2003

Determiner typology and universals evidenced from three Indo-European languages

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Determiner Typology and Universals Evidenced from Three Indo-European Languages

by

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presented in partial fulfillment of the requirements
for the degree of
Master of Arts
University of Montana

May 2003

Approved by:

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Date

6-3-03
The Nature of the syntactic category determiner has long been an issue for debate in the linguistic community. One aspect that has been awarded little scholastic attention is that of determiner typology and the related determiner universals. This thesis focuses on one aspect of determiners, which is how the typology is manifested and what related universals exist.

This thesis applies Joseph Greenberg's theory of implicational universals to determiners and reports the result. In order to demonstrate the validity of the hypothesis, three Indo-European languages will be examined. These three languages are English, Russian, and German.

This thesis posits that these results apply to languages universally. It also proposes four universals of determiner occurrence. These universals are initially derived from a set of proposed possible determiner language types, and the subset of these types that actually occur.

Through observing the properties of three Indo-European languages in concert with a set of possible determiner types, this thesis proposes to explain this one aspect of determiner occurrence across languages, that is typology and universals.
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1 Introduction

1.1 Overview of Determiners

The determiner is a part of speech which includes the articles, the demonstratives, the ordinals, the quantifiers, the predeterminers, and the possessives. These classes are combined and organized in various ways in different languages.

I began to notice similarities between the determiner properties in Koine Greek and Dyirbal, a language of North Queensland, two unrelated languages. These similarities did not reveal any language types; however, they did lead me to examine determiner typology. Determiner occurrence across languages appears to be somewhat haphazard and random. Once the data from multiple languages is examined and compared, however, certain patterns emerge which may yield certain typological classes and universals.

In order to reveal these patterns, I adapted Greenberg's method of determining word order typology to determiners. This adaptation revealed twenty-seven possible language types (listed in detail on page seven) based on determiners. Only six of these twenty-seven possible types actually occur in language. A question arose as to why the other twenty-one possible types do not occur. Upon comparing the possible types with the actual types, four attributes, which appear to be universals of human language, emerged. These universals are as follows: that all languages possess qualifiers, or determiners that are not articles; that all determiners in a language will be inflected in the same manner; that a language with indefinite articles must also have definite articles; and, that determiners in all languages obey occurrence restrictions. This thesis proposes the existence of twenty-seven types, and that only six of these occur. This thesis further
proposes that the occurrence of these types is restricted by four universals. Data from three Indo-European languages is used to demonstrate the claim.

The process of writing this paper was somewhat different from the typical writing process, and this accounts for several unusual aspects of it. The research was conducted without a preexisting hypothesis. After examining the results, I induced my hypothesis. Chapter three on Russian was written first, followed by chapter two on English, and then chapter four on German. A chapter on Greek was also written, but has not been included in this thesis. It was the observations from these three languages that led to the theory proposed above. The long lists of examples and counterexamples are necessary in order to present a complete sketch of determiner occurrence in the languages examined.

In this paper I propose two different attributes to determiners: first, that determiners break languages into different types (outlined on pages seven through nine); and second, that these types reveal certain universals of determiner occurrence, as outlined above.

In the following three chapters, three different languages will be examined in terms of their determiner properties. These three languages are all Indo-European languages in two different subfamilies. The languages are English, in the Germanic family; Russian, in the Slavic family; and German, in the Germanic family. There are several aspects of determiners that must be addressed before the typology and universals of determiners can be dealt with adequately.

1.1.1 The History of Determiner Study

Before one can adequately examine determiner typology and universals, one should first examine the history of determiner studies. The hypothesis proposed in this paper is largely a continuation of the developments that will be described in this section. This
description will explain what other scholars have said about determiners, since this is the research upon which I have based my analysis.

The study of determiners has its roots in the study of parts of speech. The study of parts of speech in turn, has its roots with the philosopher Plato. Plato was the first Westerner known to have attempted a classification of parts of speech. He broke the Greek words into two categories. The first class was the ὄνομα, or names. This class corresponds roughly to the class of *nouns*. The second class was the ἐπίθεμα or words. This class corresponds to the *verbs*, and everything else. With this classification system, Plato had captured a basic split among parts of speech. It was Plato's pupil Aristotle who first attempted to refine the concept of parts of speech. To the two classes that Plato had set up, Aristotle added the συνδεσμοὶ or *bonds*. These were the grammatical words that did not fit into either of Plato's categories. They were the words that bound the sentence together, the prepositions, articles, conjunctions, etc. This class would include all the forms that make up the class, determiner.

The next group to attempt to refine Plato's classification system was the Stoics. Unfortunately, their work has been lost and is only known through the later Alexandrian, Thrax. Thrax took what the Stoics had done and refined their classification into an eight part classification system. This began a long tradition in Europe of breaking language into eight parts of speech, though what these parts were, changes greatly. Thrax set up the following categories based upon their inflectional properties in Greek: nouns, verbs, participles, articles, pronouns, prepositions, adverbs, and conjunctions. To the modern

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2It should be noted that the concept of τος ἐπίθεμα could probably better correspond to the English word *event*, whereas, the Greek word ὁ λόγος would be approximately equivalent to the English word *word*. 

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mind, there are several interesting aspects to Thrax's classification. First, it is of interest that adjectives are grouped with nouns. There are several good reasons for this. In Greek, the adjectives share inflection with nouns. Also, in many cases an adjective can be used substantively. In some cases, the adjective has become a noun, as in ἅγιος, -ας, ὅμοιος hagios, which came to mean, holy ones, and then saints. The second item of interest in Thrax's list is his classification of participles as a separate class. In Greek, the participle is inflected, first as a verb, and then as a noun. One other item of interest is the inclusion of articles as a separate class. This is the first record where articles are classed separately. Articles, a subset of determiners, receive more of Thrax's attention than other subsets since they do not follow the same pattern of inflection and occurrence as the adjectives. The other subsets of determiners which also occur in Greek do follow the same inflectional and occurrence pattern as the Greek adjectives, and Thrax therefore groups them with the adjectives.

For about another two hundred years, Thrax's classification system was changed very little. In about the second century AD, the Roman philosopher Varro proposed a four class system, which included nouns, verbs, participles, and adverbs. The class nouns, includes the adjectives. The verbs and participles are little changed from Thrax's system, but Varro has combined the other five classes into one, adverbs.

Varro's theory was not widely accepted by other Roman philosophers, who continued to use a seven class adaptation of Thrax's system. These scholars later added an eighth class, interjections, thus maintaining the tradition of eight parts of speech. This tradition of an eight class system remained strong. When in 1795 the English

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3Latin has no articles
grammatist Lindley Murray described the parts of speech in English, he also had an eight class system, which was a modification of the Latin system, such that his system had nouns, adjectives, verbs, adverbs, pronouns, prepositions, conjunctions and interjections. Of note in Murray's list, is the exclusion of participles as a separate class, and the inclusion of articles under the class of adjective. Also, this is the first major work to classify adjectives as a separate class.

In his 1952 book, the American Charles Fries set up a system with four major classes and fifteen minor ones. The four main classes are nouns, lexical verbs, adjectives, and adverbs. Fries' classification breaks with the previous systems in several ways. First, he includes the pronouns under the heading of noun and separates the auxiliary verbs from the lexical verbs. Fries' fifteen minor classes are as follows: determiners, auxiliary verbs, not, degree quantifiers, coordinating conjunctions, prepositions, pro form do, existential there, Wh-words, subordinating conjunctions, utterance-introducers, yes and no, attention-getters, please, and let's. Fries' system separates the auxiliary verbs from lexical verbs. He also separates the conjunctions into two classes. Fries' expansion of the class article into the class determiner, which includes possessives and quantifiers, is relevant to my thesis since this is the part of speech that I concentrate on.

The next major step in the classification of parts of speech was taken by the Generativists in the 1950's and 1960's. The Generativists took the work of Fries and his contemporaries and expanded and modified it. They proposed the following classes: nouns (including pronouns), verbs, adjectives, adverbs, auxiliary verbs, determiners, complementizers, coordinating conjunctions, and subordinating conjunctions. The main item of interest is the addition of the class complementizer, which contained the words...
that, whether, and a few others, as in the sentence, Richard said that it was cold outside.

1.1.2 The Purpose of Determiners

The existence of the class determiner has been established by the scholarship of Charles Fries, Noam Chomsky, and other Generativists, which was outlined in the previous section. In addition, Steven Abney's work on Determiner Phrase has served to further reinforce determiner as a legitimate part of speech. The semantic function of determiners is not as well established. This issue, however, should be resolved to a certain degree before the typology can be thoroughly explained since establishing a purpose for the class determiner is fundamental to explaining that determiners occur in all languages. This, in turn, is crucial to establishing a typology because a typology is based upon commonalities among languages. Without such commonalities a typology cannot be proposed. It is established that determiners determine, or constrain, the meaning of nouns, but this fact is not sufficient to explain the existence of determiners because to a large extent adjectives can achieve the same goal. In order to achieve a more satisfactory purpose for determiners, this purpose must also account for their occurrence in the context of discourse. So in terms of syntax, what does a determiner do? No single, agreed upon answer has yet been proposed, but there are many possibilities. It is possible that they exist simply to constrain the scope of nouns; however, an examination of English and Greek texts will yield some intriguing observations. Consider for a moment the title of the popular soap opera,

1.1) "The Bold and the Beautiful"

No native speaker has difficulty processing the meaning of this string. It means

1.2) the bold people and the beautiful people
Both of these strings denote the existence of two sets of people, bold people and beautiful people. In order to express this same concept while referring to only one person, the string should be manifested in this way,

1.3) The bold and beautiful

Since this string contains only one determiner, it must therefore be a single Noun Phrase, whereas, 1.1 and 1.2 are two separate Noun Phrases.

Now, consider the following string,

1.4) *Bold and beautiful

This string does not constitute a complete noun phrase, and if it is not incomprehensible, then it will at least leave the listener wondering, bold and beautiful what? This is not to say that a context could not be imagined in which this string would be acceptable, but by itself it is ungrammatical. What is the difference between 1.1 and 1.4? It is the presence of determiners in 1.1. Since all languages have determiners, one might venture to guess, from this data, that the determiner marks the noun phrase, that its presence or absence aids in the interpretability of a string on the very basic level of determining what is and is not a noun phrase.

In further support of the hypothesis concerning the interpretability of a Noun Phrase, examine the common Koine Greek phrase,

1.5) ὁ ἅγιος /ho agios/ the saints (holy ones)

This form is derived from the Greek adjective, ἅγιος /agios/ holy. Here again the presence of the determiner indicates the extent and existence of a complete noun phrase, whereas without the determiner the string is incomplete and ungrammatical.

A counter example to this claim can be found in the occurrence of the English plural,
1.6) Apples are red.

However, it can be argued, and has been by Quirk,\(^4\) that in this instance there is indeed a determiner in this noun phrase, the zero article, which denotes the indefinite plural. Thus, the actual form of this sentence would be

1.7) \(\emptyset\) Apples are red.

Further evidence of this can be found in the French sentence of the same meaning,

1.8) des pommes sont rouge /de pom sō ruʒ/ apples are red

The article *des* indicates the indefinite plural in French, and corresponds to the zero article in English.

The determiner also exists for the purpose of clarification and determination of the noun, primarily in terms of definiteness versus indefiniteness. Consider the following two examples,

1.9) He wants to buy a house.

1.10) He wants to buy that house.

In example 1.9, he wants to buy a house, any one house out of the complete set of houses. In example 1.10, he wants to buy a specific house within the set of houses, and more specifically a house that is either distant or absent from the speaker. Thus the determiner also serves to constrain the possible meanings of a given noun or noun phrase, and therefore to aid the interpretability of the sentence or string. This being said the main point to be outlined in the remainder of this thesis can be considered valid since the above claim allows a comparison among languages by establishing a commonality among them, and this is necessary in order to establish a typology of determiners.

1.2 Determiner Typology

Determiners, like all other aspects of language, divide languages into different types based upon the attributes of the particular feature examined, in this case determiners.

1.2.1 Possible Determiner Language Types

To my knowledge, no work to date has addressed the possible language types that an examination of determiner properties in languages may yield. Nor has any work attempted to establish a system for determining these types. Therefore, after considerable observation of English determiners, in conjunction with limited observation of determiners in other languages (notably, Russian and German, but also Kyrgyz, French, Koine Greek, and Biblical Hebrew), I propose that determiner typology can be represented by the following system of determiner language types, as was described on page one.

If one classes the determiners into three main classes, qualifiers\(^5\) (including demonstratives, predeterminers, possessives, and interrogatives.), definite articles, and indefinite articles, then there are twenty-seven possible types that may occur in terms of the attributes of the determiners. These three classes are selected based upon my observations of the occurrence of determiners in, Kyrgyz, a language without articles. Languages such as Kyrgyz possess all types of determiners except definite and indefinite articles; therefore, all non-articles can be grouped together. These possibilities are derived by examining these three classes of determiners, qualifiers, definite articles, and indefinite articles, in three possible occurrences, nonexistent\(^6\), uninflected, and inflected.

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\(^5\) I have chosen the term *qualifier* to differentiate this catch-all class from the more restricted determiner class of *quantifier*, which includes *all, each, and so on.*

\(^6\) No language exists without qualifiers, but this possibility is entertained in order to exemplify this fact about languages.
Many of these possible types do not or cannot occur. Because of my grouping system, the most widespread class is the qualifiers, followed by the definite articles, and then the indefinite articles. Based on this observation, the types indicated in the following list are ordered with the qualifiers first, definite articles second, and indefinite articles last. The possible types are as follows,

1. No qualifiers, No definite, No indefinite (NNN)
2. Uninflected qualifiers, No definite, No indefinite (UNN)
3. Inflected qualifiers, No definite, No indefinite (INN)
4. No qualifiers, No definite, Uninflected indefinite (NNU)
5. Uninflected qualifiers, No definite, Uninflected indefinite (UNU)
6. Inflected qualifiers, No definite, Uninflected indefinite (INU)
7. No qualifiers, No definite, Inflected indefinite (NNI)
8. Uninflected qualifiers, No definite, Inflected indefinite (UNI)
9. Inflected qualifiers, No definite, Inflected indefinite (INI)
10. No qualifiers, Uninflected definite, No indefinite (NUN)
11. Uninflected qualifiers, Uninflected definite, No indefinite (UUN)
12. Inflected qualifiers, Uninflected definite, No definite (IUN)
13. No qualifiers, Uninflected definite, Uninflected indefinite (NUU)
14. Uninflected qualifiers, Uninflected definite, Uninflected indefinite (UUU)
15. Inflected definite, Uninflected definite, Uninflected indefinite (IUU)
16. No qualifiers, Uninflected definite, Inflected indefinite (NUI)
17. Uninflected qualifiers, Uninflected definite, Inflected indefinite (UUI)
18. Inflected qualifiers, Uninflected definite, Inflected indefinite (IUI)
19. No qualifiers, Inflected definite, No indefinite (NIN)
20. Uninflected qualifiers, Inflected definite, No indefinite (UIN)
21. Inflected qualifiers, Inflected definite, No indefinite (IIN)
22. No qualifiers, Inflected definite, Uninflected indefinite (NIU)
23. Uninflected qualifiers, Inflected definite, Uninflected indefinite (UIU)
24. Inflected qualifiers, Inflected definite, Uninflected indefinite (IIU)
25. No qualifiers, Inflected definite, Inflected indefinite (NII)
26. Uninflected qualifiers, Inflected definite, Inflected indefinite (UII)
27. Inflected qualifiers, Inflected definite, Inflected indefinite (III)

Of these twenty-seven possibilities, twenty-one do not or cannot occur, leaving only six classes. The reasons why these twenty-one possible classes do not occur constitute the determiner universals, and will be explored in section 1.3. The six occurring forms are,

1. UNN
2. INN
3. UUN
4. UUU
5. IIN
6. III

Presumably, all human languages belong to one of these six types.
1.2.2 Occurring Determiner Types

The six types listed above actually occur in human languages, but which type is more common and which is less common cannot be determined without significant additional research. The UNN type is relatively common in Turkic languages, such as Kyrgyz.

1.10) bul kisi this man

1.11) bul kisini these men

The form of the qualifier, *bul* does not change with regard to the number, gender, or case of the head noun.

The INN type is also common, especially in Slavic languages. An excellent example of this is the Russian language. Consider the following examples,

1.12) тот человек новый /tot tselovek novuiij/ that man is new

1.13) я вижу того человека /ja vidjat togo tselovek/ I see that man

In these examples the determiner *tot* is marked for case. In example 1.12, it is marked for nominative case, whereas in 1.13 it is marked for accusative case.

The UUN type does not appear to be as common as the previous two types. It does occur in Biblical Hebrew.

1.14) /ha?arets/ the earth

In Hebrew the prefix /ha/ the remains constant regardless of number, gender, or case.

The qualifiers function in the same manner, but are not necessarily prefixes.

The UUU type is relatively uncommon across languages; however, English is a member of this type. In English, the determiners are not modified for case, number, or gender, nor are the nouns.
The IIN type is moderately common. Koine Greek is a member of this type. In Koine Greek, the definite article, and the qualifiers are marked for gender, number, and case. They must agree with the head noun in all three of these respects.

The final type, III, is common among Germanic languages. Consider the following examples from German,

1.15) der Mann  the man
1.16) dem Mann  to the man
1.17) das Wasser  the water

The determiners in German are marked for case, as in examples 1.15 and 1.16, and for gender, as in 1.17. They are also marked for number.

1.3 Determiner Universals

As noted in the previous section, there are many determiner types that do not occur. There are universals of languages that may help explain this. These universals are based largely upon Joseph Greenberg's implicational universals. Based upon my examination of the possible types, and subsequent comparison to the occurring types, three patterns emerge that suggest certain facts about language. The first fact is that all languages have qualifiers. To my knowledge, no language has yet been described that does not have at least qualifiers and demonstratives. The second fact is that languages that have indefinite articles also have definite articles. Indefinite articles cannot occur without definite articles. The third fact is that if one class of determiner is inflected, all other occurring classes must also be inflected. Therefore, in no language can one class be

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inflected and another uninflected. These three facts appear to be universal throughout all human languages.

The fourth universal does not relate to the determiner types but rather to the ways in which determiners occur within a language. This universal is that in all languages determiners obey three types of restrictions: co-occurrence restrictions, which restrict which determiners can co-occur together; ordering restrictions, which determine the order in which co-occurring determiners fall within the noun phrase; and subcategorization restrictions, which determine what nouns a determiner can modify.

1.4 Syntax of Determiners

The view of the syntax of determiners has fluctuated greatly over the past fifty years. Originally, they were viewed as nominal modifiers as part of the linear string of the sentence. Then, in the late 1950's and early 1960's, Transformational Grammar began to alter the perception of syntax, and thus of determiner syntax. The determiner was now viewed as the sister to the noun on a hierarchical structure as in Figure 1.1

![Figure 1.1](image)

In the late 1970's the view of the syntax of determiners was changed again, this time by X-bar theory, which proposed the following structure, seen in Figure 1.2.

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8 The following historical narrative is adapted from Jamal Ouhalla. *Introducing Transformational Grammar*. Arnold, 1999.
In Figure 1.2, the D is in the specifier position of the Noun Phrase, denoting both its relationship to the head N, and its linear position.

The most recent revision to determiner syntax was proposed by Steven Abney in 1987. He proposed a new phrasal constituent, the Determiner Phrase (DP). The DP occurs in the specifier position of the Inflected Phrase (IP), where the Noun Phrase had originally resided. The Noun Phrase then becomes the complement of the head D. This structure helps explain many attributes of English and German determiner structure. For example, this structure creates a position for all of the possible determiners that can co-occur in these languages. The DP hypothesis may face a problem with Russian syntax, for reasons that will be outlined in chapter three.
2. English Determiners

2.1 Overview of English Determiners

English is a language that exhibits a UUU structure, in which the definite and indefinite articles, and the qualifiers are all uninflected, type four in my scheme. The agreed upon forms that comprise the set of determiners in English are as follows:

- a(n)  any
- each  either
- enough  every
- much  neither
- no  some
- that  the
- these  this
- those  what
- which  whose
- possessives  \( \emptyset \)

Some analysts include the predeterminers all, both, and half, and the ordinals.

These determiners can be broken into seven subclasses. The broadest of these is the subclass quantifiers. These include, any, each, either, enough, every, much, neither, no, and some. A more restricted subclass is that of the demonstratives, this, that, these, and those. The third class is that of the interrogatives, what, which, and whose. The predeterminers, all, both, and half as well as double, triple, twice, three times, etc. comprise the fourth subclass. The fifth is comprised of the articles, the, a(n), and \( \emptyset \). The sixth subclass is that of the ordinal modifiers, which include the ordinal numbers as well
as next, last, other, and another. All possessive Noun Phrases pattern similarly, and thus can be grouped as the seventh subclass.

2.2 Co-Occurrence Restriction of English Determiner Subclasses

Determiners in all languages obey co-occurrence restrictions, but the extent of these restrictions varies widely across languages. Following is an account of the co-occurrence restriction that English determiners obey.²

2.2.1 Qualifiers

The members of this subclass cannot co-occur with each other, as in,

2.1) *Any neither bird

nor with the other determiners as in,

2.2) *The any honey

2.3) *Which enough candy

They also cannot co-occur with the predeterminers, thus,

2.4) *All much water

2.5) *Double every water³

The qualifiers any, each, enough, much, neither, and some also have alternative constructions with of. These constructions obey a different set of co-occurrence restrictions. They can still not co-occur with other qualifiers, but they can co-occur with the demonstratives, as in,

2.6) Much of this meat

2.7) Neither of these shoes

¹ The separation of the ø article from the a(n) article is from Quirk.

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They can also co-occur with the determiners, thus,

2.8) Enough of the cats

2.9) Much of a car

They cannot co-occur with the $\emptyset$ article,

2.10) *Some of trees

2.11) *Any of turtles

They cannot co-occur with the predeterminers, but they can co-occur with the ordinals, as in,

2.12) Each of the first boats

2.13) *All some of the rocks

They cannot co-occur with the ordinals without also co-occurring with the definite article, as in,

2.14) *Any of next tests

2.2.2 Demonstratives

The demonstratives pattern together and can co-occur with the predeterminers and the ordinals, as well as certain other of constructions. They can co-occur with the predeterminers, thus,

2.15) All this light

2.16) Both these desks

2.17) Half those apples

2.18) Double that number

This and that may also co-occur with the ordinals, as in,

---

3This is an example of a Determiner Phrase, not a complete sentence in the Imperative mood (which would be completely grammatical).
2.19) That next chair

2.20) This third book

2.2.3 Interrogatives

The interrogative determiners *what*, *which*, and *whose* can co-occur with the predeterminers and with the qualifiers with *of*,

2.21) All whose book

2.22) Each of what apples

2.2.4 Predeterminers

The predeterminers in English can co-occur with the demonstratives, the articles, the interrogatives, and the possessives. They can co-occur with the demonstratives, as in,

2.23) All this light

2.24) Double these portions

They can co-occur with the articles similarly,

2.25) Half the bed

2.26) Twice a man

Also, they can co-occur with the interrogatives in the following ways,

2.27) Both whose cars

2.28) Thrice what bear

They cannot co-occur with the ordinals,

2.29) *All next cats

They can, however, co-occur with the possessives, thus,

2.30) Both John's books

2.31) All my cows
2.2.5 Articles

English articles may not co-occur with possessives, demonstratives, interrogatives, or qualifiers. The definite article can co-occur with the predeterminers, as in,

2.32) Half the bread
2.33) Double the milk

The indefinite article can only co-occur with the predeterminers, *half, twice, and three times, etc.*

2.34) Half a car
2.35) *All a milk*
2.36) *Both a houses
2.37) Twice a bird
2.38) *Triple a light

Both the definite and indefinite articles can co-occur with the ordinals,

2.39) The next window
2.40) A first cake

The *article also appears to co-occur with the ordinals, thus,

2.41) Next winner

2.2.6 Ordinals

Ordinals in English can co-occur with all other determiners except the qualifiers and the predeterminers,

2.42) This second cup

---

Note: The ungrammaticality of this Noun Phrase is related to the subcategorization restrictions of the English indefinite article, *a(n).*
2.43) A third coat

2.44) Whose fourth duck

2.45) Bob's fifth coke

The ordinals can occur with the qualifiers with *of*, if they also co-occur with a definite article or a demonstrative, as in,

2.46) Any of the first customers

2.2.7. *Possessives*

The possessives in English can co-occur only with the predeterminers, the ordinals, and the qualifiers and *of*, as in the following,

2.47) All Wanda's charcoal

2.48) Bill's first assignment

2.49) Each of Ray's dogs

All aspects of English Determiners obey co-occurrence restrictions, as posited by universal number four.

2.3 Ordering Restrictions of English Determiners

The third set of restrictions that determiners obey is ordering restrictions. These restrictions determine the order in which co-occurring determiners will appear inside a Noun Phrase.

Either a predeterminer or a qualifier with *of* will occur first, followed by either a demonstrative, an article, an interrogative, or a possessive. Then will follow an ordinal, followed by a numeral, and then an adjective. In English, the last position in such a noun phrase will be the noun, thus,

2.50) All the first seven green apples
2.51) Any of the next nine pink peaches

Another possibility is that a qualifier will occur first, followed by a numeral, an adjective and the head noun, thus,

2.52) Every six old shoes

The ordering restrictions can be represented as a chart in the following way,

<table>
<thead>
<tr>
<th>Predeterminer</th>
<th>Demonstrative</th>
<th>Ordinal</th>
<th>Numeral</th>
<th>Adjective</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantifier + of</td>
<td>Article</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interrogative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possessive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.1

<table>
<thead>
<tr>
<th>Qualifier</th>
<th>Numeral</th>
<th>Adjective</th>
<th>Noun</th>
</tr>
</thead>
</table>

Figure 2.2

All English determiners obey ordering restrictions, as proposed by the fourth universal.

2.4 Subcategorization Restrictions of English Determiners

All determiners obey subcategorization restrictions. These restrictions determine what type of noun a particular determiner can modify. The determiners break into six groups based on subcategorization. These groups bear little or no relation to the seven natural classes of English determiners. In order to fully explain subcategorization restrictions, one must first explain the breakdown of English nouns since the subcategorization properties are based on this breakdown.
2.4.1 Subcategorization of English Nouns

According to Quirk, all English nouns fall into one of three categories. These categories are singular, plural, and mass. Singular and plural nouns are fairly well known; mass nouns, however, may require some explanation. They are simply nouns that refer to an object that cannot be counted, such as water, light, or ink. Quirk, et al. also sets up a frame for categorizing nouns; thus in figure 2.3 below, dog is singular, dogs is plural, and water is mass. This same frame will be used to represent subcategorization restrictions among the determiners.

![Figure 2.3](image)

2.4.2 Group One Determiners

The group one determiners, in terms of their subcategorization properties, are the, no, whose, which, what, some (when stressed), any (when stressed), and the possessives. These forms subcategorize for all three classes of nouns.

2.53) the man
2.54) the men
2.55) the light
2.56) whose cat
2.57) whose cats
2.58) whose water
2.4.3 Group Two Determiners

Group two determiners consist of θ, some (when unstressed), any (when unstressed), and enough. These forms subcategorize for a plural noun, as in

2.59) Enough pillows
2.60) Pillows (with the θ article)

They also subcategorize for a mass noun,

2.61) Enough paint
2.62) Paint (Again, with the θ article)

They cannot, however, subcategorize for a singular count noun, thus,

2.63) *Enough cat
2.64) *Cat⁶

2.4.4 Group Three Determiners

The group three determiners are simply the singular demonstratives this and that.

They subcategorize for a singular noun or a mass noun,

2.65) This beaver
2.66) That ink

They do not subcategorize for a plural noun,

2.67) *This beavers
2.68) *That houses

2.4.5 Group Four Determiners

This group of determiners is comprised of the plural demonstratives these and those.⁷

These two forms subcategorize only for a plural noun, as in,

⁵ Quirk, p. 138.
2.69) These houses

2.70) Those bears

They cannot subcategorize for a singular or mass noun, thus,

2.71) *These bird

2.72) *Those milk

2.4.6 Group Five Determiners

This group of determiners consists of a(n), every, each, either, and neither. These forms subcategorize only for a singular noun, thus,

2.73) A chicken

2.74) Every horse

The do not subcategorize for a plural or mass noun, as in,

2.75) *Each cows

2.76) *Neither air

2.4.7 Group Six Determiners

This group consists singly of much. Much can only subcategorize for a mass noun, therefore, the following,

2.77) Much water

2.78) *Much cat

2.79) *Much cats

2.4.8 Summary of English Subcategorization Restrictions

The six groups of English determiners in relation to subcategorization restrictions can be summarized in terms of subcategorization frames, thus

---

6 This form would be acceptable as a vocative case construction.
7 Quirk, p. 138.
Group 1: *the, no, whose, which, what, some* (when stressed), *any* (when stressed), and the possessives

Group 2: *a, some* (when unstressed), *any* (when unstressed), and *enough*

Group 3: *this and that*

Group 4: *these and those*  

Group 5: *a(n), every, each, either, and neither*

---

*Many* is not included in Quirk's list, and is therefore not included here.
Group 6: *much*

English determiners obey sub-categorization restrictions, just as was expected, based on the fourth universal.

### 2.5 Phonology of English Determiners

Six of the seven natural classes of English determiners are not constrained by any phonological alternations. The seventh class, the articles, is constrained only slightly. The two physically realized articles in English, *the* and *a(n)*, are phonologically conditioned by the initial segment of the following word. If the initial segment is a consonant then they are manifested thus,

2.80) The bird /ðə bɜːrd/

2.81) A cat /ə kæt/

If the initial segment of the following word is a vowel, then the article manifests itself in the following way,

2.82) The ant /ði ænt/

2.83) An eagle /æn ɪɡəl/

The phonological form of the determiner is conditioned by the initial segment of the following word, not of the head noun, thus,

2.84) The old man /ði ʌld mæn/

2.85) A little ant /ə lɪtəl ænt/
2.6 Morphology of English Determiners

English determiners bear no morphological marking.

2.7 Syntax of English Determiners

How the syntax of determiners in English functions has been a fluid topic. The ideas of how the determiner is related to its head noun have changed considerably and frequently over the years. Some of the most significant advances in the structure of the determiner-noun relationship have been made by the Generativists. According to the earliest generative grammar theories in the 1950's and sixties, the noun phrase "all the next seven happy bears" would have been represented in the following way,

![Figure 2.4](image_url)

In 1987, Steven Abney proposed a Determiner Phrase Structure, which was dealt with briefly in chapter one. This DP analysis would produce the following tree of English determiner occurrence.
2.8 Summary of English Determiner Usage

English exhibits all of the characteristics expected of a UUU language. It possesses qualifiers, definite articles, and indefinite articles. None of these classes are inflected for number, gender, or case.

The evidence presented in English is also consistent with the proposed universals. English has qualifiers, which is consistent with the first universal. English has indefinite articles and also has definite articles. This is consistent with the second universal. All three of the determiner classes in English are uninflected, which correlates with the third universal. In regard to the fourth universal, English determiners are restricted by co-occurrence restrictions, ordering restrictions, and sub-categorization restrictions.
3 Russian Determiners

3.1 Overview of Russian Determiners

Russian has an INN structure, wherein, the qualifiers are inflected and there are no definite or indefinite articles (This would be a type two language in my scheme.). According to Russian grammarians and language texts, Russian has no articles, but it does have five special modifiers, four of which are closely related to independent nominal modifiers. These special modifiers correspond to what American linguists classify as determiners.

3.1.1 The Special Modifiers

The five special modifiers pattern together and are один /odin/ one, все /ves/ all, тот /tot/ this, тот /tot/ that, and чей /tsej/ whose.

3.1.1.1 Один /odin/ one

Один operates primarily as a numeral modifier, as in

3.1) один портфель /odin portfel/ one bookbag.

The complete paradigm of the indefinite nominal modifier in the nominative case is as follows:

один /odin/ - one, masculine
один дом /odin dom/ one house
одна /odna/ - one, feminine
одна книга /odna kniga/ one book
одно /odno/ - one, neuter
одно ведро /odno vedro/ one bucket
одни /odni/ - only; alone, plural
одни люди /odni lyudi/ only people

Один, the special modifier is closely related to the numeral один, which has the same

1The following is adapted from V. Kostomarov. Russian for Everybody. Moscow: Russky Yazik, 1992.
phonological form, the same meaning, but follows different co-occurrence restrictions and is uninflected.

3.1.1.2  всє /ves/ all

Всє can be used in two different ways. First it can be used with a temporal noun, as in

3.2) всє вечєр /ves vetjer/ all evening. It can also be used with a mass noun, such as вода, as in

3.3) вся вода /ves voda/ all the water.

The complete paradigm of the indefinite temporal/mass nominal modifier in the nominative is as follows:

 всє /ves/ - all, masculine всє вечєр /ves vetjer/ all evening
 вся /vca/ - all, feminine вся вода /vca voda/ all water
 всє /vce/ - all, neuter всє мясо /vce myaso/ all meat
 всє /vce/ - all, plural всє книги /vce knigi/ all books

This determiner is related to the independent pronouns, всє /vse/ everything and всє /vse/ everybody. Neither of these pronouns obey co-occurrence restrictions, nor are they inflected, thus they occur in the following way,

3.4) всє красноє /vse krasnoje/ everything is red.

3.5) всє старє /vse staruije/ everyone is old
3.1.1.3 Это /etot/ this

The third special modifier, это /etot/ (this) is derived from the independent pronoun, это. Это follows the same pattern as the previous two special modifiers, as in

3.6) эта книга /eta kniga/ this book.

The definite special modifier has the following forms in the nominative case:

этот /etot/ - this, masculine этот магазин /etot magazin/ this store
эта /eta/ - this, feminine эта песня /eta pesnya/ this song
это /eto/ - this, neuter это окно /eto okno/ this window
этот /etot/ - these, plural эти поезда /eti poezda/ these trains

This special modifier is closely related to the demonstrative pronoun это /eto/ this.

This independent pronoun follows no co-occurrence restrictions, and is uninflected, thus

3.7) это дом /eto dom/ this is a house (m.)
3.8) это машина /eto masina/ this is a car (f.)
3.9) это окно /eto okno/ this is a window (n.)
3.10) это птицы /eto ptitsyi/ these are birds, (pl.)

3.1.1.4 Тот

The far definite special modifier is тот /tot/ that. It functions in the same way as the previous three special modifiers, as in

3.11) то окно /to okno/ that window

The complete nominative paradigm of тот is as follows:
3.1.1.5 Чей

Russian also has an interrogative special modifier, чей /tʃe'/ whose. This modifier works in the same manner as the other four special modifiers, thus

3.12) чьи книга /tʃi' knigi/ whose books

The nominative paradigm of чей is as follows:

чей /tʃe'/ whose, masculine чей магазин /tʃe' magazin/ whose store
чья /tʃa'/ whose, feminine чья газета /tʃa' gazyeta/ whose newspaper
чё /tʃo/ whose, neuter чё пальто /tʃo palto/ whose coat
чии /tʃi/ whose, plural чьи дома /tʃi doma/ whose houses

The special modifiers are inflected for gender and number. Thus if the special modifier is modifying a feminine singular noun, then the feminine form must be used,

3.13) одна машина, one car, for example.

The same applies to всё. It must be specified for the same gender and number as the noun it modifies, i.e.
3.14) все дни /vse dni/ all days.2

Это functions the same way. Thus, in the following Noun Phrase

3.15) это яблоко /eto yabloko/ this apple.

The indefinite and mass special modifiers pattern together as follows: один вечер /odin vetjer/ one evening весь вечер /vec1 vetjer/ all evening, etc. The special modifiers are also inflected for case, but this will be discussed later.

The special modifier это patterns with один and весь as follows: эта машина новая /eta majina novaja/, this car is new. It does not have to occur in an equational sentence as with это, for example,

3.16) эта женщина работает на заводе /eta zen'ina rabotajet na zavode/ this woman works in the factory.

3.2 Phonology of Russian Determiners

Russian determiners do not change their form based upon their phonological environment. Thus, the form of the special modifier remains constant whatever the initial segment of the following word. They do not assimilate in voicing, as in,

3.17) это ведро /eto vedro/ this bucket

3.18) это письмо /eto pis'mo/ this letter

3.19) это окно /eto okno/ this window

Or in place of articulation

3.20) один магазин /odin magazin/ one store

2It should be noted that gender is neutralized in the plural in Russian.
3.21) один спорт /odin sport/ one sport

3.22) один год /odin god/ one year

3.3 Co-occurrence restrictions

The five special modifiers break into three distinct groups with regard to their co-occurrence restrictions. The members of each group are mutually exclusive with each other and cannot co-occur. The first group consists of один /odin/ and весь /ves/, the second of этот /etot/ and тот /tot/, and the third of only чей /tsej/, which patterns with the possessives.

3.3.1 Один and Весь

Один and весь pattern together and can both co-occur with этот. For example,

3.23) весь этот вечер all this evening.

3.3.1.1 Co-occurrence restrictions with весь

Весь always occurs before the definite modifier, as in the previous example. It can also co-occur with the independent definite pronoun, это, as in

3.24) весь это моё /ves'eto moj/ all this is mine.

When co-occurring with the definite special modifier этот, весь must be inflected for gender and number. Thus,

3.25) вся эта вода /vca eta voda/ all this water

is well formed, but

3.26) *всё это вода /ves'deto voda/ all this is water

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is not. Весь can also co-occur with тот in much the same way. Again both premodifiers must agree with the noun in gender and number,

3.27) все те люди /vs¹e te lyudi/ all those people

3.28) вся та вода /vs¹a ta voda/ all that water

Весь can co-occur with numerals, as well, in the following manner,

3.29) все три яблока /vs¹e tri yabloka/ all three apples

It cannot co-occur following a numeral,

3.30) *четыре все дома /tšetwirje vs¹e doma/ four all houses

The final class of nominal modifier that весь can co-occur with is the adjective. It can co-occur with an adjective, as follows,

3.31) все красные яблоки /vs¹e krasnwijje yabloki/ all red apples

3.32) вся красивая вода /vs¹a krasivaya voda/ all beautiful water

It can also co-occur with этот and an adjective,

3.33) все эти хорошие книги /vs¹e eti xorojije knigi/ all these good books

or with тот,

3.34) весь тот старый снег /ves¹ tot starwij sneg/ all that old snow

3.3.1.2 Co-occurrence restrictions with один

Один follows the same basic co-occurrence pattern as весь, with a few exceptions. First, it can co-occur with этот, but it must occur between этот and the noun or adjective, thus

3.35) этот один портфель /этот один portfel¹/ this one bookbag

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is grammatical, but

3.36) *одна эта машина /одна ета машина/ this car alone

is not. Contrary to logical thought, **Один** can co-occur with the numerals in the plural as in,

3.37) одни пять школ /одни пять школ/ only five schools

**Один** can do this because it can also convey the meaning **only**. It cannot occur in the singular with another numeral since in the singular, it takes on the properties of a numeral, also, no other numeral can occur with the singular.

3.3.2 **Этом** and **Том**

3.3.2.1 Co-occurrence restrictions with **Этом**

**Этом** can co-occur with **весь** and **Один** as described above. It can co-occur with all adjectives, but not with **Тот or чей**. Thus,

3.38) вся эта вода /вся ета вода/ all this water

and

3.39) это одно окно /это одно окно/ this one window

are grammatically correct, but

3.40) *этот тот дом /этот тот дом/ this that house

3.41) *чья эта школа /чья ета школа/ whose this school

are unacceptable.

**Этом** can also co-occur with all numerals, as in

3.42) эти три книги /эти три книги/ these three books

3.43) эти шесть дней /эти шесть дней/ these six days
It can also co-occur with any numeral and один in the plural in the following manner.

3.44) один эти пять птицы /odnî eti pjat'i ptitsu/ only these five birds

As noted above, этот can also co-occur with any adjective, in any gender or number,

3.45) эта белая книга /ëta belaja kniga/ this white book

3.46) это одно ведро /ëto odno vedro/ this one bucket

3.47) один этот зеленый гараж /odin etot zelenui/ only this green garage

3.48) все эти письма /vs'ë eti pic'ëma/ all these letters

3.3.2.2 Co-occurrence restrictions with Tom.

Tom follows the same co-occurrence restrictions as этот. It can occur with both один and все, but not with этот or чей, thus,

3.49) тот сад /tot sad/ that garden

3.50) та одна машина /ta odna ma'sina/ that one car

3.51) одно то мясо /odno to mjaco/ only that meat

3.52) всё то мясо /vs'ë to mjaco/ all that meat

3.53) все те комнаты /vs'ë te komatu'i/ all those rooms

but not,

3.54) *та эта газета /ta età gaz'ëta/ that this newspaper

3.55) *чей тот номер /t'iej tot nomer/ whose that number

It can co-occur with all adjectives and numerals, thus

3.56) тот русский лес /tot russkij lec/ that Russian forest

3.57) те три ведра /te tri vedru/ those three buckets
or, it can co-occur with один or весь and an adjective and a numeral, as in

3.58) одна те старые врачи /odin te staruije vratki/ only those old doctors
3.59) весь тот зеленый лед /vesi tot zelenuij led/ all that green ice
3.60) все те шесть бабушек /vesi te babushki/ all those six grandmothers
3.61) одна те пять цветов /odni te pjavle tsbetkowi/ only those five flowers

3.3.3 Co-occurrence Restrictions with Чей

Чей forms its own group of special modifier. It does not pattern with any of the other four special modifiers, but it does pattern with the possessive pronouns. Чей cannot co-occure with any of the other special modifiers, nor can it co-occur with a possessive modifier. Thus, the following are ungrammatical,

3.62) *чье моё яблоко /tjej moje jabloko/ whose my apple
3.63) *чье одна машина /tjej odna majina/ whose one car
3.64) *чей этот дом /tsej etot dom/ whose this house

It can co-occur only with an adjective, thus

3.65) чье плохие дети /tjej ploxe deti/ whose bad children

or a numeral thus,

3.66) чье пять книгу /tjej pjavle knigu/ whose five books

or both thus,

3.67) чье три синие яблока /tjej tri siniju jabloka/ whose three blue apples
3.3.4 Possessives

Possessives are nominal elements that modify a noun. They are genitive case forms, and indicate possession. They are formed in the same manner as adjectives; however, they do not follow the same co-occurrence restrictions. They pattern closely with the special modifier, чей. Possessives cannot co-occur with этот, тот, or чей, but they can co-occur with весь and один, as in

3.68) вся её вода /vsˈa yeyo voda/ all her water
3.69) одно их пальто /odno ix palˈto/ only their coat

Possessives can also co-occur with adjectives and numerals, thus

3.70) наша красная кухня /nafa krasnaja kuxnˈa/ our red kitchen
3.71) твои четыре большие комнаты /tvoi tʃetviɾe bolˈʃiye komnatˈui/ your four big rooms

3.3.5 Order of Occurrence of Nominal Premodifiers

As in many languages, the nominal premodifiers in Russian obey certain ordering rules in addition to their co-occurrence restrictions. These restrictions apply as follows,

<table>
<thead>
<tr>
<th>один/весь</th>
<th>этот/тот</th>
<th>numerals</th>
<th>adjectives</th>
<th>head noun</th>
</tr>
</thead>
</table>

Thus a Noun Phrase could be produced in either of the following ways,

3.72) одни эти три маленькие комнаты /odin eti tri malenˈkije komnatˈui/ only these three small rooms

3.73) чьи шесть новые птицы /tʃi ʃestˈ novˈuie ptitsˈui/ whose six new birds
3.4 Subcategorization Restrictions

The Russian special modifiers break into different groupings with regard to subcategorization restrictions. Thé и́ and тóт pattern with оди́н and че́й. Весь patterns by itself.

3.4.1 Э́том, том, оди́н, и че́й Subcategorization restrictions

These two special modifiers pattern together exactly. These two modifiers have the least limited subcategorization restrictions. They subcategorize for a noun that is either singular, plural, or mass. Therefore, all three of the following are correct,

3.74) этóт дом /étot dom/ this house
3.75) эти́ дома /eti doma/ these houses
3.76) этóт снег /étot sneg/ this snow

These same restrictions apply to тóт, as in,

3.77) та ма́шина /ta maʃina/ that car
3.78) те маши́ны /te maʃîni/ those cars
3.79) та вода /ta voda/ that water

Оди́н patterns just as этóт and тóт do. It subcategorizes for either a singular, plural, or mass noun, as in

3.80) один ве́чер /odín vetʃer/ one evening
3.81) одни́ ве́черов /odni vetʃera/ only evenings
3.82) один дожь́т /odín doʃt/ only rain

3 Quirk’s subcategorization frame is not necessary to represent Russian determiner subcategorization restrictions, due to the small number of forms in Russian, and that they do not form natural subcategorization classes.
_patterns in much the same way, as in

3.83) чьё ведро /tʃ'əʊ vædro/ whose bucket
3.84) чье ведра /tʃəʊ vədərə/ whose buckets
3.85) чье мясо /tʃəʊ məʊəʊ/ whose meat

3.4.2 **Весь Subcategorization restrictions**

Весь follows a more restricted set of subcategorization restrictions than the previous three special modifiers. It can subcategorize for a plural noun or a mass noun, but not for a singular noun, thus

3.86) *вся книга /və'zə knɪɡə/ all book
3.87) всё книги /vʊ̆'zə knɪgi/ all books
3.88) вся вода /vəˈzə vədə/ all water

3.5 **Morphology of Special Modifiers**

The special modifiers must be specified for gender, number and case with inflectional suffixes. These suffixes are based on the adjectival suffixes that specify the same information. That is, the special modifiers are marked with modified adjective suffixes.

3.5.1 **Basic Nominal Suffixes**

Before one can adequately describe the morphology of Russian special modifiers, a description of the basic nominal endings may be necessary. All of the prenominal modifiers take their inflectional properties from the head noun, and all of these inflectional endings are derived from the noun suffixes.
3.5.1.1 Masculine Gender

The Masculine Gender is marked with -о. Since all Russian suffixes are vowel initial, this means that a masculine noun will end in a consonant as in магазин /magazin/ store or портфель /portfel/ bookbag. No nominative case, masculine noun ends in a vowel.

3.5.1.2 Feminine Gender

The feminine gender is usually marked with the suffix vowel -а, as in машина /машина/ car or книга /книга/ book. In some cases it can be marked with the suffix -ja, as in Азия /азия/ Asia. In other cases the marker can become -я, as in няня /няня/ nurse or кухня /кухня/ kitchen.

3.5.1.3 Neuter Gender

The default ending for a neuter noun is -о, as in ведро /ведро/ bucket or мясо /мясо/ meat. In some cases it undergoes the same phonological transformations as the feminine. The ending can become -jo, -lo, or -je in various circumstances.

3.5.1.4 Plurals

Masculine and feminine gender distinctions are neutralized in Russian plurals. Thus, there is not a masculine or feminine plural. There is simply plural. The basic morpheme denoting plural in Russian is -i. This morpheme can also surface as -je or -tti. Neither of these forms appear to occur predictably, thus it is probable that there are three distinct plural morphemes in Russian; however, this question is beyond the scope of this paper. The basic neuter plural suffix is -а. In a few circumstances the neuter suffix shows up in
the masculine, for example, дома /doma/ houses.

3.5.2 Adjective Endings

The adjective endings for specification of gender and number are as follows:

-ый /-uiij/ masculine adjective marker - новый дом /novuij dom/ new house

-ий /-ij/ masculine adjective marker - хороший сад /xoroij sad/ good garden

-ая /-aja/ feminine adjective marker - красивая школа /krasivaja shkola/ beautiful school

-ое /-oje/ neuter adjective marker - старое пальто /staroje pal'to/ old coat

-ее /-eje/ neuter adjective marker - последнее ведро /poslednee vedro/ last bucket

-ие /-uiije/ plural adjective marker - иностранные профессора /inostrannuije professora/ foreign professors

-ие /-ije/ plural adjective marker - русские языки /rusckije jaziki/ Russian languages

3.5.3 Determiner Gender and Plural markers

The determiners are specified with similar suffixes to those used by the adjectives. The five special modifiers are marked for gender and number in several ways.

3.5.3.1 Gender and Plural Markers with Один

Один has the root form of /odn/. In the masculine form an /i/ is inserted to form a second syllable. Then the endings are added in the other two gender forms and in the plural, thus

3.89) /odn+a/ one+fem

---

4 This insertion occurs in order to satisfy Russian syllable structure, but the details of this are not pertinent to this paper.

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3.90) /odn+o/ one+neut

3.91) /odn+i/ one+plur

3.5.3.2 Gender and Plural Markers with Becb

Becb has the root form /\vs{v}/. In the masculine /e/ is inserted to satisfy the syllable structure of Russian. The other forms are marked as follows

3.92) /\vs{v}\l+a/ all+fem.

3.93) /\vs{v}\l+o/ all+neut.

3.94) /\vs{v}\l+e/ all+plur.

3.5.3.3 Gender and Plural Markers with \etom

\etom has the root form /\et/. The suffix markers are applied as follows

3.95) /\et+ot/ this+masc.

3.96) /\et+a/ this+fem.

3.97) /\et+o/ this+neut.

3.98) /\et+i/ this+plur.

3.5.3.4 Gender and Plural Markers with \tom

\tom has the root form /t/. The gender and plural markings are applied as follows,

3.99) /t+ot/ that+masc.

3.100) /t+a/ that+fem.

3.101) /t+o/ that+neut.

3.102) /t+e/ that+plur.
3.5.3.5 Gender and Plural Markers with Чел

Чел has the root form /tʃj/. In the masculine form the /e/ is inserted in order to fulfill the requirements of Russian syllable structure. The other three forms are formed as follows:

3.103) /tʃj+a/ whose+fem.
3.104) /tʃj+o/ whose+neut.
3.105) /tʃj+e/ whose+plur.

3.6 Special Modifiers and Case

Russian special modifiers must agree with the head noun in number, gender, and case. The suffixes used to mark case in special modifiers are based on the adjectival case markers, which are, in turn based on the basic nominal paradigm.

3.6.1 Noun Case Marking

Russian nominals are marked for six cases, nominative, accusative, genitive, prepositional, dative, and instrumental. The basic nominal forms of these suffixes are as follows.

3.6.1.1 Masculine Case Markers

The masculine case markers are as follows. The masculine noun человек /tʃelovek/ person will be used to demonstrate the various case endings in the following examples:

/-∅/ denotes the nominative case singular, as in,

3.106) человек работает в школе /tʃelovek rabotajet v škole/ the person works in the school

/-∅/ also represents the accusative case singular, as in,
3.107) Иван видит человека /ivan vidit tfeloveka/ Ivan sees the person

/-a/ denotes the genitive case singular, as in

3.108) вот книга человека /vot kniga tfeloveka/ here is the person's book

(book of the person)

/-e/ denotes prepositional case singular, thus

3.109) я знаю о человеке /ja znaju tfeloveke/ I know about the person

/-u/ marks the dative case singular, as in,

3.110) я дам книгу человеку /ja dam knigu tfeloveku/ I give a book to

the person

/-om/ represents the instrumental case singular

3.111) женщина идёт с человеком /женщина идёт с человеком/ the

woman goes (walks) with the person

/-ui/ denotes the nominative case plural, as in,

3.112) люди идут в школу /люди идут в школу/ the people go

to school.

/-ui/ marks the accusative case plural, thus,

3.113) бабушка смотрит на человеков /бабушка смотрит на человеков/ the grandmother watches the person

/-a/ represents the genitive case plural,

3.114) я вижу туфли человека /я вижу туфли человека/ I see the

persons' shoes (shoes of the person)
-/ax/ marks the prepositional case plural, as in,

3.115) он понимает о людях /он понимает о людях/ he understands

about the people

-/am/ denotes the dative case plural, thus,

3.116) она едет к людям /она едет к людям/ she rides to the persons

-/ami/ marks the instrumental case plural,

3.117) мы работаем с членовками /мы работаем с членовками/ we

work with the persons

3.6.1.2 Neuter Case Markers

The neuter case markers are almost identical to the masculine ones. There are, however, a few notable exceptions, which will be outlined in the following section. In this section, the noun ведро /ведро/ bucket will be used to demonstrate the neuter case endings.

-/o/ denotes the nominative case singular, as in,

3.118) ведро новое /ведро новое/ the bucket is new

-/o/ also denotes the accusative case singular, as in,

3.119) шофёр ударит ведро /шофёр ударит ведро/ the driver hits the

bucket

-/a/ marks the genitive case singular, thus,

3.120) я вижу билет ведра /я вижу билет ведра/ I see the bucket's ticket

-/e/ represents the prepositional case singular, as in,
3.121) ты знаешь о ведре /tuǐ znajiʃ o vedre/ you know about the bucket

/-u/ denotes the dative case singular, as in,

3.122) я кладу книгу в ведро /ja kladu knigu v vedro/ I put the book in the bucket

/-om/ marks the instrumental case singular,

3.123) он читал с ведром /on tʃital s vedrom/ he read with the bucket

/-a/ marks the nominative case plural, as in,

3.124) ведra были белые /vedra buili belwije/ the buckets were white

/-a/ also denotes the accusative case plural, thus,

3.125) он видел ведra /on vidjet vedra/ he sees the buckets

/-o/ denotes the genitive plural, as in,

3.126) человека ведро старое /ʃeloveka vedro staroje/ the bucket's man is old

/-ax/ marks the prepositional case plural,

3.127) я кладу яблоки в ведra /ja kladu jabloki v vedra/ I put the apples in the buckets

/-am/ represents the dative case plural, as in,

3.128) я иду к ведру /ja idu k vedru/ I walk to the bucket

---

*Many example sentences are grammatically correct, even if they are anomalous. These examples are used in order to express the morphological properties of the neuter gender in Russian, which has no animate members.*
/-ami/ marks the instrumental case plural, thus,

3.129) он идет с ведрами /on id'ot s vedrami/ he walks with the buckets

3.6.1.3 Feminine Case Markers

The feminine case markers are very similar to the neuter and masculine ones. However, they differ slightly in almost every instance. The feminine noun машина /ma$ina/ car will be used in the following section to demonstrate the feminine case markers

/-a/ marks the nominative singular, as in,

3.130) машина была красивая /ma$ina buila krasivaja/ the car was beautiful

/-u/ denotes the accusative singular, thus,

3.131) человек ударит машину /tjelovek udarit ma$inu/ the man hits the car

/-ui/ marks the genitive case singular,

3.132) я видел колесо машины /ja vidju koleco ma$inui/ I saw the car’s wheel

/-e/ indicates the prepositional case singular, as in,

3.133) она работает в машине /ona rabotajet v ma$ine/ she works in the car

/-e/ also marks the dative case singular, as in,

3.134) учитель едет к машине /ut$itel$ jedet ma$ine/ the teacher rides to
the car

/-oj/ denotes the instrumental case singular, thus,

3.135) женщина едет с машиной /женjina jedet s маjinoj/ *the woman*

rides with the car

/-ui/ represents the nominative case plural,

3.136) машины были белые /машiии builu beluije/ *the cars were white*

/-i/ marks the accusative case plural, as in,

3.137) он видел машины /on videl masainiyi/ *he saw the cars*

/-ə/ indicates the genitive case plural, thus,

3.138) птица ударила шофёра машины /птица ударит маjину/ *the bird hits the cars' drivers*

/-ax/ marks the prepositional case plural, just as in the masculine and neuter forms,

thus,

3.139) вы знаете о машинах /вы знаете о маjинаx/ *you (pl.) know about the cars*

/-am/ denotes the dative case plural, as in,

3.140) я дам шофёры машинам /я дам маjинам/ *I will give drivers to the cars*

/-ami/ represents the instrumental case plural,

3.141) Иван ехал с машинами /иван jexal s маjинами/ *Ivan rode with the cars*
3.6.2 Adjective Case Marking

Adjectives must agree in gender, number, and case with the nouns they modify. The adjectival case markers are similar to their nominal counterparts, but with a few distinct differences that will be discussed later. The complete paradigm of adjectival endings using новый /novuij/ new is as follows:

<table>
<thead>
<tr>
<th>Case</th>
<th>Masculine</th>
<th>Feminine</th>
<th>Neuter</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nom.</td>
<td>новый /novuij/</td>
<td>новая /novaja/</td>
<td>новое /novoje/</td>
<td>новые /novuije/</td>
</tr>
<tr>
<td>Acc, inan.</td>
<td>новый /novuij/</td>
<td>новую /novuju/</td>
<td>новое /novoje/</td>
<td>новые /novuije/</td>
</tr>
<tr>
<td>Acc, anim.</td>
<td>нового /novogo/</td>
<td>новую /novuju/</td>
<td>новое /novoje/</td>
<td>новых /novuiх/</td>
</tr>
<tr>
<td>Gen.</td>
<td>нового /novogo/</td>
<td>новой /novoj/</td>
<td>нового /novogo/</td>
<td>новых /novuiх/</td>
</tr>
<tr>
<td>Prep.</td>
<td>новом /novom/</td>
<td>новой /novoj/</td>
<td>новом /novom/</td>
<td>новым /novuiм/</td>
</tr>
<tr>
<td>Dat.</td>
<td>новому /novomu/</td>
<td>новой /novoj/</td>
<td>новому /novomu/</td>
<td>новым /novuiм/</td>
</tr>
<tr>
<td>Instr.</td>
<td>новым /novuiм/</td>
<td>новой /novoj/</td>
<td>новыми /novuiм/</td>
<td>новыми /novuiм/</td>
</tr>
</tbody>
</table>

The first difference of note is that the adjectives do not distinguish gender in the plural, thus, the masculine, feminine, and neuter plurals take the same form. The second difference is that in some forms there is a distinction between the animate and inanimate nouns in the accusative case. These two differences will carry over to the case marking of the special modifiers.

3.6.3 Special Modifier Case Markers

The special modifiers, possessives and ordinal numbers pattern together with the adjectives, using almost identical suffix forms. All of these determiners must agree with their head noun in number, gender, and case just as the adjectives do. All can occur in all six cases, and with all three genders and the plural. A detailed description of the case modification of the Russian determiners follows.
3.6.3.1 Case Marking with Этом and Тот

Этом и Тот pattern together exactly, with the exception of the instrumental case and the nominative case plural; therefore, they will be dealt with together. In the nominative case they occur in the following ways,

Masculine

3.142) этот человек был русским /этот человек был русский/ this person was Russian
3.143) тот человек был русским /тот человек был русский/ that person was Russian

Feminine

3.144) эта птица была русской /этот птице была русская/ this bird was Russian
3.145) та птица была русской /та птица была русская/ that bird was Russian

Neuter

3.146) это письмо было русским /это письмо было русским/ this letter was Russian
3.147) то письмо было русским /то письмо было русским/ that letter was Russian

Plural

3.148) эти машины были русскими /эти машины были русскими/ these cars were Russian

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3.149) те машины были русским /te maʃini buʃili ruskim/ those cars

were Russian

It is of limited interest that in the nominative plural these two demonstrative special modifiers do not share the same form, этот takes the suffix /-i/, and тот takes the suffix /-e/ to denote the plural, but this is not pertinent to this paper.

In the accusative case these special modifiers can occur as follows,

Masculine Inanimate

3.150) человек ударит этот самолет /tʃelovek ydarit etot samolʲot/ the

man hits this airplane

3.151) человек ударит тот самолёт /tʃelovek ydarit tot samolʲot/ the

man hits that airplane

Masculine Animate

3.152) человек ударит этого отец /tʃelovek ydarit etogo otʲets/ the man

hits this father

3.153) человек ударит того отца /tʃelovek ydarit togo otʲets/ the man

hits that father

Feminine

3.154) человек ударит эту школу /tʃelovek ydarit etu školu/ the man

hits this school

3.155) человек ударит ту школу /tʃelovek ydarit tu školu/ the man hits that school

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Neuter

3.156) человек ударит это пальто /tʃelovek ydarit esto pal’to/ the man

hits this coat

3.157) человек ударит то пальто /tʃelovek ydarit to pal’to/ the man hits

that coat

Plural Inanimate

3.158) человек ударит эти книги /tʃelovek ydarit eti knigi/ the man hits

these books

3.159) человек ударит те книги /tʃelovek ydarit eti knigi/ the man hits

those books

Plural Animate

3.160) человек ударит этих брать /tʃelovek ydarit etix brati/ the man

hits these brothers

3.161) человек ударит тех брать /tʃelovek ydarit tex brati/ the man hits

those brothers

In the genitive case these two determiners can occur in the following ways,

Masculine

3.162) я видел книги этого человека /ja videl knigi etogo tʃeloveka/ I

saw this man’s books

3.163) я видел книги того человека /ja videl knigi togo tʃeloveka/ I

saw that man’s books
Feminine

3.164) я видел книги этой птицы /ja videl knigi etoj ptitsui/ I saw this

bird's books

3.165) я видел книги этой птицы /ja videl knigi etoj ptitsui/ I saw that

bird's books

Neuter

3.166) я видел книги этого ведра /ja videl knigi etogo vedra/ I saw this

bucket's books

3.167) я видел книги того ведра /ja videl knigi togo vedra/ I saw that

bucket's books

Plural

3.168) я видел книги этих женщин /ja videl knigi etix zensini/ I saw

these women's books

3.169) я видел книги тех женщин /ja videl knigi tex zensini/ I saw

those women's books

The prepositional forms are manifested in the following ways,

Masculine

3.170) учитель знает об этом доме /utjitelj znaet ob etom dome/ the
teacher knows about this house

3.171) учитель знает о том доме /utjitelj znaet o tom dome/ the teacher

knows about that house

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Feminine

3.172) учителъ знает об этой машине /утдилъ знание о той машине/ 
the teacher knows about this car

3.173) учителъ знает о той машине /утдилъ знание о той машине/ the 
teacher knows about that car

Neuter

3.174) учителъ знает об этом письме /утдилъ знание об этом письме/ 
the teacher knows about this letter

3.175) учителъ знает о том письме /утдилъ знание о том письме/ the 
teacher knows about that letter

Plural

3.176) учителъ знает об этих туфлях /утдилъ знание об этих туфлях/ 
the teacher knows about these shoes

3.177) учителъ знает о тех туфлях /утдилъ знание о тех туфлях/ the 
teacher knows about those shoes

In the dative case these special modifiers occur thus,

Masculine

3.178) она даст яблоко этому соседу /она даст яблоко этому соседу/ 
she will give the apple to this neighbor

3.179) она даст яблоко тому соседу /она даст яблоко тому соседу/ 
she will give the apple to that neighbor

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Feminine

3.180) она даст яблоко этой женщине /ona dast jabloko etoj zensjine/

*she will give the apple to this woman*

3.181) она даст яблоко той женщине /ona dast jabloko toj zensjine/ *she*

*will give the apple to that woman*

Neuter

3.182) она даст яблоко этому ведру /ona dast jabloko etomu vedru/ *she*

*will give the apple to this bucket*

3.183) она даст яблоко тому ведру /ona dast jabloko tomu vedru/ *she*

*will give the apple to that bucket*

Plural

3.184) она даст яблоко этим птицам /ona dast jabloko etim ptitsam/

*she will give the apple to these birds*

3.185) она даст яблоко тем птицам /ona dast jabloko tem ptitsam/ *she*

*will give the apple to those birds*

The instrumental case is marked in the following ways,

Masculine

3.186) я иду с этим человеком /ja idy s etim tjelovekom/ *I go with*

*this person*

3.187) я иду с тем человеком /ja idy s tem tjelovekom/ *I go with that*

*person*
Feminine

3.188) я иду с этой женщиной /ja idy s etoj dzenfinoj/ *I walk with this woman*

3.189) я иду с той женщиной /ja idy s toj dzenfinoj/ *I walk with that woman*

Neuter

3.190) я иду с этим пальтом /ja idy s etim pal'tom/ *I walk with this coat*

3.191) я иду с тем пальтом /ja idy s tem pal'tom/ *I walk with that coat*

Plural

3.192) я иду с этими людьми /ja idy s etimi ljud'ami/ *I walk with these people*

3.193) я иду с теми людьми /ja idy s temi ljud'ami/ *I walk with those people*

3.6.3.2 *Case Marking with Один*

Один patterns only with itself with regards to case marking. The pattern is as follows, using the same sentence frames as with этот and тот.

Masculine

3.194) один человек русским /odin tselovek buiil ruskim/ *one person is Russian*

Feminine

3.195) одна птица русская /odna ptitsa buila ruskaja/ *one bird is Russian*
Neuter

3.196) одно письмо русское /одно письмо русское/ one letter is

Russian

Plural

3.197) одни машины русские /одни машины русские/ only cars are

Russian

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.198) человек ударит один самолёт /человек ударит один самолёт/ the man will hit one airplane

Masculine Animate

3.199) человек ударит одного отца /человек ударит одного отца/ the man will hit one father

Feminine

3.200) человек ударит одну школу /человек ударит одну школу/ the man will hit one school

Neuter

3.201) человек ударит одно пальто /человек ударит одно пальто/ the man will hit one coat

Plural Inanimate

3.202) человек ударит одни книги /человек ударит одни книги/ the man will hit only books
Plural Animate

3.203) человек ударит одних братьев /tselovek ydarit odnix bratwi/ the man will hit only brothers

In the genitive case this determiner can occur in the following ways,

Masculine

3.204) я видел книги одного человека /ja vidil knigi odnogo tseloveka/ I saw one man's books

Feminine

3.205) я видел книги одной птицы /ja vidil knigi odnoj ptitsui/ I saw one bird's books

Neuter

3.206) я видел книги одного ведра /ja vidil knigi odnogo vedra/ I saw one bucket's books

Plural

3.207) я видел книги одних женщин /ja vidil knigi odnix zhenjin/ I saw only women's books

The prepositional forms are manifested in the following ways,

Masculine

3.208) учитель знает об одном доме /utzitel' znaet ob odnom dome/ the teacher knows about one house

Feminine

3.209) учитель знает об одной машине /utzitel' znaet ob odnoj masfine/
the teacher knows about one car

Neuter

3.210) учитель знает об одном письме /утфител цнзяет об одном пищеме/

the teacher knows about one letter

Plural

3.211) учитель знает об одних туфлях /утфител цнзяет об одних туфлях/

the teacher knows about only shoes

In the dative case this special modifier occurs thus,

Masculine

3.212) она даст яблоко одному соседу /она даст яблоко одному соседу/ she will give the apple to one neighbor

Feminine

3.213) она даст яблоко одной женщине /она даст яблоко одной женщине/ she will give the apple to one woman

Neuter

3.214) она даст яблоко одному ведру /она даст яблоко одному ведру/ she will give the apple to one bucket

Plural

3.215) она даст яблоко одним птицам /она даст яблоко одним птицам/ she will give the apple to only birds

The instrumental case is marked in the following ways,
Masculine

3.216) я иду с одним человеком /ja idy s odnim tselovekom/ I walk with one man

Feminine

3.217) я иду с одной женщиной /ja idy s odnoj zensinoj/ I walk with one woman

Neuter

3.218) я иду с одним пальтом /ja idy s odnim pal4tom/ I walk with one coat

Plural

3.219) я иду с одними человеци /ja idy s odnimi tseloveki/ I walk with only people
3.6.3.3 Case Marking with Весь

Весь is marked for case identically to тот, but due to its different subcategorization restrictions it must be dealt with separately. A similar set of sentence frames will be used to exemplify the case endings for весь.

Masculine

3.220) весь лед русский /ves⁴ led buiši ruskij/ all ice is Russian

Feminine

3.221) вся вода была русская /vs⁴a voda buišla ruskaja/ all water was

Russian

Neuter

3.222) всё мясо было русское /vs⁴o mjaso buišlo ruskoje/ all meat was

Russian

Plural

3.223) все машины были русские /vs⁴e mašini buiši ruskije/ all cars

were Russian

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.224) человек ударит весь воздух /tʃelovek ydarit ves⁴ vozdux/ the person will hit all the air

Masculine Animate

3.225) человек ударит всего соседа /tʃelovek ydarit vs⁴ego
sos\textsuperscript{edev}o / the person will hit all the neighbors

Feminine

3.226) человек ударит всю чернилу /\textit{tselovek ydarit vs'lu t\textit{t}ernilu/ the person will hit all the ink

Neuter

3.227) человек ударит всё мясо /\textit{tselovek ydarit vs'o m\textit{t}as\textit{o/ the person will hit all meat

Plural Inanimate

3.228) человек ударит все книги /\textit{tselovek ydarit vs'e k\textit{ni}ji/ the person will hit all the books

PluralAnimate

3.229) человек ударит всех братьев /\textit{tselovek ydarit vs'\textit{e}x brat\textit{ui}/ the man hit all the brothers

In the genitive case this determiner can occur in the following ways,

Masculine

3.230) я видел книгу всего лда /\textit{ja vid\textit{e}l k\textit{ni}guvs'\textit{e}go l\textit{da/ \textit{I saw all the ice's book

Feminine

3.231) я видел книгу всей воды /\textit{ja vide k\textit{ni}guvs'\textit{e}j v\textit{od\textit{u}/ \textit{I saw all the water's books

Neuter

3.232) я видел книгу всего мяса /\textit{ja vid\textit{e}l k\textit{ni}gu vs'\textit{e}go m\textit{\textit{t}asa/ \textit{I saw all
the meat's books

Plural

3.233) я видел книгу всех женщин /ja videl knigu vs'ej zhen'iny/ I

saw all the women's books

The prepositional forms are manifested in the following ways,

Masculine

3.234) учитель знает о всем лед /ut'sitel' znajet o vs'em led/ the teacher

knows about all the ice

Feminine

3.235) учитель знает о всей воде /ut'sitel' znajet o vs'ej vo'de/ the

teacher knows about all the water

Neuter

3.236) учитель знает о всем мясе /ut'sitel' znajet o vs'em m'ase/ the

teacher knows about all the meat

Plural

3.237) учитель знает о всех туфлях /ut'sitel' znajet o vs'ej tuflax/ the

teacher knows about all the shoes

In the dative case this special modifier occurs thus,

Masculine

3.238) она даст яблоко всему льду /ona dast jabloko vs'emu ledu/ she

will give the apple to all the ice

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Feminine

3.239) она даст яблоко всей траве /ona dast jabloko vs\textsuperscript{e}j trave/ she will give the apple to all the grass

Neuter

3.240) она даст яблоко всему мясу /ona dast jabloko vs\textsuperscript{e}mu m\textsuperscript{a}smu/ she will give the apple to all the meat

Plural

3.241) она даст яблоко всем птицам /ona dast jabloko vs\textsuperscript{e}m ptitsam/ she will give the apple to all the birds

The instrumental case is marked in the following ways,

Masculine

3.242) я иду со всем космосом /ja idy so vs\textsuperscript{e}m kosmosom/ I walk with all the cosmos

Feminine

3.243) я иду со всей травой /ja idy so vs\textsuperscript{e}j travoj/ I walk with all the grass

Neuter

3.244) я иду со всем мясом /ja idy so vs\textsuperscript{e}m m\textsuperscript{a}som/ I walk with all the meat

Plural

3.245) я иду со всеми людьми /ja idy so vs\textsuperscript{e}mi ljud\textsuperscript{a}mi/ I walk with all the people

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3.6.3.4 Case Marking with Чей

Чей follows its own pattern of case marking. Although the suffixes are based on the same root as with the other special modifiers, they are rarely the same forms with Чей.

The case marking pattern is as follows,

Masculine

3.246) Чей человек был русским /т'еj t'elovek buil ruskij/ whose

person was Russian

Feminine

3.247) Чья птица была русская /т'я ptitsa buila ruskaja/ whose bird

was Russian

Neuter

3.248) Чьё письмо было русское /т'ё pic'no builo ruskoje/ whose

letter was Russian

Plural

3.249) Чьи машины были русские /т'и ma'jinui buili ruskije/ whose

cars were Russian

In the accusative case this special modifier can occur as follows,

Masculine Inanimate

3.250) Человек ударит чей самолёт /т'elovek ydarit t'ej samol'ot/ the

man will hit whose airplane

Masculine Animate

3.251) Человек ударит чьего омца /т'elovek ydarit t'ej'ego omtsa/ the
man will hit whose father

Feminine

3.252) человек ударит чью школу /tʃelovek ydarit tʃ'ju jkolu/ the man
will hit whose school

Neuter

3.253) человек ударит чё пальто /tʃelovek ydarit tʃ'o palito/ the man
will hit whose coat

Plural Inanimate

3.254) человек ударит чьи книги /tʃelovek ydarit tʃ'i knigi/ the man
will hit whose books

PluralAnimate

3.255) человек ударит чьих братьев /tʃelovek ydarit tʃ'ix brat'wi/ the
person will hit whose brothers

In the genitive case this determiner can occur in the following ways,

Masculine

3.256) я видел книги чьего человека /ja videl knigi tʃ'ego tʃeloveka/ I
saw whose man’s books

Feminine

3.257) я видел книги чьей птицы /ja videl knigi tʃ'tj ptitsui/ I saw
whose bird’s books

Neuter

3.258) я видел книги чьего ведра /ja videl knigi tʃ'ego vedra/ I saw
whose bucket's books

Plural

3.259) я видел книги чьих женщин /ja videl knigi tj'ix zensini/ I saw

whose women's books

The prepositional forms are manifested in the following ways,

Masculine

3.260) учитель знает о чьем доме /utsitelj zajet o tjom dome/ the
teacher knows about whose house

Feminine

3.261) учитель знает о чьей машине /utsitelj zajet o tj'em manje/ the
teacher knows about whose car

Neuter

3.262) учитель знает о чьем письме /utsitelj zajet o tjom picme/ the
teacher knows about whose letter

Plural

3.263) учитель знает о чьих туфлях /utsitelj zajet o t'ix tuflax/ the
teacher knows about whose shoes

In the dative case this special modifier occurs thus,

Masculine

3.264) она даст яблоко чьему соседу /ona dast jabloko tjemu sosedu/

she will give the apple to whose neighbor

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Feminine

3.265) она даст яблоко чьей женщине /ona dast jabloko tj'ej žensjine/

she will give the apple to whose woman

Neuter

3.266) она даст яблоко чьему ведру /ona dast jabloko tj'emu vedru/

she will give the apple to whose bucket

Plural

3.267) она даст яблоко чьим птицам /ona dast jabloko tj'im ptitsam/

she will give the apple to whose birds

The instrumental case is marked in the following ways,

Masculine

3.268) я иду с чьим человеком /ja idy s tj'im tjelovekom/ I walk with

whose person

Feminine

3.269) я иду с чьей женщиной /ja idy s tj'ej žensjinoj/ I walk with

whose woman

Neuter

3.270) я иду с чьим пальтом /ja idy s tj'im pal'tom/ I walk with whose

coat

Plural

3.271) я иду с чьими людьми /ja idy s tj'im ljud'ami/ I walk with whose

people

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3.7 Syntax of Russian Determiners

In 1987, Steven Abney proposed the Determiner Phrase (DP). This provides three possible syntactic structures for the Russian Noun Phrase.

3.7.1 Transformational Grammar Structure

Following is a representation of the Noun Phrase (NP) вся эта синяя вода

/all this blue water

This structure has the added benefit of accurately representing an NP without any
determiner modification, as in

or

However, it does not accurately represent the relationships between the different
constituents, in order to do that, a different theoretical structure is needed.
\[3.7.2 \textit{X-Bar Theory Structure}\]

The following structure is based on the NP

\[3.272) \text{этого зелёного ведра } /\text{это зелёное ведро/ this green bucket}\]

One problem with this structure is that it is difficult to represent a structure with multiple determiners such as, \(\text{один этот русский сад/ }\) \(\text{единственный русский сад/ only this Russian garden}\)

\[3.7.3 \textit{Determiner Phrase Structure}\]

This hypothesis is useful in representing multiple determiner structures, thus the co-occurrence and ordering restrictions can be mapped out accurately, as in the NP,

\[3.273) \text{все эти три хороших человека/ }\] \(\text{все эти три хороших человека/ all these three good people}\)
One problem presented by this structure is that it requires a determiner head of DP. In Russian this would require an ambiguous $Ø$ determiner, in all instances, where there is no phonetically produced determiner.

No syntactic representation is accurate to Russian Noun Phrase Structure, though each possible representation has benefits and disadvantages.

### 3.8 Summary of Russian Determiner Occurrence

The data presented in Russian is consistent with an INN language. Russian has qualifiers, which are inflected. It does not have definite or indefinite articles.

Russian is also consistent with the four proposed universals. It has qualifiers, consistent with universal one. It has no indefinite article, nor does it possess a definite article. This is consistent with universal two. The one occurring class is inflected, consistent with universal three. The Russian determiners are also constrained by co-occurrence restrictions, ordering restrictions, and subcategorization restrictions. This
corresponds with the expectation of universal four. Russian data is consistent with the proposed determiner types and with the proposed determiner universals.
4 German Determiners

4.1 Overview of German Determiners

German exhibits an III determiner structure, in which the qualifiers, definite and indefinite articles are all inflected. This is a type six language in my scheme. The agreed upon set that comprises German determiners is as follows¹,

*der*  *dieser*

*jener*  *solcher*

*welcher*  *aller*

*mancher*  *ein*

possessives ordinals

These determiners can be divided into eight subclasses. The first subclass contains only the definite article, *der* and all of its forms. The second consists of the demonstratives, *dieser*, this, *jener*, that, and *solcher*, such. The third subclass is made up of the interrogative, *welcher*, whose, which. The fourth subclass contains the quantifiers, *aller*, all, and the fifth contains *mancher*, some. The sixth subclass consists solely of the indefinite article, *ein*. Subclass seven is made up of the possessives, and subclass eight of the ordinals. These subclasses are relevant to the co-occurrence and ordering restrictions. The determiners will be subdivided differently with regard to subcategorization restrictions.

---

4.2 Co-Occurrence Restrictions of German Determiners

Determiners in German obey co-occurrence restrictions. These co-occurrence restrictions are based upon the seven subclasses.

4.2.1 Definite Articles

The definite article cannot co-occur with the indefinite article, as in

4.1) *der ein Mann /der ein man/ the a man

4.2) *eine die Mutter /eine di muter/ a the mother

It also cannot co-occur with the demonstratives, thus,

4.3) *dieser der Fußball /diser der fusbal/ this the football

4.4) *jene die Bahn /jene di ban/ that the railroad

The definite article cannot co-occur with the interrogative determiner,

4.5) *welches das Radio /velxes das radio/ which radio

It can also co-occur with the quantifier aller, thus,

4.6) alle die Schuhe /ale di ju?e/ all the shoes

but not with mancher, thus,

4.7) *manche die Markte /mançe di markte/ some of the markets

The definite article cannot co-occur with the possessives, as in,

4.8) *der mein Wald /der mein vald/ the my forest

It can co-occur with the ordinals, thus,

4.9) der erste Fisch /der erst fiʃ/ the first fish
4.2.2 Demonstratives

The German demonstratives cannot co-occur with either the definite or indefinite articles, thus,

4.10) *dieser der Film /diser der film/ this the film

4.11) *solches ein Obst /solçes ein obst/ such a fruit

They can co-occur with the quantifiers as in,

4.12) alle jene Milch /ale jene milç/ all that milk

4.13) manches dieses Lied /mançes dises lid/ some of this song

The demonstratives cannot co-occur with the possessives, as in,

4.14) *dein dieser Zug /dein diser zug/ your this train

Or with the interrogatives,

4.15) *welcher dieser Baum /velçer diser baum/ which this tree

4.2.3 Interrogatives

The interrogatives cannot co-occur with either the definite or indefinite articles, thus,

4.16) *welcher der Onkel /velçer der onkel/ which the uncle

4.17) *welches ein Ding /velçes ein diñ/ which a thing

They also cannot co-occur with the demonstratives,

4.18) *welcher jener Baum /velçer jener baum/ which that tree

4.19) *welche solche Sonne /velçe solçe son/ which such sun

Or with the possessives, as in,

4.20) *welcher sein Tisch /velçer zein tiñ/ which his table

The interrogatives can co-occur with the ordinals, thus,
4.21) welches erste Buch /welçes erste bux/ which first book

But not with the quantifiers,

4.22) *aller welcher Brief /aler velçer brif/ all which letter

4.23) *mancher welcher Bus /mançer velçer bus/ some of which bus

4.2.4 The Quantifier Aller

This quantifier can co-occur with the definite but not the indefinite articles, thus

4.24) alle die Bleistifte /ale di bleistifte/ all the pencils

4.25) *alle eine Tische /ale eine tife/ all a tables

It can also co-occur with the demonstratives,

4.26) alle diese Bücher /ale dise byxer/ all these books

This quantifier cannot co-occur with the ordinals, thus,

4.27) *alles erst Ding /ales erst diŋ/ all (the) first thing

They can also not co-occur with the interrogative, as in,

4.28) *aller welcher Baum /aler welçer baum/ all which tree

The quantifiers can also co-occur with the possessives, thus,

4.29) alle meine Stühle /ale meine style/ all of my chairs

4.2.5 The Quantifier Mancher

This quantifier cannot co-occur with the definite article or the indefinite article,

4.30) *manche eine Terrasse /mançe eine terase/ some of a patio

4.31) *manches das Geld /mançes das geld/ some of the money

It can also not co-occur with the demonstratives, as in,

4.32) *mancher jener Tag /mançer jener tag/ some of that day
This quantifier cannot co-occur with the ordinals, thus,

4.33) *mancher ein Wald /mançer ein wald/ some of a forest

It cannot co-occur with the interrogative, thus,

4.34) *manches welches Buch /mançes welçes bux/ some of which book

And also with the possessives,

4.35) manches deiner Butter /mançes deiner buter/ some of your butter

4.2.6 Indefinite Article

The indefinite article obeys the same co-occurrence restrictions as the definite article.

It is listed here as a separate class because many German grammarians class it separately.

4.2.7 Possessives

The possessives cannot co-occur with the definite or indefinite articles, as in,

4.36) *sein der Käse /sein der kase/ his the cheese

4.37) *meine eine Brücke /meine eine bryke/ my a bridge

They can also not co-occur with the demonstratives, thus,

4.38) *ihre jene Geschichte /ire jene geʃʃte/ her that story

The possessives can co-occur with the quantifiers,

4.39) all dein Krieg /al dein krig/ all your war

They can also co-occur with the ordinals, as in,

4.40) sein erster Baum /sein erster baum/ his first tree

The possessives cannot co-occur with the interrogative,

4.41) *mein welches Kind /mein velçes kind/ my which child
4.2.8 Ordinals

The ordinals can co-occur with all other determiners.

4.3 Ordering Restrictions of German Determiners

German, as other languages, has ordering restrictions that determine the order in which the constituents of a noun phrase occur. In German, these restrictions can be manifested in the following chart.

<table>
<thead>
<tr>
<th>Quantifier</th>
<th>Demonstrative</th>
<th>Ordinal</th>
<th>Adjective</th>
<th>Noun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Def/Indef</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Article</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possessive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second slot is the only one that has multiple possible members. In the other four slots, an occupant must be selected from a particular class to fill the slot.

4.4 Subcategorization Restrictions of German Determiners

In order to better describe the subcategorization restrictions, it may be prudent to review the subcategorization frame proposed by Quirk and Greenbaum. They propose that all nouns will fit into one of the following slots, singular, plural, and mass. They further propose that any given determiner can only modify members of certain of these slots. The slots that a particular determiner can modify determine its classification in regard to subcategorization. German determiners separate into only two classes with regard to subcategorization.
4.4.1 Class One Determiners

The class one determiners include *der, dieser, jener, solcher, welcher, aller, mancher*, and the possessives. These determiners can modify a noun from any of the classes. They can modify a singular noun, thus,

4.42) der Baum /der baum/ the tree

and a plural noun, thus,

4.43) diese Bäume /dise baume/ these trees

They can also modify a mass noun, thus,

4.44) alles Wasser /ales vasser/ all water

The subcategorization frame for class one determiners would be as follows,

4.4.2 Class Two Determiners

The class two determiners consist only of *ein* and the ordinals. These determiners cannot modify a plural noun, though they can modify a singular or a mass noun. Thus, the following is true.

4.43) ein Garten /ein garten/ a garden

4.44) *eine Garten /eine garten/ gardens

4.45) eine Milch /eine milç/ a milk

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The subcategorization frame for class two determiners would be as follows.

\[
\begin{array}{|c|c|}
\hline
X & X \\
\hline
\end{array}
\]

4.5 Phonology of German Determiners

German determiners are not altered phonologically.

4.6 Morphology of German Determiners

German determiners are morphologically marked for gender, number, and case.

German has three genders, two numbers, and four cases. There is no gender distinction in the plural. A given determiner will, therefore, have eight forms in German. There are two basic sets of morphological markings. The first patterns with the definite article, \textit{der} in all forms. The second patterns with the indefinite article, \textit{ein} in all forms. For this reason it is only necessary to represent the forms of these two determiners in this paper.

The declension of \textit{der} is as follows,

<table>
<thead>
<tr>
<th>Case</th>
<th>Masculine</th>
<th>Feminine</th>
<th>Neuter</th>
<th>All Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominative</td>
<td>\textit{der}</td>
<td>\textit{die}</td>
<td>\textit{das}</td>
<td>\textit{die}</td>
</tr>
<tr>
<td>Accusative</td>
<td>\textit{den}</td>
<td>\textit{die}</td>
<td>\textit{das}</td>
<td>\textit{die}</td>
</tr>
<tr>
<td>Genitive</td>
<td>\textit{des}</td>
<td>\textit{der}</td>
<td>\textit{des}</td>
<td>\textit{der}</td>
</tr>
<tr>
<td>Dative</td>
<td>\textit{dem}</td>
<td>\textit{der}</td>
<td>\textit{dem}</td>
<td>\textit{den}</td>
</tr>
</tbody>
</table>

The words that pattern with \textit{der} are \textit{dieser, jener, solcher, welcher, aller, mancher}, and the ordinals. Following is the declension of \textit{dieser}, which sets the pattern for the remainder of these determiners.

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<table>
<thead>
<tr>
<th></th>
<th>Masculine</th>
<th>Feminine</th>
<th>Neuter</th>
<th>All Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominative</strong></td>
<td>dieser</td>
<td>diese</td>
<td>dieses</td>
<td>diese</td>
</tr>
<tr>
<td><strong>Accusative</strong></td>
<td>diesen</td>
<td>diese</td>
<td>dieses</td>
<td>diese</td>
</tr>
<tr>
<td><strong>Genitive</strong></td>
<td>dieses</td>
<td>dieser</td>
<td>dieses</td>
<td>dieser</td>
</tr>
<tr>
<td><strong>Dative</strong></td>
<td>diesem</td>
<td>dieser</td>
<td>diesem</td>
<td>diesen</td>
</tr>
</tbody>
</table>

The determiners that pattern with *ein* are the possessives. All of these forms pattern together exactly. The declension of *ein* is as follows,

<table>
<thead>
<tr>
<th></th>
<th>Masculine</th>
<th>Feminine</th>
<th>Neuter</th>
<th>All Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominative</strong></td>
<td>ein</td>
<td>eine</td>
<td>ein</td>
<td>keine²</td>
</tr>
<tr>
<td><strong>Accusative</strong></td>
<td>einen</td>
<td>eine</td>
<td>ein</td>
<td>keine</td>
</tr>
<tr>
<td><strong>Genitive</strong></td>
<td>eines</td>
<td>einer</td>
<td>eines</td>
<td>einer</td>
</tr>
<tr>
<td><strong>Dative</strong></td>
<td>einem</td>
<td>einer</td>
<td>eines</td>
<td>einen</td>
</tr>
</tbody>
</table>

4.7 Syntax of German Determiners

The history of German syntax study has followed much the same pattern as the previous languages examined. In its earlier stages German syntax represented a noun phrase as a linear string. It then progressed to a Transformational Grammar Tree-structure, then to an X-bar tree structure. The most recent advancement has been to the Determiner Phrase hypothesis. This structure would be represented in German as follows.

²This form is in the negative, it cannot occur in the positive.
German is consistent with the DP analysis proposed by Abney, and supports the hypothesis that there is a Determiner Phrase that dominates the Noun Phrase.

4.8 Summary of German Determiners

German exhibits evidence consistent with an III language. It has qualifiers, definite and indefinite articles. All three of these are inflected for gender, number, and case.

German also presents data consistent with the proposed universals. It possesses qualifiers. All three of the occurring classes bear the same inflectional marking. It possesses both indefinite and definite articles. With regard to the fourth universal, German determiners are constrained by co-occurrence restrictions, ordering restrictions, and subcategorization restrictions. German is consistent with the language types and determiner universals proposed in this paper.
5 Conclusion

5.1 Determiner Typology and Universals

In this paper three languages were examined in terms of their determiner attributes. These three languages belong to three different types, English to UUU, Russian to INN, and German to III. In the introduction two different proposals were made regarding determiner typology, first that there are six occurring determiner language types, and second that there are four language universals with regard to determiner properties.

5.1.1 Determiner Types

The idea that there are different types into which a language may fit with regard to its determiner properties was proposed in the introduction. This is confirmed by the data presented in chapters two through four. Each of the three distantly related languages examined fits neatly into a different determiner type as outlined above. Many other languages pattern with these languages. Nearly all of the Slavic languages fall into the same type as Russian, as does Latin. Most Indo-European languages pattern with German. English is in a more restricted type, with fewer members. Recall that I said that that there appear to be six occurring determiner language types. This paper presented evidence for three of these types, whether the number of naturally occurring determiner language types is six, or three, or another number is beyond the scope of this paper.

5.1.2 Determiner Universals

The second issue raised in the introduction was that of determiner universals. It was proposed that there are four such universals. Each of these will now be examined in more detail.
5.1.2.1 Universal One: All Languages Possess Qualifiers

The first universal proposed was that all languages have qualifiers. There are qualifiers in all three of the languages examined. In Russian, these qualifiers are the extent of the determiner set. In English, they are uninflected and in German, the qualifiers are highly inflected, but they occur in all three languages. It may, therefore, be supposed that these will also occur in other languages, though further research is needed to demonstrate this definitively.

5.1.2.2 Universal Two: Indefinite Articles Do Not Occur Without Definite Articles

The second universal proposed is that indefinite articles cannot occur without definite articles. Only one of the languages examined, English, has indefinite articles. English also possesses definite articles. German also has definite articles, as well as indefinite articles. In none of the languages examined do indefinite articles occur without their definite counterparts.

5.1.2.3 Universal Three: All Determiners must Share Inflectional Properties

The third proposed universal was that if one of the three main classes of determiners is inflected, then all other classes that occur in that language must also be inflected. In Russian, only one class occurs, and it is inflected. In German, all three classes, definite articles, indefinite articles, and qualifiers occur, and are inflected. In English, all three classes occur and all three are uninflected. This data supports the existence of this universal, and once again the supposition can be made that this will prove true in other languages.
5.1.2.4 Universal Four: All Languages Possess Three Types of Determiner

Restrictions

The final universal proposed is that all languages restrict determiner occurrence in three ways. First, through co-occurrence restrictions, they restrict which determiners can occur simultaneously within the same Determiner Phrase. These restrictions are vibrant in all three languages examined, though they do not restrict the same forms or words from co-occurring. From this one can surmise that although these restrictions are universal, what they restrict is language specific. The second restriction is the ordering restriction. This determines the order in which co-occurring determiners will occur. This restriction is also active in all three languages, though also restricting and placing different forms in different orders.

The third restriction is the subcategorization restriction. This restriction determines what nouns a particular determiner can modify. This is also a vibrant and active property of all three of the languages examined. The subcategorization restriction is not based upon natural determiner classes, as are the other two restrictions, but is word specific, and forms different classes. They, too vary cross-linguistically, though their presence seems to be universal.

5.2 Final Thoughts

In conclusion, this paper demonstrates the existence of absolute determiner types into which a given language may fit. The evidence does not suggest that a particular language can waffle back and forth between types. This paper also demonstrates that there are at least four different properties of determiners that are universal throughout all human language.
Bibliography


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1 I have included all the sources that were useful in writing this thesis.


