind is. For instance, so as to say ‘Dogs bark’, the speaker needs to have previous knowledge of what *dogs* are, i.e., be familiar with the idea of *dogs as a class of objects*. Thus, familiarity, which generally characterises definite nominals, as pointed out in Subsection 3.1.2, can be subsumed under the notion of identifiability. The conceptual information that the speaker has about a kind includes fundamental or ontological features, but also information about the common or typical form that representatives of this kind may have, and any other relevant information (Hampton 2012). Moreover, being familiar with a certain concept and its typical/normal representatives people are quite willing to accept generic statements even when there are counterexamples and exceptions (*ibid.*) (see also Section 1.5).

### 3.5.6 Presupposition of existence

Identifiability of the referent, which belongs to the ‘common ground’, involves the idea that the existence of the referent is presupposed, which also makes generic NPs similar to definite NPs. The existential presupposition of a nominal can be



thought to be satisfied if its referent is entailed by the common ground. In semantics, the existence presupposition is commonly associated with definite nominal phrases (Frege 1892b; Strawson 1952).

Presupposition can be understood as a special condition that must be met in order for a linguistic expression to have a denotation (Frege 1892b). It is usually defined as a binary relation between a pair of sentences of a language (Beaver 2001), as, for instance between (76a) and (76c).<sup>109</sup> The bare plural nominal in these examples can be considered the presupposition trigger which requires the existence of multiple individuals (see Beaver and Geurts 2011: 2433). (76a) presupposes (76c) because the truth of (76c) is a condition for the semantic value of (76a) to be true. And whenever the negation of (76a) is true (76b), (76c) is still true. Examples in (76) demonstrate the ability of presuppositions to project when embedded under negation (Beaver and Geurts 2011, among many others).

- (76) a. Dogs bark.  
 b. Dogs don't bark.  
 c. Presupposition: Dogs exist.

In pragmatics, presupposition involves knowledge and attitudes of language users, thus, it is understood not as the presupposition of a sentence, but as a presupposition of the speaker (Stalnaker 1974, 1978; Beaver 2001). In such theories, presuppositions do not need to be associated with a certain linguistic form, and thus, can also be applied to bare nominals. Karttunen (1973: 169-170) explains the pragmatic notion of presupposition in the following way: "sentence A pragmatically presupposes B" can be understood as an abbreviation for "whenever A is uttered sincerely, the speaker of A presupposes B."<sup>110</sup>

<sup>109</sup>Notice, however, that the subject NP in these examples is non-definite.

<sup>110</sup>Presupposition is a notion that is rather vaguely defined both in semantics and pragmatics. Stalnaker (2002: 712) puts it in the following way: "We begin by identifying a general linguistic phenomenon – the phenomenon of presupposition. We are not sure what it is, but we have a list of

Presuppositions, according to Stalnaker (1978: 320), “are what is taken by the speaker to be the common ground of the participants in the conversation, what is treated as their common knowledge or mutual knowledge.” The information that is already in the common ground and cannot be negated, as illustrated in (77).

(77) A: Pandas are on the verge of extinction.

B: No, this is not the case.

⇒ Pandas are not on the verge of extinction. They are numerous.

⇒ It's not pandas, it's rhinos that are on the verge of extinction.

In this work, dealing with characterising sentences that contain bare (i.e., non-definite) nominals (in Russian and English), I rely on the notion of pragmatic presupposition, which is related to the knowledge and assumptions of the speaker. Generic definite plurals in Romance can be said to have the semantic presupposition of existence due to the presence of the overt definite article. (Robinson 2005: 99).

Furthermore, the presuppositional character of subjects (regardless of their morphosyntactic realisation) of characterising sentences has been posited in Diesing (1992) and Kratzer (1995). They claim that subjects of *i*-level predicates are presuppositional, proposing a syntactic explanation for this phenomenon: such subjects are merged VP-externally, unlike subjects of *s*-level predicates.

The presupposition of existence of generic bare plurals can be triggered by the information structure of a sentence. As was shown in Section 1.5, subjects of characterising sentences are interpreted as aboutness topics. As the topic is familiar to both the speaker and the addressee, the existence of the referent of the NP in topic position is not asserted or questioned by the sentence; the presupposition is taken as a common ground of the conversation. The link between topichood and the

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standard paradigm examples (e.g. involving definite descriptions, factive verbs, *it*-clefts) and some rough criteria (e.g. survival under negation).” Also see Abbott (2008).

presupposition of existence is stated in many works, e.g. Gundel (1977); Reinhart (1981, 1995); Hajičová (1984); Erteschik-Shir (1998).

The relevance of information structure in the interpretation of generics has been established by several authors (Reinhart 1981; Krifka et al. 1995; Cohen 2001; Krifka 2003, among others). As it has been stated in the above-mentioned works and also sustained by a cross-linguistic study of 30 languages carried out by Gundel (1988), in some languages there is a strong tendency, in others it is obligatory for topics to be definite or generic.<sup>111</sup> Erteschik-Shir (2007: 20) makes even a stronger claim that generics need to be topics. This is valid for nominals in subject position of characterising sentences, as they are analysed as categorical judgements, whose subjects are topics (see Section 1.5).<sup>112</sup>

Notice that in order to be topics generics do not need to be discourse-old. As Brunetti (2009) argues, for the utterance to be regarded felicitous, discourse-oldness of an aboutness topic is an adequate although not a necessary condition. Furthermore, the referent of the topical NP does not have to be known to the hearer, but it must be the case that the speaker presupposes that the addressee knows the referent. By contrast, the hearer, when an unknown entity is introduced as a topic, has at least two strategies: either to accommodate the information at stake into their knowledge without letting know that the referent is unfamiliar to her, or to interrupt the conversation to clarify the topic. In both cases the hearer

<sup>111</sup>A good illustration for this is Japanese, a language without articles: an NP with the topic making *-wa* can only be rendered into English as definite or generic, while an NP marked by the nominative postposition *-ga* can be construed as definite or indefinite (Lyons 1999: 232; Carlson 2011: 1179). Example from Krifka et al. (1995: 118, ex.197):

- (i) a. Inu wa hasiru.  
dog TOP run  
'Dogs run.'
- b. Inu ga hasitte iru.  
dog NOM run PROGR  
'(The) dogs are/A dog is running.'

<sup>112</sup>However, in object position bare nominals do not need to be topics in order to be interpreted generically, as will be shown in Chapter 4.

updates her knowledge to repair inconsistencies between actual common ground and the one assumed by the speaker (Mori and Hitomi 2014).

In Russian, the information structure of a sentence may be reflected in the word order. The alternation of the basic components SV/VS brings out a contrast between the preferred generic/definite interpretation of preverbal subjects (78), and the indefinite interpretation of postverbal subjects (79).

- (78) Sobaki lajut. *generic/definite/#indefinite*  
 dogs bark  
 ‘Dogs bark.’/‘The dogs bark./are barking.’
- (79) Lajut sobaki. *indefinite/#definite/\*generic*  
 bark dogs  
 ‘Some dogs are barking.’

SV order in Russian normally represents a division into Topic and Focus, so the subject acts as given or mentioned before, and the predicate represents the new information. Topic in terms of information packaging, according to Reinhart (1981), Vallduvi (1990), Erteschik-Shir (2007) and many others, is what the sentence is about, and Focus expresses the added or new proposition. The preverbal argument position is strongly associated with Topic (see Erteschik-Shir (2007) who posits that the left periphery of the sentence is generally reserved for topics). Brun (2001), Geist (2010), Jasinskaja (2014), among others, point out that in Russian utterances with a neutral intonation and without sentence stress topics appear in the leftward position, which is a preverbal position for sentences with intransitive verbs.

As for the VS order illustrated in (79), it represents a zero-Topic sentence,<sup>113</sup> i.e., the one that gives entirely new information (Bailyn 2011: 261).<sup>114</sup> Such topicless,

<sup>113</sup>Erteschik-Shir (2007) claims that there is always a topic. In a so-called zero-topic sentence, which is the answer to the question ‘What’s happening?’, the topic is the particular situation.

<sup>114</sup>Bailyn (2011) uses terms “Theme” and “Rheme”, which are more common in the Russian linguistic tradition and represent a bipartite division of the sentence. This division is called in Russian *actual’noe členenie predloženiija* (lit. ‘actual sentence partition’) and translated into English as Functional Sentence Perspective. The Theme-Rheme structure usually presupposes a bipartite division

all-new sentences are called *thetic* (Kuroda 1972; Ladusaw 1994) in the Western linguistic tradition and *kommunikativno nerasčleněnnye predloženiya* ('communicatively undivided sentences') in the Russian linguistic tradition (Švedova 1980). The postverbal argument in such sentences is part of the Focus, that is why its preferred reading is indefinite.<sup>115</sup>

From the examples cited above it can be seen that there is indeed a strong affinity between definiteness and genericity in Russian: both generic and definite subject are topics and they tend to occur preverbally in Russian, when the word order alternation is possible. In general it is plausible to suggest that genericity, definiteness and topicality overlap due to their identifiability function.

### 3.6 Discussion. Generic plurals in languages with articles

In the previous section, I have shown that generics behave much like definites because they meet some of the semantic (and pragmatic criteria) for definite reference, which are maximality (inclusiveness) and identifiability. Moreover, they can be considered presuppositional. Nevertheless, all this does not imply that languages, even those with article systems, have to represent generics as definite in overt morphosyntax.

Lyons (1999) in his book on definiteness claims that generic plural nominals have a lot in common with definites in terms of behaviour and even proposes that they might be semantically definite expressions which do not necessarily appear in a definite form in certain languages, e.g. English. Furthermore, the author compares them to proper names that are overtly definite in some languages but not in others (Lyons 1999: 157), e.g. Catalan, where the definite article is used with names

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of the sentence, while the terms Topic and Focus refer to certain constituents of the sentence, thus, some material in the sentence may be neither Topic, nor Focus.

<sup>115</sup>Notice that subjects of thetic sentences in Slavic may be preverbal but only when they carry sentence stress (Czardybon 2017: 160).

of people.<sup>116</sup>

The ability of bare plurals in English to be interpreted as definite is also discussed in Krifka et al. (1995: 73). Previously, a similar idea about English was explicitly expressed in Carlson (1979: 65): “Bare plural NPs will be treated as definite descriptions of a very special sort.” Carlson (1977a, 1982) claimed that generic bare plurals in English behave in a way which is rather similar to referring expressions than quantifiers. For instance, if an antecedent of a pronoun is a name or a definite expression, it can easily replace this pronoun. However, this does not happen with indefinite antecedents (Cohen 2002: 17, ex.47a-c), as illustrated in the following examples:

- (80) a. Fred<sub>i</sub> walked into the room. {He, Fred}<sub>i</sub> smiled.  
 b. A man<sub>i</sub> walked into the room. {He, #A man}<sub>i</sub> smiled.  
 c. Dogs<sub>i</sub> are intelligent mammals. {They, Dogs}<sub>i</sub> are also man’s best friend.

It should also be noted that diachronically English allowed the use of definite plurals to express genericity, just as modern Romance languages do (Crisma and Pintzuk 2016). According to Mustanoja (1960: 253), the majority of Old English uses of generic plurals occur with a definite article, however, in Middle English bare generic plurals become more widespread. Van Linden and Davidse (2012) claim that they have found definite plural NPs with generic reference in Late Modern English as well. Lyons (1999: 181-182) observes that plural and mass generics can be definite in the synchronic state of English too, with a limited range of nouns, nouns of nationalities and some nouns denoting classes of classes, see examples

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<sup>116</sup>There is indeed some kind of affinity between proper names and generic nominals: for instance, both can participate in *so-called* constructions (Carlson 1977a; Cohen 2002: 17, ex. 48a-c), from which indefinites are excluded.

- (i) a. Giorgione is so-called because of his size.  
 b. Machine guns are so-called because they fire automatically.  
 c. #A machine gun is so-called because it fires automatically.

(81a) - (81c) from Lyons (1999: 181-182, ex. 63b, 64a, b).

- (81) a. John has a soft spot for the Finns.  
 b. The dinosaurs dominated the earth for a very long time.  
 c. The cats – at least the big ones like tiger and pumas – are particularly fierce predators.

Carlson (2011: 1173) also points out that definite generic plurals in English are especially suitable, when it comes to referencing people, e.g. *the ancient Greeks, the Russians*, however, bare plurals are perfectly normal in such cases as well.

Farkas and de Swart (2007: 1674) claim that definite generic plurals appear in English (and in Dutch) in cases of anaphoric genericity, e.g. in encyclopedia articles dealing with natural kinds, where the kind itself is first introduced in the heading of the article. Further in the discourse, this kind, being discourse-old, is referred to by a definite plural. The following example is taken from Farkas and de Swart (2007: 1674, ex. 19).

- (82) *Saurischian Bipedes* – The saurischians were the first of the two great groups to assume prominence. [...] From certain of these forms, *the saurischians* were certainly derived. (Encyclopaedia Britannica, 1972, p. 456)

There is also cross-linguistic evidence of variation in the use of bare vs. definite plurals with a generic meaning. For instance, in modern German, generic plurals may appear bare or with a definite article. According to Schaden (2012: 169), there seems to be free variation in cases where no categorial ambiguity is at stake (the constituent is unambiguously nominal), the predication is distributive, and the nominal constituent is topical, as illustrated in the following German examples from Schaden (2012: 158, ex. 3a,b).

- (83) a. (Die) Wale sind Säugetiere.  
 the.PL whales are mammals

'Whales are mammals.'

- b. (Die) Dinosaurier sind ausgestorben.  
 the.PL dinosaurs are extinct  
 'Dinosaurs are extinct.'

Another example of a language with articles, where bare nominals may have a generic interpretation, is Brazilian Portuguese (Cyrino and Espinal 2015: 472, ex. 1b, c). (84) is an example of a generic statement, where the subject refers to a maximal plural object, independently of whether the article is present or omitted.

- (84) (Os) brasileiros são trabalhadores.  
 the.PL.MASC Brazilians are hard-working  
 'Brazilians are hard-working.'

It is important to notice that this optionality of the definite article applies to plurals only with a generic reading.<sup>117</sup> Bare plurals in languages, such as English, German or Brazilian Portuguese, cannot be used to refer deictically or anaphorically (Dayal 2011a).

In order to account for the inter- and intra-linguistic linguistic variation in the expression of genericity by means of plural nominals, I propose that, even though some languages mark definiteness on generics overtly, like most Romance languages, and also Hungarian, Greek, Arabic (see Behrens 2005, Farkas and de Swart 2007 for details), others, such as English and Russian, resort to bare nominals, the interpretation of nominals stays the same cross-linguistically due to the universal nature of genericity in languages, related to a human cognitive ability of categorisation (see 1.2.1). This interpretation involves reference to a maximal set of individual members of a kind, which exists in the background knowledge of the

<sup>117</sup>Notice that in Brazilian Portuguese the definite article may also be optional on singular nominals, but again, only when they have a generic interpretation, not a definite one. See Cyrino and Espinal (2015) for details.

- (i) (O) brasileiro é trabalhador.  
 the.SG.MASC brazilian is hard-working



participants of communication and, thus, can be identified by them. This interpretation can be encoded semantically by means of a definite article or inferred pragmatically, when a bare nominal is used.

### 3.7 Concluding remarks

In this chapter, I have studied plural nominals with a generic reference in subject position. I have first looked at the distribution and interpretation of bare plural nominals in Russian, as compared to English and Romance. In Russian they may have different types of interpretations and an unlimited distribution, while in English they may be interpreted either existentially or generically. Romance languages do not generally allow for bare plurals in subject position, and if they are allowed (e.g. in coordinated NPs, in existential sentences), they basically have an indefinite (existential) reading. The generic reference is achieved through a definite plural in Romance.

Regardless of the distinction in their surface appearance in different languages (bare in Russian and English, and definite in Romance), generically interpreted plural NPs refer to the same ontological object. It is a sum of individual entities, which can be reinterpreted as referring to a kind under certain circumstances. When the plural nominal appears in subject position of a kind-level predicate, its meaning is coerced to generic. Another environment that licenses the generic interpretation of plural nominals is characterising sentences, which describe an essential, 'characterising' property of the subject, but not an event (as episodic sentences do). So, the generic interpretation does not come from the NP, but is achieved at the sentential level. In Russian genericity comes as a result of a pragmatic strengthening of an indefinite plural nominal.

A generic reading of bare nominals is similar to a definite one. However, the domain of reference of generics is unbounded (it involves all representatives of a

kind in all possible worlds), while the domain of definite nominals is contextually restricted.

The generic reference is perceived as maximal, i.e., reference to all the possible/relevant representatives of the kind as the domain of reference is unbounded. This maximality may be encoded semantically (and syntactically) – by means of a definite article in Romance, or may come as a pragmatic effect with no overt encoding in languages with generic bare plurals (English and Russian).

Another relevant characteristic of generically interpreted plural nominals is their identifiability, which is due to their presence in the background knowledge of the speakers (the so-called “mental catalogue” of conceptual information). So, even when generics have not been mentioned in the preceding discourse, they are not novel and are characterised by the presupposition of existence.

The presupposition of existence is also related to the topicality of generic subjects in characterising sentences.

The intra- and inter-linguistic variation in the surface form of generic plurals (definite or bare) may be explained by the difference in the encoding of the same “definiteness effects” (maximality and identifiability) on the nominal, i.e., either as a semantic or a pragmatic matter.



# Chapter 4

## Generic plural nominals in object position

### 4.1 Introduction

The previous chapter was dedicated to the analysis of generically interpreted plural nominals in subject position. I have shown that this interpretation can be derived either semantically (by means of a definite article) or pragmatically, and appears only in certain environments, i.e., in order to get a generic interpretation plural nominals have to be subjects of k-level or i-level predicates. In the latter case, the sentence has to be interpreted as characterising and the subject has to be devoid of any anaphoric or spatiotemporal anchoring. I have argued that generic plural nominals in subject position refer to a maximal sum of individuals, which may be reinterpreted as (indirectly) referring to a kind.

In the present chapter, I focus on generically interpreted plural nominals in object position. First, I check if bare plural nominals may appear in object position in Russian, English and Romance, and examine the interpretations that are available to them. As predicted from the behaviour of bare plural nominals in subject position, the same type of NP in object position should have the same interpreta-

tions available: for Russian they are definite, indefinite (existential) and generic; for English generic and indefinite; for Catalan (and Spanish) only indefinite. The generic interpretation, conceived as reference to a maximal sum of individuals, is only available for definite plurals objects in Romance (which is also expected).

It is important to notice that cross-linguistically, the same type of NP (i.e., bare plurals in Russian (1) and English (2) and definite plurals in Romance (3)) may get interpreted generically in object position as well as in subject position (as was shown in Chapter 3). This similarity in distribution may suggest that they stand for the same type of ontological object (maximal sum of individuals that represent a kind), regardless of their syntactic function. And they are, thus, predicted to be characterised by maximality (inclusiveness), identifiability and to trigger the presupposition of existence, as generic plural subjects do (see Chapter 3). These predictions are borne out, as shown in Subsection 4.3.3.

(1) *Russian*

- a. *Sobaki* lajut.  
dogs.NOM bark  
'Dogs bark.'
- b. Ja nenavižu *sobak*.  
I hate dogs.ACC  
'I hate dogs.'

(2) *English*

- a. *Dogs* bark.
- b. I hate *dogs*.

(3) *Catalan*

- a. *Els gossos* borden.  
the.PL dogs bark  
'Dogs bark.'

- b. Odio *els gossos*.  
 hate.1SG the.PL dogs  
 'I hate dogs.'

Further in this chapter, having established what type of plural expression can have a generic interpretation in object position, I define the conditions for the rise of this kind of interpretation. These conditions are similar to the ones that trigger the generic interpretation in subject position: the lack of spatiotemporal or anaphoric anchoring. However, the environments, in which a generic reading may appear on plural nominals in object position are different from the ones for nominals in subject position. I claim that in the languages under study, object NPs, such as those illustrated in (1b), (2b) and (3b), may be interpreted generically as internal arguments of psychological subject experiencer verbs (SEVs) (also called *psychological verbs with experiencer subjects* in the literature,<sup>118</sup> see Belletti and Rizzi 1988; Glasbey 2006).

In order to explain why and when this class of verbs may trigger a generic interpretation, I review the main characteristics of SEVs that may be relevant for genericity. Such verbs presuppose the existence of the individual(s) in object position due to the nature of the relationship between the two arguments – it is a psychological relationship which involves the experiencer and the target of emotion. Such verbs also trigger the inclusive (maximal) reading of plural nominals due to their non-agentive character (Laca 1990) (see Subsection 4.3.4 for details). SEVs have been claimed to be *inherently generic* (Carlson 1977b; Chierchia 1998b) in the sense that they assign a generic interpretation to their plural objects (bare in English and Russian, and definite in Romance). I also show that this class of verbs admits internal arguments with a specific reference, while NPs that encode a non-specific interpretation are excluded from this position. There is a certain affinity between genericity and specificity as types of interpretation: they both pre-

<sup>118</sup>The term was first proposed in Levin (1993).

suppose the existence of a referent which is identifiable at least to the speaker. The generic reading arises when the interpretation of a sentence containing a bare plural (in Russian and English) or a definite plural (in Romance) is not pragmatically or contextually restricted to a bounded domain.

I also show that in combination with other types of verbs (non-SEVs) in languages with articles overtly definite nominals are interpreted definitely, while bare nominals are interpreted indefinitely. In Russian, bare plural objects are interpreted indefinitely by default and a definite interpretation comes as a pragmatic strengthening.

In the last section of this chapter, I discuss the interpretation of plural objects in characterising sentences (in the sense of Krifka et al. 1995).<sup>119</sup> Such NPs are bare not only in Russian and English, but also in Catalan and Spanish. I claim that objects found in characterising sentences modify the predicate (which in the case of characterising sentences expresses some essential property of the subject, not an event), being, thus, non-referential.<sup>120</sup> I argue that these nouns are non-referential (or weakly referential), similar to pseudo-incorporated nominals, while they are rather syntactically independent, retaining inflectional morphology, e.g. Number and Case (in Russian).

## 4.2 The interpretation of bare plural nominals in object position

The interpretation of plurals in object position has been studied much less than the interpretation of subjects. The most relevant work on the topic is by Carlson (1977a), Declerck (1987), Kratzer (1995), Cohen and Erteschik-Shir (2002), Yoon

<sup>119</sup>For a detailed account of characterising sentences see Section 1.5.

<sup>120</sup>Such nominals can be analysed as forming part of event kinds (in terms of Gehrke 2015), which are part of the ontology of the verbal domain, parallel to kinds of the nominal domain. While events are viewed as particular spatiotemporal entities with functionally integrated participants (Maienborn 2011), event kinds are abstract and not localised in space or time. However, the domain of verbal kinds is outside the scope of this work.

(2005), Glasbey (2006) for English, by Laca (1990), Dobrovie-Sorin and Laca (1996, 2003) for Spanish, French and Italian, Espinal (2010), Espinal and McNally (2011) for Spanish and Catalan. My aim is to contribute to an understanding of how different types of interpretation are achieved for bare plural nominals in object position in Russian as a language without articles, and compare it to English and Romance.

#### 4.2.1 Bare plurals objects in Russian

Bare plurals in Russian can freely appear in object position, however, it seems impossible to give them a uniform analysis as they may have different interpretations, which are represented in the English translation of (4) and (5).<sup>121</sup> Bare plural objects may have a definite or an indefinite reading but may also be used non-referentially, denoting a property. Notice that, in (4), the nominal in object position cannot be interpreted generically, i.e., referring to a maximal sum of individuals representatives of a kind. Such a type of generic reference generally arises when bare plural nominals are found in a certain context, that is, when they function as internal arguments of SEVs (see the discussion in Section 4.3), as illustrated in (5).

- (4) Koški lovjat myšej.  
 cats.NOM catch mice.ACC  
 ‘Cats catch mice.’ ~ ‘Cats are mice-catchers.’  
 ‘(The) cats catch (the/some) mice.’  
 ‘The/Some cats are catching the/some mice.’
- (5) Koški ljubjat myšej.  
 cats.NOM love mice.ACC  
 ‘Cats love mice.’  
 ‘The cats love the mice.’  
 ‘The cats love certain mice.’

<sup>121</sup>In this section I am only concerned with the interpretation of Russian bare plurals nominals in object position of verbs; the subject may have different interpretations as well, see Section 3.2.



As the meaning of bare nominals in object position may vary significantly, it is important to establish the factors that facilitate the choice of a certain interpretation. I claim that the meaning of bare nominals in object position depends on the discourse context (the absence or presence of anaphoricity/familiarity); the type of predicate (SEVs or non-SEVs); and the type of sentence (characterising or not). In the case of characterising sentences, which express a property of a subject, the object is non-referential (or weakly referential), forming part of the predicate. Such cases are analysed in Section 4.4.

An indefinite interpretation is the one that arises by default in the absence of anaphoricity or bridging relationships.<sup>122</sup> The sentence in (6a) introduces a novel referent, entailing its existence. In order to achieve unambiguous reference, an overt marker of indefiniteness (an indefinite pronoun) may be used, as illustrated in (6b). However, this marking is never obligatory in Russian.<sup>123</sup>

(6) Context: Stray animals feed on what they find in the street.

- a. Sobaki edjat kosti, koški– staryi xleb...  
    dogs eat bones cats old bread  
    ‘Dogs eat bones, cats eat old bread...’
- b. Sobaki edjat *kakie-to* kosti...  
    dogs eat some bones  
    ‘Dogs eat some bones...’

In the case of anaphoricity/familiarity, the interpretation of the nominal may be pragmatically strengthened, thus, making it possible for the nominal to have a definite or specific referent (7a) (see also Subsection 1.5.8). The use of an overt definite marker (a demonstrative) is also possible (7b), but again, is never obligatory.

(7) Context: On Sundays we eat lamb. We don’t throw bones away because there’s a dog shelter nearby.

<sup>122</sup>This goes in line with Heim’s 2011 theory of indefiniteness as the primary interpretation of bare nominals in languages without articles discussed in Subsection 5.5.4.

<sup>123</sup>Contrary to Dayal (2017a,b), who extends her analysis of Hindi non-bare indefinites to Russian.

- a. Sobaki edjat kosti s udovol'stvie.  
 dogs eat bones with pleasure  
 '(The) dogs eat the bones with pleasure.'
- b. Sobaki edjat *èti* kosti s udovolstvie.  
 dogs eat these bones with pleasure  
 '(The) dogs eat these bones with pleasure.'

A definite or an indefinite interpretation of nominals that depends on their familiarity vs. novelty is rather straight-forward. In (7), the anaphoric reference provides the meaning of familiarity (definiteness), while its lack results in novelty, i.e., indefinite (existential) interpretation (6). Both of the sentences, (6a) and (7a), are interpreted as habitual, i.e., they generalise over events of eating bones by individual dogs. A generic interpretation of the object is not possible in these contexts, as the predicate does not trigger the inclusive reading, that is, the object does not refer to all possible bones, but to some part of all the bones that exist, provided by the previous context. The conditions for the appearance of a generic interpretation of plural nominals in object position are discussed in Section 4.3.

#### 4.2.2 Bare plural objects in English and Romance

Regarding languages with articles, both English and Romance languages under study (Catalan and Spanish) allow for bare plural nominals in object position. Such nominals may have an indefinite (existential) interpretation, as in (8), while the definite interpretation is derived with by means of an overt definite article (9).

- (8) a. *English*  
 My kids eat *sweets*.
- b. *Catalan*  
 Els meus nens menjen *dolços*.  
 the.PL.MASC my.PL.MASC kids eat sweets
- (9) Context: in a candy shop.

a. *English*

My kids eat *the sweets* (that are on the counter).

b. *Catalan*

Els                meus                nens menjen *els*                *dolços* (que hi  
 the.PL.MASC my.PL.MASC kids eat        the.PL.MASC sweets that there  
 ha    al                                mostrador).  
 have at.the.SG.MASC counter

A generic interpretation, conceived as a reference to a maximal sum of individual instantiations of a kind in all possible worlds (an unbounded set), is not possible to obtain in the cases illustrated above, as *Kids eat sweets*, as in (8) does not imply *Kids eat all (possible/relevant/typical) sweets* and *Kids eat the sweets*, as in (9) implies reference to a maximal set of individual objects within the relevant domain, i.e., *that are on the counter*.

English, being a [+argument, +predicate] language (according to Chierchia's (1998) Nominal Mapping Parameter), allows for bare plurals in object position without any restrictions. As for Spanish and Catalan, bare plurals are found in these languages as internal arguments of a large number of verbs with an existential reading, except for SEVs, which disallow bare nominals in their object position. Unlike bare singular nominals,<sup>124</sup> whose distribution is restricted to object position of HAVE-predicates (Espinal and McNally 2011), bare plurals seem to have fewer restrictions: they are only excluded from the internal argument position of subject-experiencer verbs (SEVs) (see Section 4.3).

In combination with other types of predicates that express some kind of habitual activity, bare plurals get an existential interpretation. The following example is taken from Laca (1990: 30, ex. 16c):

(10) *Spanish*

<sup>124</sup>For a detailed discussion of bare singular nominals in Catalan and Spanish (which is outside the scope of this work), see Espinal (2010) and Espinal and McNally (2011).

Henry fuma puros.  
Henry smokes cigars

‘Henry smokes cigars.’

Notice that such sentences may also have a different type of reading. They may be interpreted as a characterising statement (see Section 1.5 ), i.e., expressing an “essential” property of the subject, i.e., ‘Henry is a cigar-smoker.’ Moreover, the characterising sentence in (10) may have a dispositional reading: ‘Henry does not object to smoking cigars when he gets a chance to smoke them.’ I suggest that in such cases bare plurals are non-referential (or weakly referential) and modify the predicate (see Section 4.4).

French, as compared to Spanish and Catalan, is more restrictive when it comes to bare nominals, not allowing for bare NPs to appear in classical argument positions. An obligatory indefinite determiner is used instead.

(11) *French*

Henry fume \*(des) cigars.  
Henry smokes PART.PL cigars

‘Henry smokes cigars.’

The unavailability of bare plurals in French, except for a few special circumstances, such as predicative structures, coordination and enumerations (Cohen 2007), can be explained by the lack of audible difference between singular and plural forms of nouns in French.<sup>125</sup> Number in the languages is realised not via morphology on the noun but on the determiner (Déprez 2005),<sup>126</sup> that is why a lexical determiner is required to manifest the plural. Mathieu (2009) also links the development of obligatory determiners in French to the loss of number marking on nouns. Catalan

<sup>125</sup>Most French nouns do not have a phonologically reliable number-marking, except for such nouns as, for example, *animal*(sg)/*animaux* (pl).

<sup>126</sup>Note that Cyrino and Espinal (2015) posit that number marking in Brazilian Portuguese is specified/interpreted on D (just like in French), and propose to extend this analysis for Catalan and Spanish. See also Cyrino and Espinal (2019).

and Spanish bare plurals can be considered the counterpart for French *des N* in object position (Vogeleer and Tasmowski 2006).

It is important to notice that not all verbs in Spanish and Catalan can take bare plurals with an existential reading as their internal arguments. The plural object NP has to have an overt determiner when it is combined with a psychological subject-experiencer verb (SEV), and it gets interpreted generically. This contrast is illustrated in (12).

(12) *Catalan*

a. Veig gossos.  
see.1SG dogs  
'I see dogs.'

*existential*

b. \*Adoro gossos.  
adore.1SG dogs

c. Adoro *els* gossos.  
adore.1SG the dogs  
'I adore dogs.'

*generic*

By contrast, in English and in Russian bare plurals are admitted in internal argument position of any type of verb. Consider the data in (13) and (14).

(13) a. I see dogs.

*existential*

b. I adore dogs.

*generic*

(14) a. Ja vižu sobak.

I see dogs.ACC

'I see dogs/the dogs.'

*existential/definite*

b. Ja obožaju sobak.

I adore dogs.ACC

'I adore dogs/the dogs.'

*generic/definite*

As shown in (12) - (14), the interpretation of objects of SEVs is different from the one that can be obtained in combination with other types of verbs. This group

of predicates triggers the generic reading of its internal argument, which implies maximality and inclusiveness, i.e., reference to a maximal sum of individuals (generic reference). Such predicates are discussed in the following section.

### 4.3 Subject-experiencer verbs and their internal arguments<sup>127</sup>

In this section I look at the interpretation of internal arguments of psychological subject-experiencer verbs (SEVs), which constitute a group of predicates found across languages that trigger either a generic or a specific interpretation of the nominal in their object position, while a non-specific interpretation is excluded.

#### 4.3.1 Cross-linguistic data

Psychological subject experiencer verbs (SEVs) comprise a semantic class of predicates cross-linguistically, even though the set of verbs belonging to this group may differ from language to language. Russian SEVs include *ljubit'* 'love', *nenavidet'* 'hate', *uvlekat'sja* 'be keen on', *ispytyvat' otvraščeniye* 'have aversion for', etc. Some of the verbs that belong to this group in English are *love*, *like*, *hate*, *detest*, *adore*, *admire*, *worship*, *despise* and *scorn*, while for Catalan the set would include, among other verbs, *estimar* 'love', *odiar* 'hate', *detestar* 'detest', *adorar* 'adore', *admirar* 'admire' and *menysprear* 'despise'.<sup>128</sup> In the languages under study all these verbs may

<sup>127</sup>The proposed analysis of arguments of SEVs is based on two papers: Seres and Espinal (2018) "Psychological verbs and their arguments". *Borealis – An International Journal of Hispanic Linguistics* 7.1, pp. 27–44. DOI: <https://doi.org/10.7557/1.7.1.4404>, and Seres and Espinal (2019a) "Internal arguments of psychological verbs and their interpretations". *Proceedings of the IX Nereus International Workshop "Morphosyntactic and semantic aspects of the DP in Romance and beyond"*. Ed. by Natascha Pomino. Vol. Arbeitspapier 131. Fachbereich Linguistik, Universität zu Konstanz, pp. 91-107, <http://nbn-resolving.de/urn:nbn:de:bsz:352-2-3xz11u94rw3g7>. Parts of this section were also presented as joint work with M.Teresa Espinal at the workshop "The role of parametric variation at the representation of meaning" (UAB) in 2018.

<sup>128</sup>For the meaning of 'love/like' Catalan also uses the dative-experiencer verb *agradar*, whose target-of-emotion (the syntactic subject, sometimes called 'quirky' subject) also needs to be expressed by a pronoun or a nominal, with either a generic or a definite reference. However, dative-experiencer verbs, which are found cross-linguistically, are outside the scope of this work.

trigger a generic interpretation of the object. Fábregas and Marín (2015: 183) make the following observation, regarding English and Spanish: “the theme argument of [SEVs] gets assigned a generic reading, which in English is manifested with a bare nominal and in Spanish forces the compulsory use of the definite article”. The same observation is valid for Catalan, as illustrated in (12b). An English example of a generic object of a subject-experincer verb is given in (13b). In Russian this generic interpretation is achieved by means of a bare plural nominal, as in (14b.)

Notice that bare singular nominals with a kind reading (Russian (15a), as well as definite nominals (apparently singular in both English (15b) and Catalan (15c)) are not allowed in object position of SEVs. The sentences in (15) cannot mean ‘I adore the dog, as a kind.’ The object of these sentences can only refer to a specific individual dog.

- (15) a. Ja obožaju sobaku.  
I adore god.ACC  
‘I adore the dog.’
- b. I adore the dog.
- c. Adoro el gos.  
adore.1SG the dog

Besides, it should be noted that SEVs also admit nominals with a specific definite or indefinite interpretation, while a non-specific interpretation is excluded (see Lawler 1973; Declerck 1987; Laca 1990; Krifka et al. 1995).

- (16) *definite specific*
- a. Ja obožaju sobak (v ètom dome).  
I adore dogs.ACC in this house
- b. I adore the dogs in this house.
- c. Adoro els gossos (d’aquesta casa).  
adore.1SG the dogs of.this house

- (17) *indefinite specific*

- a. Ja obožaju nekotoryx sobak.  
I adore some dogs.ACC
- b. I adore some dogs.
- c. Adoro uns/alguns gossos.  
adore.1SG some dogs

(18) *indefinite non-specific*

- a. #Ja obožaju kakix-nibud' sobak.  
I adore some dogs.ACC
- b. I adore some dogs, #but no particular ones.
- c. Adoro uns gossos que tenen pèl llarg/# que tinguin pèl llarg.  
adore.1SG some dogs that have.IND hair long that have.SUBJ hair long  
'I adore some long-haired dogs.'

Specificity manifests itself differently across languages (see 4.3.3). Examples in (18) show that a non-specific interpretation is excluded for objects of SEVs. In Russian, as illustrated in (18a), such verbs cannot admit objects with a *-nibud'* determiner, which can be considered a lexical marker of non-specificity (Pereltsvaig 2007; Geist 2008b; Ionin 2013; Yanovich 2015; Borik 2016). In English, which does not have a marker for non-specificity, the reference has to be to particular entities (that the speaker has in mind), as in (18b). In Catalan, the interpretation of the nominal can be distinguished by the mood inside the relative clause: the indicative signals a specific reading, while the subjunctive indicates a non-specific one (this test was proposed for Spanish in Rivero 1975, but can be applied to other Romance languages, as claimed in Leonetti 2012.) Example (18c) shows that only the indicative mood is possible in the relative clause, thus, the nominal is interpreted as specific.

In order to account for these observations and determine the nature of the restrictions on the interpretation of the internal arguments of SEVs, I present a brief overview of the previous accounts which discuss the interpretation of objects of SEVs. Then, I review the concepts behind genericity and specificity – the two pos-



sible readings of objects of SEVs, focusing on the affinity between them. Next, I look at the status of SEVs, as a class of verbs, aiming to determine if the constraints on the meaning of the internal arguments of SEVs may come from either the type of verb, the information structure of the sentence or the interplay of two or more of these factors, as was proposed in previous accounts (see Subsection 4.3.2).

The hypothesis that I defend in this section is that it is the type of verb that determines the interpretations that object arguments may have, although in some cases there is some sort of interplay with the context (e.g. the absence/presence of familiarity). Being psychological predicates, SEVs express a sort of relation between two individual entities that presupposes their existence. I show that the two arguments must be specific and identifiable (at least to the speaker). A generic interpretation, which is conceived as a reference to a maximal sum of instances of a kind (hence entailing inclusiveness), is triggered by the absence of a spatiotemporal localisation, which has been described in the literature as a characteristic of SEVs (Kratzer 1995, Glasbey 2006). Furthermore, I show that non-agentivity, as a characteristic of SEVs, may also play a role in establishing the above-mentioned restrictions on the interpretation of arguments of SEVs.

### 4.3.2 Previous accounts

The restrictions on the interpretation of nominals in object position of SEVs were first studied for English in Kanouse (1972), Lawler (1973) and Declerck (1987). The same phenomenon, albeit with regard to definite nominals in Spanish, was revisited by Laca (1990). To my knowledge, there is no consistent study devoted to the interpretation of internal arguments of SEVs in Russian.

The idea that I would like to argue for is that it is the lexical content of the verb that is responsible for the restrictions on the interpretation of objects of SEVs (i.e., the exclusion of the non-specific reading). This idea was first proposed in Kanouse

(1972) and Lawler (1973).

Declerck (1987), in his turn, claims that the interpretation of the object, regardless of the verb, depends on whether the relevant set is restricted or not. A generic interpretation arises when the set is unrestricted, neither contextually nor pragmatically.

With reference to Spanish, Laca (1990) suggests that the saliency of a generic reading (which she calls “inclusive”) and the exclusion of an existential reading (“non-inclusive”) for the direct object is explained by the interplay of semantic and pragmatic factors. First of all, a crucial factor is the absence of any sort of spatiotemporal anchoring, which is characteristic of generics (see Section 1.5). Second, what plays a role is the lexical content of the verb itself. Being non-agentive, psychological verbs, unlike other types of verbs cannot select a part of the set of individual instances; the eventuality, expressed by the verb, is applied to all instances as a whole (i.e., the inclusive/generic set). Third, another important factor that Laca (1990) identifies is the information structure of the sentence. Only non-focal objects, according to her theory, are interpreted as “inclusive” (i.e., generic).

The importance of the topic vs. focus distinction for the interpretation of English bare plurals was also pointed out in Krifka et al. (1995) and Cohen and Erteschik-Shir (2002), among other authors. According to these researchers, topical bare plurals are interpreted generically, while focused bare plurals are interpreted existentially. Notice, however, that these studies are applied to nominals in subject position, but they cannot account for the above-mentioned restrictions on the interpretation of objects of SEVs, which must be associated with a generic interpretation, even if they are focused, as illustrated in (19). So, the obligatory requirement for generic objects to be topics seems to be empirically incorrect. Cohen and Erteschik-Shir (2002) claim that, even though objects of SEVs are not topics, they are *topic-like* because they are presupposed (as opposed to objects of such verbs as

*know, own, etc.*).

- (19) -What does John hate?  
-John hates [dogs]<sub>F</sub>

The proposal defended in this work is that it is the lexical content of SEVs, not the information structure, that puts restrictions on the interpretation of their objects.

### 4.3.3 Possible interpretations of objects of SEVs

As pointed out in Section 4.3.1, objects of SEVs must be either generic or specific. In this subsection, I look at these two possible readings in detail, showing that they share two characteristics: the presupposition of existence of the referent and the identifiability of the referent. Under both a specific and generic interpretations, the referent does not have to be anaphoric or previously mentioned in the discourse. Nevertheless, it must be stressed that the referent is never novel and it can always be established from the background knowledge of the speaker. I also define the limits that differentiate between the specific and generic interpretations.

#### Genericity

An important feature of generic nominals that was discussed in Subsection 3.5.4 is maximality/inclusiveness/totality, conceived as reference to all members of the kind in the present actual world, but also those living in the past or in the future, and even those existing in imaginary or counterfactual worlds. The interpretation of a sentence that contains a generic NP is not pragmatically or contextually restricted to a bounded domain, depending on interpretative rules which require that the information conveyed by an utterance be maximised (see the maximal-set principle and the inclusiveness principle, Declerck 1991: 83-84, discussed in Subsection 3.5.4).

The idea that internal arguments of SEVs refer to a totality of objects goes back to Lawler (1973) who claimed that *Harry hates toads* is normally interpreted as *Harry hates all toads*. If the speaker wanted to use the non-inclusive interpretation, she would use *some toads*. Lawler calls this kind of reading *toto-generic*,<sup>129</sup> as opposed to the *parti-generic* reading of NP objects of non-SEVs, such as *Harry drinks coffee* or *Harry eats cherries*. In this work, I consider the *parti-generic* reading existential, contrasting it with a generic reading of plural nominals. According to the hypothesis defended in this thesis, only nominals with a *toto-generic* reading denote a kind, by referring to the whole set of individual objects that instantiate this kind.

The question that arises in relation to the above-mentioned distinction is how a generic (inclusive) and non-generic (non-inclusive) interpretations of plural nominals can be distinguished in object position, as in English and in Russian both the readings are encoded by means of bare plurals. In Section 3.3.1 of the previous chapter I used a test proposed in the literature (see Lawler 1973; Laca 1990; Krifka et al. 1995) to distinguish between kind-referring and individual-referring NPs of bare plural NPs. This test relies on monotonicity effects in upward-entailing contexts: individual-referring NPs can be replaced by “less informative” NPs without rendering the sentence false, while this is not possible for generically interpreted NPs. This test is valid for nominals in subject position (as shown in (28) of Chapter 3), which have been studied in much greater detail in the literature, but it is valid as well for nominals in object position, as illustrated in (20). The same applies to Russian, as illustrated in (21).

- (20) a. I see Berber lions.  $\Rightarrow$  I see lions. *existential*  
       b. I love Berber lions.  $\nRightarrow$  I love lions. *generic*
- (21) a. Ja vižu amurskix tigrov.  $\Rightarrow$  Ja vižu tigrov.  
       I see Siberian tigers.ACC I see tigers.ACC

<sup>129</sup>The terms *toto-generic* and *parti-generic* were coined by Christophersen (1939: 33-35).

- b. Ja ljublju amurskix tigrov.    ≠ Ja ljublju tigrov.  
 I love Siberian tigers.ACC    I love tigers.ACC

Another test that allows to establish the distinction between generic and existential readings of bare plurals is passivisation (Krifka et al. 1995: 71-72). Sentences with generically interpreted nominals can be passivised without causing any change in their truth conditions, while sentences with an existential reading cannot.

- (22) a. Mary hates cigarettes. ⇒ Cigarettes are hated by Mary.  
 Intended meaning: All (kinds of) cigarettes are hated by John.  
 b. Mary smokes cigarettes. ≠ Cigarettes are smoked by Mary.  
 It cannot mean: All (kinds of) cigarettes are smoked by Mary.

Furthermore, Krifka et al. (1995: 73) posit that the default interpretation of a bare plural NP in English is the existential one,<sup>130</sup> and the definite/generic interpretation (which can be conceived as entailing maximality) is coerced by additional means, for instance, by the type of verb or by the type of sentence.

As far as Romance languages are concerned, Laca (1990: 37) suggests that inclusive vs. non-inclusive readings of plural nominals are distinguished by an alternation between a definite vs. a bare NP in object position. The same alternation is found in Catalan and French, the latter being a language where an alternation between a definite and an indefinite determiner is required. Consider the data in (23) from Spanish. A subject-experiencer verb obligatorily requires a definite plural nominal.<sup>131</sup>

<sup>130</sup>See also Heim's (2011) hypothesis about the default indefinite interpretation of bare nominals in articleless languages discussed in Subsection 5.5.4.

<sup>131</sup>Notice that the same contrast is found in some other typologically unrelated languages, such as Greek, Bulgarian and Macedonian.

- (i) *Macedonian*  
 a. Gi            sakam    kučinjata.  
    CL.ACC.PL love.1SG dogs.the  
    'I love dogs.'  
 b. Imam        kučinja.  
    have.1SG dogs

- (23) *Spanish* *generic*
- a. Detesto *las cerezas*.  
hate.1SG the cherries  
'I hate cherries./I hate the cherries [that we are talking about].'
- existential*
- b. Como *cerezas*.  
eat.1SG cherries.  
'I eat cherries.'

This contrast, described in Laca (1990: 27, ex. 6b, 6d), shows that definite plurals in Romance get the generic (inclusive) interpretation (23a), while bare plurals get the existential (non-inclusive) one (23b). Such an analysis is in line with the hypothesis that the interpretation of definite plurals in Romance corresponds to a maximal sum of individuals (Borik and Espinal 2015), while bare plurals are construed as referring merely to a plurality of individual entities.<sup>132</sup>

Lyons (1999) relates the generic interpretation of definite plural expressions to the inclusiveness element in definiteness (cf. Sharvy 1980, Link 1983 for definiteness as totality/maximality in English), explaining that the domain in which inclusiveness applies may be restricted (definite reading) or not restricted (generic

- 
- 'I own dogs.'
- c. Gledam *kučinja*.  
see.1SG dogs  
'I see dogs.'

In (ia) definiteness is marked by means of a postnominal definite article. Moreover, there is an additional definiteness marker – the clitic *gi* in the accusative case, which is obligatory for sentences with definite nominals in direct object position in Macedonian.

<sup>132</sup>In this work, I only take into consideration count nouns. However, it should be noted that mass nouns behave similarly. Thus, as illustrated in (i), the definite article is required in Romance for mass nominals in object position of a psychological predicate, such as *odiar* 'hate', but not in object position of a non-SEV such as *menjar* 'eat'. In English mass nouns appear bare in object position of all kinds of verbs (see the English translations in (i)).

- (i) *Catalan*
- a. Odio *la pizza*.  
hate.1SG the pizza  
'I hate pizza.'
- b. Menjo *pizza*.  
eat.1SG pizza  
'I eat pizza.'

reading) pragmatically. Thus, the example in (24) shows that the definite plural in object position of *detestar* 'hate' can sometimes be interpreted specifically (i.e., as referring to a maximal sum of individuals available to the speaker in a particular context). This set is contextually restricted by a relative clause that anchors the interpretation of the sentence to a certain space and time, making it impossible for the definite nominal to be interpreted as referring to a generic (unbounded) set.

(24) *Spanish*

Detesto las cerezas que se venden aquí. *specific*  
 hate.1SG the cherries that CL sell.3PL here

'I hate the cherries that are sold here.'

As for French, where bare plurals are generally excluded from argument positions (see Subsection 3.3.2 and Subsection 4.2.2), the contrast between the two readings is manifested with the help of different types of determiners: the definite article for a generic/specific interpretation of the plural nominal (26a), and the indefinite (so-called partitive) determiner for an existential (non-inclusive) reading (26b).<sup>133</sup>

(25) *European Portuguese*

- a. Odeio cerejas.  
 hate.1SG cherries
- b. Odeio as cerejas (no prato).  
 hate.1SG the cherries on.the plate
- c. Como cerejas.  
 eat.1SG cherries

<sup>133</sup>Although European Portuguese is outside the scope of this thesis, it is interesting to notice that among Romance languages this language shows a different kind of distribution for definite plurals in object position. In this language SEVs admit bare plurals in object position (25a), but only with a generic interpretation, while overt definite plurals (25b) are only interpreted as referring to specific individuals. (25c) illustrates the existential reading of the bare plural object. In this respect European Portuguese appears to be closer to English than to other Romance languages, because bare plurals are interpreted generically in object position of SEVs (25a), or existentially in object position of s-level predicates (25c). I would like to thank P. Barbosa for pointing out this phenomenon.

- (26) *French* *generic/specific*
- a. Je déteste les cerises.  
I hate the cherries.  
'I hate cherries.'  
  
or 'I hate the cherries [that we are talking about].'
- b. Je mange des cerises. *existential*  
I eat PART cherries  
'I eat cherries.'

Finally, in Russian, a language without articles, the generic or specific interpretation of objects of SEVs is generally distinguishable with the help of the discourse context. In the absence of anaphoricity and spatiotemporal localisation, bare plural nominals in object position of SEVs are interpreted generically, as illustrated in (27a). In (27b), in contrast, the object of the SEV is co-referent with the entities defined by the proper names in the previous sentence (*Murka and Dymka*), and anchored to a certain location (*at home*). Hence, in this case the discourse context makes salient the interpretation of the bare plural object *košek* 'the cats', providing it with a definite (i.e., specific) reading (cf. von Heusinger (1996) for definiteness as salience).

- (27) a. Maša ljubit košek. *generic*  
Masha loves cats.ACC  
'Masha loves cats.'
- b. Context: At home we have two cats, Murka and Dymka. *generic/specific*  
Maša ljubit košek, ona provodit s nimi mnogo vremena.  
Masha loves cats.ACC, she spends with them much time  
'Masha loves the cats, she spends lots of time with them.'

In contrast to SEVs (as exemplified by *ljubit* 'love' in (27a)), there is also a subgroup of psychological predicates in Russian that put even more restrictions on its



object,<sup>134</sup> <sup>135</sup> admitting only bare plurals and only with a generic interpretation. These predicates can either be non-verbal (such as *byť ljubitelem* + GEN.PL ‘be a lover of’, *byť oxotnikom do* + GEN.PL ‘be a lover of’ lit. ‘be a hunter for’, *byť znatokom* + GEN.PL ‘be a connoisseur of’), or verbal (such as *uvlekat’sja* + INSTR.PL ‘be fond of’, *razbirat’sja v* + PREP.PL ‘have a good understanding of’, etc.), and they require a complement in a non-accusative case.

- (28) a. On byl ljubitelem sobak.        /#sobaki.        /#Reksa.  
          he was lover        dogs.GEN.PL /dog.GEN.SG /Rex.GEN.SG  
          ‘He was a lover of dogs.’
- b. On razbiraetsja                        v sobakax.        /#v sobake.        /#v  
          he has.a.good.understanding in dogs.PREP.PL /in dog.PREP.SG /in  
          Rekse.  
          Rex.PREP.SG  
          ‘He has a good understanding of dogs.’

### Specificity

First of all, it is important to clarify what specificity is. This kind of interpretation can be understood as a referential property of nominal expressions that cuts across the distinction between definiteness and indefiniteness. While definiteness is associated with uniqueness (Frege 1879; Strawson 1950, and others) and/or familiarity (Christophersen 1939; Heim 1982, and others), specificity is associated with the accessibility of the referent (von Heusinger 2002). It basically characterises the

<sup>134</sup>Note that such predicates are found not only in Russian, see, for example, English *to be a connoisseur of*, which admits only plural nominals with a generic reference.

<sup>135</sup>It is important to point out that such predicates admit abstract and mass nouns as objects. In general, it can be seen that in Russian abstract and mass nouns behave similar to bare plurals (see Link 1998 who stresses the structural similarity between plural denotation and homogeneous mass denotation in terms of concepts from lattice structure). The same patterns are found in other languages.

- (i) On byl ljubitelem poezii.        / vina.  
       he was lover.INSTR poetry.GEN / wine.GEN  
       ‘He was a lover of poetry/wine.’

presence or absence of reference to a specific individual fitting the description contained in the NP.

In general, definite nominals, including proper names, are considered to have a specific reference, with the exception of weak definites.<sup>136</sup> Indefinites, however, can be either specific or non-specific. This specificity contrast, characteristic of indefinites, can be described in terms of a commitment to the existence of the referent of the nominal expression. In a specific reading, the individual referred to by the NP must exist (though it may belong to a set of potential referents), while in the non-specific reading there need not be any such entity. This semantic contrast is also reflected in scopal interactions within a sentence. Specific NPs generally have a wider scope than the other scopal expression that may appear in a sentence (Fodor and Sag 1982; Enç 1991, and others), as illustrated in (29).

(29) Mary didn't find a serious error in the paper.

a. *specific (wide scope)*

Interpretation: There was a serious error in the paper and Mary failed to find it.

b. *non-specific (narrow scope)*

Interpretation: Mary didn't find any serious errors. Perhaps there weren't any.

In terms of pragmatics, specificity may be conceived as identifiability via discourse-linking (von Heusinger 2002). Thus, specific indefinites are close to definites, sharing with them the identifiability of the referent. However, unlike definites, specific indefinites are not part of the common ground with the hearer (Borik 2016; Dayal 2017b). To say it in a more informal way, a specific nominal is known to the speaker,

<sup>136</sup>Weak definites, which are outside the scope of this work, are called "weak" because, unlike regular definites, there is no requirement for the definite NP to have a unique, specific referent. For more information on weak definites see Carlson et al. (2005); Schwarz (2009); Espinal and Cyrino (2017a,b), and others.

but not to the listener, while a non-specific indefinite nominal is unknown to both the participants in an act of communication. Another difference between specific indefinites and definites is that they are generally non-anaphoric, i.e., there is no requirement for them to refer to a previously mentioned or introduced discourse referent (Borik 2016). Specific indefinites are also not unique.

It should be noted that some languages may have lexical means to encode (non)-specificity. Russian, for instance, which does not express definiteness as a grammatical category in a strict sense, uses lexical means to express specificity (Pereltsvaig 2007; Geist 2008b; Ionin 2013; Yanovich 2015; Borik 2016). Thus, the so-called “indefinite pronouns” (Russian Grammar-80, Švedova 1980) *odin* ‘one’ and *kakoj-to* ‘some’ mark specificity (30a), while *kakoj-nidud’* ‘some’ conveys non-specificity (30b) (Borik 2016: 15, ex. 11b, c). However, it should be noted that such specificity markers are not obligatory in Russian, therefore, bare nominals are underspecified for specificity (Borik 2016) and their potential reference is established contextually.<sup>137</sup>

- (30) a. Maša xočet vyjti zamuž za kakogo-to / odnogo izvestnogo  
 Masha wants go.out married for some one famous  
 bankira.  
 banker  
 ‘Masha wants to marry a/some/one famous banker.’ (there is a specific  
 banker)
- b. Maša xočet vyjti zamuž za kakogo-nibud’ izvestnogo bankira.  
 Masha wants go.out married for some famous banker  
 ‘Masha wants to marry a/any famous banker.’ (there is no specific  
 banker)

It is crucial to see that SEVs disallow the appearance of non-specific nominals in

<sup>137</sup>Note that in English the interpretation of an indefinite may be disambiguated in favor of a specific reading by means of the adjective *certain*.

(i) Mary wants to marry a certain banker.

their object position, as was illustrated above in (18).

I have reviewed the most important concepts behind specificity as a type of reading that nominals may have cross-linguistically, regardless of the presence or absence of means for its overt encoding in a given language. The most important characteristics of specificity are the presupposition of existence (a semantic property) and the identifiability (a pragmatic property) of the referent of the NP. Genericity, as was shown in Subsections 3.5.5 and 3.5.6, is also characterised by the aforementioned properties: the existence of kinds to which generics refer is presupposed in the background knowledge of the speaker, thus, making them identifiable.

In this subsection, I have shown that SEVs only allow objects with a specific or a generic interpretation. These two readings have certain affinity between them: they both presuppose the existence of the referent and they both imply that the referent is not novel. Even though objects of SEVs need not have been openly mentioned in the preceding discourse, they are present in the background knowledge of the speaker and are thus pragmatically identifiable. The generic reference for plural nominals also presupposes maximality, i.e., reference to all instantiations of the kind.

The relevant question that remains to be discussed is what makes SEVs select for objects with such interpretations. In order to answer this question, I look at some of the previous accounts regarding the interpretations of objects of SEVs and the characteristics of SEVs as a type of verb.

#### **4.3.4 SEVs as a type of verb**

As was mentioned in Subsection 4.3.1, although psychological subject-experiencer verbs are found cross-linguistically, there are no strict criteria that define what they are. In this subsection, I focus on the characteristics of these verbs with an intention

to figure out the set of properties of SEVs that influence the interpretation of their internal arguments. The most relevant characteristics of SEVs mentioned in the literature are discussed below.

### **SEVs are psychological verbs.**

First and foremost, it should be stated that SEVs are transitive predicates, which means that they introduce a relation between two arguments. The two arguments are related by means of a mental state, expressed by the predicate, which is why these predicates are called “psychological” (Fábregas and Marín 2015; Seres and Espinal 2018). Thus, the existence of two individual entities is presupposed (see also Cohen and Erteschik-Shir 2002). As Laca (1990: 39) puts it, if an individual reports having an emotional relationship with something, for example, loving or hating it, then that individual is at the very least prepared to accept the existence of that thing.

The external argument is the Experiencer,<sup>138</sup> which must be animate and also sentient and conscious of the mental state (Dowty 1989; Fábregas and Marín 2015: 258). Taking into account the nature of the relationship between the two arguments of SEVs, it would be logical to suggest that the Experiencer can only be an individual that is capable of experiencing different psychological states.

The internal argument, conceived as the Target/Subject-Matter-of-Emotion (Petersky 1995), is an individual that can be either animate or inanimate. Moreover, it must be familiar to the other participant in the psychological relationship (i.e., the Experiencer). That is why non-specific nominals are blocked in this position, as was illustrated in (18).

As far as generics are concerned, only plural generic nominals that refer to

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<sup>138</sup>This external argument can be nominative, but it can be also dative (cf. Class I and Class III in Belletti and Rizzi 1988). Dative experiencers are outside the scope of this work, however, I predict the same semantics for such arguments.

kinds indirectly, denoting a sum of individuals, can be found in this position, but not definite kinds (as illustrated in (15), as they refer to abstract concepts, not individuals, and thus, cannot be the Target/Subject-Matter-of-Emotion in terms of Pesetsky (1995).

**SEVs are non-agentive.**

Laca (1990: 40) claims that SEVs are non-agentive predicates, in the sense that their subject (the Experiencer) does not control the state designated by the verb, so they cannot combine with agent-oriented adverbs such as *carefully*, *premeditatedly*, *conscientiously* or *accidentally*.

(31) #Mary carefully loves cats.

According to Laca (1990: 40-42), non-agentivity precludes any selection among individual instances in object position, which can be taken as the feature that promotes the inclusive (i.e., generic) reading of plural objects of SEVs (see Subsection 4.3.3). The emotion expressed by the verb cannot be targeted at a part of the set of individual entities; it must target the whole set, as the Experiencer cannot deliberately choose the individuals at which the action is applied. The thematic role of Experiencer is characterised by the absence of volition, as contrasted with Agent, a proto-role, which, according to Dowty (1991: 572), is described as being volitionally involved in an event or state.

Compare the examples from Laca (1990: 42) with the verbs 'love' (non-agentive) and 'beat' (agentive): "If John beats small children, he can choose which individual small children within beating distance he will beat or not [...] But if he hates small children, there's nothing for him to choose about."

- (32) a. John beats small children.  $\neq$  John beats all small children.  
 b. John hates small children.  $\sim$  John hates all small children.

It should also be noted that some verbs that are included in the semantic class of SEVs (e.g. *frighten*, *scare*, *disturb*, *upset*) may have two readings, one agentive, the other non-agentive, as illustrated in (33) (example from Laca 1990: 41, ex. 46a,b).

- (33) a. John frightens children (by putting on an Australian mask).  
 b. John frightens children (because of the scar on his face).

In (33a) the action is deliberate, hence agentive, and the interpretation of the object is existential, while in (33b) the verb has a non-agentive reading and the object is interpreted generically.

Non-agentivity may also play a role in the rise of an inclusive (generic) interpretation on plural objects of verbs other than SEVs. In such cases the subject is generally inanimate (and, thus, unable to produce a deliberate action). According to Laca (1990: 40, ex. 43-45), the inclusive reading of the object is the most salient or the only possible in (34b), (35b) and (36b).<sup>139</sup>

- (34) a. Mary bleaches cotton garments.  
 b. The sunlight bleaches cotton garments.
- (35) a. Bill kills mice.  
 b. Cyanide kills mice.
- (36) a. Henry pierces stones.  
 b. Dripping water pierces stones.

As expected, in Romance languages the inclusive (generic) object will be expressed by a definite plural, while the non-inclusive one by a bare plural. See the contrast between the Catalan examples in (37a), (38a) and (39a) vs. (37b), (38b) and (39b).

- (37) a. La Mary blanqueja peces de cotó.  
 the Mary bleaches garments of cotton

<sup>139</sup>I would like to thank Josep Ausensi for drawing my attention to such examples and for providing his native speaker's judgments on the Catalan examples.

- b. El sol blanqueja *les* peces de cotó.  
the sun bleaches the garments of cotton
- (38) a. En Bill mata ratolins.  
the Bill kills mice
- b. El cianur mata *els* ratolins.  
the cyanide kills the mice
- (39) a. En Henry perfora pedres.  
the Henry pierces stones
- b. L'aigua que degota perfora *les* pedres  
The water that dripps pierces the stones

The examples of non-SEVs show that the change in agentivity of the verb may indeed influence the interpretation of the object. If the verb is interpreted as non-agentive, it favours the inclusive (generic) interpretation of the plural nominal in object position. Thus, SEVs being non-agentive also trigger such a type of interpretation of their internal arguments.

#### **SEVs are stative.**

Another important characteristics of SEVs is that, being psychological predicates, they belong to the class of stative verbs. They denote pure and homogeneous states because they do not introduce any (left or right) aspectual boundary (Fábregas and Marín 2015: 208). Thus they simply express a state without boundaries. They have the following characteristics of stative verbs, being incompatible with:

- (i) the progressive periphrasis (40) (Fábregas and Marín 2015: 184, ex.29a);

(40) *Spanish*

\*Juan está amando a María.  
Juan is loving DOM María

Intended reading: 'Juan is loving María right now'



(ii) adverb modifiers that apply to the dynamic part of an event (e.g. *lentamente*, *poco a poco* ‘slowly’) (41) (Fábregas and Marín 2015: 178, 13b);

- (41) \*Juan detesta a María poco a poco.  
 Juan hates DOM María slowly

(iii) temporal modifiers whose general goal is to highlight the starting point of an eventuality (e.g. *tan pronto como* ‘as soon as’) (42) (Fábregas and Marín 2015: 181, ex.23a);

- (42) ??Tan pronto como admires a tu hermano, nos vamos.  
 As soon as admire DOM your brother CL.1PL go

(iv) temporal quantification (e.g. *cada vez que*, *siempre que* ‘whenever’) (43) (Fábregas and Marín 2015: 183, ex.25b);

- (43) \*Cada vez que odia las películas de terror, se va del cine.  
 every time that hates the movies of horror CL.3SG goes from.the cinema

(v) locative modifiers (cf. Kratzer 1995) (44) (Silvagni 2017: 458, ex.1b).

- (44) \*Ana adora a su perro en su casa.  
 Ana loves DOM her dog in her house

It is important to point out that exactly the same restrictions as described above for Spanish apply to English. All of them are also found in Russian, except for (i), as there is no progressive periphrasis in Russian. See the Russian equivalents of (41)-(44) in (45)-(48).

- (45) \*Ivan medlenno nenavidit Mariju.  
 Ivan slowly hates Maria.ACC

- (46) ??Kak tol’ko ty vosxitišsja bratom, my ujdëm.  
 as only you admire.PF brother.INSTR we leave

- (47) \*Každyi raz, kogda ona nenavidit filmy užasov, ona uxodit iz kino.  
 every time when she hates films horrors.GEN she leaves from cinema

- (48) \*Anna obožuet svoju sobaku doma.  
Anna adores her dog.ACC at.home

However, none of these properties can account for the restrictions on the interpretation of objects of SEVs as opposed to other statives (but not SEVs). Consider examples (49) and (50) from Cohen and Erteschik-Shir (2002: 156, ex.99a,b).

- (49) John hates lawyers. *generic*  
⇒ John hates all (kinds of) lawyers.
- (50) John knows lawyers. *existential*  
⇒ John knows some lawyers.  
≠ John knows all lawyers.

The contrast between stative SEVs and non-SEVs may be related to some other relevant property of SEVs, i.e., them being presuppositional.

### **SEVs are presuppositional.**

The important observation with regard to the contrast between (49) and (50) is that the object position of SEVs is not particularly well-suited to introduce new discourse referents whose existence is asserted in a sentence. The lack of an existential reading in objects of SEVs is explained by Cohen and Erteschik-Shir (2002) with the claim that these verbs are presuppositional. Dobrovie-Sorin and Beyssade (2012: 164) suggest that such verbs are entity-predicates and give rise to presuppositionality effects regarding the object, without it being a topic.

Cohen and Erteschik-Shir (2002) use the notion of presupposition in relation to the intuition that *hating x* presupposes *knowing x*, as, for instance, *lawyers* in (49). Their hypothesis suggests that one needs to have an idea of what something is in order to have some kind of emotional attitude towards it. Thus, the object nominal (which is the Target-of-emotion) has to be identifiable. In the case of generically interpreted plurals, the referent forms part of the conceptual knowledge of the

speaker.<sup>140</sup> In the case of specific nominals, they are familiar to the speaker (but not necessarily the listener). In both cases, they do not have to be anaphoric.

Following Cohen and Erteschik-Shir (2002)'s idea that objects of SEVs are presupposed, I suggest that the presupposition of existence arises not due to the information structure of the sentence but rather due to the lexical characteristics of SEVs as a semantic class of verbs. They express a psychological relation between two individual entities whose existence is presupposed in order to establish this relation.

### **SEVs are individual-level predicates.**

SEVs have been claimed to be individual-level predicates (Fábregas and Marín 2015), introducing properties that are true throughout the existence of an individual (see Section 1.6). According to Kratzer (1995: 126), such predicates are different from stage-level ones in that they lack an extra argument position for events or spatiotemporal locations, the so-called Davidsonian argument (Davidson 1967). This does not necessarily mean that they have to be conceived as a permanent situation, but it means that they cannot describe particular events or happenings. That is why sentence (51) is still licensed with SEVs, even though it does not presuppose any particular event of hating.

(51) The moment she left the room, she hated men.

This lack of an event argument is characterised by Glasbey (2006) in syntactic terms by means of a [-e] feature and is associated in semantic terms with the lack of existential reading for bare plural objects in English (Glasbey 2006: 144). According to Cohen and Erteschik-Shir (2002), SEVs represent a semantic class of psychological predicates that lack spatiotemporal anchoring force.

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<sup>140</sup>It is important to recall here that the same pragmatic effect is found when plural nominals in subject position are interpreted generically (see Subsection 3.5.5).

Glasbey (2006) claims that predicates such as *like*, *love* or *hate* generalise over eventualities and serve to generalise over individual (*liking*, *loving*, or *hating*) experiences of the subject entity. However, this approach does not account for the restrictions that SEVs impose on the interpretation of their objects, as the property of being i-level concerns the subject that the predicate selects and does not necessarily apply to objects. As a result, it cannot explain the particular behaviour of their objects, that is, the obligatory reference to either generic plural entities or specific individuals.

Nonetheless, the absence of spatiotemporal anchoring is a feature that distinguishes SEVs (52) from stage-level predicates (53), and makes possible the rise of a generic interpretation (see Section 1.5).

(52) I hate cherries. *generic*

(53) I eat cherries. *existential*

The referents of the object NP in (53) must share the spatiotemporal position of the referents of the subject NP. One cannot eat what is in a different place or existed (or will exist) at a different time. Thus, the set of referents of the object NP is pragmatically restricted by the same temporal and spatial restrictions that hold for the subject (Declerck 1987: 149). By contrast, the interpretation of plural internal arguments of SEVs as generic, as in (52), is (at least, partly) due to the fact that the situation denoted by the verb is not tied to any spatiotemporal event.

### **SEVs are intensional predicates.**

According to Carlson (1977b: 190), psychological predicates, such as *fear*, *worry about*, *love* or *despise*, create an intensional context for their objects, so that their existence does not follow, which makes it possible for plural nominals (as sums of individuals) to be reinterpreted as referring to a kind. However, the specific

reading of nominals in this position is not excluded either. In a later article Carlson (2011: 1170) admits that objects of SEVs may have not only generic readings but also individual ones.

Such verbs are considered to belong to a class of intensional transitive predicates and contrast with extensional predicates (e.g. *see*) den Dikken et al. (1996). Intensional predicates (e.g. *love*) admit complements that do not denote real objects, but do not yield falsity of the whole proposition. Furthermore, unlike other intensional transitive verbs, such as *search*, *look for*, *need*, *want* or *desire*, SEVs do not admit complements with non-specific readings (Moltmann 1997; Forbes 2013), which is in line with the hypotheses that SEVs presuppose the existence of two individual entities, the Experiencer and the Target-of-Emotion, as illustrated in (54).

- (54) a. #Jane loves a dog, but not any dog in particular.  
 b. Jane wants a dog, but not any dog in particular.

It is also important to note that unlike other intensional verbs, SEVs trigger the inclusive (generic) reading of their objects. In (55) the bare plural nominal *dogs* is interpreted as indefinite non-specific, while in (56) it is interpreted as generic.

- (55) I search for dogs.  $\nrightarrow$  I search for all dogs.  
 (56) I love dogs.  $\Rightarrow$  I love all (kinds of) dogs.

#### 4.3.5 Summing up

The interpretation of internal arguments of SEVs is the same in Russian, English and Romance. Such verbs constrain cross-linguistically the possible readings of their internal arguments: objects of SEVs are interpreted as either specific or generic, while NPs that encode a non-specific interpretation are excluded from this position.

I have shown that there is a strong affinity between the specific and the generic readings of objects of SEVs, in the sense that under both readings the existence of a referent is presupposed, and, moreover, this referent must be identifiable at least to the speaker.

The restrictions on the interpretation of objects of SEVs originate from the nature of the relation expressed by these verbs, which is a psychological relation between two individual entities, the Experiencer and the Target-of-Emotion, both of which need to exist in order for the relation to be established. The inclusive reading of plural objects of SEVs arises due to the non-agentivity of these verbs, i.e., the emotion expressed by the verb cannot target at a part of a set of individuals, it applies to the whole set. The generic interpretation, conceived as reference to a maximal sum of individuals, is triggered in bare plural nominals in English and Russian and in definite plurals in Romance due to the lack of spatiotemporal localisation and anaphoricity. Otherwise, the object is interpreted specifically.

#### **4.4 The interpretation of objects in characterising sentences**

In the previous sections, I showed that plural nominals in object position may have different types of interpretation. A generic reading appears on plural nominals (bare in English and Russian, and definite in Romance) in internal argument position of subject-experiencer verbs, when the domain is not semantically or pragmatically restricted. In combination with other types of verbs, interpretations depend on the absence vs. presence of the definite article in languages with articles, i.e., plural nominals preceded by a definite article are interpreted definitely, while bare plurals are interpreted existentially. In Russian, where all nominals appear without articles, the interpretation of objects of non-SEVs depends on the discourse context, i.e., the presence vs. absence of anaphoricity or spatiotemporal anchoring.

In this subsection, I discuss another important factor in determining the inter-

pretation of bare plurals in object position, which is the type of sentence in which they occur. In episodic and non-characterising habitual sentences, the object may have either a definite or an indefinite reading, while in characterising sentences the object is weakly referential or non-referential, that is, it does not introduce a discourse referent, but denote a property (type  $\langle e, t \rangle$ ) (Carlson 2003; Aguilar-Guevara et al. 2014, among others).

Before analysing the interpretation of objects in characterising sentences, I briefly recapitulate some properties of these sentences, relevant for the interpretation of the nominals they contain in object position (characterising sentences were discussed in detail in Section 1.5). Characterising sentences are the ones that describe a property of the subject, but not an event or situation. They are contrasted with episodic sentences that describe particular events or situations. There are also habitual sentences that generalise over a given event, suggesting that it happens usually, ordinarily, customarily. Habitual sentences may be characterising (Krifka et al. 1995) if they provide “essential”, not “accidental” information on the nature of the subject entity. So, the habitual sentence in (57a) can be interpreted as a characterising one in (57b), but may also have a non-characterising interpretation, making (57c) possible.

- (57) a. Mary smokes cigars.  
 b. Mary is a smoker.  
 c. Mary smokes cigars, but she is not a smoker.

Some sentences taken out of the context may be ambiguous between characterising, habitual and episodic (Carlson 1977a), as illustrated in (58). *Kelp-eating* can be understood as a characteristic of dinosaurs (and give rise to lifetime effects) or as usual activity of some dinosaurs or as a past event. This sentence may also be meant as a claim either about *dinosaurs that ate kelp* or as a claim about *kelp that was eaten by dinosaurs*.

(58) Dinosaurs ate kelp.

Characterising sentences introduce a characterising property of the external argument. Espinal and McNally (2011: 101) explain what it means for the predicate to denote such a property. According to them, a characterising property is not necessarily prototypical, stereotypical or institutionalised, but it has to be “relevant in the context to distinguish between whether or not an individual has the property in question”. Thus, the distinction between characterising and non-characterising interpretation of sentences may be context-dependent.

#### 4.4.1 Weak referentiality

In the previous chapter, I showed that characterising sentences are an environment, in which plural nominals (bare in English and Russian (59b), and definite in Romance) are interpreted generically in subject position. Moreover, definite kinds may occupy the subject position of such statements (59a), in which case the sentence ascribes an essential property to a kind, while in the case of plural nominals the property is ascribed to all relevant representatives of a kind. In this subsection, I focus on the interpretation of the object when the whole sentence is interpreted as characterising.

- (59) a. Sobaka est kosti.  
           dog    eats bones  
           ‘The dog eats bones.’
- b. Sobaki edjat kosti.  
           dogs  eat  bones  
           ‘Dogs eat bones.’

I propose that in the cases presented in (59), where subjects are kind-referring or generic, there is the following correlation between the interpretation of the subject and the object nominals: if the subject refers to a kind (directly or indirectly), the



object cannot have a definite or an indefinite reading. If a kind, being an abstract entity, does not exist in space or time (see Subsection 1.3.2), then it is logical to suppose that the object of the same sentence cannot denote a real non-abstract entity either, as both are involved in a certain relationship expressed by a predicate. That is, it is not possible for dogs as a kind to eat bones that exist in the real world in the sentence, like *Dogs eat bones*. Existence in the real world means that the entity is localised in space and time. If there is spatiotemporal anchoring in a sentence (e.g. locative or temporal adjuncts; progressive or perfective aspect on the verb, etc.) both of the arguments get either a definite or an indefinite reading, but never a generic one, as illustrated in (60). And the whole sentence cannot be interpreted as characterising any more.

- (60) Sobaki edjat kosti na kuxne.  
 dogs eat bones on kitchen.PREP  
 ‘The/Some dogs eat the/some bones in the kitchen.’ or ‘The/Some dogs  
 are eating the/some bones in the kitchen.’

It is important to point out that the object is expressed by a bare plural nominal not only in Russian and English (see the Russian example (59b) and its translation into English), but also in Romance languages (Spanish and Catalan), as illustrated in (61).<sup>141</sup>

- (61) *Catalan*
- a. El llobarro menja mol·luscs i crustacis.  
 the.SG.M seabass eats molluscs and crustaceans  
 ‘The seabass eats molluscs and crustaceans.’
- b. Els llobarros mengen mol·luscs i crustacis.  
 the.PL.M seabass eats molluscs and crustaceans  
 ‘Seabasses eat molluscs and crustaceans.’

<sup>141</sup>I thank M.Teresa Espinal for these examples.

If the bare plural object in (59) and (61) is neither definite nor existential, can it be generic? The answer is ‘no’, and it is related to the understanding of genericity of plural nominals as reference to a kind though a maximal sum of representatives of this kind. In (59) and (61), the bare plural expression *eat bones* does not denote a maximal sum of individual objects because it does not mean *eat all (possible/relevant) bones*. As it was shown in Section 4.3, only psychological subject-experiencer verbs (SEVs) obligatorily trigger an inclusive (generic) reading of their objects, while other types of verbs may trigger a non-inclusive interpretation. This contrast is represented in overt morphosyntax in Romance languages: the use of a definite article before a plural nominal (see (62a) as opposed to a bare nominal in Catalan and Spanish, as illustrated in (62b).

(62) *Catalan*

- a. Els gats cacen *ratolins*.  
the cats hunt mice  
‘Cats hunt mice.’
- b. Els gats odien *els ratolins*.  
the cats hate the mice  
‘Cats hate mice.’

Another important observation about the object position of characterising sentences is that, unlike the subject position, which admits both definite kinds and generic plurals, only a plural nominal may appear in object position. If a singular nominal appears there, the sentence cannot be interpreted as characterising any more, and both subject and the object have to refer to individual entities.

- (63) a. Sobaki edjat kost’.  
dogs eat bone  
‘The/some dogs eat/are eating a/the bone.’  
It cannot mean: ‘Dogs are bone-eaters.’
- b. Sobaka est kost’.  
dog eats bone

'The/some dog eats/is eating a/the bone.'

It cannot mean: 'The dog (as a kind) is a bone-eater.'

One more important characteristic that sentences, such as (57a), (59), (61) or (62a), manifest is the so-called "dispositional reading", which is different from the habitual one (Menéndez-Benito 2012). They do not necessarily express what the subject usually does, but what it can do in certain circumstances. Thus, (57a) could roughly mean that Mary would not object to smoking cigars, given the circumstances, or (59) means that dogs would in principle eat bones, even though in reality they might prefer something else, etc. Such sentences can be explained in terms of alethic modality, i.e., expressing a possibility (see Maier 2017), as was shown in Subsection 1.5.7.

Having shown that bare plural nominals in object position in characterising sentences are neither definite, nor indefinite, nor generic, I propose that in this case they are weakly referential or non-referential, forming part of the predicate, similar to (pseudo-)incorporated nominals, which I discuss in the following subsections.

#### 4.4.2 (Pseudo-)incorporation

As was discussed above, bare nominals in object position found in characterising statements do not have a reference of their own; they modify the predicate, and, thus, can be analysed in terms of (pseudo-)incorporation.<sup>142</sup> In general, incorporated nominals lack definiteness marking, number and case.<sup>143</sup> Pseudo-incorporated nominals, in their turn, are considered to have more syntactic freedom than strictly incorporated ones, i.e., they may retain some case marking and may sometimes allow modification; however, they always lack definiteness marking and are usually devoid of explicit number marking (Borik and Gehrke 2015: 10). In this

<sup>142</sup>The term 'pseudo-incorporation' was first introduced in Massam (2001) for phenomena that demonstrate semantic but not syntactic properties of incorporation.

<sup>143</sup>However, see Dayal (2015) for the proposal that there is a type of incorporation, involving definite DPs.

sense bare plural nominals in object position of characterising sentences are very similar to semantically incorporated nominals or semantically pseudo-incorporated nominals.

According to Van Geenhoven (1998), semantically incorporated nominals are narrow scope elements that denote a property, being interpreted as an expression of type  $\langle\langle e, t \rangle, \langle e, t \rangle\rangle$ . They combine with the main predicate restricting its denotation. The incorporated nominal “is absorbed by a verb as the predicate of that verb’s internal argument variable”. The verbal predicate is the semantic head of the noun incorporating configuration (Van Geenhoven 1998: 7). Both incorporated and pseudo-incorporated nominals show “a closer-than-usual bond with the incorporating verb, although the manifestations of this bond can vary” (Borik and Gehrke 2015: 10). According to Espinal and McNally (2011), who studied the phenomenon of incorporation in Spanish and Catalan, (pseudo)-incorporated bare nominals in object position behave like arguments of the verb that do not involve instantiation but predicate modification. That is, bare nominals should be analysed as denoting properties rather than individuals.

As it was initially proposed in Van Geenhoven (1998), bareness of a nominal can be taken as a hallmark for semantic incorporation. However, there is a lot of cross-linguistic variation for the appearance of bare nominals in different types of constructions to analyse all of them as cases of (pseudo-)incorporation (see Krifka 2003, Dayal 2011a, among others). So, bareness on its own cannot serve as a test for (pseudo-)incorporation. Borik and Gehrke (2015) compile a list cross-linguistic characteristics of pseudo-incorporated nominals which can be used to test for this phenomenon (see also Van Geenhoven 1998; Dayal 2011b). Prototypical pseudo-incorporated nominals usually have the following characteristics: narrow scope with respect to negation, number neutrality, restrictions on modification, bad support of pronominal anaphora, establishedness effects. It should be noted that all

these properties are of semantic nature and do not necessarily have syntactic representation.

Espinal and McNally (2011), who studied pseudo-incorporation in Catalan and Spanish, show that there are some significant differences in the behaviour of bare singular and bare plural nominals in these languages (also see Dobrovie-Sorin and Giurgea 2015), even though they indeed share some characteristics, e.g. they only have narrow scope with respect to other scopal elements. Nevertheless, unlike bare singulars, bare plurals in Spanish and Catalan cannot get a number neutral interpretation and show good support for pronominal anaphora (Espinal and McNally 2011: 91-95). Moreover, they differ in the distribution: bare singular nominals can only appear in direct object position of a restricted set of verbs (HAVE-predicates), while bare plurals in object position in Catalan and Spanish seem to be able to appear freely with any type of verb, other than subject-experiencer verbs, as illustrated in (62), above. So, it seems plausible to analyse bare plurals in Romance as weakly referential but not necessarily pseudo-incorporated.

In the following subsection, I check if the properties of pseudo-incorporated nominals are found in Russian bare plurals in object position of characterising sentences.

#### **4.4.3 Russian bare plural objects: pseudo-incorporated or not?**

In the present subsection, I examine Russian bare plural objects in characterising sentences in order to check whether they can be considered pseudo-incorporated or not, according to the standard list of properties of pseudo-incorporated nominals provided in Borik and Gehrke (2015): narrow scope, number neutrality, bad support of pronominal anaphora, restrictions on modification, and establishedness effects.

Concerning the first of these properties, Russian bare plural nominals in object

position of characterising sentences show only narrow scope with respect to other scopal elements, such as negation. So, the sentence in (64) can be understood only as ‘It’s not the case that pythons eat eggs.’ (narrow scope), but not: ‘There are eggs that pythons do not eat.’ (wide scope).

- (64) Pitony ne edjat jaica.  
 pythons not eat eggs  
 ‘Pythons don’t eat eggs.’

However, if the sentence is interpreted as episodic, for instance, as in (65), the bare plural nominal may have both wide and narrow scope, as a regular indefinite. Thus, (65) can be continued as in (65a): ‘It’s not the case that the pythons ate eggs, they ate special forage.’ (narrow scope), but also as in (65b): ‘There were eggs that the pythons didn’t eat; they preferred special forage.’ (wide scope).

- (65) Včera v ètom terrariume pitony ne eli jaica.  
 yesterday in this terrarium pythons not ate.IPF eggs.ACC.PL  
 ‘(The) pyhtons in this terrarium didn’t eat eggs yesterday.’
- a. Im dali tol’ko specialnyi korm.  
 them.DAT gave.PF.PL only special forage  
 ‘They were only given special forage.’
- b. Oni predpočli specialnyi korm.  
 they preferred.PF special forage  
 ‘They chose to eat special forage.’

The contrast between the scopal properties of the bare plural nominal in object position of a characterising sentence in (64) and an episodic sentence in (65) may indicate a difference in their interpretation: in the former case the object modifies the predicate, while in the latter one it has a full-fledged indefinite interpretation.

A second characteristic that can be attributed to bare plural objects of characterising sentences, is number neutrality. In the following example (66), the number of entities in object position cannot be established, because there is no singularity

or plurality entailment. That is, it is not clear how many *X* are needed to exist in order to say that the subject individual (potentially) eats them: one, more than one or zero? Moreover, there is no existential entailment or presupposition of existence for the object either. There may be pythons that have never eaten jackals or porcupines, but this characteristic is still relevant for the describing the kind *python*.

- (66) Pitony edjat ptic, jaščeric, gryzunov, i daže šakalov i dikobrazov.  
 pyhtons eat birds lizards rodents and even jackals and porcupines  
 ‘Pythons eat birds, lizards, rodents, and even jackals and porcupines.’

In an episodic sentence, as in (67), the existence of more than one bird is entailed.

- (67) Včera v ètom terrariume pitony eli ptic.  
 yesterday in this terrarium pythons ate.IPF birds.ACC.PL  
 ‘(The) pythons in this terrarium ate birds yesterday.’

Number neutrality and the absence of an existential entailment of bare plurals in object position in characterising sentences makes such sequences as (68) possible and logically coherent in natural languages. Both (66) and (68) are examples of the dispositional reading, described above in Subsection 4.3.3.

- (68) Koški lovjat myšej. Murka koška, značit ona lovit myšej,  
 cats catch mice.ACC.PL Murka cat means she catches mice.ACC.PL  
 xotja u nas doma ix net.  
 although at us home them.GEN.PL no  
 ‘Cats catch mice. Murka is a cat, which means she catches mice, even though we don’t have any (of them) at home.’

Mari et al. (2012: 64) also point out that generic abilities (i.e., dispositions) do not require verifying instances. That is, a representative of the kind *cat* does not have to catch a mouse to have a generic ability to catch mice.<sup>144</sup> So, bare plural nominals in object position of characterising (generic) sentences are indeed conceived as number neutral.

<sup>144</sup>Tessler (2018) analyses such generalisations in terms of “predictive probability” which may arise even in the absence of past frequency or actual prevalence evidence. Thanks to Louise McNally for suggesting this work to me.

Another relevant characteristic of bare plurals in question is their bad support of pronominal discourse anaphora, as shown in (69). Thus, it can be said that such bare plurals are not discourse transparent as they cannot serve as antecedents to pronouns in subsequent discourse. However, this effect is not very strong and different types of accommodation are possible, for instance, in (68) there is an anaphoric relationship between *myšej* ‘mice’ and *ix* ‘them’.

- (69) Murka lovit myšej. #Oni skrebutsja za stenkoj.  
 Murka catches mice.ACC.PL they scratch.REFL behind wall  
 ‘Murka catches mice. They scratch behind the wall.’

One more property of bare plurals in object position of characterising sentences, which makes them similar to pseudo-incorporated nominals, is restricted modification. (70) as a characterising sentence means that the cat called Murka as a representative of the kind *cat* has an essential property of being a mice-catcher; in this case the nominal in object position cannot be felicitously modified. However, if (70) is interpreted as a non-characterising habitual or an episodic sentence, the modification is possible, and the bare plural gets either a definite or an existential reading.

- (70) Murka lovit myšej, #kotorye živut u nas doma.  
 Murka catches mice.ACC.PL that.PL live at us at.home  
 ‘Murka catches mice that live at our place.’

The interpretation of bare plurals in object position of characterising sentences may also depend on world knowledge, stereotypes and established concepts. These are so-called “establishedness effects” (Van Geenhoven 1998; Dayal 2011a).<sup>145</sup> The verb-noun combination may represent some kind of “institutionalised activity”, which is also characteristic of syntactic incorporation proper (Mithun 1984; Dayal

<sup>145</sup>An establishedness effect is also manifested in some cases of semantic reanalysis. For instance, *go to church* denotes an activity of church-service attending, rather than an event of moving towards a building (Lucas 2011).



2011a). However, *eating eggs* or *catching mice* cannot be considered an institutionalised activity for pythons and cats, respectively.

Carlson (2009) claims that a VP with an incorporated noun denotes a sort of familiar, habitual or generic activity. For instance, in Chukchi (a language that frequently uses noun incorporation) ‘reindeer.kill’ does not mean just to kill a reindeer. It means to kill a reindeer as a part of a ritual. So, incorporation indeed can be analysed as a conceptual phenomenon, related to ‘world knowledge’. The presence of establishedness effects as a characteristic of (pseudo)-incorporated nominals is debatable, as the nature of these restrictions is pragmatic (i.e., related to world knowledge), rather than strictly semantic or syntactic (Borik and Gehrke 2015).

- (71) Russkie nosjat šuby.  
 Russians wear fur coats.ACC.PL  
 ‘Russians wear fur coats.’/‘Russians are fur-coat-wearers.’

If (71) is interpreted as a characterising sentence (a stereotype about Russian people), the object NP is non-referential. If it is a non-characterising habitual or an episodic sentence, the object will be interpreted definitely or existentially, depending on the preceding context. Similarly, Yoon (2005) shows how the interpretation of English bare plural nominals in object position may depend on ‘world knowledge’ and stereotypes. She claims that Koreans interpret (72) as a characterising sentence and (73) as a non-characterising habitual one, while misinformed or prejudiced foreigners could interpret (73) as characterising.<sup>146</sup>

- (72) Koreans eat Kimchi.

- (73) Koreans eat dogs.

<sup>146</sup>In her work Yoon (2005) uses terms “generic” and “existential” for the interpretation of the object nominal in (72) and (73) respectively. However, I claim that the object nominal in a characterising sentence is non-referential, i.e., it cannot be generic.

To sum up, in this section I have discussed several diagnostics for (pseudo-) incorporated nominals and applied these tests to Russian data. I have shown that bare plural objects in characterising sentences reveal several characteristics of incorporated nominals (narrow scope, number neutrality, some restrictions on modification and certain establishedness effects). However, they are not syntactically incorporated: they manifest morphosyntactic plural Number (which may be semantically interpreted as neutral) and Case (typically accusative), and they may trigger overt pronominal discourse anaphora. So, syntactically, they may be analysed as proper internal arguments, but semantically they are predicate modifiers (they are non-referential or weakly referential).

#### **4.5 Concluding remarks**

In this chapter, I have looked at the distribution and interpretation of plural nominals in object position. I have shown that the same type of NP (bare in Russian and English, and definite in Romance) as in subject position gets interpreted generically in object position. This type of interpretation, characterised by maximality, identifiability and presupposition of existence, is available when these NPs are found in object position of psychological subject experiencer verbs (SEVs), which represent a lexical class of verbs that impose certain restrictions on arguments cross-linguistically.

In combination with other types of predicates, definite NPs in languages with articles are interpreted definitely and bare NPs are interpreted existentially. As far as Romance languages are concerned, they are much more permissive for plural nominals to appear as bare in object position than in subject position. In Russian, where all nominals are bare, the default interpretation of a plural nominal is existential, and the definite interpretation arises in the cases of contextual anchoring, e.g. anaphoricity/bridging, viewed as pragmatic strengthening.

There are cases, however, when objects are non-referential (or weakly referential) in all the languages under study. This is the case when bare nominals appear in object position of characterising sentences. I have postulated that the object nominal forms part of the predicate, modifying it. Non-referential plural NPs are characterised by narrow scope, number neutrality, restrictions on modification and bad support of pronominal anaphora. However, they are not morphosyntactically deficient and function as proper internal arguments. So, they cannot be analysed as proper (pseudo-)incorporated nominals.

# Chapter 5

## Definiteness and indefiniteness in Russian

### 5.1 Introduction

In the previous chapters, I have looked at how genericity is expressed in languages with and without articles, showing that genericity may be a feature of the nominal phrase itself, but may also come from the context of use: the interpretation of arguments may be influenced by the type of the predicate, and also by the type of a sentence in which the given NP is used (e.g. characterising vs. episodic sentences). I have also shown that genericity has a strong affinity with definiteness, as NPs with a generic reading are normally presuppositional (carrying a presupposition of existence) and identifiable (belonging to the background knowledge of speakers). Plural generic nominals are also characterised by maximality, which is conceived as reference to all (possible/relevant/potential) instances of a kind. Taking into consideration these similarities between definitely and generically interpreted nominals in languages with and without articles, I find it important to further explore questions related to the expression of different types of reference in natural language.

In the current chapter, I focus on issues related to the expression of definiteness and indefiniteness by means of bare nominal phrases in Russian as a language without articles, comparing it to languages with articles.<sup>147</sup> The topic of this chapter is motivated by the fact that in the semantic literature the category of (in)definiteness is mostly studied in relation to its morphosyntactic manifestation – the article, and consequently, the most influential theories of definiteness are based on languages with articles (Frege 1892b; Russell 1905; Christophersen 1939; Hawkins 1978; Heim 1982, among many others). Nevertheless, a great number of world languages lack articles (Lyons 1999; Longobardi 2001; Leiss 2007; Dryer 2013a,b; Schürcks et al. 2013; Dayal 2017a; Czardybon 2017 and many others), and yet the semantic properties of NPs in such languages have not been clearly determined. That is why I find it important to see how definite and indefinite reference is encoded in Russian, a language which does not have an article system.

In this chapter, I give an overview of the cross-linguistic variation in the expression of referentiality found in languages with articles and the ways in which (in)definiteness may be expressed in Russian. The formal means of conveying (in)definiteness in this language include lexical, morphological, prosodic and syntactic ones, however, none of them is strong enough to be considered the trigger of a definite reading, comparable to the article in languages where this word class exists. I also present an experimental study aimed at establishing the correlation between the position of a bare nominal subject (preverbal or postverbal) and its interpretation (definite or indefinite).

A relevant question that arises when one studies referentiality in languages

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<sup>147</sup>Parts of this chapter were presented as joint work with Olga Borik at the following international conferences and workshops: SIGGRAM (UPV/EHU) in 2017; Workshop on experimental data at AICED 20, 51st Annual Meeting of the Societas Linguistica Europea (SLE), Functional Categories and Semantic Mismatches (MISM4TCHES) and 13th European Conference on Formal Description of Slavic Languages (FDSL 13) in 2018; 41st Annual Conference of the German Linguistic Society (DGfS), SIGGRAM (UAH) and Ontology as Structured by the Interfaces with Semantics (OASIS 2) in 2019.

with different article systems is whether (in)definiteness is a universal feature or not. The distinction between a definite and an indefinite reference is an important element of human communication, thus, it could be expected to be universally present in natural languages (Cummins 1998; Lyons 1999; Brun 2001; Zlatić 2014), regardless of the presence or absence of the article in a language. This universal approach to definiteness may imply that languages without lexical articles may still express it, however, with different formal means (Abraham et al. 2007). What has to be linguistically established is referentiality as this is one of the inherent functions of language (see Jakobson's (1960) referential function of language). So, it is important to find out what kind of reference is expressed in a particular language and what kind of linguistic means are employed.

In relation to the question of the universality of (in)definiteness, I compare bare nominals perceived as definites in Russian with overtly definite nominals in English (as a proxy for languages with articles). From this comparison, I conclude that what is encoded as definiteness in languages with articles may be different from what is perceived as definiteness in languages without articles. My hypothesis is that definiteness in languages without articles (or at least in Russian) come as a pragmatic strengthening of the meaning of a semantically indefinite NP. This is, hence, the same mechanism as the one that derives a generic interpretation for bare nominals described in Section 3.5. As for languages with articles, definiteness is derived semantically (and syntactically). The absence of articles may be, thus, translated into the absence of definiteness-related semantics, i.e., the lack of the presupposition of uniqueness, generally associated with definite descriptions.

## **5.2 Languages with articles. Cross-linguistics variation**

First of all, it should be noted that articles are not uncommon across languages. According to Dryer's (2013a, 2013b) cross-linguistic study of the presence of a def-

inite article in a sample of 620 languages, 216 of them use a definite lexical item distinct from a demonstrative, 69 use a demonstrative item as a marker of definiteness, 92 use a definite affix on a noun, 45 lack a definite article but have an indefinite one and 198 have neither a definite nor an indefinite article. As for the indefinite article, in a sample of 534 languages, 102 have an indefinite item distinct from the numeral 'one', 112 use the numeral 'one' as an indefinite article, 24 have an indefinite affix on nouns, 98 lack an indefinite article but have a definite one, 198 have neither definite nor indefinite article. According to calculations by Czardybon (2017), that means that about 39% of languages in the sample lack a definite article and 55% lack an indefinite article. As for the distribution of articles across language families, it can also be easily seen that articles are neither frequent nor predominant in any language family. In any language group there are languages with articles and without articles (Bauer 2007).

Furthermore, as Dryer (2013a,b) shows, many languages have asymmetrical article systems, having only a definite or only an indefinite article. Another caveat that should not be overlooked while speaking about articles cross-linguistically, is that there are languages that use articles to introduce properties, such as animacy, countability, givenness in discourse, even though it is generally accepted that articles are related to referential characteristics of nominals (i.e., definiteness or indefiniteness). For instance, Lakota, described by Ullrich (2016), has up to 12 different articles. Nevertheless, according to Gillon (2006, 2015), all articles (being part of a wider category of determiners) share a common core: they all express domain restriction over their NP, regardless of other properties that they might have (see also Westerstahl 1985 and von Stechow 1994.).

In view of the fact that article systems in the world's languages are very diverse and not homogeneous, it is necessary to keep in mind that a certain kind of *article* + *nominal* combination in one language may have a meaning different from a for-

mally close counterpart in another language (Stroh-Wollin 2011). To exemplify this semantic difference, one can compare the use of the definite article in English and French, as shown in (1) and (2). In English the definite article can be used deictically (1a) and anaphorically (2a), while in French it can only be used anaphorically (2b).<sup>148</sup> The deictic meaning is expressed by means of a demonstrative (1c) (examples from Robinson 2005: 31-32, ex. 1, 2).

- (1) Context: Two friends touring the countryside enter a new village, and head to the town square, where they find a baobab tree. In the baobab is sitting a monkey. One friend says to the other:

- a. *The monkey* is giving you a funny look!
- b. #*Le*            *singe*    *te*            *regarde d'un*            *drôle*  
       the.SG.MASC monkey you.ACC.SG watch of.INDEF.SG.MASC funny  
       œil.  
       eye
- c. *Ce*            *singe*    *te*            *regarde d'un*            *drôle*  
       DEM.SG.MASC monkey you.ACC.SG watch of.INDEF.SG.MASC funny  
       œil.  
       eye  
       'That monkey is giving you a funny look.'

- (2) a. A man<sub>1</sub> and a woman walked in. *The man*<sub>1</sub> sat down.
- b. *Un*            *homme*<sub>1</sub> *et*    *une*            *femme* *sont*  
       INDEF.SG.MASC man and INDEF.SG. woman be.3PL  
       entrés.            *L'homme*<sub>1</sub>            *s'est*  
       enter.PAST.PART.PL the.SG.MASC man REFL.be.3SG  
       assis.  
       sit.down.PAST.PART.SG  
       'A man and a woman walked in. The man sat down.'

Moreover, an *article + nominal* combination within one language may have different types of use, as exemplified for English definite NPs in (3)–(6). The example in (3)

<sup>148</sup>Notice that these are not the only possible uses of the definite article in either English or French.



is a situational definite, (4) is an anaphoric definite, (5) represents a case of bridging (Clark 1975), and (6) is a weak definite.<sup>149</sup>

- (3) It's so hot in the room. Open *the door*!
- (4) I saw a man in the street. *The man* was tall and slim.
- (5) I'm reading an interesting book. *The author* is Russian.
- (6) Every morning I listen to *the radio*.

Furthermore, cross-linguistically, there are a lot of asymmetries in grammaticalisation of definiteness with respect to sense-to-form correspondence in languages with articles (Lyons 1999). Definiteness can be understood as a grammatical category, present in overt morphosyntax<sup>150</sup> or as a semantico-pragmatic category, reflecting the way reference is construed in a sentence or a discourse (Hofherr and Zribi-Hertz 2014). The presence or absence of morphological markers of definiteness is not a necessary and sufficient condition in identifying semantic definiteness in natural language. The article may express (in)definiteness, may be a grammatical requirement for certain syntactic environments, may be a gender morpheme or a nominality marker (Greenberg 1978).

A discrepancy between syntactic and semantic definiteness can be illustrated by examples from English (7) and Catalan (8), even though both are languages in which definiteness of nominals in argument positions is usually associated with the presence of a definite article. All nominal phrases in (7) and (8) are semantically definite, but only Catalan (8) marks it formally (by means of a definite article).

<sup>149</sup>Weak definites, which are outside the scope of this work, are called so, because, unlike regular definites, there is no requirement for the definite NP to have a single referent. One of the proposals that can be found in the literature, namely, Aguilar-Guevara and Zwarts (2010), treats weak definites as kind nominals. On weak definites also see Carlson et al. (2005), Schwarz (2009), Espinal and Cyrino (2017a), i.a.

<sup>150</sup>This category can be represented as a binary feature [ $\pm$ definite] (first introduced in Chomsky 1965) that characterises a structural position D.

(7) This is Anna, my sister.

(8) Aquesta és l'Anna, la meva germana.  
 this.FEM.SG is the.Anna the.FEM.SG my.FEM.SG sister

Moreover, as it was shown in Chapters 3 and 4, generic plurals are bare in English and definite in Romance. And the same holds true for abstract and mass nouns, as exemplified in (4) and (10).

(9) Linguistics is the scientific study of natural language.

(10) La lingüística és l'estudi científic del llenguatge  
 the.FEM.SG linguistics is the.study scientific of.the.MASC.SG language  
 natural.  
 natural

Another point that should be taken into consideration regarding languages with articles described in this work (Germanic and Romance languages) is that the definite article (prepositional or postpositional) is a relatively recent phenomenon. However, most semantic and syntactic theories dealing with articles are based on data from these languages.

With regard to the diachronic development of articles in the languages under study, Bauer (2007) suggests that in Romance languages the definite article may have started its life at the end of Late Latin/Early Romance period, but it came to maturity in individual languages. In contrast, Germanic languages did not inherit the definite article from Proto-Germanic, the definite article emerged long after the languages had separated (Perridon and Sleeman 2011).

It is interesting to notice that the definite article emerged at three branches of Indo-European (Romance, Germanic and Celtic) at approximately the same time, between VIII and XII centuries. This fact raises certain questions relevant for both diachronic and synchronic linguistics: Is the emergence of articles a completely autonomous process in each language? If not, what languages does it come from

and how did it become wide-spread? Why didn't it spread to West-Slavic and East-Slavic languages?

For now there is not enough evidence to answer these questions, but it is obvious that the paths of development of Indo-European articles are very similar: the definite article appeared before the indefinite one, the former in many cases is a weakening of the distal demonstrative, while the latter of the numeral 'one' (Crisma 2011; Dayal 2017a). Non-Indo-European languages manifest similar trends (see Greenberg's 1978 cycle of the definite article).

The above-mentioned synchronic and diachronic cross-linguistic facts show the complexity of the article as an overt morphosyntactic means to express reference, however, the semantics behind it is even more complex. Before looking closer into the semantics of articles, in the next section I present an overview of the formal ways to express definiteness in a language without articles, namely, in Russian.

### 5.3 The expression of definiteness in languages without articles<sup>151</sup>

The overt marking of (in)definiteness with articles is obviously not essential for communication (Lyons 1999) as there are many languages that lack it (see Section 5.2). Furthermore, Leiss (2007) claims that the morphological underspecification of nominals in languages without articles can be explained by cognitive economy. Overt articles can be even considered pragmatically redundant as the discourse context should be sufficient to determine whether a NP is definite or not (Hawkins 2004).

<sup>151</sup>The present and the subsequent sections of this chapter are based on the following articles: Seres, Borràs-Comes, and Borik (2019) "Interplay between Position and Interpretation: An Experimental Study of Russian Bare Plurals". *Revue roumaine de linguistique* LXIV.2, pp. 163–177; Borik, Borràs-Comes, and Seres (accepted) "Preverbal (in)definites in Russian: an experimental study". In: *Nominal Anchoring: Specificity, Definiteness, and Article Systems* Ed. by K. Balogh, A. Latrouite, and Jr. R. D. Van Valin. Oxford University Press; Seres and Borik (accepted) "Definiteness in the absence of uniqueness: the case of Russian". In: *Advances in Formal Slavic Linguistics 2018*. Language SciencePress.

Nevertheless, it is obvious that the values of definiteness and indefiniteness are perfectly perceptible to speakers of languages without articles. Looking at Russian one can see that, even though this language does not express definiteness overtly, the difference in the interpretation of nominals with respect to (in)definiteness is available to its speakers. The English translation of the Russian examples in (11) reveals the contrast in the interpretation of the bare nominal *koška*, whose morphological form (the nominative case) and syntactic function (the subject) stay the same, even though the linear word order is altered.

- (11) a. V uglu           spit   *koška*.  
           in corner.LOC sleeps cat.NOM  
           ‘A cat is sleeping in the corner.’/‘There is a cat sleeping in the corner.’
- b. *Koška*   spit   v uglu.  
           cat.NOM sleeps in corner.LOC  
           ‘The cat is sleeping in the corner.’

In (11a) the interpretation of the subject nominal *koška* seems to be equivalent to the English expression *a cat*, which has an indefinite interpretation, while in (11b) it is rather comparable to the definite description *the cat*, thus, the contrast between a definite and an indefinite interpretation seems to be expressible in Russian. An important question that immediately arises in this respect is how these readings are encoded in the absence of articles.

In the following subsections, I show different strategies used in Russian (and other Slavic articleless languages) to express (in)definiteness of bare nominals. In the linguistic literature it has been generally assumed that, even though languages like Russian do not have a straightforward way to express (in)definiteness, this semantic category would still be present in the language and there would be certain means, other than just discourse context, to express it (Galkina Fedoruk 1963; Pospelov 1970; Krylov 1984; Nessel 1999, among others). All in all, it can be said that referential properties of bare nominals depend on a number of factors, both

external and internal to the NP. External factors are, among others, information structure, word order, case, and verbal aspect. Internal factors are determiners, quantifiers, the type of noun (count or mass), etc. Prosody may also play an important role in determining reference. The role of these factors in determining (in)definiteness is discussed below.

### 5.3.1 Lexical means

The most obvious and straightforward way to express the referential status of a nominal in Russian is by means of overt lexical elements. Such elements are called “actualisers” by Padučeva (1985) as they actualize, or indicate, the referential status of a common noun, otherwise ambiguous between different readings in articleless languages like Russian. This group of elements include demonstrative pronouns, determiners, numerals, and quantifiers.

Demonstratives and possessives trigger a definite interpretation (12), that is, they express reference to a contextually identifiable object,<sup>152</sup> while quantificational expressions, such as *každy* ‘every’, *ljuboj* ‘any’, *nekotoryj* ‘some’, *odin* ‘a certain’, *kakoj-to* ‘some’, *kakoj-nibud* ‘some’, etc. would yield an indefinite interpretation (13).

- (12) a. *Naša sobaka lajet na ulice.*  
 our dog barks on street  
 ‘Our dog is barking in the street.’
- b. *Èta sobaka lajet na ulice.*  
 this dog barks on street  
 ‘This dog is barking in the street.’

- (13) a. *Odna znakomaja prixodila včera v gosti.*  
 one.NOM.SG.FEM acquaintance.NOM.SG.FEM came yesterday to guests

<sup>152</sup>Canonical demonstratives are strongly associated with definiteness in the literature (see, for instance, Lyons 1999, Elbourne 2008).

'A (certain) friend came to visit yesterday.'

- b. Vasju iskala kakaja-to studentka.  
 Vasja.ACC looked.for some.NOM.SG.FEM student.NOM.SG.FEM

'Some student was looking for Vasja.'

- c. Vasja opjat' kupil kakuju-nibud' erundu.  
 Vasja again bought some.ACC.SG.FEM nonsense.ACC.SG.FEM

'Vasja bought some useless thing again.'

The determiner *odin* 'one', in (13a), has been claimed to be the marker of specificity in Russian (Ionin 2013), thus, identifying a specific indefinite referent. (13b) is another example of a specific indefinite determiner, while the determiner in (13c) signals a non-specific indefinite. For a more detailed discussion on specificity and its marking in Russian see Subsection 4.3.3).

Nevertheless, the use of actualisers is optional in Russian, so the speakers cannot truly rely on their presence and therefore have to use other strategies to encode and decode the referential status of a nominal expression. One of them is the use of modifiers establishing uniqueness. If the NP is modified by an adjective of order (a superlative, an ordinal, *poslednij* 'last', *sledujuščij* 'next', etc.) or a uniqueness-establishing complement (PP, relative clause, genitive attribute) (Czardybon 2017), it is generally construed as definite, while an unmodified NP may convey different interpretations (see the English translation of (14a)).

- (14) a. *Rebënok pel pesn'ju.*  
 child.NOM sang song.ACC  
 'The/a child sang the/a song.'
- b. *Samyj mladšij rebënok pel posledn'uju pesn'ju.*  
 most young child.NOM sang last song.ACC  
 'The youngest child sang the last song.'
- c. *Rebënok sestry pel pesn'ju, kotoruju ona sama sočinila.*  
 child.NOM sister.GEN sang song.ACC that she herself composed  
 'My sister's child sang the song that she had composed.'

While the reference of both the subject and the object in (14a) has to be contextually determined (otherwise, it is ambiguous), the use of a superlative and an ordinal modifier for the subject and the object respectively in (14b) and the use of a genitive attribute and a relative clause in (14c) help to establish the unambiguous reference.

### 5.3.2 Morphological means

Apart from lexical means, Russian and other Slavic languages use grammatical tools to encode the reference of a nominal phrase. The two grammatical categories that may affect the definiteness status of a bare nominal in direct object position are the aspect of the verbal predicate and the case of the nominal itself.

Aspect (perfective or imperfective) in Russian is a grammatical category, which is obligatorily expressed with the help of verbal morphology. Any given verb belongs to one of the two aspects,<sup>153</sup> however, there is no uniform morphological marker in Russian (Klein 1995; Borik 2006). The relation between perfectivity of the verbal predicate and the interpretation of its direct object in Slavic languages has been widely discussed in the literature (Wierzbicka 1967; Krifka 1992; Schoorlemmer 1995; Filip 1999; Verkuyl 1999, among others).

In (15) the direct object of a perfective verb is interpreted definitely, while the direct object of an imperfective verb in (16) may be interpreted definitely or indefinitely, depending on the discourse context.

- (15) On s'el jabloki.  
 he ate.PF apples.ACC  
 'He ate the apples.'

- (16) On el jabloki.  
 he ate.IPF apples.ACC  
 'He ate/he was eating (the) apples.'

<sup>153</sup>There is a relatively small class of bi-aspectual verbs whose aspectual value can only be established in context.

In order for the direct object in (15) to get an unambiguous indefinite interpretation, the case of the nominal is changed from the accusative into the genitive and the object gets interpreted as partitive (17). Thus, case alternation can be considered another strategy that Slavic languages use to encode (in)definiteness. It should be noted that such kind of case alternation can only be produced with inanimate plural/mass NPs in object position. Due to these restrictions the effects of case alternation are not strong enough to postulate the direct correlation between the case of the direct object and its interpretation.<sup>154</sup>

- (17) On s'jel jablok.  
 he ate.PF apples.GEN  
 'He ate some apples.'

It is important to underline that case alternation, illustrated in (15) and (17), is only possible with perfective verbs. There is also a clear correlation between the perfective aspect and the definite interpretation of the plural/mass direct object.<sup>155</sup> Leiss (2007) even suggests that the perfective aspect on verbs in Slavic languages and the definite article on nominals in Germanic languages express the same grammatical category. However, this statement is disproved by many cases where nominals in object position get a different interpretation, for instance, in (19).

Indeed, as pointed out in Borik (2006: 92-93), the correlation between aspect

<sup>154</sup>Unlike in languages, such as Turkish, Persian (Comrie 1981) or Sakha (Baker 2015), which exhibit a strong correlation between case marking and interpretation of the nominal, especially in direct object position.

<sup>155</sup>The correlation between the verbal aspect and the interpretation of the direct object is clearly present in other Slavic languages, e.g. in Bulgarian, which has an overt definite article. The following example, taken from Dimitrova-Vulchanova (2012: 944), shows that the definite article cannot be omitted if the verb is perfective.

- (i) a. Ivan pi vino.  
 Ivan drank.IPF wine.ACC  
 'Ivan drank/was drinking wine.'  
 b. Ivan izpi vino\*(-to).  
 Ivan drank.PF wine.ACC-the  
 'Ivan drank the wine.'



and definiteness is not absolute, and may be overruled by other factors, e.g. case alternation to the genitive, see (17), or future tense. Moreover, not all perfective verbs trigger the definite interpretation of the plural argument. The following example with the verb *buy* also illustrates that the direct object may have either a definite or an indefinite interpretation.

- (18) On kupil jabloki.  
 he bought.PF apples.ACC  
 'He bought (the) apples.'

Czardybon (2017) claims that only incremental theme verbs,<sup>156</sup> such as *eat*, *drink*, *mow*, in the perfective form trigger the definite interpretation of a bare plural or a mass term. This phenomenon is explained in Filip (2005: 134-136), where she posits that arguments of incremental theme verbs "must refer to totalities of objects" falling under their descriptions and that "such maximal objects are unique", thus, have a definite referential interpretation.

If a singular nominal is used in this position (19a), the interpretation can be either definite or indefinite, depending on the discourse context. The definite reading will arise in the case of anaphoricity or contextual salience (19b), and the indefinite one otherwise (19c). No case alternation is possible.

- (19) a. On s'el jabloko.  
 he ate.PF apple.ACC  
 'He ate an/the apple.'
- b. Na dessert Miše dali jabloko i banan. On s'el  
 on dessert Misha.DAT gave.PF.PL apple and banana he ate.PF  
 jabloko, a banan ostavil na večer.  
 apple.ACC but banana left.PF for evening  
 'For dessert Misha was given an apple and a banana. He ate the apple  
 but saved the apple for the evening.'

<sup>156</sup>This term was introduced by Dowty (1989), following Krifka's (1989) distinction of a "gradual patient" (of verbs, like *eat*) and a "simultaneous patient" (of verbs, like *see*). There are three types of incremental theme verbs: (i) verbs of consumption (*eat*, *drink*, *smoke*), (ii) verbs of creation/destruction (*build*, *write*, *burn*, *destroy*), and (iii) verbs of performance (*sing*, *read*).

- c. Na dessert Miše dali raznye frukty. On s'el  
 on dessert Misha.DAT gave.PF.PL different fruits he ate.PF  
*jabloko* i vsë.  
 apple.ACC and all  
 'For dessert Misha was given different fruit. He ate an apple and that  
 was it.'

To sum up, I have shown that there are several grammatical factors, such as case or aspect, that can favour or disfavour a certain (definite or indefinite) interpretation of a nominal argument, but there are no strict correlations between definiteness and other grammatical categories; the reading is also highly context-dependent. It can be concluded that there is no unique feature in the grammatical system of Russian that would allow us to predict whether a nominal argument will necessarily be interpreted as a definite or an indefinite one.

### 5.3.3 Prosodic means

Another means of encoding reference in Russian that should not be underestimated is the prosodic phrasing of an utterance. Let us first consider sentence stress as illustrated in (20) and (21). A shift of a sentence stress may signal a change in meaning. Correlating with information structure, prosody may influence the interpretation associated with it, e.g. the constituent carrying the nuclear accent may indicate a contrastive topic. The examples below show how the change in the sentential stress pattern may influence the interpretation of a bare nominal, regardless of its linear position in the sentence. (The relation between word order and interpretation of subject nominals is discussed in Subsection 5.3.4). Capital letters in the following examples from Pospelov (1970: 182) indicate the constituent carrying sentence stress.

- (20) *SV word order*  
 a. Poezd PRIŠĚL.  
 train arrived

'The train arrived.'

- b. POEZD prišël.  
train arrived  
'A train arrived.'

(21) *VS word order*

- a. Prišël POEZD.  
arrived train  
'A train arrived.'
- b. PRIŠËL poezd.  
arrived train  
'The train arrived.'

In addition to stress, intonation appears to be relevant as well. The neutral intonation pattern of a Russian sentence, called IK1 (intonation contour 1) (Bryzgunova 1981), is the one with a falling tone on the last phonological word, as illustrated in (20a) and (21a). This intonation contour does not influence the interpretation of lexical items in a sentence (some other factors – lexical, morphological or syntactic, etc. – may be relevant). In sentences with neutral intonation the preverbal bare subjects tend to be interpreted definitely, while postverbal ones have an indefinite interpretation (see the English translation of (20a) and (21a), respectively). The subject nominal in (20b) is interpreted indefinitely, as novel information, as it receives prosodic prominence (a nuclear accent), while the final constituent lacks this prominence and is interpreted as given information.<sup>157</sup> The subject of (20b) may be interpreted as a contrastive topic: e.g. 'A train, not a bus, arrived.' Being deaccentuated, the postverbal subject of (21b) is interpreted as given, which is not necessarily equivalent to definite (however, this interpretation is salient).<sup>158</sup>

<sup>157</sup>See Jasinskaja (2014) for more details on deaccentuation of given information in Russian and Šimík and Wierzba (2015) for a thorough study of the interaction between givenness, word order and stress in Czech.

<sup>158</sup>An element is given if there is an antecedent for it in a preceding discourse, so givenness is an information-structural category that is also closely related to anaphoricity. Any constituent of a sentence can have a status of 'given', including, of course, nominal arguments. The relationship

In the current subsection, I have shown that a shift in sentential stress in prosodic units that show neutral intonation may influence the interpretation of a nominal expression. In the following subsection, I show how a change in word order of a sentence may alter the interpretation of its subject.

### 5.3.4 Syntactic means

Another strategy of (in)definiteness encoding described in the literature (Pospelov 1970; Fursenko 1970; Krámský 1972; Chvany 1973; Szwedek 1974; Topolinjska 2009, among others) is word order alternation. Specifically, it is often stated that preverbal (subject) position is strongly associated with a definite interpretation, whereas nominals in postverbal position are likely to be interpreted as indefinites. So, the connection is often made between the linear position of a nominal argument and its definiteness status.<sup>159</sup> Examples (22)- (23) are modelled on Krámský's examples from Czech (1972: 42).<sup>160</sup>

- (22) Na stole        ležit *kniga*.  
       on table.LOC lies book.NOM

between definiteness and givenness is not straightforward: in principle, both definite and indefinite arguments can be either given or new. For instance, any contextually unique definite mentioned for the first time is not given but new (e.g. *The UV is very high today*, *The head of the department just called me*), whereas any anaphoric definite is given.

<sup>159</sup>Leiss (2007) claims that the pattern observed in Russian, where the preverbal subject is interpreted as definite and the postverbal subject as indefinite, is, in fact, universal. A similar correlation between distribution and interpretation is found in unrelated articleless languages, like Mandarin, where preverbal bare nominals are interpreted as generic or definite, and an indefinite interpretation is excluded, while postverbal bare nominals can be interpreted as either indefinite or definite or generic (Cheng and Sybesma 2014).

<sup>160</sup>These examples contain the verb *ležít* 'is lying' in order to show the preverbal/postverbal contrast in a more obvious way. However, it is also possible to use the copular verb *byt'* 'be', which is normally omitted in the present tense in Russian (see Subsection 2.5.2):

- (i) Na stole        kniga.  
       on table.LOC book.NOM  
       'There is a book on the table.'
- (ii) Kniga        na stole.  
       book.NOM on table.LOC  
       'There is a book on the table.'

‘There is a book on the table.’

- (23) *Kniga*      ležit na stole.  
 book.NOM lies on table.LOC  
 ‘The book is on the table.’

As it was pointed out in Section 3.2, Russian is a classical example of a so-called ‘free word order’ language, i.e., a language where the linear order of the elements in a sentence is determined not so much by grammatical functions like subject and object, or grammatical properties like case assignment, but by the requirements imposed by discourse, information structure and communicative needs of speakers (see Mathesius 1964; Sgall 1972; Hajičová 1974; Isačenko 1976; Yokoyama 1987; Grenoble 1998, among others). However, more cautious typological sources always point out that the ‘free’ word order is to a large extent an illusion, since various permutations of sentence constituents are usually not entirely free but guided by some pragmatic or information structure principles (see, for instance, Dryer 2007). The word order in Russian reflects the information structure of a sentence: the postverbal subject in (22) is the focus (new information) and the preverbal subject in (23) is the topic (given, old information).

This descriptive generalization about the connection between the linear word order and information structure is primarily assumed to hold for subjects, as the canonical word order in Russian is SVO. Objects, unless they are topicalised, generally follow the verb. Both preverbal subjects and objects are considered topics (Jasinskaja 2014), as shown in (24) for the subject and in (25) for the object. Topics in Russian generally appear in the leftmost position, as illustrated in (24a) and (25a); such a type of topic is called an aboutness topic (Reinhart 1981). Both subject and object in the leftmost position can be left-dislocated, as illustrated in (24b) and (25b). This construction can be considered a reasonable, although not a clear-cut, diagnostic for topichood (see Reinhart 1981).

- (24) a. *Tolja* včera razgovarival s Anej.  
Tolya.NOM yesterday talked.IPF with Anya.INSTR  
'Tolya yesterday talked to Anya.'
- b. Čto kasaetsja Toli, to on včera razgovarival s  
what concerns Tolya.GEN that he yesterday talked.IPF with  
Anej.  
Anya.INSTR  
'As for Tolya, he talked to Anya yesterday.'
- (25) a. *Varenje* ja včera s'jel.  
jam.ACC I yesterday ate.PF  
'I ate the jam yesterday.'
- b. Čto kasaetsja varenja, to ja ego včera s'jel.  
what concerns jam.GEN that I it.ACC yesterday ate.PF  
'As for jam, I ate it yesterday.'

The connection between definiteness and preverbal or leftmost position is easy to explain if nominal arguments that appear in this position are actually topics. There is a hypothesis that is proposed in a lot of semantic literature on topics in general: elements that appear in topic position can only be referential, i.e., definite or specific indefinite (see Reinhart 1981; Erteschik-Shir 1998; Portner and Yabushita 2001; Endriss 2009, among others). The intuitive idea behind this generalisation is the following: if there is no entity that the nominal topic refers to, this expression cannot be an aboutness topic because then there is no entity to be talked about.

Nevertheless, there are empirical cross-linguistic data that question the assumption that only definites and specific indefinites can be topics. Here I would like to draw attention to the data from Romance. It has been brought up in the literature that a topicalised left dislocated element can, in fact, be interpreted non-specifically. The following examples from Leonetti (2010) illustrate the phenomenon in Spanish (26) and Italian (27):

- (26) *Buenos vinos, (los)* hay en Castilla.  
good wines, (CL.MASC.PL) have.3SG in Castille

'There are good wines in Castille.'

- (27) *Libri in inglese, (li/ ne) può trovare al secondo*  
 books in English, (CL.MASC.PL/ CL.PART) can.3SG find on.the second  
 piano.  
 floor

'English books can be found on the second floor.'

Leonetti (2010) suggests that non-specific (or weak) indefinites are highly restricted in topic position. He identifies two conditions, which must be met to allow for non-specific indefinites to appear as topics. First, they can be licensed by certain kinds of contrast that cannot lead to obtaining a specific reading. This condition has to do with intonation and stress, two factors that fall outside the scope of this work. Second, they can be licensed in the sentential context with which the topic is linked. In other words, what matters for licensing non-specific indefinite topics is the presence of supporting context. In general, examples (26)-(27) illustrate that the correlation between topic and definiteness and/or topic and referentiality is not a strict dependency but rather a strong tendency.

For Russian, as well as for other languages with free word order, it is important to dissociate the effects that can be attributed to topicality from those that can (potentially) arise merely from word order. This is the question addressed by the experimental study presented in the following section (5.4). In this study, I aimed at finding out whether a linear position of a subject, independently of topichood, correlates with its definiteness or not. Therefore, the experimental items include preverbal subjects which are not topics, for instance, preverbal subjects ofthetic sentences that can be both definite and indefinite (cf. Geist 2010, among others). Nevertheless, the results of the experiment suggest that there is, still, a strong dependency between linear position and interpretation. In particular, it will be shown that indefinites have a relatively low acceptance rate when they appear preverbally in non-topical contexts. Just like (weak) indefinite topics, preverbal

non-topical indefinites seem to still need contextual support, so the conditions for licensing indefinites in preverbal position appear to be rather rigorous. Thus, the generalisation seems to be that preverbal indefinites need special contextual conditions to facilitate their use independently of whether they are topics or not.

### 5.3.5 Summing up

In this section, I have outlined the most common strategies that speakers use to encode (in)definiteness in Russian. As a language without articles, Russian does not express definiteness overtly, and nominals are assumed to express by default an indefinite reading (for more details see Subsection 5.5.4). This means that to calculate the values of definiteness/indefiniteness (which are perfectly perceivable for native speakers of Russian) for a bare nominal, the participants of communication have to rely on a combination of clues and use various indications provided both at a sentential and at a discourse level. Russian bare nominals may acquire a definite interpretation through several lexical, grammatical, syntactic and prosodic means or their combination. None of these means is strong enough, however, to encode definiteness in all the possible cases.

I have shown that there are some grammatical factors, such as Case or Aspect, that can favour or disfavour a certain (definite or indefinite) interpretation of a nominal argument, but there are no strict correlations between definiteness and other grammatical categories. The lexical means that Russian possesses to signal (in)definiteness are only optional and cannot be semantically compared to articles. Linear constituent order is not a sufficient means to encode (in)definiteness either, rather, it reflects the information status of the nominal in question. In the following section, I present an experimental study of the relationship between the syntactic position of a bare subject (preverbal or postverbal) and its interpretation (definite or indefinite), challenging the long-standing assumption in the literature



that word order is one of the ways to express (in)definiteness in Russian (see Subsection 5.3.4).

## 5.4 An experimental study of the interpretation of Russian bare plural subjects

This subsection presents an overview and theoretical outcomes of an experimental study of the correlation between the linear syntactic position and the interpretation of plural bare nominal external arguments of intransitive verbs in Russian (the details of the experimental study can be found in Appendix A).<sup>161</sup>

### 5.4.1 Previous experimental work

The primary goal of this experimental investigation was to find out whether the position of a nominal, in the absence of articles, fully or partially determines its interpretation as definite or indefinite.<sup>162</sup> The main motivation to perform this study was the scarcity of experimental work concerning the interpretation of bare nominals in Slavic languages in general and in Russian in particular.

Regarding previous experimental work on the topic of research, it is important to single out the following studies on Slavic languages: a study of bare singular NPs in Czech by Šimík (2014), a statistical analysis based on Polish and English texts by Czardybon, Hellwig and Petersen (2014), and Šimík and Burianová (2018), who did a corpus study of bare nominals found in pre- and postverbal position in Czech.

Šimík's (2014) experiment tested the preference of a definite or an indefinite reading for a NP in the initial or the final position in a sentence. The study demon-

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<sup>161</sup>The study was performed in collaboration with Olga Borik and Joan Borràs-Comes in 2017-2018; its results are presented in Seres et al. (2019) and Borik et al. (accepted).

<sup>162</sup>All the expressions in subject position used in the experimental phrases are morphologically plural for the sake of uniformity. Bare singular subjects would be predicted to behave in the same way.

strated that the initial position (topicality) of the subject increased the probability of a definite interpretation, however, it was not a sufficient force to ensure this type of reading. Even though the indefinite interpretations were selected less for NPs in the initial position than in the final position, they were still not excluded. Moreover, indefinite interpretations were overall preferred over definite ones.

A comparative study of Polish translations of English original texts by Czardybon et al. (2014) aimed at providing a quantitative assessment of the interaction between word order and (in)definiteness in Polish. The results of this quantitative evaluation support previous theories about the correlation between the verb-relative position and the interpretation of bare nominals: preverbal position is strongly associated with definiteness and postverbal position is connected to the indefinite reading of an NP. The study revealed quite a high number of preverbal indefinite NPs, which was unexpected to the authors (Czardybon et al. 2014: 147-148). However, as pointed out by Šimík and Burianová (2018), Czardybon et al. (2014) did not distinguish between preverbal and sentence-initial position, which considerably complicates the interpretation of their results.

Some relevant findings concerning the relation between definiteness of a nominal argument and its linear position in a sentence are reported in Šimík and Burianová (2018), who conducted a corpus study and found out that in Czech, clause initial position shows very high intolerance towards indefinite nominal phrases. Šimík and Burianová (2018) argue that definiteness of bare nominals in Slavic is affected by an absolute (i.e., clause initial vs. clause final) but not a relative (i.e., preverbal vs. postverbal) position of this nominal in a clause. The experimental findings presented in this thesis seem to contradict this conclusion. In particular, we found that preverbal indefinites in non-initial position have much lower acceptability than postverbal ones. It is therefore argued that preverbal indefinites need some additional anchoring mechanisms to be activated, which would ensure

their successful use in a given context. It will be proposed in Subsection 5.4.4 that this anchoring mechanism is D-linking, a general discourse coherence principle that can be defined by a set of specific conditions.

All the studies reviewed in this section, even though methodologically different, demonstrate that at least to some extent, NPs with an indefinite interpretation do appear preverbally, where they are not generally expected. The experimental study described below also confirms this result.

#### 5.4.2 Overall characteristics of the experimental study

This subsection provides a general description of the two experimental studies (pilot and main) that were conducted with the aim of investigating the relation between the interpretation of bare nominals in Russian and their position in the sentence (preverbal or postverbal), which relies on the long-standing assumption that word order in articleless Slavic languages is one of the means of expressing (in)definiteness (see Subsection 5.3.4). The main goal of this experimental investigation was to see whether the claim that preverbal bare subjects are interpreted definitely, while postverbal bare subjects are interpreted indefinitely correlates with native speaker judgments.

Given that the study was limited to anaphoric definiteness, the initial hypothesis was formulated as follows:

- (28) *The preverbal position of the bare subject expresses definiteness (familiarity) and the postverbal position expresses indefiniteness (novelty).*

In order to check this hypothesis a pilot survey was created. Participants (Russian native speakers) were asked to assess the acceptability of items with preverbal and postverbal bare subjects in contexts that suggest either definiteness or indefiniteness of the referent. The pilot experiment was conducted online and the items under investigation were presented as short texts consisting of 2-3 sentences, so it

was impossible to control the prosody, even though participants were advised in the instructions not to give any special prosodic prominence to any constituent. As was shown in Subsection 5.3.3 prosody can override the effect of the constituent order alternation, making it possible for the preverbal subject to be interpreted indefinitely.

To exclude the possible influence of prosody on the interpretation of bare nominals, we conducted another experiment (the main one), where the items were presented to participants as audio recordings. All the sentences in the main experiment were recorded with a neutral intonation, flat pitch, and a phrasal stress at the end of the sentence. Hence, all preverbal items were unstressed and postverbal items were stressed only when they also appeared in a sentence final position.

It was an acceptability judgment task (with a 1-4 Likert scale). The participants were asked to judge the well-formedness of sentences with a bare plural subject either in a preverbal or in a postverbal position. A brief context that suggested either a definite or an indefinite reading of the nominal in question was given. See Appendix A for the details on the design, participants, items, and for the results of both pilot and main experiments.

After all, the results obtained in the two experiments were very similar and showed that i) there is a strong correlation between the preverbal position of a subject and its definite reading and the postverbal position and its indefinite interpretation; ii) the overall acceptability in both definiteness- and indefiniteness-suggesting contexts is higher in preverbal position; and iii) the overall acceptability of both preverbal and postverbal position is higher for indefiniteness-suggesting contexts. The theoretical outcomes of these results are discussed in the following subsections (5.4.3-5.4.5).

### 5.4.3 Outcome 1: Preverbal definites and postverbal indefinites

First and foremost, the experimental study showed that there is a strong preference for interpreting preverbal NPs definitely and postverbal NPs indefinitely. However, there is no clear one-to-one correspondence, which suggests that the linear position of a subject nominal in Russian cannot be considered a means of expressing its definiteness/indefiniteness. So, the initial hypothesis has to be modified. Instead of saying that the word order encodes the referential status of a nominal (i.e., its definiteness or indefiniteness), the results only show the following tendency:

- (29) *Preverbal nominal subjects are much more likely to be interpreted as definites, and postverbal nominal subjects are most likely to be interpreted as indefinites.*

As was pointed out in Subsections 3.5.5 and 5.3.4, the preverbal position may be associated with Topic and the postverbal position is associated with Focus. However, topicality, which strongly increases the probability of a definite reading of a bare nominal phrase, is not always sufficient for definiteness. Moreover, non-topical preverbal subjects may be interpreted definitely (e.g. inthetic sentences) when they are anaphorically anchored. That is why there is no clear one-to-one correspondence between the syntactic position of a bare nominal and its interpretation, there is only a tendency.

Thus, it cannot be said that word order is one of the means of expressing (in)definiteness, i.e., encoding the referential status of a nominal phrase. If it were so, it would not be possible to account for the fairly high acceptability level of preverbal subjects in the contexts that suggest indefiniteness (27.7%).

The next relevant question that arises with respect to the obtained results is which factors influence the speakers' judgments in the case of preverbal indefinites. I tackle this issue in the following subsection.

#### 5.4.4 Outcome 2: Higher acceptability of nominals in preverbal position

Another outcome of the experiment is that speakers are more permissive for NPs in preverbal position in both definiteness- and indefiniteness-suggesting contexts. The felicity of preverbal NPs with a definite interpretation was an expected result (see Subsection 5.4.3) but the appearance of indefinites was not predicted by the initial hypothesis, as formulated in (28).

After an item-per-item analysis of preverbal bare nominals in all experimental scenarios (see Section A.3 of Appendix A), a new hypothesis was put forward:

- (30) *A referentially novel (indefinite) bare nominal may appear in preverbal position if it is lexically linked to the previous context.*

This item-per-item analysis suggests that if an item is referentially given (i.e., it anaphorically co-refers with an antecedent in the previous discourse), it has a tendency to appear preverbally. The combination of a referentially given nominal and a preverbal position is judged highly acceptable by native speakers of Russian. This is illustrated by the analysis of definiteness-suggesting contexts (see Subsection A.3.1). If, however, a nominal is referentially new (i.e., it introduces a new referent), it is judged much worse in preverbal position, even though it is still tolerable (see Subsection A.3.2). These observations may suggest that it is not only referential givenness but also accessibility at a lexical level that plays a significant role in licensing bare nominals in preverbal position. Thus, if a bare nominal is referentially new, it can still appear preverbally in those cases where it establishes clear lexical connection with a nominal phrase in the previous context. However, if the connection between the previous context and the target item is looser (e.g. a target nominal can only be pragmatically related to the whole context), then the acceptability rate drops even further and those items are judged close to unacceptable.

The requirement for a nominal to have a lexical connection with the previous context can be related to a much broader phenomenon, which can be postulated as a fundamental principle or a general explanation for a reduced and restricted, but still accepted appearance of indefinite nominal phrases in preverbal position.

This principle is discourse-linking (or D-linking), described by Pesetsky (1987) as a phenomenon where one constituent is anchored to another one in the preceding discourse or in extralinguistic context. Dyakonova (2009: 73), building on this idea, gives the following definition of D-linking: "A constituent is D-linked if it has been explicitly mentioned in the previous discourse, is situationally given by being physically present at the moment of communication, or can be easily inferred from the context by being in the set relation with some other entity or event figuring in the preceding discourse." As can be seen from this definition, D-linking is a rather broad phenomenon that allows for various connections to be established between a constituent X and the preceding discourse or a situational context.

Our experimental study showed that for indefiniteness-suggesting contexts not only referential, but also lexical linking to a previous nominal element can play a significant role. Those nominals that were strongly supported by the previous contexts by lexical relations such as hyponymy/hyperonymy are judged more acceptable than those which do not have this type of support. Thus, the D-linking principle can be successfully employed in a general account of the distribution of bare nominals with indefinite readings in Russian.

Certainly, it might be too early to draw any far-reaching theoretical conclusions on the basis of just one experimental study. For now it is a hypothesis that explains the possibility for indefinitely interpreted bare nominals to appear preverbally in Russian. The validity of this hypothesis should be further confirmed in future empirical and/or experimental studies.

### 5.4.5 Outcome 3: Higher acceptability of nominals in indefiniteness-suggesting contexts

The experiment also showed an overall superior acceptability for NPs in the contexts suggesting their indefiniteness, independently of the syntactic position, as compared to definite contexts. This result may be considered as giving empirical support for Heim's (2011) hypothesis that NPs in languages without articles are inherently indefinite, and definiteness is just a pragmatic strengthening of the indefinite, that is why indefinite NPs are felicitous in a wider range of uses. Definiteness can be seen as a conversational implicature, that is, as not related to any particular construction or lexical item, and drawn from uses of sentences in a certain context (Levinson 1983), according to Grice's (1975) principles of effective and cooperative communication (conversational maxims).

Heim's (2011) hypothesis is discussed in more detail in Subsection 5.5.2. It can straightforwardly account for the results of the experimental study (see Subsection A.2.3) and makes the right predictions for the interpretative possibilities of bare nominals in languages without articles. The defaultness of the indefinite interpretation of bare nominals may explain why they are more easily accepted by native speakers in different syntactic positions. As shown in Subsection 5.5.2, Russian bare nominals can be considered *bona fide* indefinites due to their ability to appear in distributive and existential contexts, to take different scopes and to introduce discourse referents. Other types of interpretations are pragmatically derived and depend on contextual information.

### 5.4.6 Conclusion

The present experimental study, which aimed at establishing the relation between the definiteness status of a bare nominal and its linear position in a sentence in Russian, confirmed that the general tendency is, indeed, to associate preverbal



position with a definite interpretation and postverbal – with an indefinite one, although it cannot be stated that this connection is a strict correspondence. Consequently, it cannot be said that linear position ‘encodes’ definiteness or indefiniteness in Russian. Moreover, the experiments showed a reasonably high ranking that is assigned to bare nominals with an indefinite interpretation that appear in preverbal position. This fairly high acceptability seems to be related to the level of accessibility of a target noun at a lexical level: if a (subset) lexical relation can be established between a target noun and its antecedent, the acceptability rate of the target noun in preverbal position increases. This condition can be related to a more general principle of D-linking.

The higher overall acceptability of NPs in indefiniteness-suggesting contexts, regardless of their position, can be explained by the hypothesis that the indefinite interpretation is the default one for bare NPs in Russian, thus, such NPs are felicitous in a wider range of contexts of use. This hypothesis is discussed in the following section.

### 5.5 What is (in)definiteness in Russian?

In languages with articles, such as English and Romance, the article is said to be related to the morpho-syntactic category of (in)definiteness. In languages without articles, like Russian, this category is not grammaticalised, however, its values are apparently perceptible to the speakers, which can be seen from the translation of Russian examples in the preceding sections, some bare nominals are translated as definites and some as indefinites. See, for instance, the contrast in (11), repeated here for convenience in (31).

- (31) a. V uglu            spit    *koška*.  
           in corner.LOC sleeps cat.NOM  
           ‘A cat is sleeping in the corner.’ / ‘There is a cat sleeping in the corner.’

- b. *Koška* spít v uglu.  
 cat.NOM sleeps in corner.LOC  
 ‘The cat is sleeping in the corner.’

Concepts related to definiteness, such as uniqueness/maximality, existence, familiarity and identifiability, salience, have been postulated in relation to languages with articles and are, therefore, associated with the presence of the definite article in the nominal domain (see Subsection 3.1.2). The relevant question that arises when one analyses languages without articles is whether the expressions perceived as definite in such languages could be analysed in the same terms as in languages with articles. This question is addressed in the following subsection.

I argue that what is understood by ‘definiteness’ in languages with an article system might be rather different from what is found in Russian. In particular, I adopt a so-called ‘uniqueness’ theory of definiteness as a point of departure and argue that, unlike in English or other languages with articles, there is no uniqueness/maximality presupposition in Russian bare nominals that are perceived as definites. This claim is in accordance with the classical view (cf. Partee 1987) that uniqueness/maximality is something that is actually associated with or contributed by the definite article itself, and not by an iota operator, as proposed by Chierchia (1998b), Coppock and Beaver (2015), Dayal (2004).

### 5.5.1 Definiteness in Russian vs. English

A widely accepted view on definiteness in the formal semantic literature is based on the so-called theory of uniqueness. Singular definite descriptions show the property of uniqueness (Russell 1905), which is considered to be part of the presupposition associated with definite nominals (Frege 1879; Strawson 1950). For instance, if we compare an indefinite NP in (32a) with a definite one in (32b), it is clear that (32b) is about a contextually unique mouse, while (32a) may have more than one possible referent.

- (32) a. I've just heard *a mouse* squeak.  
 b. I've just heard *the mouse* squeak.

The semantic definiteness in argument position is standardly associated with the semantic contribution of the definite article itself, formally represented by the  $\iota$  (iota) operator. The iota operator shifts the denotation of a common noun from type  $\langle e, t \rangle$  to type  $\langle e \rangle$ , i.e., from a predicate type to an argument type (see Heim (2011: 998)), and thus, denotes a function from predicates to individuals (Frege 1879; Elbourne 2005, 2013; Heim 2011).<sup>163</sup>

As the contrast between a definite and an indefinite interpretation of nominal phrases is available for the speakers of the Russian language, it is reasonable to hypothesize that Russian has the 'same' kind of definiteness as English, just that it is not grammaticalised. Then, it can be assumed that the same type-shifting rules as in English can be applied, although in the case of Russian the type-shifting operator is not lexicalised. This scenario was proposed by Chierchia (1998b) (see also Dayal 2004), who claimed that the same set of type-shifters, used to formally derive argument types in articulated languages, like English, can be employed in languages without articles to reflect various types of readings (entity type, predicate type or quantifier type) of nominal phrases. This proposal postulates a universal set of semantic operations that are used to model various denotations of nominal constituents. The only difference is that in some languages these operators are lexicalised (languages with articles), whereas in others not (languages without articles).

If Chierchia's (1998) hypothesis that articleless languages use, in principle, the same inventory of type shifting operators is assumed, the same semantic effects would be expected to arise from the application of, for instance, an iota shift,

<sup>163</sup>Predicative uses of definites also exist. They can either be derived from argumental ones (Partee 1987; Winter 2001), or taken as basic ones (Graff Fara 2001; Coppock and Beaver 2015).

whether this shift is lexicalised or not.

However, there is another possible scenario. If definiteness effects are attributed to the presence of the article itself and follow directly from the semantics of the definite article, as in classical uniqueness/type-shifting theories (e.g. Frege 1892a; Partee 1987 i.a.), it would be expected that languages without articles do not show the same type of definiteness effects as languages with overt articles, simply because the former do not have any lexical item that would contain the same semantic meaning as a definite article.

In order to find out which of the two scenarios takes place in Russian, let us compare a set of parallel empirical data from English and Russian and see whether the same definiteness effects emerge in both languages in the case of nominals which are either specified (English) or interpreted (Russian) as definite. Examples (33) - (37) are taken from Seres and Borik (accepted).

(33) *The* director of our school appeared in a public show. # Another director (of our school)...

(34) *A* director of our school appeared in a public show. Another director (of our school)...

Let us first look at (33). The subject of the first sentence is definite: it is marked by a definite article, semantically derived by the  $\iota$  operator and has a strong uniqueness presupposition that cannot be cancelled, as witnessed by the unacceptability of suggested continuations. The only possible interpretation of the second sentence in (33) is 'the other director of the other school', otherwise, the presupposition of uniqueness of the definite description *the director* is violated. However, in (34), the first subject is indefinite and does not give rise to any uniqueness effects. In this case, as the example illustrates, it is possible to conceive the interpretation 'another director of the same school', even though it might sound pragmatically unusual.

The two examples thus clearly illustrate the effects created by the uniqueness presupposition of a definite description.

Let us look at some similar data from Russian (35), the available interpretations are rather different from the ones obtained in the English examples (33) and (34).

- (35) a. Direktor našej školy pojavilsja v tokšou.  
 director.NOM our school.GEN appeared in talkshow.LOC  
 'The director of our school appeared on a talkshow.'
- b. Drugoj direktor vystupil na radio.  
 other director.NOM spoke on radio.LOC  
 'The other director spoke on the radio.'

Russian example (35a) taken in isolation seems to be equivalent to the first part of the English example in (33), in the sense that the nominal phrase 'the director' in both cases is interpreted as definite and, thus, the default interpretation is 'the unique director' in both languages.<sup>164</sup> However, it should be noted that the nominal in (35b) can be interpreted as 'another director of the same school', as opposed to the English example in (34), and the uniqueness of *direktor* in (35a) is cancelled. Thus, there seems to be no uniqueness presupposition for *direktor*, only a conversational implicature which presumably arises from the Maxim of Quantity (Grice 1975): the hearer assumes that the speaker makes her contribution as informative as required. This implicature, however, may be cancelled in the subsequent discourse, as illustrated in (35b).

Examples (36) - (37) show the same effect, i.e., there seems to be no uniqueness presupposition in bare nominals that are perceived as definite.

- (36) Vrač prišel tol'ko k večeru. Drugoj vrač prosto pozvonil.  
 doctor.NOM came only to evening other doctor.NOM simply called

<sup>164</sup>Bare preverbal subjects are strong candidates for definite nominals, due to their position and a default definite-like interpretation that they receive in native speakers' judgements (see the experimental data in Section 5.4).

‘The doctor came only towards the evening. #The other doctor simply called.’

- (37) Avtor ètogo očerka polučil Pulitcerovskuju premiju.  
author.NOM this essay.GEN received Pulitzer prize.ACC

Drugoj avtor daže ne byl upomjanut.  
other author.NOM even not was mentioned

‘The author of this essay got a Pulitzer prize. #The other author was not even mentioned’.

Taking into consideration examples (35) – (37), it can be suggested that if both definite descriptions in English and bare singulars in Russian interpreted as definites are derived by the same semantic operations, these results are unexpected. It seems that in Russian, what we call a ‘definite’ interpretation of bare singulars is of a different nature. Unlike the English in (33), there is no violation of presupposition of uniqueness in the Russian examples.

The absence of uniqueness/maximality in Russian bare nominals has also received empirical evidence in a recent experimental study by Šimík and Demian (to appear), who have found that there is no uniqueness/maximality for bare nominals even in sentence-initial position, which is generally associated with topicality (Geist 2010, i.a.). Bare singulars do not seem to convey uniqueness (contra Dayal 2004), while bare plurals show some maximality effects, which, however, are rather weak and are probably related to pragmatic exhaustivity, construed as a conversational implicature. The results presented in Šimík and Demian (to appear) are compatible with the hypothesis, proposed in Heim (2011), that bare nominals in articleless languages are indefinite and free of presuppositional semantics, even if they may correspond to definite descriptions in some of their uses. This hypothesis is discussed in the following subsection.

### 5.5.2 Indefiniteness

In the current subsection, I review the main properties of indefinite descriptions, checking if they can be applied to Russian bare nominals. I show that Russian bare nominals are basically indefinites.

Indefinite descriptions, i.e., expressions that combine an indefinite article and a nominal (in languages with articles), have been claimed to have a double duty in language: they either introduce a property (type  $\langle e, t \rangle$ ) serving as predicates (38) or a quantifier (39) (type  $\langle \langle e, t \rangle, t \rangle$ ) serving as arguments (de Swart 1999, i.a.).

(38) a. Felix is a cat.

b.  $\lambda x[CAT(x)]$

(39) a. There is a cat on the mat.

b.  $\lambda Q \exists x [CAT(x) \& Q(x)]$

Indefiniteness in arguments, as illustrated in (39), means that there is more than one possible referent satisfying the description (Hawkins 1978). That is, there is no uniqueness presupposition for them (as opposed to definites, see Subsection 5.5.1). Indefiniteness also entails the existence of some entities that satisfy the description, however, their existence is not presupposed.<sup>165</sup>

Another important observation about indefinites is that they can be interpreted as similar to referential expressions (type  $\langle e \rangle$ ) (Fodor and Sag 1982; Reinhart 1997; Winter 1997; Endriss 2009; von Heusinger 2011; Dobrovie-Sorin and Beyssade 2012, among others), taking narrow, wide or intermediate scope with respect to other quantifiers in the sentence. In order to account for this interpretation, an analysis of indefinites as Skolemized functions was proposed. According to Reinhart (1997) and Winter (1997), indefinites denote choice functions, which are Skolem

<sup>165</sup>Indefinite interpretation is also called existential. For the purposes of this work these two terms are used interchangeably.

functions that map any non-empty set onto an element of that set. Thus, it is a function of type  $\langle\langle e, t \rangle, e \rangle$ , which applies to the property (of type  $\langle e, t \rangle$ ) and yields an individual (of type  $\langle e \rangle$ ) that has this property. According to this analysis, an indefinite introduces a variable over choice functions that gets bounded by existential closure, as illustrated in (40).

(40) A cat is on the mat.

a.  $\exists f(\text{be-on-the-mat}(f(\text{cat})))$

b. There exists a choice function and the cat that this function chooses is on the mat.

The choice function captures semantically the flexible scope property of indefinites and their referential interpretation without resorting to covert syntactic movement (Dobrovie-Sorin and Beyssade 2012). The referential reading of indefinites is analysed as specificity (von Stechow 2002, 2008, 2011; Ionin 2006), which is associated with the speaker's referential intent (see also Subsection 4.3.3).

It can be assumed that there are two semantic mechanisms involved in the semantic derivation of indefinites cross-linguistically (Reinhart 1997): existential quantification and choice functions, as shown in (41). Quantificational indefinites are considered to be non-referential, whereas a choice function analysis could account for those cases where an indefinite refers to a (specific) individual.<sup>166</sup>

(41) a.  $\exists(x)[P(x) \wedge Q(x)]$

b.  $f_{CH}(x : P(x))$

Canonical properties associated with quantificational indefinites are their ability to take different scopes (e.g. in opacity contexts) (42), to introduce discourse referents (43), to appear in distributive (44) and existential (45) contexts (Carlson 1977a; Dayal 2004; Geist 2010; Borik 2016, i.a.), as illustrated by English examples below.

<sup>166</sup>Winter (1997), in his turn, proposes that all indefinites should be represented by choice functions.



- (42) John wants to marry a Norwegian,...
- a. because they are beautiful.
  - b. but he hasn't introduced her to his parents yet.
- (43) Yesterday I met *a girl*. Her name is Lucy.
- (44) A child played in every house.
- (45) There is a mouse in the room.

These properties of indefinites have been established for languages with articles. In the following subsection, I check if Russian bare nominals have the same properties, which would mean that they can be considered indefinites.

### 5.5.3 Russian bare nominals as indefinites

I have already tackled the question of the default interpretation of Russian bare nominals in Subsection 3.5.2, showing that bare plurals may take different scopes with respect to modal operators, negation, etc. In the current subsection, the canonical properties of indefinites are tested on singular bare nominals as equivalents to the English ones in examples (42)-(45), as illustrated in (46)-(49).

In opacity contexts, Russian bare nominals may take both narrow and wide scope.<sup>167</sup>

- (46) Vanja        xočet ženit'sja na *norvežke*.  
 Vanja.NOM wants marry    on Norwegian.PREP  
 'Vanja wants to marry a Norwegian.
- a. potomu što oni krasivye  
    because    they beautiful  
    'because they are beautiful.'

<sup>167</sup>However, not all researchers agree with these judgments. Geist (2010) claims that for a wide scope reading the unstressed numeral *odin* has to be used before the nominal as it encodes the specific reading. According to my judgments, this numeral is optional.

- b. no poka eščë ne poznamil eë s roditeljami.  
 but still yet not introduced her with parents  
 ‘but he hasn’t introduced her to his parents yet.’

Furthermore, Russian bare nominals may introduce discourse referents, as shown in (47)<sup>168</sup> predictions that an overt indefiniteness marker will be needed in such contexts, as, according to her view, bare nominals in articleless languages are ambiguous between a definite and a kind reading.<sup>169</sup>

- (47) Včera ja poznamilsja s devuškoj. Eë zovut Sveta.  
 Yesterday I met with girl.INSTR her.ACC they.call Sveta  
 ‘Yesterday I met a girl. Her name is Sveta.’

Russian bare nominals may also appear in distributive (48)<sup>170</sup> and existential (49) contexts.

- (48) V každom dome igral rebënok.  
 in every house.LOC played child.NOM  
 ‘A child played in every house.’
- (49) V komnate est’ myš’.  
 in room.LOC is mouse.NOM  
 ‘There is a mouse in the room.’

Another characteristic of indefinites is the ability of two identical non-coreferential bare nominals to appear in the same sentence. This test demonstrates the ability of

<sup>168</sup>Example from Bronnikov (2007: 2, ex.4). This piece of empirical evidence is against Dayal’s (2004; 2017).

<sup>169</sup>Dayal (2004, 2017a) builds her theory based on Hindi, where an overt indefinite determiner *ek*, equivalent to a numeral ‘one’, obligatorily precedes new discourse referents, which may be bare in Russian. Consider the example (i) from Dayal (2017a: 87, ex. 4b) and its translation into Russian in (ii).

- (i) *ek laRkaa* aur *ek laRkii* kamre meN aaye. laRkii baith-gayii  
 one boy and one girl room in came girl sat-down  
 ‘A boy and a girl came into the room. The girl sat down.’
- (ii) *Mal’čik* i *devočka* vošli v komnatu. Devočka sela.  
 boy and girl entered in room girl sat.down

<sup>170</sup>Example from Borik (2016: 2, ex.2).

nominals in question to introduce new referents (Gillon 2015: 198). In the following Russian examples (50) – (53),<sup>171</sup> the two bare nominals are identical except for the case marking.

(50) *Vor u vora dubinku ukral.*  
 thief.NOM from thief.GEN club stole  
 ‘A thief stole a club from a thief.’

(51) *Durak duraka vidit izdaleka.*  
 fool.NOM fool.ACC sees from.distance  
 Lit. ‘A fool sees a fool from afar’ (=‘Birds of a feather flock together.’)

(52) *Čelovek čeloveku volk.*  
 human.NOM human.DAT wolf.NOM  
 ‘Man is a wolf to a man.’

(53) *Ruka ruku moet.*  
 hand.NOM hand.ACC washes  
 ‘One hand washes the other.’

(54) *Ivan pročitai knigu včera i pročitai knigu segodnja.*  
 Ivan read book.ACC yesterday and read book.ACC today  
 ‘Ivan read a book yesterday and read a book today.’

Examples (47) - (54) reveal that Russian bare nominals in argument positions may indeed be interpreted as *bona fide* indefinites,<sup>172</sup> having the same properties as nominals preceded by an indefinite determiner in languages with articles.

#### 5.5.4 An indefiniteness hypothesis (Heim 2011)

In the previous subsection, I showed that Russian bare nominals have the characteristics of indefinites. This goes against an influential proposal made in Dayal (2004) for Hindi, which she extends for languages without articles, including Russian, that bare nominals in these languages can only be interpreted as definite or

<sup>171</sup>Example (50) is from Bronnikov (2007: 2, ex. 3); example (53) was suggested by Klaus von Heusinger in p.c.

<sup>172</sup>The definite interpretation is not excluded either.

as kind-referring (this proposal is also refuted in Borik 2016 for bare singulars in Russian). An alternative proposal concerning the interpretation of bare nominals in languages without articles was made by Heim (2011). In this section I briefly present an indefiniteness hypothesis based on Heim (2011) and discuss its repercussions for languages without articles. I suggest that this hypothesis can straightforwardly account for the data discussed in Subsection 5.5.1 and makes the right predictions for the interpretative possibilities of bare nominals in languages without articles.

According to this hypothesis, bare nominals in languages without articles are inherently indefinite, and definiteness is viewed as a result of a pragmatic strengthening of the indefinite (that is, it is a cancellable implicature). Heim (2011: 1006) claims that in languages without articles bare NPs “may simply be indefinites”: “They are semantically equivalent to English indefinites. But they have a wider range of felicitous uses than English indefinites, precisely because they do not compete with definites and therefore do not get strengthened to carry the implicatures that would show up if they were uniformly translated as indefinites into English.”

Let us first have a look at the English data. It is important to notice that a sentence with a definite argument would always entail the corresponding sentence with an indefinite argument. Whenever (55a) is true, (55b) is also true, but not the other way around.

- (55) a.  $[[\text{The cat ran away}]] = [\iota x. x \text{ is a cat}] \ \& \ x \text{ ran away}$   
 b.  $[[\text{A cat ran away}]] = \exists x. x \text{ is a cat} \ \& \ x \text{ ran away}$

According to Heim (2011), the articles *the* and *a* could be construed as alternatives on a Horn scale (Horn 1972), which generates a conversational implicature: *the* > *a*. Thus, if the speaker uses (55b), the hearer concludes that it is the strongest statement to which the speaker can commit under the given circumstances (following Grice’s maxim of quantity). The hearer, in her turn, infers that the stronger

statement is false, or its presuppositions are not satisfied. Heim (2011) postulates that the choice of the logically weaker indefinite will trigger an inference that the conditions for the definiteness (existence and uniqueness) are not met.

The crucial difference between a definite and an indefinite description is that a definite nominal is construed with the narrowest possible domain restriction, which accounts for the uniqueness effects (see also Subsection 5.5.1). However, for languages without articles the corresponding Horn scale does not exist, as there are no actual articles, and, thus, a bare nominal is compatible with the whole range of domain restrictions simply because there is no element that would signal that the speaker is committed to the strongest possible statement, as in the case with the definite article in English. The prediction is that no implicature about a 'stronger statement' is triggered and a definite reading is not ruled out for an 'indefinite' bare nominal in a language like Russian. Since there is no competing expression for the narrower domain restriction, semantically indefinite nominal phrases are compatible with a (contextually triggered) definite interpretation. Nothing prevents them from being used in situations where a definite description is used in a language with articles, e.g. in English, as they lack both uniqueness and non-uniqueness implicatures. This would mean that the domain restriction attributed to each particular bare nominal is pragmatically derived and is, in principle, a matter of a (strong) preference. (See also the pragmatically derived genericity in Chapter 3).

Russian definiteness of bare nominals may be considered a pragmatic strengthening of the 'default' indefinite interpretation. This is compatible with von Stechow's (1996; 2006; 2013) theory of definiteness as contextual salience, based on pragmatic activation of the referent (see Subsection 3.1.2). The definite interpretation of bare nominals would then depend on contextual information, as in situational, anaphoric, or relational uses of definite descriptions.

Following Heim (2011), it can be proposed that for any bare nominal phrase in

Russian, an indefinite interpretation is the only one derived semantically. This hypothesis in combination with the empirical data that show the absence of uniqueness in Russian bare nominals, as presented in Subsection 5.5.1 (see examples (35)-(37)), strongly suggest that the most plausible semantic analysis for Russian bare nominals would be formulated in terms of indefiniteness.<sup>173</sup> The perceived definiteness of Russian bare nominals is of pragmatic nature and is achieved in the ways described in the next subsection.

### 5.5.5 Inferring definiteness in Russian

In the previous subsection (5.5.4), I presented the hypothesis by (Heim 2011) that bare nominals in languages without articles are inherently indefinite. Under this hypothesis the definite reading of Russian bare nominals is achieved through pragmatic strengthening and is not derived by the covert iota type-shift. The definite interpretation is only felicitous in contexts where there is exactly one individual that satisfies the common noun predicate. The contexts that facilitate pragmatic definiteness may be of different types; as originally proposed by Olga Borik (see Seres and Borik (accepted)), they include ‘ontological’ uniqueness, topicality and anaphoricity.

First of all, let us have a look at ‘ontological’ uniqueness. This type of uniqueness is conveyed by the descriptive content of a nominal phrase itself, but not by the definite article, e.g. as in Russian equivalents of English *the earth*, *the sun*, *the moon*, etc. For instance, when we want to use an expression with the noun *sun*, a usual case is that we want to refer to the sun of our solar system, which is a unique object. We could also use *sun* with an indefinite article (or an indefinite determiner in Russian), as illustrated in (56b), but then we would overrule the assumption that we are talking about the sun of our solar system. This is the case of *ontologi-*

<sup>173</sup>The hypothesis presented in this chapter is work in progress. I acknowledge the need to develop a formal analysis in the future.

*cal uniqueness*, i.e., the case when a definite article does not necessarily impose but rather reflects the uniqueness of the object in the actual world.

In Russian, ontologically unique objects are usually referred to by bare singular nominals, as illustrated in (56a):

- (56) a. *Solnce svetit.*  
 sun.NOM shine.3SG  
 'The sun/#a sun is shining.'
- b. *Kakoe-to solnce svetit.*  
 some sun shine.3SG  
 'A sun is shining.'

The interpretation of *solnce* (sun.NOM) in (56a) seems to certainly be definite, although it can be argued that definiteness effects in this case are simply due to the fact that the reference is made to a unique object in the real world (i.e., there are no other objects like this). Thus, in the absence of any evidence to the contrary, the subject of (56a) is understood as '*the sun of our solar system*', which is a unique object. If so, there is no uniqueness presupposition associated with the nominal *sun* in (56). Rather, it is simply the fact that there is only one such object so the noun *sun* by default denotes a singleton set.

This existence of a single sun in (56a), as opposed to a non-unique sun in (56b), is entailed by world knowledge of the speaker, which means that it is a pragmatic effect. So, uniqueness of the referent is not encoded semantically, which supports the hypothesis that Russian bare nominals generally lack the uniqueness presupposition, as suggested in Subsection 5.5.1.

Moreover, the choice function analysis of bare nominals would yield both an inferred definite and a proper indefinite reading uniformly: the difference depends on the restrictions imposed by the context on the set of 'sun' objects: if the context is restricted to our world it will be a singleton set and hence the 'unique' sun, but if the set is not restricted to our world it would be a proper indefinite. In English,

however, these two options are semantically encoded by articles.

The next source of definiteness is topicality, which strongly favours a definite interpretation cross-linguistically (Reinhart 1981; Erteschik-Shir 2007, i.a). However, although there is a strong preference for a definite reading in topic position, specific indefinites are not excluded from being topics either (Reinhart 1981; Dobrovie-Sorin and Beyssade 2012, a.i.). Specific indefinites are discourse new, but they are anchored to other discourse referents (von Heusinger 2002), or D-linked (Pesetsky 1987; Dyakonova 2009), and thus can appear in topic position (see Subsection 5.3.4). In example (57), the nominal in the topic position *kandidat v mèry Vladivostoka* ‘Vladivostok mayoral candidate’ has a preferred specific indefinite interpretation, as it is supposed that there is usually more than one mayoral candidate. The definite reading is not excluded either, in the case that there is only one candidate.

- (57) Načalas’ predvybornaja kampanija. *Kandidat v mèry*  
 started pre-election campaign candidate in mayors.ACC.PL  
*Vladivostoka* podpisalsja na menja v Instagrame.  
 Vladivostok.GEN subscribed.REFL on me.ACC in Instagram.PREP  
 ‘The electoral campaign started. Vladivostok mayoral candidate followed  
 me on Instargam.’

Topicality is related to definiteness in the sense that it triggers the presupposition of existence, as topics are considered to be given. Definiteness and givenness are not always the same, even though the overlap between them is remarkably strong, as givenness is related to the identifiability of the referent. Topicality in Russian is associated with clause-initial position (Geist 2010; Jasinskaja 2014, i.a.). The majority of the examples discussed above involve bare nominals that are actually topics, as in (58).

- (58) Avtor ètogo očerka polučil Pulitzerovskuju premiju.  
 author.NOM this essay.gen received Pulitzer prize.ACC



'The author of this essay got a Pulitzer prize.'

As was shown in Subsection 5.5.1, preverbal nominals, like the one illustrated in (58), in Russian do not give rise to the uniqueness presupposition, however, their existence is certainly presupposed. This kind of presupposition is not necessarily a counter-argument to the absence of semantic definiteness in bare nominals in languages without articles. It can be attributed to the topichood of the nominal.<sup>174</sup> Elements that appear in topic position can only be referential (Reinhart 1981; Erteschik-Shir 1998; Endriss 2009, among others). An intuitive idea behind this generalization is that if there is no entity that the nominal topic refers to, this expression cannot be an aboutness topic because then there is no entity to be talked about.

Another important source of definiteness is familiarity/anaphoric reference, when an antecedent is provided by the previous context, or, more generally, by the shared encyclopedic knowledge of the participants of communication. This kind of definiteness is completely discourse- and situation-dependent, exposing the apparent correlation between the interpretation of Russian bare nominal and pragmatic factors. Consider (59).

- (59) Včera v zooparke ja videla sem'ju tigrov. Životnye spokojno  
 yesterday in zoo I saw family.ACC tigers.GEN animals calmly  
 spali v uglu kletki posle obeda.  
 slept in corner cage.GEN after lunch  
 'Yesterday at the zoo I saw a family of tigers. The animals were calmly  
 sleeping after lunch.'

Examples, such as (59) do not contradict the indefiniteness theory of bare nominals proposed in the previous section. First of all, anaphoric definites are usually not

<sup>174</sup>Notice, however, that topicality is not the only source of the presupposition of existence for bare nominals. It can also be a lexical requirement of a verb, e.g. the arguments of SEVs are presupposed, as was shown in Subsection 4.3.4, or it can arise from the common ground that the speakers share, as was argued in Subsection 3.5.6.

explained by appealing to the uniqueness theory of definites, but by a familiarity hypothesis developed in Heim 1982; Kamp 1981. According to this hypothesis, definite descriptions introduce a referent that is anaphorically linked to another previously introduced reference. Anaphoric definites do not have to have any uniqueness presupposition, their referent is simply established and identified by a link to a previous antecedent.<sup>175</sup>

To sum up, I have shown the three main sources of pragmatic strengthening the interpretation of Russian bare indefinite nominals, which account for the perceived definiteness effects. They are ontological uniqueness, topicality and anaphoricity. I have shown that none of these cases need to rely on presupposition of uniqueness to explain the definiteness effects that arise in any of the contexts discussed here. Possibly, there are more factors that facilitate a definite interpretation of Russian bare nominals, so, this question needs to be investigated further.

## 5.6 Concluding remarks

In this chapter, I have focused on the questions related to (in)definiteness in Russian as a language without articles, i.e., lacking a morphosyntactic category to encode definiteness. I have shown that there is a great degree of variation intra- and cross-linguistically, as far as articles are concerned. I have also pointed out that the values of definiteness/indefiniteness are still perceptible for speakers of languages without articles, like Russian. I have demonstrated that perceived definiteness may be encoded by various means in this language: lexical, morphological, prosodic and syntactic. Nevertheless, there is no single means that can be considered definiteness-encoding on its own.

I have presented an experimental study aimed at checking whether the lin-

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<sup>175</sup>There have been attempts in the literature to unify a uniqueness approach with the familiarity approach to definites, e.g. Farkas 2003.

ear position of bare subject nominals can be considered a means of expressing (in)definiteness. The results of the study showed that there is a strong preference for a definite interpretation of preverbal nominals and an indefinite one of postverbal nominals. However, there is no strict correspondence. The experiment also showed that there is a higher acceptability of both definite and indefinite nominals in preverbal position. Besides, there is a higher acceptability of indefinites in any position.

I have shown that Russian bare nominals with a definite interpretation, as compared to their English counterparts, lack the uniqueness presupposition. Following Heim (2011), I have proposed treating Russian bare nominals as inherently indefinite. Definiteness effects arise as a result of pragmatic strengthening (the same as genericity, see Chapter 3). Nominals are perceived as definite when they are 'ontologically' unique, when they are topical and when they are familiar (non-novel) in the discursive context.

## Chapter 6

### General conclusions

The expression of genericity in languages with and without articles is a truly overarching and complex topic, which includes questions related not only to linguistics, but also to philosophy and cognitive science. In this thesis, I limited myself to the study of some aspects of genericity and to the study of how this linguistic phenomenon is manifested in Russian (a language without articles) as compared to languages with articles, such as English and Romance.

Genericity in natural language is the expression of reference to kinds, which can be conceived as abstract integral entities that exist as sortal concepts in a speaker's mind. Genericity is assumed to be universally present in all languages, while its expression may differ significantly. In Russian, generic reference is expressed through singular and plural bare nominals, English uses definite singulars and bare plurals, while in Romance languages both singular and plural generic nominals bear a definite article. None of these forms in the languages under study is used exclusively for generic reference.

In this dissertation, I have shown that reference to kinds may be carried out directly or indirectly. Direct reference to kinds (called *kind reference* in this work) means that an NP names a kind. Indirect reference to a kind (called *generic reference*) is achieved through reference to the maximal sum of its instances, which are

individual entities that, unlike kinds, exist in space and time. The indirect reference to kinds can be understood as intensionalisation of a sum of its individual members. This intensionalisation does not come from the nominal phrase but is produced under certain syntactic and pragmatic circumstances.

The distinction between direct and indirect reference to kinds is reflected in the division of genericity into two subphenomena: nominal-level and sentence-level genericity. This division is widely accepted in the linguistic literature on languages with articles, and I have shown that it can also be applied to Russian.

Nominal-level genericity represents direct reference to kinds. In languages with articles, such as English and Romance, kind-referring nominals are overtly definite and are derived by means of an iota operator applied to properties of kinds (the meaning of a common noun). In Russian such nominals are bare and semantically indefinite (analysed as choice functions). However, they presuppose the uniqueness of the referent, which makes them similar to definites. The uniqueness interpretation associated with these nominals is due to their denotation, which involves reference to singleton sets, but not to the output of the application of a semantic operator. Crucially, the reference of kind-referring NPs cross-linguistically is based on the absence of Number. Number is conceived as an instantiation operator, which is the core of the individual entity denotation, distinguishing it from kind entity denotation. Kind-referring NPs denote abstract integral entities which do not allow access to their instantiations, and are, thus, devoid of Number.

In this dissertation, I have analysed kind-referring NPs in their meta-linguistic use, i.e., in definitional sentences, which explain the meaning of nominal concepts. I have focused on the structure and meaning of Russian canonical definitions, which express an identity/identification relation between two concepts. I have shown that definitional sentences are non-predicational and they contain two kind-referring nominals and a neuter element *èto*, which introduces a presen-

tational function that maps the kind entity in postcopular position to a function that looks for another kind entity (the precopular NP) and composes a definitional generic sentence.

As for sentence-level genericity, in this thesis, it is analysed as involving a maximal sum of individual entities (a plural nominal) that is reinterpreted as denoting a kind due to the type of sentence in which the nominal is found or the type of predicate with which the nominal is combined. In this case it has been argued that reference to kinds is indirect because this reference does not originate from the semantics of the nominal itself. Moreover, unlike kind-referring NPs, generically interpreted sums of individuals are characterised by the presence of semantic and syntactic plural Number.

I have proposed that generic plurals, i.e., plural nominals with a generic meaning, get this interpretation only in certain environments. I have shown that a plural nominal is reinterpreted as referring to a kind when it is found in argument position of a kind-level predicate. Kind-level predicates require their arguments to be kind-referring, so, an individual entity reading of a plural nominal is coerced to a generic reading.

Plural nominals are also interpreted as generic in subject position of characterising sentences. These sentences ascribe a characterising property to the subject and do not express particular events. These sentences are characterised by temporal unboundedness, atelicity and lawlikeness, providing no contextual restrictions for the subject and fostering genericity.

In object position, a generic reading may arise when plural nominals are combined with psychological subject experiencer verbs. These verbs are non-agentive and preclude any selection of individuals at which the emotion is targeted, thus, applying to the maximal number of individuals in the reference domain, which is unbounded in the case of generic nominals. I conclude that the rise of a generic

reading on plural nominals (bare in Russian and English, and definite in Romance) depends on the type of verb and also on the type of sentence.

Moreover, there are pragmatic conditions, relevant for a generic interpretation of a nominal. They include the existence of a certain concept in the background knowledge of the speaker, and the absence of spatiotemporal anchoring and anaphoricity/familiarity (i.e., the absence of contextual restrictions).

Plural NPs that may be interpreted generically are bare in Russian and English, and overtly definite in Romance, but they refer to the same ontological object – a maximal sum of individuals. I argue that maximality is a necessary condition for genericity. It may be understood as inclusiveness/totality of reference and may be formulated as reference to all (relevant/possible) instantiations of a kind in all possible worlds that share a certain property of that kind. The reference set of generic plurals is unbounded in the sense that the number of instantiations of a kind cannot be defined, as it includes both actual and potential instantiations.

Furthermore, generic nominals are characterised by identifiability. Even though they may be discourse-new, they are part of the common ground of the speaker, which includes the mental ‘catalogue’ of conceptual information. As everything which belongs to the common ground, generic NPs have a presupposition of existence.

The above-mentioned characteristics (maximality, identifiability and presuppositionality) make generic nominals similar to definites. I propose that some languages, e.g. Romance languages, encode generic reference by means of a definite article due to the affinity between the two readings, while in others, e.g. Russian, the generic use of bare plurals is pragmatically inferred. The difference between the two types of interpretation is that in the case of definites the domain of reference is contextually restricted. Generic nominals, in their turn, cannot be spatiotemporally or anaphorically anchored.

The study of genericity as a possible reading of Russian bare nominals naturally leads to the investigation of other types of reference that these NPs may have in this language. Russian bare nominals can be interpreted as generic, definite and indefinite. Based on empirical evidence from this language, I have proposed that the indefinite interpretation is the underlying one and the only one that is semantically derived in Russian. In this work, I have assumed a uniqueness theory of definiteness and shown that Russian bare nominals do not give rise to a uniqueness presupposition, and thus, cannot be considered *bona fide* definites. As indefinites, Russian bare nominals can be analysed in terms of existential quantification and choice functions. However, the exact details of a formal semantic analysis still need to be developed.

I suggest that both genericity and definiteness result from a pragmatic strengthening of an indefinite nominal, that is, they are not analysed as a result of a covert type-shift. The main factors for the rise of genericity on a nominal are lexical coercion (due to the type of a verb with which a nominal is combined) and unboundedness of the domain of reference, i.e., the absence of any pragmatic or contextual restriction, such as spatiotemporal or anaphoric anchoring. The pragmatic definiteness effects emerge in the case of 'ontologically unique' referents, in the case of nominals in topic position or in the case of familiar/anaphoric nominals, whose interpretation is strongly dependent on the discourse or situational context.

All in all, I have presented an analysis of genericity as a linguistic phenomenon, which showed that in the absence of articles this type of reference highly depends on contextual and pragmatic factors. This research may be a starting point for a more extensive investigation of genericity and other types of reference in natural language. First, it remains to be checked whether the analysis of generic nominals elaborated in this thesis on Russian can be applied to other languages without articles, starting from other languages of the Slavic family. Second, the list of prag-



matic factors that determine a generic and a definite reading of a bare nominal is not exhaustive and must be further explored. Moreover, a detailed formal analysis of these factors need to be developed. Finally, I would like to pursue the idea of performing new experimental studies that might reveal novel information concerning the interpretation of genericity and related notions in languages with and without articles.

# **Appendix A**

## **An experimental study of the interpretation of bare nominals in Russian**

The experimental study of the interpretation of bare nominals in Russian in relation to their syntactic position consisted of two experiments: a pilot one and a main one. In this Appendix I describe the methodology of the two experiments, give examples of experimental items and the results obtained in the course of the study. Furthermore, an item-per-item analysis of the experimental sentences from the main experiment is presented. Theoretical questions that arise in view of the results of the experiments are discussed in Subsections 5.4.3 - 5.4.5.

### **A.1 Pilot experiment**

#### **A.1.1 Design, participants and materials**

We examined the interpretation of bare plural subject NPs using an Acceptability Judgement Test (AJT) with a scale from 1 (not acceptable) to 4 (fully acceptable). The experiment was held online with the help of the free web-based survey soft-

ware Google Forms. Participants were given short written instructions, advising them to read the items with a neutral intonation and to give their first judgement. 270 anonymous Internet users who claimed to be Russian native speakers took part in the survey.

The list of a total of 80 randomized items presented to participants consisted of the following scenarios:

- 10 sentences with intransitive verbs in the past tense with bare plural subjects in preverbal position in contexts which negate the previous existence of some potential referents, thus, suggesting their novelty (i.e., indefiniteness).
- 10 sentences with intransitive verbs in the past tense with bare plural subjects in postverbal position in contexts which negate the previous existence of some potential referents, thus, suggesting their novelty (i.e., indefiniteness).
- 10 sentences with intransitive verbs in the past tense with bare plural subjects in preverbal position in contexts that suggest a presupposition of existence, and either a situational or anaphoric or inferrable definiteness of the referents.
- 10 sentences with intransitive verbs in the past tense with bare plural subjects in postverbal position in contexts that suggest a presupposition of existence, and either a situational or anaphoric or inferrable definiteness of the referents.
- 40 fillers.

The examples of the experimental items of the above-described four types of scenarios are presented in (1) - (4). The acceptability judgment that native speakers had to give applied to the part of the sentence after suspension points (...). The bold type marks the subject nominal and the italics the verb.

(1) *Preverbal subject, indefiniteness-suggesting context*

V kuxne vsegda bylo očēn' čisto, nikogda ne bylo ni odnogo  
 in kitchen always was very clean never not was not one  
 nasekomogo. ... No nedelju nazad **tarakany** obnarušilis'.  
 insect ... but week ago cockroaches found.themselves

'The kitchen has always been very clean, there's never been any insect. But  
 a week ago cockroaches appeared.'

(2) *Postverbal subject, indefiniteness-suggesting context*

Na ulitse bylo tixo i pustynno. ... Vdrug iz-za ugla  
 on street was silent and deserted ... suddenly from.around corner  
 vyšli **ljudi**.  
 came.out people

'The street was silent and empty. Suddenly from around the corner people  
 came out.'

(3) *Preverbal subject, definiteness-suggesting context*

Gonki zakončilis'. ... **Mašiny** vernulis' v garaži.  
 races finished ... cars returned in garages

'The race was over. Cars returned to garages.'

(4) *Postverbal subject, definiteness-suggesting context*

Včera v zooparke ja videla semju tigrov. ... V uglu kletki posle  
 yesterday in zoo I saw family tigers ... in corner cage after  
 obega spali **životnye**.  
 lunch slept animals

'Yesterday at the zoo I saw a family of tigers. In the corner of the cage after  
 lunch animals were sleeping.'

The full list of items can be consulted following this link: [https://docs.google.com/forms/d/1HRIHjRgmBRruUU1\\_R2NTFW98qeAGjqmnwqBPzeDkd9g/prefill](https://docs.google.com/forms/d/1HRIHjRgmBRruUU1_R2NTFW98qeAGjqmnwqBPzeDkd9g/prefill)

### A.1.2 Results

The pilot experiment showed that there is a clear preference for preverbal subjects in definiteness-suggesting contexts and for postverbal subjects in indefiniteness-suggesting contexts, as highlighted in Table A.1. So, there is a visible correlation between the interpretation of the subject and its syntactic position. However, other combinations are still accepted by the speakers. The preverbal position of indefinite subjects has rather a high acceptability (22.5 % good + 9.82% very good), as shown in Table A.1. Such result is similar to the ones obtained in the previous studies on Slavic languages by Czardybon et al. (2014) and Šimík (2014), mentioned in Subsection 5.4.1.

Table A.1: Preverbal vs. postverbal subjects in indefiniteness- and definiteness-suggesting contexts

Suggested Situation / Context	Subject Position	Percentage of responses (%)			
		Sounds very bad	Sounds quite bad	Sounds good	Sounds very good
Indefiniteness	Preverbal	25.53	39.00	22.50	9.82
Indefiniteness	Postverbal	4.47	12.56	<b>26.21</b>	<b>56.79</b>
Definiteness	Preverbal	6.20	11.54	<b>24.13</b>	<b>58.11</b>
Definiteness	Postverbal	45.48	34.71	13.14	6.68

However, it has to be taken into consideration that such a high acceptability may be explained by the fact that if the preverbal NP is stressed by the reader (i.e., the participant of the experiment), it can be interpreted indefinitely, thus, introducing novel referents. The change in intonation may override the effect of word order (see Subsection 5.3.3). In order to avoid to control for the prosody and avoid its possible influence on the interpretation, in the main experiment all items were recorded as audio files.

## **A.2 Main experiment**

### **A.2.1 Participants and methodology**

A total of 174 Russian speakers participated in a survey administered online using the free SurveyMonkey software, with stimuli being presented acoustically. Participants had to assign each item one out of 4 categories on the Likert Scale: 1 «it sounds bad», 2 «it does not sound very good, but it's possible», 3 «it sounds good enough», and 4 «it sounds very good». The average time for completing the task was 22 min 38 sec.

The results of 54 participants were discarded as they missed three or more items when answering the survey, which left the final database with 120 participants (102 female, 17 male, 1 non-binary). Their mean age in years was 36.59 (SD = 8.55), and 91 of them claimed having received university education related to linguistics, philology, translation or language teaching. Demographic information was collected from a sociolinguistics questionnaire administered right after the study that inquired about the participants' age, sex and level of studies, as well as the place where participants had spent most of their childhood, and the place where participants currently live.

### **A.2.2 Design and materials**

The experiment consisted in an acceptability test of a series of sentences containing bare plural subjects in contexts suggesting either definiteness or indefiniteness in both preverbal and postverbal position. The test sentences were presented in a brief situational context, and both the context and the target sentences were acoustically presented to the participants in order to control for the potential effects of prosody on the interpretation. A total of 8 (preverbal definite) + 8 (postverbal definite) + 8 (preverbal indefinite) + 8 (postverbal indefinite) experimental scenarios

were prepared for each type of definiteness condition, to which a set of 16 filler sentences was added, leading to a total of 48 items to be answered by each participant.

The examples of experimental items are presented in (5) - (8). The bold type marks the subject nominal and the italics the verb.

(5) *Preverbal subject, indefiniteness-suggesting context*

My živëm v dome staroj postrojki: pročnyje steny, starye derevjannye  
we live in house old building solid walls old wooden  
perekrytija. U nas v dome nikogda ne bylo gryzunov. No včera ja  
beams at us in house never not was rodents but yesterday I  
uslyšala, kak **myšy** skrebutjsja.  
heard how mice scratch

'We live in an old house: it has solid walls and old wooden beams. We never had rodents at home. But yesterday I heard mice scratch.'

(6) *Postverbal subject, indefiniteness-suggesting context*

Naša derevnja sovsem na otšibe, novosti do nas doxodjat redko. Xotja  
our village totally at offset new to us reach rarely however  
v poslednee vremja kak-to načala nalaživatsja svjaz' s  
in recent time somehow began improve connection with  
vnešnim mirom. Nu naprimer, ran'se nam nikogda ne prinosili  
outer world well for example before to.us never not brought.PL  
počtu. No segodnja v jaščike *ležali* **pis'ma**.  
mail but today in mailbox lied letters

'Our village is out of the way, news rarely reaches us. However, recently the connection to the outer world has improved. Well, for example, we have never received any mail. But today in the mailbox letters were lying.'

(7) *Preverbal subject, definiteness-suggesting context*

Inspektror znal, čto v ètom dome živët molodaja sem'ja, kažetsja s  
inspector knew that in this house lives young family seems with  
det'mi. On vošel v komnatu i uvidel mal'čika i devočku.  
children he entered in room and saw boy and girl  
**Deti** nepodvižno *sideli* za stolom.  
children motionlessly sat at table

‘The inspector knew that there lives a young family in the house, seemingly, with children. He entered the room and saw a boy and a girl. The children were sitting motionlessly at the table.’

(8) *Postverbal subject, definiteness-suggesting context*

Na Roždestvo rešili pozvat' vsju sem'ju i nakryt' prazdničnyj  
 on Christmas decided.PL call all family and lay festive  
 stol. Bylo rešeno dostat' iz pyl'nyx korobok davno ne  
 table was decided take.out out dusty boxes long not  
 ispol'zovavšijsja starinnyj serebryanyj serviz, tol'ko nikto uže ne  
 used old silver set only nobody yet not  
 pomnil, gde imenno on xranilsja. Xozjaika iskala famil'noe  
 remembered where exactly it was.stored landlady looked.for family  
 srebro po vsem škafam. No bylo ponyatno, čto propali  
 silver in all cabinets but was clear that disappeared.PL  
**stolovye pribory.**  
 cutlery

‘For Christmas they decided to reunite all the family and to have a big festive dinner. They decided to take out of the dusty boxes the unused old silver cutlery set, but nobody remembered where exactly it was. The landlady was looking for family silverware in all cabinets. But it was clear that the cutlery was gone.’

The full list of items can be consulted following this link: <https://bit.ly/2J03nsy>

### A.2.3 Results<sup>176</sup>

A total of 3,840 data points was collected (120 participants × 2 definiteness conditions [indefinite, definite] × 2 positions in which the NP appeared in the sentence with respect to the verb [preverbal, postverbal] × 8 scenarios). These responses were analyzed using a Linear Mixed Model using the GLMM interface from IBM SPSS Statistics 24.

<sup>176</sup>The statistical analysis presented in this subsection was performed by Joan Borràs-Comes.



The Linear Mixed Model was applied to the data. The model was defined with Participant as the subject structure and Situation  $\times$  Position as the repeated measures structure (Covariance Type: Diagonal). The participants' perceived acceptability of the sentences was set as the dependent variable. The fixed factors were Definiteness, Position, and their interaction. Regarding the random factors, a random intercept was set for Participant, with a random slope over Position (Covariance Structure: Variance Components).

The two main effects were found to be significant: Definiteness,  $F(1, 3829) = 44.700, p < .001$ , such that indefinite sentences obtained significantly more acceptability than definite sentences ( $diff = .164, SE = .024, p < .001$ ), and Position,  $F(1, 3829) = 14.236, p < .001$ , indicating that preverbal NPs obtained more acceptability than postverbal NPs ( $diff = .113, SE = .030, p < .001$ ).

The interaction Definiteness  $\times$  Position was found to be significant,  $F(1, 3829) = 4958.853, p < .001$ , which could be interpreted in the following two ways. On the one hand, in preverbal position definites were more adequate than indefinites ( $diff = -1.561, SE = .035, p < .001$ ), and in postverbal position indefinites were more adequate than definites ( $diff = 1.888, SE = .034, p < .001$ ). On the other hand, indefinites were found to be more adequate in postverbal rather than in preverbal position ( $diff = -1.612, SE = .037, p < .001$ ), while definites were found to be more adequate in preverbal rather than in postverbal position ( $diff = 1.837, SE = .040, p < .001$ ). Figure A.1 shows the mean perceived acceptability that the participants ascribed to the experimental items on the 4-point Likert scale (from 1 "not acceptable" to 4 "fully acceptable").

The most perceptible result seen from the graph is that the participants favored two out of the four possible combinations of Definiteness and Position, i.e. postverbal subjects in indefiniteness-suggesting contexts ( $M = 3.399, SD = .791$ ) and preverbal subjects in definiteness-suggesting contexts ( $M = 3.289, SD = .874$ ), giving

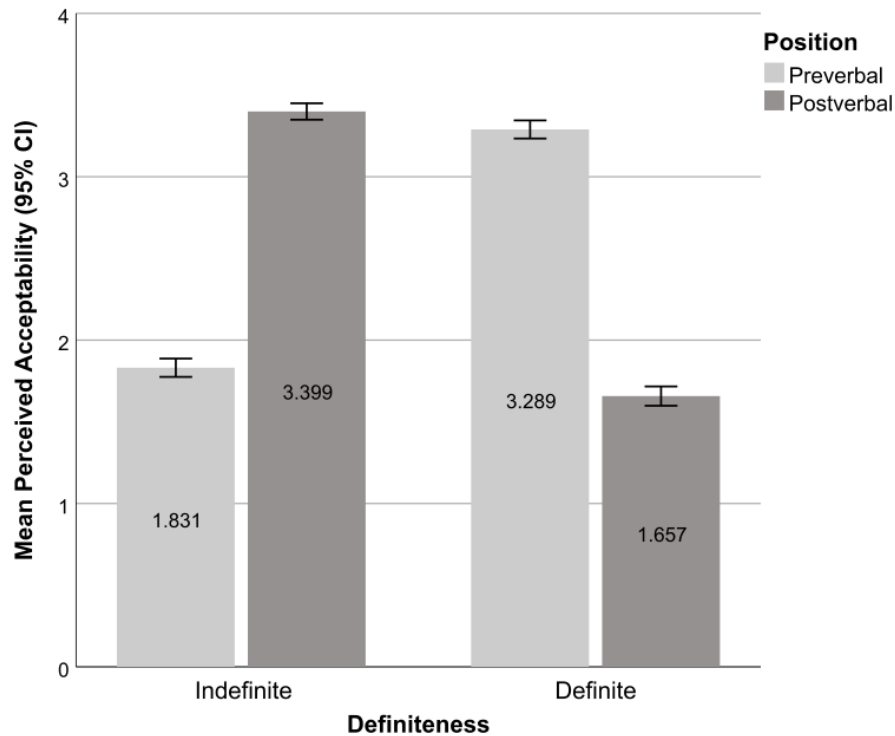


Figure A.1: Average perceived acceptability that our participants attributed to the experimental sentences. Error bars depict the 95% confidence interval.

substantially lower ratings to preverbal subjects in indefiniteness-suggesting contexts ( $M = 1.831, SD = .885$ ) and postverbal subjects in definiteness-suggesting contexts ( $M = 1.657, SD = .932$ ).

Besides the optimal combinations (preverbal NP + definiteness-suggesting context and postverbal NP + indefiniteness-suggesting context), additional statistically significant results were obtained. Firstly, an overall superior acceptability for NPs in indefiniteness-suggesting contexts (regardless of the syntactic position of the NP) as compared to definiteness-suggesting ones was observed. Secondly, the acceptability of bare nominals in preverbal position was higher as compared to the postverbal position, independently of the type of the preceding context.

It is also important to notice that the results of the main experiment were very similar to the results of the pilot (see Table A.2), which could suggest that the effect of intonation was minor and that there are other factors which are more relevant

and which will be discussed below.

Table A.2: Acceptability rate in the pilot and in the main experiment

Scenarios	Acceptability (%)	
	Pilot	Main
Indefinite × Preverbal	39.05	27.70
Indefinite × Postverbal	78.43	79.97
Definite × Preverbal	78.06	76.30
Definite × Postverbal	27.01	21.90

It should be noted that the acceptability of indefinites in the preverbal position is also fairly high in both of the experiments. So, one of the main theoretical question was what factors influence the speakers' judgments in the case of preverbal indefinites. In search for a possible answer, preverbal definiteness- and indefiniteness-suggesting contexts used in the main experiment were analysed one by one.

### A.3 Item-per-item analysis of preverbal subjects

In order to find out what makes it possible for a certain nominal to appear in a preverbal subject position, an analysis of the correlation between the acceptability and the information status of the subject NPs in the experimental sentences was performed, using Baumann and Riester's (2012) annotation scheme.<sup>177</sup> Baumann and Riester (2012) claim that for an adequate analysis of the information status of a nominal expression occurring in natural discourse it is important to investigate two levels of givenness: referential and lexical. The authors propose a two-level annotation scheme for the analysis of an NP's information status – the *RefLex* scheme. In the item-per-item analysis we adopted this scheme in order to check the correlation between acceptability of an item in preverbal position and its information status.<sup>178</sup>

<sup>177</sup>I am thankful to Klaus von Heusinger (p.c.) for suggesting this approach to me.

<sup>178</sup>The full set of labels for the annotation of discourse referents proposed in Baumann and Riester (2012) is as follows. On the level of referential givenness, nominals may be annotated as *r-given* (anaphor corefers with antecedent in previous discourse), *r-given-sit* (referent is immedi-

### A.3.1 Definiteness-suggesting contexts

In definiteness-suggesting contexts the subject NPs can be labelled, according to Baumann and Riester's RefLex scheme (2012: 14), as *r-given* or *r-bridging* at a referential level. *R-given* label is used when the anaphor co-refers with the antecedent in the previous discourse. *R-bridging* is assigned when the anaphor does not co-refer with an antecedent but rather depends on the previously introduced scenario. At a lexical level, the items can be classified (Baumann and Riester 2012: 18-19) as *l-given-syn* (the nouns are at the same hierarchical level, i.e., synonyms), *l-given-super* (the noun is lexically superordinate to the nominal antecedent), *l-accessible-sub* (the noun is lexically subordinate to the nominal antecedent) or *l-accessible-other* (two related nouns, whose hierarchical lexical relation cannot be clearly determined).

Table A.3 represents the experimental scenarios with definiteness-suggesting contexts. It provides the anchor nominal from the previous context, the target nominal (the preverbal subject NP from the experimental sentence), the RefLex labels of the target nominal, the mean acceptability given (M; in a 0 to 1 scale)<sup>179</sup> and the standard deviation (SD) acceptability figures for each item.

ately present in text-external context (in particular discourse participants) – symbolic deixis), *r-given-displaced* (coreferring antecedent does not occur in previous 5 intonation phrases or clauses), *r-environment* (refers to item in text-external context (conversational environment) – gestural deixis/demonstratives), *r-bridging* (non-coreferring anaphor, dependent on previously introduced scenario), *r-bridging-contained* (bridging anaphor which is anchored to an embedded phrase), *r-unused-known* (discourse-new item which is generally known), *r-unused-unknown* (discourse-new item which is identifiable from its own linguistic description but not generally known), *r-cataphor* (item whose referent is established later on in the text), *r-generic* (abstract or generic item), *r-new* (specific or existential indefinite introducing a new referent). On the level of lexical givenness, nominal can be labeled as *l-given-same* (recurrence of the same expression), *l-given-syn* (relation between nouns at the same hierarchical level (synonyms)), *l-given-super* (noun is lexically superordinate to previous noun (markable is a hyperonym or holonym, or generally a superset)), *l-accessible-sub* (noun is lexically subordinate to previous noun (markable is a hyponym or meronym, or generally a subset)), *l-accessible-other* (two related nouns, whose hierarchical lexical relation cannot be clearly determined (e.g. within a scenario)), *l-new* (noun not related to another noun within last 5 intonation phrases or clauses).

<sup>179</sup>The original acceptability variable was transformed from 1-4 into 0-1 for clarity reasons. The transformation was the result of the following formula:  $(acceptability - 1)/3$ . It is easier to interpret what represents a .4 of acceptability in a 0-1 scale than the equivalent score of 2.2 in a 1-4 scale, which might be misconceived as if it was in a 0-4 scale, thus indicating more than a half of accepted readings.

Table A.3: Annotation of target nominals in definiteness-suggesting contexts

	Previous context	Target nominal	RefLex annotation	M	SD
1	boy and girl	children	r-given, l-given-syn	.8333	.2520
2	family of tigers	animals	r-given, l-given-super	.7750	.2806
3	safe	jewellery	r-bridging, l-accessible other	.8833	.2102
4	canary and parrot	birds	r-given, l-given-super	.8418	.2166
5	crucians	fishes	r-given, l-given-super	.6863	.3016
6	family silverware	cutlery	r-given, l-given-syn	.7583	.2930
7	Plato and Aristotle	philosophers	r-given, l-given-super	<b>.5972</b>	.3372
8	races	cars	r-bridging, l-accessible-sub	.7306	.3155

As can be seen from Table A.3, the acceptability of preverbal nominals in definiteness-suggesting contexts is rather high and quite uniform. This is an expected result as preverbal position is strongly related with familiarity/identifiability of the referent and the degree of givenness, which is high in all cases (as can be seen from the labels). So, it is natural for NPs to appear preverbally in definiteness-suggesting contexts, when they are anaphorically or situationally related to an antecedent in a previous context. The item with the lowest (even though still high, in absolute terms) acceptability is 7, given in (9):

- (9) Sredi mnogočislennyx antičnyx prosvetitelej, otmetivšixsja v istorii, among numerous classical thinkers left.trace.REFL in history možno vydelit' neskol'ko naibolee važnyx. Platon i Aristotel' possible distinguish several most important Plato and Aristotle izvestny vo vsěm mire. Filosofy žili v Drevnej Grecii. known in all world philosophers lived in Ancient Greece  
'Among numerous classical thinkers that left their trace in the history it is possible to distinguish a few most important ones. Plato and Aristotle are known all over the world. The philosophers lived in Ancient Greece.'

In terms of its information status, the bare nominal subject *philosophers* is not really different from the subjects of other items: it is *r-given*. A lower acceptability rate must then be due to some other factors, e.g. the use of proper names or attributing a generic type of the interpretation to the last sentence (i.e., 'In general, philosophers lived...'), which would cancel the anaphoric connection.

Thus, apart from one item (item 7, illustrated in (9)), all the definiteness-suggesting contexts show the same result: high acceptability rate for the preverbal bare nominal subject.

### A.3.2 Indefiniteness-suggesting contexts

In all indefiniteness-suggesting contexts the existence of referents was negated, thus, the novelty of the target nominal was presupposed. According Baumann and Riester's annotation scheme (2012: 14), at a referential level all the target NPs are classified as *r-new*, i.e. specific or existential indefinite introducing a new referent. At a lexical level, they are either *l-accessible-sub* (the noun is lexically subordinate to the nominal antecedent) or *l-accessible-other* (two related nouns, whose hierarchical lexical relation cannot be clearly determined). Table A.4 presents the annotation results for bare nominals in preverbal position in indefiniteness-suggesting contexts.

Table A.4: Annotation of target nominals in indefiniteness-suggesting contexts

	Previous context	Target nominal	RefLex annotation	M	SD
1	no rodents	mice	r-new, l-accessible-sub	.3833	.3195
2	no insects	cockroaches	r-new, l-accessible-sub	.2167	.2755
3	empty street	people	r-new, l-accessible-other	<b>.1750</b>	.2766
4	no fruit	bananas	r-new, l-accessible-sub	.2778	.2778
5	no living creatures	birds	r-new, l-accessible-sub	.2861	.2940
6	no mail	postcards	r-new, l-accessible-sub	.3056	.3163
7	no domestic animals	cats	r-new, l-accessible-sub	.3194	.2847
8	no wild animals	wild bores	r-new, l-accessible-sub	.2521	.2709

As can be seen from Table A.4, the acceptability of preverbal NPs in indefiniteness-suggesting contexts is uniformly low, but high enough to be given a consideration. All these NPs are referentially new, so they lack the familiarity/identifiability condition required for topics. However, it should be pointed out that at a lexical level, the target nominals in indefiniteness-suggesting contexts are accessible, being a subset of a superset mentioned in the previous context. The item that re-

ceived the lowest ranking in Table A.4 is item 3 ( $M = .1750$ ,  $SD = .2766$ ), which has a slightly different information status label at a lexical level. It has an *l-accessible-other* label, which means that, unlike other items with clear lexical relation of hyponymy, the hierarchical relation between the context and the target NP cannot be clearly established in the given scenario. This item is given in (10).

- (10) Bystro stemnelo, nastupil večer. Na ulice bylo tixo i pustynno.  
 quickly got.darker came evening in street was silent and deserted  
 Vdrug iz-za ugla ljudi vyšli.  
 suddenly from.around corner came.out people  
 'It got darker, the night came very quickly. Lit. In the street it was silent  
 and empty. Suddenly from around the corner people came out.'

As opposed to other experimental scenarios, in the context presented in (10) there is no NP to which the target nominal people could be anchored. Even though it can be linked to the whole context, given our common knowledge that people usually walk in the streets, this vague type of contextual support does not seem to be enough to 'license' the bare nominal people to appear in preverbal position. Even though it is just one example, the lower acceptability rate of this example might not be accidental.

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