

Reference to and via properties

The case of Slovak

Veronika Richtarcikova

TESI DOCTORAL UPF / ANY (2017)

DIRECTOR DE LA TESI

Louise McNally

Departament de Traducció i Ciències del Llenguatge



Acknowledgments

I must first thank my advisor Louise McNally for all the guidance and support throughout the years of my doctorate and the process of writing this thesis. She was incredibly generous of her time in giving feedback on my many drafts and sharing her knowledge and wisdom with me – but perhaps more importantly, she was incredibly encouraging and spurred me on to continue. She has been the single greatest influence on my development as a linguist and for that I am truly indebted to her. I hold her in absolute highest esteem on both academic and personal levels.

I was honored to be invited by Henriëtte de Swart, alongside Louise, to collaborate on a cross-linguistic research project from which arose much of the content of this thesis. I am thankful for this learning opportunity.

Donka Farkas showed me hospitality during my visit at the Linguistics Research Center of University of California, Santa Cruz in the spring of 2015. As my sponsor and mentor throughout my time in California, Donka provided me excellent feedback in the crucial early stages of my project.

I am grateful for the valuable feedback from the audiences at the September 2014 Slavic Linguistic Society Meeting in Seattle, the June 2015 Syntax and Semantics Circle at the UC Santa Cruz, and the April 2016 SIGGRAM Meeting in Alcalá where I had the opportunities to present various portions of this work.

A special thanks belongs to my husband who spent much of our first year of marriage patiently encouraging and supporting me in this endeavor. He even read over my drafts and combed this thesis for proper spelling, grammar, punctuation, and formatting (which means if they're any errors, their his fault). I love you Kerrick.

Thank you to my parents and to my in-laws who cheered me on. My sister Barbora was always available for me to turn to whenever I needed a second opinion from a native Slovak speaker.

Finally, I gratefully acknowledge the financial support of the Department of Translation and Language Sciences at Pompeu Fabra University, Barcelona for the first semester of my PhD program. This research was further supported by an FI predoctoral grant from the Secretariat for Universities and Research of the Department of Economy and Knowledge of the Generalitat de Catalunya during the period 2014-2016, as well as by the grants awarded to Louise McNally: MINEICO FFI2014-51675-REDT (SIGGRAM “Meaning and Grammar”), FFI2013-41301-P, FFI2016-76045-P (AEI/MINEICO/FEDER, UE “Connecting conceptual and referential models of meaning”), and ICREA Academia Award.

Abstract

Reference via adjectives typically requires an intermediate step: nominalization through overt derivational affixing. However, many languages allow even unaffixed adjectives to be used referentially. This thesis is a case study of this use of adjectives (called adjectival determiner phrases or A-DPs) in Slovak. Based on corpus evidence, I describe their syntax and semantics. I argue that Slovak A-DPs, in contrast to derived nominalizations, have no nominal layer in their structure. The two meanings observed for A-DPs are shown to derive from the underlying character of adjectives themselves, specifically, from the fact that the semantic representation contains two variables, one for the property denoted by the adjective and one for the bearer of that property. Additional research questions addressed in the thesis include a comparison of affix-based and affixless nominalization strategies, as well as the role and the distribution of determiners in Slovak A-DPs in light of their interaction with information structure.

Resum

La referència a través dels adjectius requereix típicament un pas intermig: la nominalització a través de l'explícita afixació derivativa. No obstant això, moltes llengües permeten l'ús referencial també dels adjectius escarrits. Aquesta tesi és un estudi de cas d'aquest ús d'adjectius (anomenats A-DPs) en eslovac. Basant-me en les dades de corpus descriu la seva sintaxi i semàntica. Afirmo que els A-DPs en eslovac, contràriament a les nominalitzacions derivades, no contenen en la seva estructura una capa nominal. Demostro que els dos significats identificats dels A-DPs estan derivats de la naturalesa dels mateixos adjectius, i específicament del fet de que la representació semàntica conté dues variables, una per l'atribut expressat per l'adjectiu i una altra que correspon al portador d'aquest atribut. Altres qüestions que aborda aquesta tesi inclouen la comparació de l'estratègia de la nominalització amb i sense afixos així com el paper i la distribució dels determinants en els A-DPs en eslovac a causa de la seva interacció amb l'estructura informativa.

Abbreviations

A/ADJ	adjective
A-DP	adjectival determiner phrase
ACC	accusative
ADV	adverb
DAT	dative
DN	derived nominalization
FEM	feminine gender
GEN	genitive
INSTR	instrumental
LOC	locative
MASC	masculine gender
NEG	negation
NEUT	neuter gender
N	noun
NOM	nominative
NP	noun phrase
PART	particle
PL	plural
PP	prepositional phrase
REFL	reflexive
SG	singular

Contents

List of figures	xi
List of tables	xiii
1 INTRODUCTION	1
1.1 The Slovak language	4
1.2 Source of data	12
1.3 Previous accounts of A-DPs	16
1.3.1 Comment on terminology	18
1.3.2 Glass 2014	20
1.3.3 Villalba 2013	25
1.3.4 Kester 1996	32
1.3.5 McNally & de Swart (2015) and de Swart et al. (to appear)	34
1.4 Outline of the thesis	42
2 THE MORPHOSYNTAX-SEMANTICS INTERFACE OF A-DPs	45
2.1 Introduction	45
2.2 Adjective-like properties of A-DPs	50
2.2.1 Inflection	50
2.2.2 Gradability	51
2.2.3 Modification by adverbs	52
2.3 Noun-like properties of A-DPs	52
2.3.1 Modification by adjectives	52
2.3.2 Quantifiability	54
2.3.3 Demonstratives	55
2.4 There are two types of A-DPs	57
2.4.1 Interpretations of bearer A-DPs and trope A-DPs	57
2.4.2 Requirement of a prepositional phrase complement	63
2.4.3 Modification by relative clauses	66

2.5	Analysis of Slovak A-DPs	68
2.5.1	Syntax-Semantics of bearer A-DPs	71
2.5.2	Syntax-semantics of trope A-DPs	79
2.6	Chapter summary and conclusion	87
3	DIFFERENCE BETWEEN DERIVED NOMINALIZATIONS AND A-DPs	89
3.1	Introduction	89
3.2	Overview of derivational nominalization	93
3.3	Comparing the nominalization strategies	96
3.3.1	Categorial contrast between DNs and A-DPs	96
3.3.2	Genitive and possessive family as a test of contrast	98
3.4	Syntax and semantics of derived nominalizations	112
3.4.1	Applying the analysis to possessive structures	114
3.4.2	Applying the analysis to genitive structures	118
3.5	Chapter summary and conclusion	124
4	THE ROLE OF A DEMONSTRATIVE IN A-DPs	127
4.1	Introduction	127
4.2	Distribution of <i>to</i> within Slovak grammar	128
4.3	The category of <i>to</i> within A-DPs	132
4.3.1	Evidence from adjective ordering and pronominal modification	134
4.3.2	Parallels to nominal DPs	150
4.4	Distribution of <i>to</i> within A-DPs	158
4.4.1	Data on the presence vs. absence of determiners with A-DPs	159
4.4.2	Data involving A-DPs with obligatory or illicit determiners	168
4.4.3	<i>To</i> in trope A-DPs	170
4.5	Chapter summary and conclusion	178
5	CONCLUSION	183
5.1	Summary of the thesis	183
5.2	Avenues for further research	188

List of Figures

1.1	Area where Slovak is spoken	5
1.2	Slavic languages	6
1.3	The 50 most common lemmas tagged as "SA", "substantives in adjectival paradigm" in SNK	14

List of Tables

1.1	Declension of pronouns, nouns and adjectives: neuter paradigms	10
1.2	Types of analyses for A-DPs across the literature	17
1.3	Terminology for A-DPs used across the literature	19
2.1	Summary of A-DP properties	87
3.1	Slovak derivational system of suffixes for deadjectival nominalizations with non-human reference	93
3.2	Comparison of inflectional morphology of DNs and A-DPs . .	97
3.3	Possessive-Genitive structures in Slovak	99
3.4	Compatibility of DNs and A-DPs with Possessive-Genitive structures	112
4.1	Inflectional forms of the demonstrative <i>ten</i>	129
4.2	Diagnostics results 1	145
4.3	Diagnostics results 2	150
5.1	Division of labor and natural language ontology	190

Chapter 1

INTRODUCTION

This thesis investigates deadjectival nominalizations in Slovak. Particular focus is given to bare adjectives that occur in nominal syntactic positions, a structure I call *adjectival determiner phrases*, or A-DPs for short. This intriguing type of nominalization is exemplified in (1).

- (1) Mnoho mladých ľudí spojí **príjemné** s **užitočným**.
many young people combine pleasant with useful
'Many young people pair the pleasant with the useful.'

In the sentence above, two nominal positions are occupied by expressions whose descriptive content is given by adjectives and which refer to 'pleasant things' and 'useful things'.¹ I take up the case of Slovak because its data are novel and significantly different from A-DPs in other languages already explored in the existing literature on the topic. I set out to provide a thorough description as well as a formal account of the semantics and syntax of deadjectival nominalizations within this language. In doing so, my larger goal is to contribute to the broader literature on reference via and to properties.

There is a number of reasons why deadjectival nominalization, and in particular A-DPs, is an interesting and fruitful subject of investigation. Three research questions guide the present work.

Research Question 1: What is the structure of A-DPs?

¹In the colloquial translations of Slovak examples throughout the thesis, I try to capture the closest meaning of the nominals under investigation, however it is expressed in English. For derived nominalizations, with which I will contrast A-DPs, [adjective]+*ness* is normally the most suitable. For adjectival determiner phrases, the translations will be less consistent, mainly due to the fact that the counterpart structure *the*+ [adjective] is less frequent and serves a narrower range of meanings in English than in Slovak.

First, the use of bare adjectives as arguments is a deviation from the prototypical function of adjectives, which can be simply characterized as expressing properties, while it is nouns that are normally used for reference to ‘objects’, ‘things’, or ‘entities’. In other words, adjectives are normally attributive (2-a) or predicative (2-b), not referential.

- (2) a. příjemné ticho
 pleasant silence
 ‘pleasant silence’
 b. ticho je příjemné
 silence is pleasant
 ‘silence is pleasant’

To allow them to refer, language normally requires additional, overt, derivational morphology. See an example of a deadjectival nominal derived with a highly productive suffix *-ostʃ* in (3), substituted in the same sentence as (1).

- (3) Mnoho mladých lidí spojí **příjemnost** s
 many young people combine pleasant+*ostʃ* with
užitečností.
 useful+*ostʃ*.INSTR
 ‘Many young people pair pleasantness with usefulness.’

Given that both nominalization strategies are available, affix-based and affix-less, a number of puzzles arise. From the syntactic standpoint, what, if any, are the differences in the underlying structure of derived nominalizations and A-DPs? The main impetus for the research focus on A-DPs is their mixed categorial properties that make answering this question less than straightforward. They have a blend of adjectival properties (e.g. modification by adverbs (4-a), and others), and nominal properties (e.g. quantifiability (4-b), and others).

- (4) a. překvapivo příjemné
 surprisingly pleasant
 ‘the surprisingly pleasant (things)’
 b. primálo příjemného
 too-little pleasant.GEN
 ‘too little of the pleasant (things)’

My objective is to provide a syntactic analysis that would explain the root of this mixed behavior. I defend a claim that A-DP nominalizations, as opposed to derived nominalizations, remain true, unconverted adjectives and there is no nominal layer in their structure.

Research Question 2: What is the interpretation of A-DPs?

A-DPs not only differ from derived nominalizations, but also manifest some puzzling distributional contrasts within themselves. Data such as the minimal pair in (5) are part of the evidence that there are two types of A-DPs. As can be observed, one type can be used for reference to entities (as in (5-a)), and another can refer to properties themselves (as in (86)).

- (5) a. To príjemné z koncertu netrvalo dlho.
TO pleasant of concert not-last long
'The pleasant (portion) of the concert didn't last long.'
- b. To príjemné na koncerte bola veselá atmosféra.
TO pleasant on concert was happy atmosphere
'The pleasant (aspect) of the concert was the good atmosphere.'

The existence of these two denotations for A-DPs raises questions about whether there are syntactic factors that interact with, or at minimum, signal the type of reference the A-DP makes, and how the meaning of referentially used adjectives should be formally represented. To answer these questions, I will identify various syntactic differences, such as, for example, whether the expression can be quantified. The semantic account of the meanings observed in A-DPs will derive from the underlying character of adjectives themselves. Specifically, I take adjectives to contain two variables, one for the property denoted by the adjective and one for the bearer of that property, an idea that finds parallels in the domain of verbs and deverbal nominals.

Research Question 3: What is the role of the demonstrative *to*?

A larger question this research contributes to pertains to how languages specialize reference morphosyntactically. It can be seen that in Slovak, if the descriptive core of a referential expression is contributed by an adjective, referentiality is not necessarily reflected in any nominalizing morphology. Is the crucial factor then the presence of a “nominalizing” determiner?

Slovak is a very appropriate case study in this regard, because it is an articleless language and thus there is no required definite article on any nominal referential expressions. Yet, many naturally occurring examples presented in this thesis do come with a determiner (though many do not, e.g. (7)). The distribution of determiners in Slovak A-DPs and an account of it in light of their interaction with information structure is a major part of the present

undertaking.

- (6) V jeho dielni, to užitočné je vždy po ruke.
in his workshop TO useful is always after hand
'In his workshop, the useful (things) are always handy.'
- (7) Naučil ma odlišovať užitočné od neužitočného.
taught me distinguish useful from not-useful
'He taught me to distinguish the useful from the not useful.'

The possibility of a determiner to embed words of lexical categories other than nouns (i.e. a structure, for example, such as D+AP) is not a widely used idea despite being proposed in Abney (1987), yet, it is a natural consequence of his DP hypothesis, which I follow in this work. Although Slovak does not have articles, the demonstrative *to* will be shown to fulfill a variety of determiner functions, none of which, however, in any way make it a required nominalizer.

This current chapter is structured as follows. The immediately following section will be a basic introduction to the language chosen for the present case study of adjectival DPs, Slovak. Section 2 will provide some background on the source of the data in this thesis, the Slovak National Corpus. Section 3 is devoted to the literature overview, in which I summarize a number of selected existing analyses of A-DPs and discuss whether any of them or any features of them are viable for Slovak. Section 4 provides a brief outline of the rest of the thesis.

1.1 The Slovak language

This section offers a short survey of the most basic features of Slovak and omits many facts and nuances that are not relevant to understanding the exposition developed in the thesis (e.g. hardly anything said of the Slovak verbal domain). If the reader is interested in more detail, I especially recommend looking at three sources: in English, an approachable overview of Slovak grammar is Short (1993); a somewhat less approachable overview without some Slavic background is Mistrík (1983); and in Slovak, *Morfologia Slovenskeho Jazyka* (MSJ, 1966, MSJ henceforth).

Slovak is the official language of Slovakia (Figure 1.1, adapted from *worldatlasbook.com*) where it is spoken by approximately 5.5 million people. It is an Indo-European language from the family of West Slavic languages (Figure 1.2, image from Encyclopaedia Britannica, Inc.) which also include Czech,

Polish, Silesian, Kashubian (northern Poland) and Upper and Lower Sorbian (eastern Germany).



Figure 1.1: Area where Slovak is spoken

A common way to describe Slovak is that it is very similar to Czech. Most dialects of Czech and Slovak are mutually intelligible.

Orthography

Slovak uses the Latin script with an addition of a few diacritics (ˇ, ´, ¨, ^) placed above certain letters. The acute accent (´) indicates longer vowel length (e.g. *súd* ‘court’- *sud* ‘barrel’) and a caron (ˇ) indicates palatalization (e.g. *kaša* ‘mash’ – *kasa* ‘cash register’).

Syntax

The relevant features of Slovak syntax are as follows. There are ten traditionally recognized parts of speech. They include nouns, verbs, adjectives, pronouns, and numerals, which all inflect; and adverbs, prepositions, conjunctions, particles and interjections, which do not. Instead of relying on rigid word order, as English does, Slovak uses declension to convey word

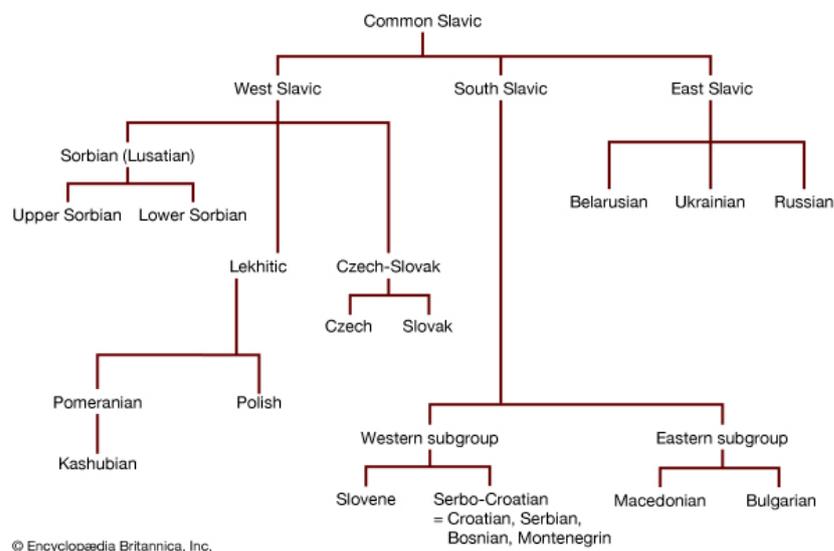


Figure 1.2: Slavic languages

function (such as subject, object, etc.) in a sentence. The result is that the word order is fairly flexible. Unmarked word order is subject–verb–object, but various combinations of verb-object-subject, verb-subject-object, etc. (in simple or complex sentences) are possible and result in marked word order². At the same time, though there is a wide freedom in word order, it is not completely free and is determined by various factors. These factors include information structure and also others such as maintaining the integrity of a constituent and a fixed placement for second position clitics (e.g. the short forms of pronouns *ma* ‘me.GEN/ACC’ or *ho* ‘him.GEN/ACC’) always following the first sentence element³. Information structure, in particular, is taken up in more depth in Chapter 4, due to the fact that it plays a crucial explanatory role in the use of demonstratives in A-DPs. The many sources dealing with word order in Slovak include volumes such as Mistrík (1966, 1983), Kačala

²Short (1993) observes that modern Slovak sources decline to refer to any unmarked order of constituents in terms of basic word order. Identifying the Slovak language as an SVO language is viewed in Slovak literature as an application of alien (i.e. inappropriate) parameters. Some authors refer to “objective” and “subjective” types of sentences (e.g. Pavlovič (2012)), which are terms very similar to “marked” and “unmarked” but with a different nuance. Certain understanding of information structure has also been recognized in Slovak literature, e.g. ‘In Slovak the principle of functional sentence perspective (FSP, i.e., in a nutshell, the unfolding of a sentence from the ‘known’ or ‘general’ - the ‘theme’, to the ‘new’ or ‘specific’ - the ‘rheme’) is the basic word-order factor, other factors in an utterance being subordinated to it’ Mistrík (1966).

³This is called “rhythmical factor” in the literature.

(2012), Pavlovič (2012) and others.

A few more syntactic features should be briefly mentioned. Slovak is a pro-drop language, which means that person is expressed primarily in inflectional verbal endings and a personal pronoun in subject position is expressed depending on various information structural considerations (e.g. when emphatic). Adjectives typically precede nouns (See Chapter 4 for examples of postmodification).

Finally, relative clauses are introduced by relativizers such as the adjective *ktorý* ‘which’, or *čo* ‘what’. Relative clauses follow the noun they modify, as in the following example (8).

- (8) Stál pred chorým kráľom, **ktorý/čo** už bol len koža
stood before sick king which/what already was only skin
a kosť.
and bone
‘He stood before the sick king, who now was just skin and bone.’
Short (1993)

Čo is required when the antecedent is an entire clause or any neuter pronominal antecedent (9), (10).

- (9) Nesmeli ísť von, **čo** sa im veľmi nepáčilo.
cannot go out what REFL them much not-please
‘They weren’t allowed to go out, which didn’t please them at all.’
Short (1993)
- (10) Vždy tu bude niečo, **čo** mi pripomenie teba.
always here will-be something what me remind you
‘There will always be something that reminds me of you.’

DP structure

Slovak is an article-less language, a feature that makes it especially suitable for an exploration of bare deadjectival nominalization since in other languages A-DPs typically co-occur with some type of determiner. The demonstrative pronoun *ten* (feminine *tá*, neuter *to*) may be used in front of nouns in situations where definiteness must be made explicit (In Chapter 4, the role of demonstratives will be discussed in much more detail.). Here, a comment can be made about my theoretical assumption of the DP hypothesis (Abney, 1987) in Slovak syntax. Such a position is not uncontroversial. Some of those who argue, in my opinion convincingly, for the DP as the maximal projection of nouns are Progovac (1998), Rappaport (1998), Pereltsvaig (2007) and Veselovská (1994). Conversely, some of those who argue that NPs are not governed by the D layer are Zlatič (1998) and Bošković (2005). In

this thesis, I distinguish nominal phrases and determiner phrases in Slovak, despite the above mentioned fact that there are no overt articles. I do this for convenience; the analysis I propose could potentially be reformulated under different assumptions.

Inflectional Morphology

Slovak is an inflected type of language⁴. This means that words (nouns, adjectives, pronouns, numerals) take on morphological affixes that change to indicate grammatical categories such as gender, number and importantly, case. Verbs also have inflectional suffixes for tense, aspect, mood, person, subject number, and gender. Verbs agree with their subjects in gender, person and number (11). Within the determiner phrase, the form of the adjective is determined by the gender, number and case of the noun which it modifies (12).

- (11) a. Dievča prišlo na cestu.
 girl.NEUT.SG came.NEUT.SG on trip
 ‘The girl came on the trip.’
 b. Dievčatá prišli na cestu.
 girls.NEUT.PL came.NEUT.PL on trip
 ‘Girls came on the trip.’ (Mistrík, 1983)
- (12) dvojposchodová budova s
 two-story.FEM.SG.NOM building.FEM.SG.NOM with
 mramorovými schodmi
 marble.MASC.PL.INSTR stairs.MASC.PL.INSTR
 ‘a two-story building with marble stairs’ (Mistrík, 1983)

Every Slovak noun belongs to one of three inherent grammatical genders: masculine, feminine and neuter. The masculine only is further subdivided into animate and inanimate. With plenty of exceptions, feminine nouns normally end (in basic nominative form) in *-a* or *-osť*; neuter nouns in *-o* or *-e*, and masculine nouns in consonants. The following (13) illustrates.

- (13) a. **Feminine nouns:** *žena* ‘woman’, *mladosť* ‘youth’
 b. **Masculine nouns:** *muž*, ‘man’, *pes* ‘dog’
 c. **Neuter nouns:** *mesto* ‘town’, *srdce* ‘heart’

In addition to the three genders there are words such as pluralia tantum (e.g.

⁴See MSJ (1966, pp. 50-61) for a discussion of certain elements in Slovak morphology that are agglutinative, analytic, introflective and polysynthetic.

Vianoce ‘Christmas’), words that are evolving from one gender to another (e.g. *knieža* ‘prince’ from neuter to masculine), and words for animals that are animate in singular and mostly inanimate in plural.

There are six cases distinguished in Slovak: nominative, genitive, dative, accusative, locative, and instrumental. Historically, there used to be a seventh one, vocative, but it is no longer morphologically marked except for a few fixed expressions and it has been replaced by nominative⁵.

The three genders are declined according to several (four to six) main paradigms (models) each. There is considerable morphological variety in numerous sub-subclasses. The following Table (13) is a simplified illustration of the Slovak declension system. For the sake of space and keeping this overview relevant to the thesis topic, I chose to show only the neuter paradigm here, namely a determiner phrase consisting of a demonstrative, an adjective and a noun. The four combinations were chosen because they comprise the traditional four nominal declensional models and the four adjectival declensional models: *to pekné mesto* ‘that nice town’, *to pávie srdce* ‘that peacock’s heart’, *to otcove vysvedčenie* ‘that father’s report’, *to cudzie dievča* ‘that strange girl’. For an in-depth description of the nominal declension system, see Sokolová (2007) and of the adjectival declension system, see MSJ (1966, pp.222-230)).

⁵Interestingly, vocative as a separate case is still morphologically marked in modern Czech and an influence from Czech, as well as from the Hungarian diminutive suffix *-i* has seeped into Slovak colloquial language. Therefore, vocative forms occur in jocularly or formally addressing kin, close friends, the deity and high dignitaries.

- (i) *pán*.NOM ‘mister, lord’ – *pane*.VOC
boh.NOM ‘god’ - *bože*.VOC
familiar forms of personal names: *Jana*.NOM – *Jani*.VOC
familiar forms of kinship words: *mama*.NOM ‘mom’ – *mami*.VOC

Though some vocative forms are commonly used, they do not occur regularly enough to be considered part of any nominal declension paradigm (Mistrík, 1966), (Short, 1993).

	SG	PL
NOM	to pekn-é mest-o <i>'that nice town'</i>	tie pekn-é mest-á
GEN	toho pekn-ého mest-a	tých pekn-ých miest-∅
DAT	tomu pekn-ému mest-u	tým pekn-ým mest-ám
ACC	to pekn-é mest-o	tie pekn-é mest-á
LOC	tom pekn-om mest-e	tých pekn-ých mest-ách
INSTR	tým pekn-ým mest-om	tými pekn-ými mest-ami
	SG	PL
NOM	to páv-ie srdc-e <i>'that peacock's heart'</i>	tie pávie srdc-ia
GEN	toho páv-ieho srdc-a	tých páv-ích srdc-∅
DAT	tomu páv-iemu srdc-u	tým páv-ím srdc-iam
ACC	to páv-ie srdc-e	tie páv-ie srdc-ia
LOC	tom páv-om srdc-i	tých páv-ích srdc-iach
INSTR	tým páv-ím srdc-om	tými páv-ími srdc-ami
	SG	PL
NOM	to otcov-o vysvedčen-ie <i>'that father's report'</i>	tie otcov-e vysvedčen-ia
GEN	toho otcov-ho vysvedčen-ia	tých otcov-ých vysvedčen-í
DAT	tomu otcov-mu vysvedčen-iu	tým otcov-ým vysvedčen-iam
ACC	to otcov-o vysvedčen-ie	tie otcov-e vysvedčen-ia
LOC	tom otcov-om vysvedčen-í	tých otcov-ých vysvedčen-iach
INSTR	tým otcov-ým vysvedčen-ím	tými otcov-ými vysvedčen-iami
	SG	PL
NOM	to cudz-ie dievč-a <i>'that strange girl'</i>	tie cudz-ie dievč-at-á
GEN	toho cudz-ieho dievč-ať-a	tých cudz-ích dievč-at-∅
DAT	tomu cudz-iemu dievč-ať-u	tým cudz-ím dievč-at-ám
ACC	to cudz-ie dievč-a	tie cudz-ie dievč-at-á
LOC	tom cudz-om dievč-at-i	tých cudz-ích dievč-at-ách
INSTR	tým cudz-ím dievč-ať-om	tými cudz-ími dievč-at-ami

Table 1.1: Declension of pronouns, nouns and adjectives: neuter paradigms

Derivational morphology

Derivation by suffixation is the dominant way of word formation in Slovak, a lesser role being played by prefixation, and even lesser roles by other procedures⁶. Depending on the class of source word and particular choice of suffix there are some twenty-seven broadly distinctive types of adjectives (Horecký, 1971, p.169-206). The most frequent suffixes are *-ný*, *-ový*, *-ský*, *-aci/-iaci* (14).

- (14) *maľovan^ý* (paint+*ný*) ‘painted’
malinov^ý (strawberry+*ový*) ‘strawberry’.ADJ
mestsk^ý (town+*ský*) ‘municipal’
čistiaci (clean+*iaci*) ‘cleaning’.ADJ

In the nominal domain, the suffixation is also a strong word forming mechanism. For example, there are twenty-three different suffixes for deriving nouns denoting male humans, of which *-teľ*, *-č*, *-ník*, *-ík*, *-ár* and *-ák* are highly productive, while others, like *-áň*, *-oš*, *-áľ*, occur relatively rarely. Other, more limited, sources of masculine animate nouns are what is referred to in MSJ (1966) as “substantivization” of adjectives (15), and compositions, consisting usually of a noun element, a verbal element and a suffix (16).

- (15) *hlavn^ý*
literally ‘main’
meaning ‘head-waiter’
- (16) *zverolekár*
zvíera ‘animal’ + *liečiť* ‘cure’ + *ár*
meaning: ‘vet’

Human feminine nouns are derived by comparatively few suffixes, primarily *-ka*, but also *-ička*, *-yna*, *-ica*, *-iná*, for example *šudentka*, ‘student’.FEM. Generally similar principles apply to the formation of nouns that denote inanimate objects, with twenty-one different suffixes in use across all three genders. Derivation of names for inanimate, and specifically, abstract objects, is discussed further in Chapter 3. There, I offer more details about derivation of affix-based deadjectival nominalizations and in what particular ways they are distinct from bare deadjectival nominalizations. For further information, the best source on in depth treatment of every aspect of Slovak morphology is MSJ (1966).

⁶Most of this section is from Short’s (1993) discussion of the subject, from Jarošová (2011) and MSJ (1966)

This short overview has been a basic introduction to the language under investigation and hopefully served to ease the reader into understanding the data that will appear throughout the thesis. In the next section, I will talk about the Slovak National Corpus from which all the authentic data presented in this thesis were gathered. I will also discuss the difficulties that working with this particular corpus presented.

1.2 Source of data

Except where noted, all Slovak examples presented in the thesis are from the Slovak National Corpus (SNK) and its sub-corpus `prim-7.0-public.sk` which only includes original Slovak texts. The SNK is the largest available electronic database of Slovak written texts of a variety of genres (65.1% journalistic, 15.1% artistic, 9.5% scientific and 10.3% other) from the year 1955 to present. It is provided by the Ľudovít Štúr Institute of Linguistics of the Slovak Academy of Sciences, Bratislava, Slovakia. It is freely accessible online on <https://bonito.korpus.sk> (registration and access granted by the Ľudovít Štúr Institute on a yearly basis). The SNK as a whole contains 1.25 billion tokens and the sub-corpus `prim-7.0-public.sk` contains over 806 million tokens. The corpus is annotated and searchable for morphological features by using regular expressions in an online tool NoSketch Engine⁷.

Due to the fact that the corpus is not annotated for syntactic structure, searching for adjectival determiner phrases proved challenging⁸. Initial queries for adjectives return results that contain an enormous amount of false positives, because adjectives are of course used in myriad ways, and such results were simply too noisy to be useful. Filtering the initial results, for example placing a condition that the demonstrative *to* precedes the adjective, or that the verb ‘to be’ does not precede so as to make the adjective predicative, or that the adjective is not followed by a noun, or that it is capitalized (thus excluding surnames, which are all adjectives in Slovak), inevitably causes the results to lose an enormous amount of good data. For example, not all A-DPs include *to* and some A-DPs begin with capital letter, that is, when at the beginning of a sentence. Without syntactic annotation in the corpus, it is furthermore not possible to search for A-DPs as differentiated from genuine ellipsis.

An additional obstacle that presented itself in using the SNK is the current treatment of these expressions in the corpus. In SNK, A-DPs are some-

⁷NoSketch Engine is an open source version of Sketch Engine <https://www.sketchengine.co.uk/nosketch-engine/>.

⁸Some of the following material in this section is based on Richtarcikova (2014).

times a case of lexical conversion and tagged as **SA**, “substantives in adjectival paradigm”. The 50 most common lemmas (out of hundreds of unique lemmas), filtered for only neuter gender, are shown in the Figure 1.3. In the figure, the translations are approximations to the literal meaning of the adjectives and an “.A” in translation signifies that there is no adequate English adjective. Many of the 50 most common SAs have an idiosyncratic meaning, e.g. ‘rent’ and ‘tuition’; this is not the case for the less frequent ones. Sometimes A-DPs are a case of nominal ellipsis and tagged in the corpus as **AA**, which stands for “adjectives in adjectival paradigm”. The justification behind the annotation of those bare adjectives that occur in nominal positions is given in Gajdošová (2010), building on the traditional and well-established understanding of bare nominalization in Slovak linguistic literature. The typological division in the corpus is motivated not by any formal criteria, but similarly to what is found MSJ (1966), the “feeling of absence of a head noun” in AA, and no such feeling in SA.

Operation	Parameters	Occurrence
Query	[tag="SAn.*"] (S - substantive, A - adjectival paradigm, n - neuter gender)	215 995
Negative filter	[word="([AĂBCĎĎĚĚFGHIĪJKLLMNNŃÓPRSŠŤŤUÚVWZŽ])+.*"] (eliminates adjectival surnames with initial capital letter)	Resulting database: 92 585

lemma	Frekvencia	TRANSLATION
poistné	14 920	1. insurance.A
nájomné	10 068	2. rent.A
odstupné	8 288	3. severance.A
cestovné	5 638	4. travel.A ('fare')
odškodné	5 567	5. damages.A
mnohé	5 351	6. numerous
vstupné	5 296	7. entrance.A ('fee')
školné	3 930	8. school.A ('tuition')
šampanské	3 118	9. champagne.A
predplatné	2 206	10. subscription.A
výživné	2 115	11. subsistence.A ('welfare')
výkupné	1 579	12. ransom.A
posledné	1 540	13. last
športové	1 475	14. sporty
dobré	1 287	15. good
poštovné	1 259	16. postage.A
stočné	1 187	17. sewerage.A
malé	1 132	18. small
stravné	1 013	19. dietary
vreckové	834	20. pocket.A
obslužné	714	21. serve.A ('tip')
štartovné	696	22. start.A ('entry fee')
zlé	593	23. bad
výpalné	521	24. fire.A
živé	510	25. alive
prosné	502	26. gymnastic
mladé	460	27. young
odchodné	453	28. commercial
modré	389	29. blue
parkovné	381	30. park.A ('fee')
členské	358	31. membership.A ('fee')
nemocenské	332	32. hospital.A ('sick pay')
sladké	302	33. sweet
tvrdé	275	34. hard
hotové	257	35. ready
bolestné	233	36. pain.A ('restitution')
všimné	223	37. notice.A ('bribe')
dopravné	220	38. freight.A
rovné	219	39. straight
ostré	170	40. sharp
výchovné	165	41. educational
zápisné	155	42. enrollment.A
maličké	154	43. tiny
prepitné	143	44. gratuity.A ('tip')
hriate	132	45. warm ('a hot mixed drink')
portské	124	46. port.A ('port wine')
funkčné	117	47. functional
ošetrovné	103	48. treatment.A
nechcené	80	49. unwanted
tokajské	76	50. tokaj.A ('tokaj wine')

Figure 1.3: The 50 most common lemmas tagged as "SA", "substantives in adjectival paradigm" in SNK

Gajdošová (2010) recognizes that there are plentiful errors of mis-tagging due to the fact that the SNK is tagged automatically. The following are a few typical examples of the inconsistencies that are too easy to find. In the first example (17-a), the A-DP with a human reference *chorý* ‘sick (person)’ is tagged as both a noun and an adjective in the corpus. In the examples (17-b) and (17-c), the A-DP *komické* ‘comical’ has a non-human reference and even though the two examples are grammatically comparable, the words are curiously tagged as a noun in one and as an adjective in the other.

- (17) a. Je etické nemať pre desiatich [**chorých** /*SA*] na liečbu,
 is ethical not-have for ten sick for treatment
 pretože prostriedky sa použili pre jedného ťažko
 because resources REFL used for one severely
 [**chorého** /*AA*]?
 sick
 ‘Is it ethical to not have enough for a treatment of ten ill people because all resources have been used up for one gravely ill person?’
- b. Kto sa vie pozerat', objaví [**komické** /*SA*] aj na
 who REFL knows look discover comical even at
 pohrebe, tragiku na svadbe.
 funeral tragedy at wedding
 ‘He who knows how to look for it, discovers the comical even at a funeral, and tragedy at a wedding.’
- c. Bolo to však obdobie, keď často [**komické** /*AA*] sa
 was it however era when often comical REFL
 menilo na osudové, tragické.
 change to destiny tragic
 ‘It was, however, an era when often times the comical was transformed into a tragic destiny.’

An obvious question that the SA-AA classification raises, is that if some adjectives in nominal positions are supposedly cases of nominal ellipsis and some are cases of lexical conversion, how can they be told apart? The intuition may seem self-evident to some native speakers and not to others. Most importantly, without formal criteria, the principles are not understood or captured, and the inconsistent automated annotation of the Slovak National Corpus is evidence of that.

Taking into account the two current limitations of my research tool, the SNK (otherwise a highly valuable resource for the study of naturally occurring Slovak A-DPs), there is at this time no efficient way to extract a large

pool of reasonably clean data. Ultimately, the work in this thesis is qualitatively based; the data were manually assessed and a statistical analysis, proving unfeasible, was not undertaken.

In the remainder of the chapter, I will survey the literature that deals with A-DPs in other languages.

1.3 Previous accounts of A-DPs

The literature that is reviewed in this section is not exhaustive nor is it my aim to be. Deadjectival nominalization has long been a fruitful area of research in theoretical linguistics and there is a significant body of works that could be included in the survey. The sources that were selected emerge from the recent rise in case studies of A-DPs across languages and, importantly, they have something to say about the semantics of A-DPs (with one exception). If syntax is an integral part of an analysis defended by these authors, I will mention it also. Literature that is out of scope of this thesis includes for example strictly syntactic work by Lauwers (2014) who deals with A-DPs via the Construction grammar framework; or Alexiadou et al. (2012) who deal with A-DPs via the Distributed Morphology framework and do not provide a discussion of semantics; and others). Table 1.2 outlines the types of analyses available in the literature.

TYPE OF ANALYSIS	MAIN FEATURE	AUTHORS
Syntactic analysis	- Null head noun	Kester (1996) Chierchia (1998, 394) Borer and Roy (2010) Sleeman (1996)
	- Null head pronoun	McNally and de Swart (2015) - for abstract object construction de Swart et al. (to appear) - for abstract object construction
	- Reduced relative clause	Arsenijević (2012)
Syntactic/pragmatic analysis	- Predication of an overt noun and focus fronting	Villalba and Bartra-Kaufmann (2010) Villalba (2013)
Lexicographic analysis	- Conversion/ Lexical recategorization	traditional Slovak grammar (MSJ, 1966) Alexiadou et al. (2012) - for partially idiosyncratic A-DPs
Morphological analysis	- Lexical recategorization within Distributed Morphology	Alexiadou et al. (2012)
Semantic analysis	- Categorial mismatch and type shift	McNally and de Swart (2015) de Swart et al. (to appear) Glass (2014)

Table 1.2: Types of analyses for A-DPs across the literature

1.3.1 Comment on terminology

Before I turn to the literature overview itself, I will make a brief comment on the terminology used for the type of structure that is investigated and also related to natural language ontology. The Table 1.3 summarizes the terms used to talk about A-DPs that can be found in various literature, some of which I will review in this section (sans A-DPs with animate reference which I set aside in this thesis). The first line names the two readings that I recognize for Slovak. In the following lines, the terms used in other literature are lined up with mine as my best approximation of which readings are similar between other languages and Slovak. That is not to say that they behave the same way in the details of morphosyntax or semantics. Furthermore, the analyses proposed for these various languages have been incredibly diverse as well, as the literature overview will show. In the analysis of trope- or bearer A-DPs in Chapter 2, I do not purport to capture the totality of readings available cross-linguistically listed below these two headings, solely those that exist in Slovak.

As can be seen, there is a plethora of terminological options that authors have taken or originated in talking about referential expressions in which the main content is contributed by an adjective without any overt nominalizing morphology. I hoped to avoid adding to this complexity. However, none of the terms would be very suitable for Slovak. For example, “abstract object” does not capture the fact that the referent can be concrete. A qualifier “inflected” within the name reflects the specific facts as they relate to the specific analysis for one language, not transferrable to Slovak. The terms “nominalization” and “substantivization” are misleading in that they convey a categorial change. “Neuter” is unsuitable because affix-based nominalizations in Slovak can have neuter gender. Therefore, “A-DP” - “adjectival determiner phrase” seemed the right choice for a term that would not be in conflict with the analysis I defend for these expressions. “Trope” and “Bearer” reflect both the two types of readings available for Slovak A-DPs and match the semantic analysis proposed for them.

It is important to state that I understand *property* to be an ontological category limited to the denotation of adjectives and not that of all predicates, including verbal predicates (an approach taken for example in Chierchia (1998)). Second, the term *trope* is a philosophical idea popularized in linguistics by Moltmann (2004). I take it to be the token of the ontological category of *property*, i.e. a concrete instantiation of a property in its bearer which enters into spatio-temporal relations.

AUTHOR	general term	type 1	type 2
this thesis	Adjectival Determiner Phrases (A-DPs)	trope A-DP	bearer A-DP
Glass (2014)	Determiner +Adjective construction		mass reading
Günther (to appear), Kester (1996)			abstract construction
McNally and de Swart (2015)		relational inflected adjective construction	abstract object construction
de Swart et al. (to appear)		quality reading	mass reading
Villalba (2013)	neuter nominalization		partitive/referential
Villalba (2009)	<i>lo-de</i> construction		partitive
Giannakidou and Stavrou (1999)	substantivization	abstract concept construction	
Borer and Roy (2010)			Adj-pro
Alexiadou et al. (2012)	bare nominalizations	bare nominalization type 2 (abstract quality reading)	bare nominalization type 1 (abstract partitive reading)
Alexiadou and Iordăchioaia (2014)	bare deadjectival nominals	quality bare nominals (QBN)	partitive bare nominals (PBN)
Arsenijević (2012)	conversion nouns		

Table 1.3: Terminology for A-DPs used across the literature

1.3.2 Glass 2014

A recent look at English A-DP constructions is Glass (2014). Glass recognizes only two distinct uses (types) of this construction in English, exemplified in the couple of examples below.

- (18) a. **The creative** are more likely to be intrinsically motivated.
b. **The familiar** is something dangerously wonderful.

In the first sentence (18-a), *the creative* refers to individuals who are bearers of the property expressed by the adjective. She calls this type the “individuated reading”. Although these bearers can be both human or non-human and the non-human reading is shown to be productive, the human reading is more common due to world knowledge factors and pragmatic inference. In the second sentence (18-b), Glass says *the familiar* is a type of A-DP that denotes the abstract concept of a *state of being familiar*. She calls this type the “mass reading”.

Glass’s unique empirical contribution to the literature on A-DPs is her observation that in English, these expressions are not necessarily kind-denoting, as had been generally thought. Drawing on facts gained from the internet, Glass shows that English A-DPs are compatible with a variety of determiners other than *the*, including non-kind selecting quantifier *some* and possessive pronouns, e.g. *your* (19), and sometimes even occur in episodic contexts where the A-DP denotes a particular group of individuals or a particular portion of the property mass as opposed to a kind (20).

- (19) a. individuated: Give me **your tired, your poor**.
b. mass: Stop! **Your nice** is infecting me!
- (20) a. individuated: **The young** cried and clung to their mothers.
b. mass: **The pretty** made me do it [buy a lot of stuff at a fabric store].

Building on these empirical observations, therefore, the analysis in Glass (2014) is distinct from previous analyses of English such as for example Chierchia (1998)⁹ that take the English combination of a determiner and adjective to denote a kind.

Glass accounts for each type of the English A-DPs through a novel semantic analysis. The theoretical core of her argument consists of the following. Each adjective by default carries two unsaturated arguments: one for an individual and the other for a state. In so doing, Glass extends the Neo-

⁹Chierchia only addresses the individuated reading and posits a null noun in the underlying syntactic structure ((Chierchia, 1998, p.394).

Davidsonian analysis of events. Adjectival predication is understood to be as in (21), which contains a state argument s (Parsons (1990), Landman (2000)).

- (21) Brutus is clever. ((24) in Glass (2014))
 $\exists s[\mathbf{s \text{ is a state of being clever}} \wedge \mathbf{Subj}(s, Brutus) \wedge \mathbf{Hold}(s, now)]$

The entailment patterns in (22) are the evidence that motivates the presence of a state argument (i.e. the durative state of ADJ-*ness* that an individual holds) in the denotation of adjectives in general¹⁰. In this particular example, a stative predicate *was happy* with modifiers (a) entails the same predicate when the modifiers are switched or dropped (b-e).

- (22) a. Amanda **was happy** in Paris on vacation. ((25) in Glass (2014))
 b. Amanda was happy on vacation in Paris.
 c. Amanda was happy in Paris.
 d. Amanda was happy on vacation.
 e. Amanda was happy.

The free ordering that is possible among the different modifiers, as well as the unrestricted number of modifiers, and the fact that more complex forms entail the simpler ones are captured by postulating the state variable and an intersective analysis of the modifiers (23).

- (23) $\exists s[\text{happiness}(s) \wedge \text{holder}(\text{Amanda}, s) \wedge \text{in-Paris}(s) \wedge \text{on-vacation}(s)]$
 ((26) in Glass (2014))

The logical formula states “There is a state of happiness s and s holds of Amanda and s is in Paris and s is on vacation”.

The ontological and grammatical characteristics of mass nouns, which have no inherent shape or boundary, are parallel to those of states, which are atelic, homogeneous, durative, and have the subinterval property¹¹. Therefore, Glass submits that states are mass eventualities, i.e. they have the same internal atomic structure as mass nouns but are in the domain of eventualities instead of individuals (following Higginbotham (1985), Parsons (2000) and Baglini (2015)). This line of reasoning is employed to explain the mass reading A-DP construction.

¹⁰In predicative use of adjectives, as in (21), the state argument s is existentially closed at the level of VP, so that *Brutus is clever* means that there exists a state of cleverness that holds of Brutus.

¹¹The subinterval property basically amounts to the idea that if x is water, then any subpart of x is also water.

Below I illustrate her formalization for the denotation of adjectives: *the creative* (24-a) and *the familiar* (24-d). One of two type shifters (formalized in (24-b), (24-e)) existentially closes one argument to achieve the desired nominalized reading for the adjective.

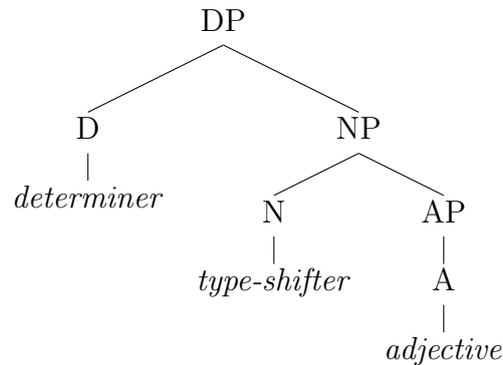
- (24)
- a. $\llbracket \text{creative} \rrbracket : \lambda x \lambda s [s \leq \mathbf{creative-ness} \wedge \text{holder}(x, s)]$
 - b. $\llbracket \text{nom-indiv} \rrbracket : \lambda A_{\langle e, \langle s, t \rangle \rangle} \lambda x \exists s A(x)(s)$
 - c. $\lambda x \exists s [s \leq \mathbf{creativity} \wedge \text{holder}(x, s)]$

 - d. $\llbracket \text{familiar} \rrbracket : \lambda x \lambda s [s \leq \mathbf{familiar-ness} \wedge \text{holder}(x, s)]$
 - e. $\llbracket \text{nom-mass} \rrbracket : \lambda A_{\langle e, \langle s, t \rangle \rangle} \lambda x \exists x A(x)(s)$
 - f. $\lambda s \exists x [s \leq \mathbf{familiarity} \wedge \text{holder}(x, s)]$

To put it into slightly more precise terms, the individuated reading is derived via a type shifter *nom-indiv* (24-b) that existentially closes the state argument s and thus creates a predicate of individuals (24-c). The intuitive reading of this type of A-DP is described as paraphrases ‘ADJ + people/ones/ things’. This is mirrored for the state reading, which makes use of a *nom-mass* type shifter (24-e) to derive a predicate of states (24-f). The intuitive reading is described as a paraphrase ‘ADJ + *ness*’. These resulting predicates are of type $\langle e, t \rangle$ and combine with a determiner to yield the correct interpretation.

Syntactically, English A-DPs are shown to trigger either count agreement (on verbs and on determiners other than *the*) in the type of uses such as (18-a) above or mass agreement in uses such as in (18-b). In this respect, the English data presented in Glass (2014) support the pattern of behavior that has been attested for A-DPs in other languages and also parallels the two-way distinction of count and mass A-DP types in Slovak. In Glass’s account, the syntax of English A-DPs (25) is such that the AP is embedded within an NP and the *nom-indiv* or *nom-mass* type shifter is housed in the N head. The D is taken to contribute an operator such as the cap \cap for a kind reading or the iota ι for an instantiation reading. Glass proposes that the nominalizing operator may be kind denoting (she generalizes Chierchia’s cap to apply to predicates of states as well) or object-selecting (iota).

(25)



Glass (2014) offers a lot of important insights. Her empirical observations, from attesting a greater range of determiners and modificational possibilities to grammaticality in previously unexpected contexts, corroborates the claim that there is richness to be explored within this nominalization strategy. Her semantic and syntactic analysis also contain some tools that prove themselves useful in explaining Slovak A-DP data. For example, syntactically, the English A-DPs are shown to trigger either count agreement (on verbs and on determiners other than *the*), as in the type of uses such as (18-a) above, or mass agreement, as in uses such as in (18-b). In this respect, the English data presented in Glass (2014) mirror the pattern of behavior that also holds for two A-DP types in Slovak. The two types of type shifters which allow mass/state and individuated readings, seem well transferable to Slovak, in which both interpretations also occur. The two types of nominalizing operators in D (the kind denoting cap or the object-selecting iota) also account for the uses of A-DPs in Slovak, even if the overt determiner is not obligatory and the contribution of the operators comes about in different way in English than in Slovak. In fact, all four combinations - the individuated kind, individuated instantiation, mass/state kind and mass/state instantiation - which are predicted possible on Glass's analysis (even if she does not consistently differentiate between them) are real uses of A-DPs that occur in Slovak. For these reasons, Glass's (2014) analysis is a starting point to my own presented in Chapter 2.

On the other hand, there are some aspects of this particular analysis of English that are not sufficiently applicable to Slovak language, and to which I now turn my attention. First, the similarity between homogeneity and unboundedness of states and of mass nouns is on its face intuitive. Also, Glass's analysis of mass A-DPs as states and also as equivalent to *-ness* nouns, even though she does not explicitly claim semantic equivalence but paraphrasability, is convincing for a number of cases. However, Glass does not take into account some relevant distinctions between the readings of deadjectival nom-

inalizations, whether suffix-based or of A-DP type, and the reading “state of being ADJ”. The distinctions cast doubt on the possibility to analyze them in the same way. Consider the following examples in English (26-a) and (27-a) taken from Glass, and analogous examples in Slovak (constructed). If the mass A-DP denotes a state of ADJ-*ness*, they should entail their subsequent paraphrases in (26-b),(26-c) and (27-b), (27-c). The variations do not seem to be interchangeable in English and conflict with my intuitions about Slovak as well (28). In addition, there is the implication of such an analysis that mass A-DPs would then be a strategy redundant to the affix-based *-ness* nominalization. The empirical data and multiple diagnostics that indicate a lack of equivalency between these two nominalization strategies are closely examined in my own description and analysis of Slovak data (especially Chapter 3).

- (26) a. I think **the silly** is my favorite part of your books.
 b. ≠? ...**the silliness** is my favorite part of your books
 c. ≠ ...**the being silly** is my favorite part of your books
- (27) a. Mix some **salty** with your sweets.
 b. ≠? Mix some **saltiness** with your sweets.
 c. ≠ Mix some **being salty** with your sweets.
- (28) a. Myslím, že **to humorné** je moja obľúbená časť tvojej
 think that TO humorous is my favorite part your
 knihy.
 book
 ‘I think the humorous is my favorite part of your book.’
- b. ≠ Myslím, že **humornosť** je moja obľúbená časť tvojej
 think that humorous+*osť* is my favorite part your
 knihy.
 book
 ‘I think the humor is my favorite part of your book.’
- c. ≠ Myslím, že **byť humorný** je moja obľúbená časť tvojej
 think that be humorous is my favorite part your
 knihy.
 book
 ‘I think being humorous is my favorite part of your book.’

Second, although the two type shifters proposed by Glass (nom-indiv and nom-mass) could roughly account for two of the readings that are attested in Slovak, there is more semantic and syntactic diversity within the A-DPs in Slovak that calls for a more nuanced treatment. In particular, I will identify two distinct types of A-DPs aside from the individuated/count type, which

I set aside: bearer A-DPs and trope A-DPs. I will show that they differ in readings and also some morphosyntactic characteristics, e.g. their quantifiability. One type-shifter (especially the contingent mass/state formulation), if it was adopted from Glass, would not account for the contrasts. See the example (29) which illustrates the non-mass nature of the third type of A-DP *To dôležité* for which there is no explanation within Glass’s analysis.

- (29) **To** (*veľa/*málo) **dôležité** na tomto období je, že kočovný
 TO a-lot/a-little important on that period is that nomadic
 spôsob života sa mení na usadlý.
 way life REFL change on settled
 ‘The important aspect of this period is that the nomadic way of life
 becomes settled.’

The system put forth in Glass could be expanded by adding a third, separate, type-shifter (along with a complication of the denotation of the adjective itself) that would contribute a third interpretation; I chose not take this approach in my analysis.

Lastly and relatedly, one Slovak A-DP type (an example of which is (29) above), requires that the bearer of the property be expressed via a mandatory prepositional phrase (for example, *na tomto období* ‘on this period’ in the above example). How would that be accounted for by the syntactic structure proposed by Glass, shown in (25)? One could speculate that the prepositional phrase must attach before the adjective is nominalized, i.e. lower of the NP layer. However, in such a case, one would wonder what the role of type-shifter under the N head would be, if the bearer argument has already been saturated (by the entity within the prepositional phrase). Justifiably, this possibility is not explored by Glass simply because English data does not call for it. Nevertheless, a simpler structure will be argued for, one directly motivated by the nature of the Slovak A-DP data.

In a crucial syntactic point, namely the absence of a nominal layer, the proposal I will defend finds a precedent in the work of Villalba (2013), which I turn to and review in the next section.

1.3.3 Villalba 2013

In Villalba (2013), three readings are identified for the Spanish A-DPs, which are called ‘neuter nominalization’ due to the use of a neuter element *lo* in combination with an adjective. First, a partitive/referential A-DP (30) “refers to a part of an entity which can be characterized by the property denoted by the adjective” and can be paraphrased in English as ‘the ADJ part/aspect’. This

reading can be diagnosed by the availability of modification by *más* ‘most’. Second, a quantificational reading (31) “involves degree quantification over the scale denoted by the adjective predicated of the entity” and the English translation is akin to ‘how ADJ the N is’. The second type is only formed with gradable adjectives can be diagnosed by the availability of modification by *muy* ‘very’.

- (30) **Lo** más/*muy **interesante** del libro es el primer capítulo.
 the most/very interesting of-the book is the first chapter
 ‘The most interesting part of the book is the first chapter.’
 ((21) in Villalba (2013))
- (31) Me asusta **lo** *más/muy **peligroso** de la empresa.
 me frightens the most/very dangerous of the enterprise
 ‘It frightens me how very risky the enterprise is.’
 ((22) in Villalba (2013))

The third reading is quantitative (named as such in Bosque and Moreno (1990), Leonetti (1999)), illustrated in (32). This last type is said to be unproductive and is set aside in Villalba’s analysis.

- (32) No duerme **lo necesario**.
 not sleeps the necessary
 ‘(S)he doesn’t sleep enough.’

Villalba’s (2013) work goes beyond what we have seen for English in Glass (2014) in that he observes significant empirical contrasts between affix-less and affix-based nominalizations. These contrasts, which amount to a number of tests for eventualities, illustrated in two representative examples (33), serve as evidence that each nominalization strategy refers to a distinct ontological object. In the examples Villalba aims to demonstrate that, as opposed to the affix-based nominalization, the A-DPs do not involve eventive reading in that they do not allow modifiers that indicate temporal duration, e.g. *constante* ‘constant’, and do not inherit the argument structure of the base adjective, e.g. *capaz de asesinar* ‘capable of murder’.

- (33) Test for temporality ((24) in Villalba (2013))
- a. la constante/frecuente brutalidad de al-Assad
 the constant/frequent brutality of Al-Assad
 ‘Al-Assad’s constant/frequent brutality’
 - b. *lo constantemente/frecuentemente brutal de al-Assad
 the constantly/frequently brutal of Al-Assad
 ‘Al-Assad’s brutality for months’

- (34) Test for argument structure inheritance ((26) in Villalba (2013))
- a. Al-Assad fue (in)capaz de asesinar a su pueblo.
Al-Assad was (in)able of murder to his people
'Al-Assad was (in)able of murdering his people.'
 - b. la (in)capacidad de al-Assad de asesinar a su pueblo
the.FEM (in)ability of Al-Assad of murder to his people
'The (in)ability of Al-Assad of murdering his people.'
 - c. *lo (in)capaz de al-Assad de asesinar a su pueblo.
the.NEUT (in)able of Al-Assad of murder to his people
'The (in)ability of Al-Assad of murdering his people.'

These clues lead Villalba to claim that the differences between the nominalization strategies are rooted in how they are formed and thus their different underlying structure. Villalba therefore proposes two distinct analyses for them. The following is the summary of Villalba's (2013) semantic and syntactic analysis of A-DPs and affix-based nominalizations in Spanish. He couches his proposal within the framework of Distributed Morphology (Halle and Marantz (1993), Marantz (1997), Embick and Noyer (2007)).

Affix-based nominalizations are lexically formed from a subword structure. For example, the following is the derivation of the nominalization *belleza* 'beauty' (35). The acategorial root *BELL* combines with an adjectival functional head *a* that converts the root to an adjectival stem. The stem is then selected by a nominalizer (the suffix *-ez*).



Before being embedded under DP, the derivation continues by the addition of nominal functional structure (ClassP, NumP, etc.) which houses the possessive modifiers (e.g. the PP in the expression *belleza de su obra* 'beauty of her work'), and crucially, encodes the mass nature and stative eventuality of the resulting expression. Though not explained in much detail in his paper, Villalba cites Rothstein (1999) for this idea. This is also a piece of analysis that connects Villalba (2013) to Glass (2014), who also analyzes parallel English deadjectival nominalizations as states, similar to mass nouns in a number of ways. Their analyses are not parallel, however. The point of difference is that Villalba makes a distinction between A-DPs and affix-based nominalizations, and Glass does not. For the sake of simplicity and because my focus is mainly A-DPs, I will not show the entire complexity of such a

tree here¹². The contrast with the structure of A-DPs will still be imminently apparent.

Spanish A-DPs are syntactically derived, involving an underlying subject-predicate structure (following Villalba and Bartra-Kaufmann (2010)). A simple example is given in (36), in which (b) shows the underlying structure of an expression in (a) and *el cuadro* ‘picture’ is the subject and *bello* ‘beautiful’ is the predicate. There is crucially no nominal functional structure like the one proposed for the affix-based nominalizations.

- (36) a. *lo bello del cuadro*
 the beautiful of-the picture
 ‘the beautiful thing about the picture’
 b.
-
- ```

graph TD
 XP --> DP
 XP --> X_prime[X']
 DP --> el_cuadro[el cuadro]
 X_prime --> X
 X_prime --> AP
 AP --> bello[bello]

```

((45) in Villalba (2013))

Villalba assumes that this structure correlates with standard topic-comment partition. The predicate adjective phrase is fronted for information-structure reasons, deriving a Focus phrase in which the focus is realized as *de* ‘of’, as argued for by Kayne (2005) and Den Dikken (2006). The determiner *lo* embeds the focus phrase. This operation is shown in the following bracket representation (37).

- (37)  $[_{DP}[_{D}lo] [_{FP}[_{AP}bello] [_{F'}X + F[=de] [_{XP}[_{DP}el\ cuadro] [_{X'}t_Xt_{AP}]]]]]$   
 ((46) in Villalba (2013))

With regards to semantics, Villalba’s proposal relies on the predication of the adjective on the entity within the prepositional phrase, as is obvious from the syntactic structure. The following (38) then shows that the semantic contribution of the neuter element *lo* is Chierchia’s (1998) cap operator which, when applied to the denotation of *alto*, yields an entity correlate to property (or entity correlate to degrees, see below).

- (38) a.  $[[_{AP}alto]] : \lambda x[\mathbf{tall}(x)]$   
 b.  $[[_{DP}lo[_{AP}alto]]] : ^{\cap} \lambda x[\mathbf{tall}(x)]$

<sup>12</sup>See pages 251-253 in Villalba (2013) for variations on syntactic structures of affix-based nominalizations in different syntactic configurations. See also Alexiadou (2011) and Borer (2005) for an argument for syntactically locating possessive modifiers in ClassP.

((50) in Villalba (2013))

Villalba posits that *lo* is a type-shifting nominalizer that either affects properties or it affects degrees. Depending on which it affects (it is not entirely clear how the distinction is made and Villalba’s view on the denotation of the adjective is not given in this work), the result is one of the two basic neuter nominalization types mentioned earlier, see (30) and (31). The partitive/referential type (39) is obtained if the nominalizer affects the property and thus the expression refers to a part of the subject which can be characterized by the property denoted by the adjective (building on McNally and de Swart (2011)). The quantificational type (40) is obtained if the nominalizer reifies a property of degrees and involves degree quantification over the scale denoted by the adjective predicated of the subject. Villalba does not include further details about the semantic source of the degree argument *d*.

(39)  $\cap \lambda x.\text{interesting}_{asp}(\text{book})(x)$   
= ‘entity correlate of the property of being the beautiful aspect of her face’

(40)  $\cap \lambda d.\text{dangerous}_{asp}(\text{enterprise})(x)(d)$   
= ‘entity correlate of the maximum degree of the property of being the beautiful aspect of her face’

Villalba’s (2013) analysis is transferable to Slovak to the extent that the claim that affix-based and affix-less nominalizations denote ontologically different abstract objects with different underlying syntactic structures, is fully supported in this thesis, based on strong empirical evidence (though the same eventive diagnostics for of nominalizations are not particularly necessary to make the distinctions). Furthermore, lack of a nominal layer in the syntax of A-DPs (contrary to analyses such as Glass (2014)) well captures the Slovak facts, since Slovak A-DPs retain their adjectival behavior in a number of ways. It is along these lines, in agreement with Villalba (2013), that I will argue for an analysis of Slovak in Chapter 2.

However, at least three facts would make Villalba’s analysis a poor choice were it adopted to Slovak as is. First, similarly to a weakness pointed out in Glass’s analysis for the purposes of Slovak, the typology of and the semantics given for A-DPs as *partitive* and *quantificational* both overreaches and underperforms for the purposes of Slovak. The quantificational type of A-DP does not occur in Slovak, i.e. Slovak A-DPs simply cannot be used to express the highest degree of the property, as for example in (31) where a Spanish A-DP is used to say ‘how very risky’. On the other hand, the partitive type of A-DP, characterized by Villalba in his work interchangeably as

denoting “part” or “aspect” (a sort of ambiguity), would conflate two types in Slovak, which in fact require more nuance and can be told apart both in their interpretations (one has a bearer reference and one a trope reference) and their syntactic behavior. This has been touched upon in the previous subsection in discussion of Glass’s work.

Second, the idea that the adjective is being moved to focus phrase and the concept of DP-internal topic-comment partition are not convincingly motivated by Slovak data. Certainly, the entity denoted within the prepositional phrase could be the topic, however, it does not necessarily have to be. For example, consider the following sentence (41). The genitive prepositional phrase introduces the entity ‘pension’ (retirement benefit) for the first time and nothing in the previous context indicates that it would be the topic (the topic is *memories*). Moreover, a supposed predication-subject relationship between ‘last’ and ‘pension’ is doubtful, i.e. *the last bit of pension ≠ the last pension*.

- (41) Neustále ju prenasledujú spomienky. Na matku, ktorá jej za constantly her haunt memories on mother who her for všestrannú starostlivosť neprejavila ani štipku vďačnosti, i na complete care-taking not-show even pinch gratitude and on deti, ktoré sa čoraz zriedkavejšie ukazujú, hoci children who REFL every-time rarely show even-though by im dala aj **to posledné z dôchodku**, ktorý would them give even TO last of.GEN pension.GEN which jej sotva postačuje na pokrytie vlastných potrieb. her barely suffices on cover own needs  
 ‘She is constantly haunted by memories. Those of her mother, who never showed even a pinch of gratitude for being thoroughly taken care of, and also those of the children, who come by rarely even though she would give them even the last bit of her pension, which is barely enough to cover her own needs.’

Third, even though the following consideration does not have bearing on the rejection of Villalba’s analysis, it is nevertheless interesting to mention that unlike Spanish, Slovak A-DPs are not as resistant to retaining the argument structure of the base adjective. For example, the following artificially constructed sentence (42) shows this. Some adjectives naturally select for arguments marked by various cases. When such an adjective is part of an A-DP, its argument can be expressed and the phrase remains grammatical.

- (42) **to realite podobné** na tomto filme  
 TO reality.DAT similar on this movie  
 ‘that realistic (similar to reality) aspect of the movie’

Finally, because Villalba (2009, 2013) deals with the question of natural language ontology, it is fitting to make a short comment on this issue. By taking Slovak as a case study, I aim to make an improvement on Villalba’s treatment of what exactly A-DPs refer to. In Villalba (2013), it is not defined with precision what abstract objects the affix-based and affix-less nominalizations refer to, but there are mentions of various options including qualities or states for affix-based nominalizations, and entity correlates of properties for A-DPs. In a more systematic way, Villalba (2009) argues that the nuances in interpretation and the contrast in the distributional properties of Spanish A-DPs and affix-based nominalizations justify an unusual ontological distinction between properties and a new, distinct category - *qualities* (from Levinson (1978)). A property (e.g. *honest*) is the condition or a state of being in a certain way; while a quality (e.g. *honesty*) is an abstract substance, “half-way between properties and individuals”. The resulting picture of Spanish deadjectival nominalization is schematized in (43).

(43)

| type                            | example                      | denotation                     |
|---------------------------------|------------------------------|--------------------------------|
| <b>ADJ</b>                      | <i>honesto</i>               | <b>property</b>                |
| <b>lo + ADJ</b>                 | <i>lo honesto</i>            | <b>kind of property-tropes</b> |
| <b>lo + ADJ + PP</b>            | <i>lo honesto de Juan</i>    | <b>property-trope</b>          |
| <b>affix-based nominal</b>      | <i>honestidad</i>            | <b>quality</b>                 |
| <b>la + affix-based n.</b>      | <i>la honestidad</i>         | <b>kind of quality-tropes</b>  |
| <b>la + affix-based n. + PP</b> | <i>la honestidad de Juan</i> | <b>quality-trope</b>           |

The term “tropes” (from Moltmann (2004)) in Villalba’s ontology means tokens, specifically concrete instantiations of properties or concrete instantiations of qualities. More explanation on the notion of trope is provided in the following subsection discussing work by McNally and de Swart. Such an ontology as given in Villalba (2009) is more complex than in other literature on this topic, and its informality is challenging to harmonize with the later claims in Villalba and Bartra-Kaufmann (2010) and Villalba (2013). Because of the complexity, I will not adopt this ontology to account for the Slovak data; see the discussion in the concluding chapter.

Another analysis available in the literature is that of (Kester, 1996), who uses the idea of the adjective modifying a silent element, namely a Noun *pro*. The following section is a summary and discussion of its suitability for Slovak.

### 1.3.4 Kester 1996

Kester (1996) bases her work on Dutch data, e.g. expressions as in (44), but she also extends her analysis to other languages (Swedish, German, Spanish, Finnish and Hungarian). The main idea is the presence of a “small *pro*” (a non-lexical noun (Rizzi, 1986)), the head of the noun phrase which the adjective modifies.

- (44)    *het besprokene pro*  
          the talked-about  
          ‘the matters talked about’

Such an analysis builds on Lobeck’s (1995) analysis of nominal ellipsis, according to which ellided nominal constituents are instances of silent Noun-*pro* and the adjective in the ellipsis construction has to formally license and identify the null element. According to Kester, Dutch has different *pros* with different properties (features) and the Noun-*pro* that occurs in A-DPs is endowed with inherent features as well, namely [-animate, -count]. These features are not tied to an antecedent, as in ellipsis, and so the Noun-*pro* is not anaphoric. In other words, in A-DP constructions such as in the above example, the features that the Noun-*pro* carries, made visible by means of adjectival morphology (specifically, the inflectional *-e* on the end of the adjective) and the grammatical gender features expressed on the determiner, necessarily lead to an abstract interpretation.

The syntax in Kester’s analysis is shown in (45). She does not provide a semantic analysis.

- (45)
- 
- ```
graph TD
  DP --> Det
  DP --> NP
  NP --> AP
  NP --> Noun-pro
```

There are several reasons I do not adopt the idea of a null noun in my analysis. First, however, I recognize a prediction in Kester (1996) that makes her analysis fare well for Slovak. Her analysis is based on the idea that the adjective has to formally license and identify the Noun-*pro*. This predicts that a richer morphology in a language would allow for a wider variety of denotations that the ADJ+*pro* can express. This is viable in Slovak because it is a language that has rich inflectional morphology: the adjective provides information on gender and number, in contrast, for example, to English. However, the analysis would require two *pros* with distinct features to capture the bearer and trope interpretations attested in Slovak A-DPs. I will opt not

to go this route in my proposal, due to the stipulative nature of assigning features to silent items, such as nouns or pronouns.

In addition to insufficiency of only one *pro* and the theoretical complications of presupposing a number of different *pros*, another problem with stating that such null elements exist is the non-existence of any obvious lexical counterpart to a null noun that would have the same properties. There is no word for ‘stuff’ that could be inserted instead of the assumed *pro*; the closest choice is the word *veci* which means ‘things’ and is plural and feminine. The word *veci* strongly suggests three dimensional physical and concrete things; contrast (46-a) and (46-b). In the first case the reference can be to beautiful life experiences, for example, and *veci* is never used to express that. Another possible and more abstract noun to express ‘stuff’ is *záležitosti* ‘matters’/‘affairs’. But it is feminine as well and its meaning does not include physical concrete objects. Likewise, there is no word for expressing ‘aspect’ or ‘thing about’; the closest choice are the words *stránka* which means ‘side’ or *vlastnosť* which means ‘characteristic’, but these are feminine and quite incompatible with a prepositional phrase (47-b)¹³

- (46) a. to krásne
 TO beautiful
 ‘that which is beautiful’
- b. ≠ (*to) tie krásne veci
 TO.NEUT.SG those.FEM.PL beautiful things.FEM.PL
 ‘those beautiful things’
- c. ≠ (*to) tie krásne záležitosti
 TO.NEUT.SG those.FEM.PL beautiful affairs.FEM.PL
 ‘those beautiful affairs’

¹³While considering whether there could be a silent noun in the underlying structure of A-DPs, I surveyed the most common (based on frequency in the Slovak National Corpus) nominal collocations for various adjectives in order to see if they would serve as an indicator for the possible referential properties of such a silent noun. To show a specific example, one adjective I looked at in the survey, which would easily collocate with mass ‘stuff’ reference is *falošný* ‘false’. Among the highest rated collocations in the SNK is ‘alarm’, ‘humility’, ‘identity’, ‘solidarity’. None of these specific results are accessible readings for an A-DP (*to*) *falošné* ‘(that) false’; it is always used for a more generic reference to ‘falsity’ or ‘false things’ (‘things/stuff’ is not even listed among the common collocations). However, upon some reflection, this test is not very successful in making predictions regarding the existence or non-existence of a silent noun. It does not follow that if an adjective-noun collocation is frequent then the denotation of it should be expressible also by omitting the noun. In fact I would assume that diachronically, if some collocation fossilizes as an A-DP, perhaps for efficiency reasons, then the original collocation actually would not be frequent anymore.

- (47) a. to krásne na detstve
 TO beautiful on childhood
 ‘the beautiful thing about childhood’
- b. (*to) tá krásna stránka/
 TO that.FEM.SG beautiful side.FEM.SG/
 vlastnosť (*na detstve) detstva
 characteristic.FEM.SG on childhood childhood.GEN
 ‘the beautiful side/characteristic of childhood’

Lastly, multiple diagnostics indicate distributional and interpretational contrasts between A-DPs and NPs (discussed in Chapter 4). Therefore, the syntactic structure defended in this thesis does not include a null noun or a nominal projection, unlike Kester (1996).

Günther (to appear) argues for a similar analysis for English and for German, considering A-DPs to be instances of the same underlying phenomenon – the presence of a phonologically empty noun in the head position. Like Kester (1996), she draws on morpho-syntactic and semantic parallels with elliptical noun phrases to say that A-DPs are adjectives that modify the silent noun. Her analysis is untenable for Slovak for the same reasons outlined above.

The last work discussed in this overview is that of McNally and de Swart. They provide an analysis for Dutch A-DPs as well, yet one that does not make use of a null element, against Kester and Günther. In addition to a novel syntactic account, they make an important contribution to the known inventory of the range of meanings that A-DPs can have and inspire a number of observations made about Slovak in this thesis.

1.3.5 McNally & de Swart (2015) and de Swart et al. (to appear)

McNally and de Swart (2015) and de Swart et al. (to appear) identify two readings of Dutch A-DPs and argue that these two readings can only be accounted for by two distinct syntax-semantics structures. The two types are illustrated in the following pair of examples. (48)¹⁴ is an example of what these authors call the “abstract object construction”; (49) is an example of

¹⁴The label [+e] in the gloss of the Dutch examples indicates adjective inflection. The short form of the adjective shows up with neuter nouns accompanied by the singular indefinite article; in all other cases, the long (and also inflected) form must be used. The short form doubles as an adverb, so the presence or absence of the *-e* is used to distinguish adverbial and adjectival modification.

what they call the “relational inflected adjective construction” in McNally and de Swart (2015) and later “quality reading” in de Swart et al. (to appear).

- (48) het goede in de mens
the good_[+e] in the human-being
‘what is good in mankind’
- (49) het vreemde van de situatie
the strange_[+e] of the situation
‘the strange thing about (aspect of) the situation’

The main idea of the analysis is as follows. The abstract object construction (minus the determiner) has the syntax of a small clause, and the semantics of a free relative, so its semantics can roughly be paraphrased in English as ‘that which is Adj’. The relational/quality construction has a relational interpretation: it takes the DP complement of the PP as its inner argument and, in combination with the determiner, refers to a property, which can roughly be paraphrased as ‘the Adj aspect of/thing about DP’ or, in some cases, ‘the Adj-ness of the DP’. Recognizing the second reading is an especially unique contribution of this work. However, it is also a reading that is prone to cause confusion due to the difficulty of translating it into English. As the translations given for Dutch examples throughout this section indicate, English does not use A-DPs to convey the quality reading at all. As a result, the meaning of the Dutch examples may be hard to grasp for English readers. The closest relatives of the quality reading in English are derived nouns, or the paraphrase ‘the Adj thing/part about’. Such paraphrases are reflected in the glosses in this section.

The abstract object reading

According to McNally and de Swart (2015)¹⁵, neither a null noun analysis (as in Kester (1996)) nor lexical nominalization (as in traditional Dutch grammar) explain reference to abstract objects in Dutch. The existing analyses of Dutch face two problems. First, neither analysis explains why the determiner used in reference to abstract objects is heavily restricted in Dutch. All mass quantifiers are excluded (50-a), except for pre-determiner *al* (‘all’) (50-b):

¹⁵The following summary of the analysis of abstract object construction is taken from deSwart et al. (to appear), with minimal changes to content in order to clarify a few points.

- (50) a. *een beetje onverschillige/ *veel moeilijke/ *weinig goede/
 a bit indifferent_[+e]/ much difficult_[+e]/ little good_[+e]/
 *het meeste mooie
 the most_[+e] beautiful_[+e]
 Intended: 'a bit of indifference', 'much that is difficult', 'little
 that is good', 'most of what is beautiful'
- b. (al) het vreemde
 (all) the strange_[+e]
 'everything strange'

Data collection through Google searches yields only the neuter article *het* ('the.NEUT') in (50-b) and the demonstrative *dit/dat* ('this/that'.NEUT). Both the null noun and the nominalization analysis project an nominal phrase, so there should be no reason for the determiner distribution to be constrained.

Second, neither analysis explains why adverbial modification is productive, but adjectival modification is severely limited. The examples in (51) illustrate:

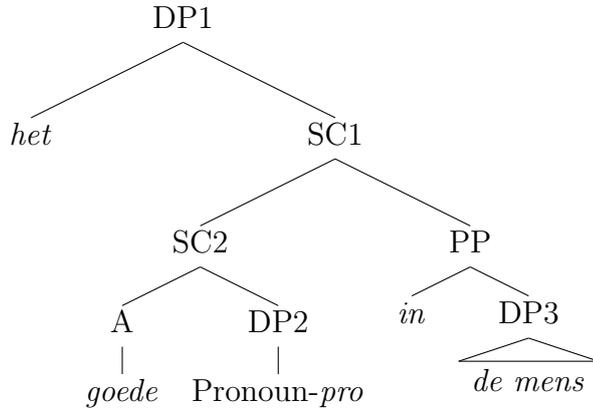
- (51) a. Het recent/ *recente besprokene
 the recent_{adv} recent_{[+e]adj} discussed
 'the matters recently discussed'
- b. het moreel/ *morele goede in de ander
 the moral_{adv}/ moral_{[+e]adj} good_[+e] in the other
 'the moral good in the other'

The long forms *recente* and *morele* are inflected adjectives. As adjective inflection (-e) is obligatory in Dutch after the definite article *het*, the short forms *recent* and *moreel* must be adverbial. Google searches reveal that no regular descriptive adjective appears in the abstract object construction. But *enige* 'only_{adj}', *andere* 'other', *enige* 'few_{adj}', and *vermeende* 'alleged' are attested, as shown in (52).

- (52) a. (...) en al het andere leuke in het leven
 and all the other_[+e] nice_[+e] in the life
 (a blog about eating, drinking, music, movies, soccer) 'and all
 the other nice things in life'
- b. (...) het vele goede van de dag
 the many_[+e] good_[+e] of the day
 (after which we happily got back into the bus, and completed
 the trip satisfied by) 'the many good things of the day'

If the adjective projected an N at some level in its derivation, we would expect adjectival modification to be entirely free. As neither the null noun nor the nominalization analysis accounts for the restrictions on determiners and adjectives, McNally and de Swart (2015) pursue a different approach. They defend an analysis of reference to abstract object in terms of a small clause that they assign a semantics similar to the free relative ‘that which is Adj’. The syntax for an abstract object construction (48) is worked out in (53) (Figure 3 in de Swart et al. (to appear)), and the semantics in (54):

(53) Syntax proposed for the abstract object type A-DP in Dutch



- (54) a. $\llbracket \text{goede } pro \rrbracket^g : \lambda s [\mathbf{good}^*(x_{[-\text{anim}, -\text{count}]})](s)$
 b. $\llbracket \text{het} \rrbracket^g = \lambda P_{(e, \langle s, et \rangle)} \lambda s \lambda x [P(x_{[-\text{anim}, -\text{count}]})](s)$
 c. $\llbracket \text{goede in de mens} \rrbracket^g : \lambda s [\mathbf{good}^*(x_{[-\text{anim}, -\text{count}]})](s) \wedge \mathbf{in}(x_{[-\text{anim}, -\text{count}]}, \mathbf{mankind})(s)$
 d. $\llbracket \text{het goede in de mens} \rrbracket^g : \lambda s \lambda x [\mathbf{good}^*(x_{[-\text{anim}, -\text{count}]})](s) \wedge \mathbf{in}(x_{[-\text{anim}, -\text{count}]}, \mathbf{mankind})(s)$

Instead of a null noun, the small clause analysis posits a null pronoun that the adjective predicates over; this captures the meaning equivalent to ‘that which is Adj’. The definite article *het* (or the demonstrative *dit/dat*) introduces closure over the open proposition. Its semantics in (54-b) is Hinterwimmer’s (2013) iota operator for free relatives. In addition, *het* provides a maximal sum interpretation which is compatible with pre-determiner *al* (‘all’), but no other (mass) quantifiers. In combination with the semantics of the PP as a conjunctive modifier, introducing a general locative relation between the variable x and the denotation of *de mens*, the result is the kind-denoting interpretation paraphrasable as ‘everything that is good in humankind’.

Under the small clause analysis, no NP is projected, so adjectival modification is restricted to adjectives that operate on the level of propositions,

such as intensional adjectives (e.g. Larson (2002) or DP-internal *only* (e.g. McNally (2008))).

McNally and de Swart (2015) conclude that the small clause analysis of reference to abstract objects via properties has a higher explanatory value than either a null noun analysis or a nominalization approach for Dutch data. Does their analysis have validity in Slovak as well? The small clause analysis makes strong predictions, easily tested in other languages, and I will now turn to a discussion of a few of them that make the analysis appealing to apply to Slovak data. The small clause which contains a null pronoun *pro* has a free relative semantics and the expression gains a denotation “all that, which is ADJ”. Such a paraphrase works very well for Slovak bearer-A-DPs and is the typical form of glossing Slovak data. The absence of a nominal projection or any null noun fits Slovak data as well, accounting for a range of adjectival characteristics that have already been mentioned in the summaries of other accounts.

Because the small clause is propositional, it is not expected to be compatible with adjectival modification (except for a few special proposition-level adjectives, e.g. intensional adjectives or DP-internal *only*). This is not easy to ascertain in Slovak. Adjectival modification is not wholly liberal, but adjectives that appear to be descriptive are attested, e.g. ‘forgotten’ in (55).

- (55) Dobré nové je **zabudnuté staré**.
good new is forgotten old
‘the good new stuff means forgotten old stuff’

More importantly, however, the small clause analysis predicts (and in fact was developed because of this fact as its main motivator) that we would find definites, demonstratives and the predeterminer ‘all’ precede such A-DPs, but would not find any other determiners or mass quantifiers. This prediction is not supported in Slovak because quantifiers such as *veľa* ‘much’ and *málo* ‘little’ are allowed (see description of specific data demonstrating this in Chapter 2). There is no strong motivation for a small clause analysis in Slovak as there is in Dutch.

The relational/quality reading

At first sight¹⁶, it is difficult to tell apart reference to properties from the reference to abstract objects discussed earlier. Both types of reference resist

¹⁶Once more, the following few paragraphs of summary of the analysis of relational construction is taken from deSwart et al. (to appear) where the same type of A-DP is called “quality reading”. Again, a few minimal changes to content are made in order to clarify a few points.

mass quantifiers (56), and impose severe constraints on adjectival modifiers: *enige* ‘only’ in (57) is fine, but not *intense* ‘intense’ in (58). All kinds of adverbial modifiers, e.g. *intens* ‘intens’ in (58), *al te* ‘all too’ in (59), are attested.

- (56) *een beetje rode van de ondergaande zon
 a bit red_[+e] of the setting sun
 Intended: ‘a bit of red of the setting sun’
- (57) Het enige leuke aan niet naar school kunnen gaan is niet naar
 the only_{adj} nice_[+e] at not to school can go is not to
 school gaan.
 school go
 ‘The only nice thing about not being able to go to school is not going
 to school.’
- (58) Zonder licht, om het intens/ *intense rode van de
 without light to the intense_{adv} /intense_{[+e]adj} red_[+e] of the
 ondergaande zon niet te verstoren.
 setting sun not to disturb
 ‘Without light, so as not to disturb the intense redness of the sunset.’
- (59) Het al te zure van citrusvruchten is in deze confiture
 the all too sour_[+e] of citrus-fruits is in this jam
 verdwenen.
 disappeared
 ‘The all too sour (aspect) of citrus fruits is lacking in this jam.’

While the abstract object construction involves maximal (sum) mass reference, the quality construction does not. As a result, the quality type A-DP does not take demonstratives, does not tolerate the predeterminer *al* ‘all’ (60), and is not compatible with adjectival *veel/weinig* (‘much/little’) (61).

- (60) Het/ *al het/ *dit vreemde van de situatie vind ik dat
 the/ all the/ this strange_[+e] of the situation find I that
 politieke partijen het maar laten gebeuren.
 political parties it just let happen
 ‘The/ *this/ *all the strange thing about the situation, I find, is that
 political parties just let it happen.’
- (61) Het *weinig vreemde van de situatie
 the little_[+e] strange_[+e] of the situation
 Intended: ‘the not very strange aspect of the situation’

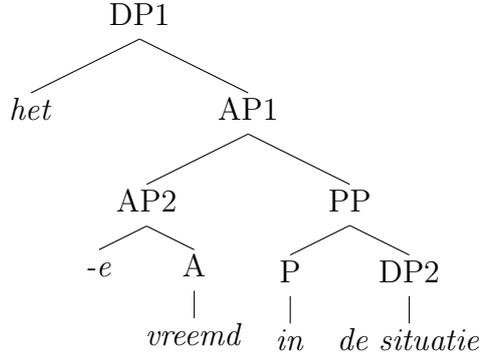
Additional evidence for a semantic difference between the quality reading and abstract object reading comes from the absence of a ‘part-of’ interpretation in (62).

- (62) Het bittere van het bier is een mooi contrast met het zoete
the bitter_[+e] of the beer is a nice contrast with the sweet_[+e]
van de mout.
of the malt
‘The bitterness of the beer is a nice contrast with the sweetness of
the malt.’

Clearly, there is no sum of bitter things in the beer, but the beer has the property of being bitter. McNally and de Swart take the evidence to indicate that there is a distinct reading of Dutch inflected adjectives, in which *het* + adjective_[+e] refers to a property. The following paragraphs outline the basic idea behind McNally and de Swart’s (2015) analysis of this reading.

McNally and de Swart (2015) show that for the quality reading to obtain, the prepositional phrase following the adjective must be overt or easily retrievable in context, unlike what is found with the abstract object construction. Moreover, the choice of preposition is restricted to (mostly) *aan* (‘at’) and *van* (‘of’), again in contrast to the abstract object construction. These observations suggest that the determiner phrase embedded in the prepositional phrase is an argument, while the optional prepositional phrase present in the abstract object construction functions as an adjunct (recall (53) and (54)). McNally and de Swart (2015) associate the quality reading such as, for example, in (49) with the syntactic structure in (63) (Figure 5 in de Swart et al. (to appear)). Syntactically, the adjective phrase is directly embedded under determiner phrase. *Het* is the dedicated neuter definite article that appears in this configuration, and no other determiner can embed an adjective phrase (or an infinitival verb phrase for that matter; see McNally and de Swart (2015) for discussion).

- (63) Syntax proposed for the relational type A-DP in Dutch



The details of the syntax-semantics interface of *het vreemde van de situatie* ('the strange_[+e] of the situation') are spelled out in (64). In general, *het* + A_[+e] + *aan/van* DP refers to the A aspect of the object the DP denotes.

- (64)
- a. $\llbracket \text{vreemd} \rrbracket : \lambda z \lambda s. \mathbf{strange}(z)(s)$
 - b. $\llbracket -e \rrbracket : \lambda P_{\langle s, \langle e, t \rangle \rangle} \lambda y \lambda x \lambda s. P_{asp}(y)(x)(s)$
 - c. $\llbracket \text{vreemd}_{+e} \rrbracket : \lambda y \lambda x \lambda s. \mathbf{strange}_{asp}(y)(x)(s)$
 - d. $\llbracket [_{AP} \text{vreemde}_{+e} \text{ van de situatie}] \rrbracket^g :$
 $\lambda x \lambda s. \mathbf{strange}_{asp}(iy[\mathbf{situation}(y)])(x)(s)$
 - e. $\llbracket [_{DP} [_{D} \text{het } s_1 [_{AP} \text{vreemde}_{+e} \text{ van de situatie}]] \rrbracket^g :$
 $\lambda P_{\langle e, \langle s, t \rangle \rangle} ix[P(x)(g(s_1))](\lambda x \lambda s. \mathbf{strange}_{asp}(iy[\mathbf{situation}(y)])(x)(s))$
 $= ix[\mathbf{strange}_{asp}(iy[\mathbf{situation}(y)])(x)(g(s_1))]$

The analysis for the quality (relational) type of A-DPs by McNally and de Swart (2015) makes a number of predictions that account for Slovak data very well (specifically the type of A-DPs which is called property-A-DP in this thesis). For example, the lack of a nominal layer means that such expressions would not be not mass like, and therefore do not allow any quantifiers, including the predeterminer 'all'. This turns out to be the case. Furthermore, the retaining of adjectival character also means there is a severe constraint on adjectival modification, and indeed there are no attested examples in Slovak with this interpretation for the A-DP. Adverbial modification is expected and also attested. There is the prediction of an obligatory or easily retrievable argument (not an adjunct), which is encoded within a prepositional phrase with a restricted choice of preposition both in Dutch as in Slovak. I will show in Chapter 2 that the morpho-syntactic diagnostic for distinguishing the two types of A-DPs identified in Slovak is that bearer-A-DP is compatible with a genitive *z* prepositional phrase and trope-A-DP is compatible with a locative *na* prepositional phrase. The last thing I will mention is the prediction that restrictive relative clauses should not appear as there is a lack of an attachment site for them. This is also true for Slovak trope A-DPs.

As can be seen, for all these reasons, this analysis is quite suitable for Slovak, at least in its syntactic claims. However, due to particular differences between Dutch and Slovak, there remain a few weaknesses worth pointing out and improving upon. Firstly, Dutch does not allow demonstratives; only the neuter definite article can embed the adjectival phrase. In Slovak, in contrast, the demonstrative is not only allowed but obligatory. This is not predicted by the analysis. The second point relates both to a feature of Dutch and to the mechanism of the proposed semantics. The proposal is that there is an increase in valency of the adjective that is brought about by the inflectional suffix on the adjective. The problem with this is that there is no additional suffix present only in “relational” A-DPs over those that form “abstract object” A-DPs: the adjectives have the same morphological form. Despite no overt distinction, there is an effect in one but not in the other type, a fact that remains unexplained except for a problematic stipulation to credit inflection. In Slovak, there are no morphological distinctions between the A-DP types either, and thus the problem is carried over.

1.4 Outline of the thesis

In this selective survey of a few particularly relevant analyses of A-DPs in the literature, it can be seen that a range of approaches have been taken. I weighed the strengths and weaknesses of various analytical claims and considered their viability for Slovak, although I postponed the details of the data and my counterarguments for later chapters. I will now conclude this introductory chapter with a very brief preview of what to expect in the rest of the thesis.

Chapter 2 is the core of this work and provides a detailed description of the Slovak facts and my central proposal for their analysis. I will identify two types of A-DPs and present evidence that they contrast in their distribution and also the type of reference they facilitate - either to the bearer of a property described by the adjective, or to the property itself. Many characteristics of Slovak A-DPs that other analyses were shown to fall short of accounting for will be argued to follow from the basic semantic idea that the denotation of adjectives includes two variables, one for the bearer and one for the property, the latter being uniquely dependent on the former. The proposal will encompass the semantics and syntax of the two A-DP types.

Chapter 3 focuses on the comparison of A-DPs to affix-based deadjectival nominalizations, with particular attention given to the most common nominalizing suffix *-osť*, and examines the question of why both strategies are necessary. It will be shown that because derived nominalizations, as opposed

to A-DPs, are a result of a legitimate lexical category change from adjective to noun, they reify the property denotation in a significantly different way than do A-DPs. Specifically, the reference to a property via a derived nominalization is not crucially dependent on the expression of its bearer. The evidence for this will be demonstrated through tests of compatibility with a range of possessive and genitive structures. In the analysis portion of this chapter, I extend my approach to the denotation of adjectives to the treatment of derived nominalizations, yet with a distinctly motivated manipulation of the variables within the core adjective's representation. By doing so, I show that the differences in distributional behavior and interpretations between the two types of structures can be formally accounted for.

Chapter 4 investigates the puzzle of the demonstrative element that often, but not always, accompanies A-DPs. Using a number of diagnostics, I establish its lexical status as a determiner and reject the hypotheses that the demonstrative is either a postmodified pronoun, or that it is a determiner which would embed a noun phrase with a null head noun. On the basis of strong parallels between cases when the demonstrative precedes neuter nouns and cases of when it precedes adjectives, I argue that it fulfills a number of determiner functions in A-DPs. Looking at naturally occurring data in context, I describe how the interaction of information structure-driven word order in Slovak and the specific semantic and pragmatic contributions the determiner can provide for A-DPs explain why it is not always present. A portion of this chapter is devoted specifically to those cases of trope A-DPs in which the demonstrative is grammatically required due to the information structure of specificational sentences.

Finally, **Chapter 5** will summarize the main conclusions and the relevance of my findings to broader topics beyond Slovak A-DPs, for example our understanding of natural language ontology and of reference - both to entities as well as to properties - via adjectives versus via nouns. There I will also discuss the remaining problems and outline goals for future research.

Chapter 2

THE MORPHOSYNTAX- SEMANTICS INTERFACE OF A-DPs

2.1 Introduction

This chapter will introduce the facts of Slovak A-DPs by way of presenting naturally occurring examples found in the Slovak National Corpus. I will describe and present a novel analysis to account for their properties at the interface of morphosyntax and semantics.

Before proceeding towards the descriptive portion of the chapter, I will delineate the scope of the data by stating which expressions are *not* A-DPs and which expressions *might be*, but will not be included in the investigation.

Firstly, A-DPs are distinct from ellipsis. Ellipsis, as in the example (1-a), on the surface resembles the A-DP construction because Slovak does not have the equivalent of *one*, used in English nominal ellipsis. However, in a wider context, ellipsis must have an explicit or implicit antecedent in the discourse that identifies the elided descriptive content. A-DPs, in contrast, do not have this requirement. For example in (1-a), the explicit antecedent is the underlined noun *priezvisko* ‘surname’ in the immediately preceding clause. It has neuter gender and singular number, same as the adjectives *nové* ‘new’ and *staré* ‘old’. If the noun were reinserted into the positions from which it was elided, shown in (1-b), the sentence would have an identical interpretation as without it. In the following example (2), I provide extensive context in order to show that the bold-faced adjective in a nominal position is not a case of ellipsis because there is no antecedent available. The adjective has a neuter singular form, but neither of the two neuter nouns in the previous context

(‘happiness’, ‘species’) is appropriate if the meaning of the sentence is to be preserved. Wider context, previous to what is shown here, lists negative events of the twentieth century and offers no antecedent either.

- (1) a. Neuspejete so žiadosťou o zmenu priezviska iba
 not-succeed with request for change surname.NEUT.SG only
 preto, že to **nové** znie lepšie ako
 because that TO new.NEUT.SG sounds better than
staré.
 old.NEUT.SG
 ‘You won’t succeed with the request for a change of surname only
 because the new one sounds better than the old one.’
- b. ..., že to **nové priezvisko** znie lepšie ako **staré**
 that TO new surname sounds better than old
priezvisko
 surname
 ‘...because the new surname sounds better than the old surname.’
- (2) Možno je šťastím, že žijeme práve teraz, práve v tomto storočí.
 maybe is luck that live right now right in this century
 Že môžeme využívať jeho svetlé stránky v prospech nášho
 that can take-advantage its light aspects in benefit our
 rodu, i keď sa musíme boriť s tienistými stránkami
 species even if REFL must cope with shady aspects
 našej civilizácie. Cesta pokroku však vždy prináša boj - boj
 our civilization way progress however always bring fight fight
starého s **novým**. A aj to **nové** sa časom zmení na
 old with new and also TO new REFL time change on
 staré, začne byť na prekážku a boj sa začína znova.
 old begins be on obstacle and fight REFL begins again
 ‘Maybe it’s lucky we live right now, right in this century. We can
 use its bright side for the benefit of our species, even if we have to
 cope with the shady sides of our civilization. However, the path of
 progress always brings a struggle - a struggle of the old with the new.
 And even the new will change to be old over time, it will become an
 obstacle and the fight will begin again.’

In fact, in sentences where A-DPs occur, there is no neuter singular Slovak word that could be inserted and the interpretation be maintained. If such a word existed, it would mean something similar to *stuff* or *things* and have

neuter gender and singular number. To illustrate, in the following sentence (3), no noun is available that could be an elided argument of the adjective. The only noun that would fit the meaning is *veci* ‘things’ (4-a), however, it is plural and feminine (4-a) and the sentence would be grammatical only if the adjectives were also in plural and feminine form, as shown in (4-b).

- (3) toľko tam **toho zaujímavého** ? a **chutného** ? ponúkajú
 so-much there that interesting.SG and tasty.SG offer
 ‘they offer so much of **the interesting** and **the tasty** there’
- (4) a. *toľko tam **toho zaujímavého** vecí a
 so-much there that interesting.NEUT.SG things.FEM.PL and
chutného vecí ponúkajú
 tasty.NEUT.SG things.FEM.PL offer
- b. (veci...) toľko tam **tých zaujímavých** a **chutných**
 things... so-much there those.PL interesting.PL and tasty.PL
~~veci~~ ponúkajú
 things.PL offer
 ‘(*things* mentioned in the previous context...) they offer so many
 of the **interesting** and **tasty** ones there’

For these two reasons, I consider A-DPs to be a separate linguistic phenomenon and do not subsume them under the umbrella of ellipsis. In this thesis, every example of A-DP that I present was checked against its preceding context in the corpus and any potential nominal anaphora, to remove the possibility that the particular bare adjective in a nominal position would be a case of nominal ellipsis.

In addition to nominal ellipsis, I will not be concerned in this work with the following two uses of adjectives. First, I will not include in the discussions those A-DPs that are used for reference to humans or to animate entities in general. A few examples of such are given in (5). In (5-a), a corpus example includes an A-DP that can be interpreted as ‘people who are A’. This use is extremely common in Slovak, with the full variety of adjectives (equivalent to ‘rich’, ‘sick’, ‘local’, ‘grown up’, etc.). (5-b) lists a few adjectives that if used referentially, carry particular idiosyncratic meanings; they are not strictly interpreted as ‘person who is A’ though the denotation is normally related in some sense to the original adjective. At a later point of this chapter I will suggest that my analysis of bearer A-DPs can be extended to account for the first type of these expressions, but the details of their semantics and syntax will not be developed.

- (5) a. Nepovedal by som, že dnešní **mladí** sú egocentrickí.
 not-say would PART that today's young are egocentric
 'I would not say that today's youth are self-centered.'
- b. **vedúci** **hlavný** **milý**
 leading main dear
 'boss' 'head waiter' 'boyfriend'

Secondly, I am also setting aside those adjectives that are idiosyncratic and possibly in fact nouns that are homophonous with the corresponding adjectives. These uses are considered converted nouns in traditional Slovak grammar; *The Morphology of the Slovak Language* (1966) states:

“In nominalization of adjectives... morphological change does not occur, but only internal lexical and word class reevaluation along with the relevant syntactic consequences.” (MSJ, 1966, p.193)¹

“Some adjectives retain the form of adjectives, but lose their primary function understood as the denotation of an attribute of a thing. They gain object-denoting, nominal meaning and move to the word class of nouns. Adjectives as words that in general denote attributes, can assign an attribute to the whole class of things. When an adjective is nominalized, it narrows its original meaning and it reifies it (makes it concrete): it does not denote the relevant attribute, but rather some concrete thing that this attribute characterizes.” (MSJ, 1966, p.230)²

A few examples are given in (6). Each word in (6-a) has adjectival inflection in Slovak, despite the fact that their English equivalents are nouns. Their distribution is nominal, as exemplified in (6-b) and (6-c).

- (6) a. **šampanské** champagne.A (= ‘type of sparkling wine’)
nájomné rental.A (= ‘rent’)
vreckové pocket.A (= ‘pocket money’)
vstupné entrance.A (= ‘admission fee’)

¹In the original: “Pri spodstatňovaní prídavných mien, čísloviek, prídavných a zámen nenastáva morfológická zmena, ale len vnútorné lexikálne a slovnodruhové prehodnotenie s príslušnými syntaktickými dôsledkami.”

²In the original: “Niektoré prídavné mená si ponechávajú podobu prídavných mien, ale strácajú ich základnú funkciu — vyjadrovať príznak vecí. Nadobúdajú predmetný, substantívny význam a prechádzajú do slovného druhu podstatných mien. Prídavné mená ako slová, ktoré označujú všeobecne príznak, môžu pririekať príznak celému radu vecí. Keď sa prídavné meno substantívizuje, zužuje svoj pôvodný význam a konkretizuje ho: neoznačuje už príslušný príznak, lež istú konkrétnu vec, ktorú tento príznak charakterizuje, napr. hlavný (= hlavný čašník), hradská, jarmočné.”

- b. *trafil sa do čierneho*
hit REFL to black
'he hit the bullseye/the target'
- c. *za 30 strieborných*
'for 30 silver
'for (the proverbial) thirty pieces of silver'

Recall from the introductory section on the Slovak National Corpus that a certain class of adjectives are tagged as SA (which stands for “substantivized adjectives”) in the corpus. Although I do not agree with the breadth of the SA tag, I consider a portion of these expressions distinct from A-DPs due to the following: (i) they are a non-productive class (e.g. other colors besides black do not convey strong idiosyncratic meanings, nor do other clothing elements besides pockets, etc.), (ii) they typically denote a specific object and the meaning often diverges from that of the original adjective (e.g. *vstupné* ‘entrance’ does not mean ‘things that are entrance-related’), (iii) they do not allow modification by adverbs, and (iv) are not gradable even if the original adjective is. With regards to the notion that they are converted nouns, however, I would note that it is intriguing that, just like A-DPs, they retain the adjectival morphological form in all cases and both singular and plural number (cf. English where words like *riches*, for example, can have nominal plural marking). The question of whether they are a special lexicalized subtype of bearer A-DPs is not directly relevant to the analysis presented in this thesis and therefore left for future research.

Now that I have discussed the boundaries to the scope of the data, the following is the structure of the rest of the chapter. Sections 2 and 3 address the question of what category the lexical core in A-DPs resembles. I show that they manifest some nominal and also some adjectival behaviors. A few distinctions between types of A-DPs begin to become apparent when looking at modification by adjectives, the requirement of a determiner, and quantifiability. In Section 4, I investigate interpretations of A-DPs and informally characterize the basic readings of bearer A-DPs and trope A-DPs, relying on contrasts in felicity throughout various contexts. I offer further distributional contrasts between them as well, especially highlighting trope A-DPs’ unique syntactic requirement of a prepositional phrase complement. The analysis of the semantics and syntax of Slovak A-DPs begins in Section 5, where I account for the properties that have been described. Section 6 concludes with a summary.

2.2 Adjective-like properties of A-DPs

The one characteristic that is immediately noticeable about A-DPs and poses the first puzzle, is that they are adjectival word forms in nominal syntactic positions. This section will show how they pattern with adjectives in their morphological and distributional behavior such as inflection, gradability, and modification by adverbs. I will discuss these in turn.

2.2.1 Inflection

The chart in (7) shows that A-DPs³ follow the case⁴ morphology in adjectival neuter paradigm (the first column), which is distinct from the nominal neuter paradigm (the second column). The sentence (8-b) provides an illustrative example of an A-DP which has a grammatically unacceptable nominal inflectional form, compared to a neuter noun *predstavenie*.NEUT ‘show/performance’ in its place (8-c).

- (7) Paradigms
- | CASES: | NEUTER ADJ | NEUTER N |
|--------|------------|----------|
| NOM | -é | -e/ie |
| GEN | -ého | -a/ia |
| DAT | -ému | -u/iu |
| ACC | -é | -e/ie |
| LOC | -om | -iach/í |
| INSTR | -ým | -ami/ím |
- (8) a. Urobme malú rekapituláciu **toho** **podstatného**
 make small recap TO.GEN essential.GEN
 ‘Let’s quickly recap the essential (things)’
- b. *Urobme malú rekapituláciu **toho** **podstatna/ia**
 make small recap TO.GEN
- c. Urobme malú rekapituláciu **toho** **predstavenia**
 make small recap TO.GEN show.GEN
 ‘Let’s quickly recap the show.’

A-DPs are always in neuter gender and singular number. This can be determined by the inflectional form, but also by agreement. The neuter gender is evident in the fact that A-DPs combine with the neuter demonstrative

³As I describe the properties of the adjectives that comprise the descriptive core of A-DPs, I will sometimes use just the term A-DP for short.

⁴The Slovak cases are NOM-nominative, GEN-genitive, DAT-dative, ACC-accusative, LOC-locative, INSTR-instrumental.

element *to* (9).⁵ The singular number is evident in that there is an agreement with singular predicates (10).

- (9) a. to pekne
 TO.NEUT nice
 ‘the nice (things)’
 b. *tá/*ten pekne
 TÁ.FEM/TEN.MASC nice
- (10) V jej spomienkach ostane/*ostanú **to pekne**, čo spolu
 in her memories stay.SG/PL TO nice what together
 prežili.
 lived
 ‘She remembers the nice things they lived through together.’

2.2.2 Gradability

A-DPs are gradable, similarly to adjectives, and unlike nouns. For example, in (11) the A-DPs are in a comparative form. More precisely, they have the synthetic comparative form in which one word form contains both the base adjective and the attached comparative morpheme *-š-* before the case marking. Note that all gradable Slovak adjectives can have the synthetic forms (unlike in English where this form is dispreferred for longer adjectives).

- (11) ...stelesňuje princíp zla, kontrast **silnejšieho** a **surovšieho** k
 embodies principle evil contrast stronger and crueler to
slabšiemu a **manipovateľnejšiemu**...
 weaker and more-manipulatable
 ‘...he embodies here the principle of evil, a contrast of the stronger
 and crueler to the weaker and more manipulable...’

Nouns do not have a synthetic comparative form with the morpheme *-š-*, for example, a noun *surovosť* ‘cruelty’ (a noun that is derived from *surov* ‘cruel’ + nominalizing suffix *-osť*), cannot derive the form **surovosť* that would denote ‘more cruelty’. This contrast between nouns and A-DPs reveals that A-DPs do not have nominal character in this respect, but rather behave similarly to adjectives.

⁵The demonstrative *to*’s closest English translation is *that*, however, it is glossed as “TO” throughout this work. This is because I do not address its grammatical character, i.e. whether it is a pronoun or a determiner, until Chapter 4. I hope to avoid premature conclusions that providing a close, but not exact, English equivalent could lead the reader to form.

2.2.3 Modification by adverbs

Another clear categorial difference can be seen between A-DPs and nouns when adverbial modification is considered. Adjectival DPs can be modified by adverbs, as seen in the following sentence (12).

- (12) to jediné a **podstatne nové**, čo som sa dozvedel
that unique and substantially new what PART REFL found-out
'that unique and substantially new stuff that I learned'

The entire class of nouns, on the other hand, prohibits modification by adverbs. This is illustrated by sentence in (13), which is ungrammatical.

- (13) *tá jediná a **podstatne novosť**, čo som sa dozvedel
that unique and substantially novelty what PART REFL found-out

The difference between A-DPs and nouns with respect to allowing modification by adverbs clearly demonstrates they are not the same category.

A-DPs display adjectival character in how they inflect, how they can be graded and how they can be modified by adverbs. However, A-DPs also display nominal character with respect to other diagnostics, which will be the focus of the next section.

2.3 Noun-like properties of A-DPs

2.3.1 Modification by adjectives

A-DPs are also noun-like with respect to a number of diagnostics. First, both nouns and some A-DPs can be modified by adjectives. The examples here show that while a noun (14) and an A-DP (15) are both grammatical when modified by adjectives, it is not generally grammatical to modify an adjective, e.g. a predicative one, by an adjective (16).

- (14) **dobré predstavenie**
good show
'a good show'

- (15) Viete, hovorí sa, že **dobré nové je zabudnuté staré**
you-know say REFL that good new is forgotten old
'You know, they say that the good new (things) means the forgotten old (things).'

- (16) *Predstavenie je **zaujímavé dobré**.
show is interesting good

In the corpus, the most common adjectives that modify A-DPs are evaluative, non-restrictive ones, such as *dobré* ‘good’, *pravé* ‘true’, *typické* ‘typical’, *krásne* ‘beautiful’, etc. However, unlike what has been described for other languages, Slovak A-DPs accept modification by a range of other restrictive and contentful adjectives as well (compare to Dutch A-DPs (McNally and de Swart, 2015)): see for example (17), (18) and (19).

- (17) Rúška na tvári zametača chodníkov... je na to, aby aspoň
 mask on face sweeper sidewalks is for that so at-least
 trochu odľofroval to **neviditeľné škodlivé**, čo sa valí k
 a-little filter-out TO invisible harmful what REFL rolls to
 jeho nosu.
 his nose
 ‘The facemask of the street sweeper is to filter out the invisible harmful (stuff) that rushes to his nose.’
- (18) Zvonár premieňa v tej veži to **pozemské hmotné** na to
 bell-ringer changes in that tower TO earthly material on TO
 nadpozemské nehmotné.
 celestial immaterial
 ‘The bell ringer changes in that tower the earthly material to the celestial immaterial.’
- (19) Po druhej svetovej vojne sa... nevedelo oddeliť to
 after second world war REFL... not-know separate TO
pokrokové nemecké a maďarské od fašistického a
 progressive German and Hungarian from fascist and
 šovinistického.
 chauvinistic
 ‘After the Second World War... it was hard to distinguish the progressive German and Hungarian from the fascist and the chauvinistic.’

There are A-DPs which cannot be modified by adjectives but this is not due to the type of adjective, but rather to the type of structure the A-DP occurs in. Specifically, certain A-DPs that are followed by a prepositional phrase reject adjectival modification. An example is given in (20).

- (20) To (***známe**) **podstatné** na zmene je jej akceptácia ľuďmi.
 TO known important on change is her acceptance people
 ‘The important thing about change is its acceptance by people.’

2.3.2 Quantifiability

Another diagnostic that shows A-DPs to be noun-like (or DP-like) is their compatibility with quantifiers. It is another diagnostic that gives mixed results. The fact that quantifiers are more freely available to one type of A-DP than to the other is illustrated here and elaborated on later in the chapter.

The unsurprising grammaticality of quantified nouns is exemplified in (21) below.

- (21) a. veľa/viac predstavení
many/more performances
'many/more performances'
b. trochu/viac radosti
a-little-of/more joy
'a little of/more joy'

The likewise unsurprising impossibility of constructing an example with a quantified adjective is shown in (22). Quantifiers are not grammatical with regular (e.g. predicatively used) adjectives.⁶

- (22) Predstavenie je *veľa/*trochu/*viac zaujímavého.
show is many/a-little-of/more interesting

However, it is possible to say *trochu zaujímavé* or *viac zaujímavé* in a sense of analytical gradation meaning 'a little interesting' and 'more interesting' respectively; this is different from quantification.

As for A-DPs, the examples (23) and (24) show that certain A-DPs can be modified by quantifiers such as *trochu* 'a little of', *priveľa* 'too much of', *málo* 'little of', etc.

- (23) V oboch chlapcoch sa mieša trochu slovenského a
in both boys REFL mix a-little-of Slovak and
trochu španielskeho.
a-little-of Spanish
'A little of Slovak and a little of Spanish is present in both boys.'
(24) Konceptuálne umenie, zdá sa, našej alternatívnej grafike
conceptual art seems REFL our alternative graphics
zatiaľ nevelmi prospieva. Je v nej priveľa nájdeného,
so-far no-much benefit is in her too-much found

⁶Quantifiers in Slovak select for genitive case, hence the ending *-ho* on the adjective.

prevzatého a málo osobného.

taken and little personal

‘Conceptual art, it seems, doesn’t benefit our alternative graphic design so far very much. There is too much of the found, the copied and too little of the personal.’

A pair of sentences is given below to illustrate an important limitation on the quantification of A-DPs. Contrast the acceptable quantification in (25) with that in (26). Note that in contrast to the first sentence, the second one includes a prepositional phrase that follows the A-DP and signals its different interpretation.

(25) V tejto sále odznelo **veľa dobrého**, **veľa zlého**, veľa chvál
in this hall sound much good, much bad many praises
a veľa urážok. Nebudem robiť ani jedno, ani druhé.
and many insults will-not do neither one nor second
‘In this hall, a lot of the good and the bad has been heard, and also a lot of praises and a lot of insults. I will not do one or the other.’

(26) *Keď sa rozhodovala nad miestom jej svadby, porovnávala
when REFL decide on place her wedding compare
(veľa) dobrého a **(veľa) zlého** na voľných sálach v jej
much good and much bad on available halls in her
meste.
town
‘When she was deciding on the place for her wedding, she was comparing the good and the bad things about the available halls in her town.’

This diagnostic again shows that A-DPs share some similarity with nouns but not with adjectives: they are, in certain subset of cases, compatible with quantifiers.

2.3.3 Demonstratives

In Slovak, nouns can be preceded by demonstratives (27), but regular adjectives cannot (28). As has been shown in a few examples, A-DPs are more like nouns in this respect, because they permit demonstratives (29), see also (3),(8-a), (12), and (10).

(27) to zdravie
TO health
‘that/the health’

- (28) Dieťa vyzerá (*to) zdravé.
 child looks TO healthy
 ‘The child looks healthy.’
- (29) to zdravé
 TO healthy
 ‘the healthy (things)’

Chapter 4 will include a more detailed discussion of cases in which the demonstrative is and is not present. For now, I provide two illustrative examples from the corpus which reveal a distinction between two types of A-DPs. One type can sometimes appear without a demonstrative (30) and the other type, signaled by the presence of a prepositional phrase, must always always have a demonstrative present (31).

- (30) Mnoho mladých ľudí svoje najkrajšie roky strávi v
 many young people one’s most-beautiful years spend in
 zahraničí. Jednoducho spojí **prijemné** s **užitočným**, naučí
 abroad simply combine pleasant with useful learn
 sa jazyk a popritom si aj zarobí.
 REFL language and in-the-meantime REFL even earn-money
 ‘Many young people spend their best years abroad. They simply pair
 the pleasant with the useful, they learn a language and earn money
 in the meantime.’
- (31) *(To) **podstatné** na koncerte sa totiž skrývalo v jej hrdle
 TO essential on concert REFL in-fact hide in her throat
 a hrudi.
 and chest
 ‘The essential aspect of the concert was in fact found in her throat
 and her chest.’

In summary, this section discussed those properties of adjectives in A-DPs that indicate which lexical category they might belong to. A-DPs have been shown to inflect according to the neuter singular adjectival paradigm, to be compatible with comparative morphology, and to be modified by adverbs. They also allow quantifiers and some adjectival modifiers, and sometimes combine with a demonstrative. These characteristics do not make it obvious what the internal nature of the A-DPs is, whether it is nominal or adjectival.

2.4 There are two types of A-DPs

There are two more syntactic and distributional properties of A-DPs I wish to describe, namely requirement of a prepositional phrase and compatibility with relative clauses. But before I present that data, I will finally identify, and describe in a fairly informal way, the two types of A-DPs that the data have been pointing to (refer to the mixed results to the previous three diagnostics). Their two distinct interpretations as (i) a bearer of a trope and of (ii) a trope. I have three general descriptive goals in this section. First, by presenting a few minimal pairs, I will show what contexts the two A-DP types are felicitous in. Second, I will provide a selection of Slovak examples of the trope A-DP, since this type is the more recently recognized one in the literature on A-DPs and the amount of data is still sparse. And finally, I will briefly pay particular attention to bearer A-DPs, specifically to the question of whether they are used to refer only to physical objects.

2.4.1 Interpretations of bearer A-DPs and trope A-DPs

The easiest way to distinguish the two types of A-DPs is by considering their distinct felicity in a wider discourse context. In the following minimal pair, the sentence (32-a) is taken directly from the corpus and the sentence (32-b) is changed in the relevant points to construct the other distinct type of A-DP. The different elements are an added demonstrative and an added prepositional phrase complement.

- (32) a. Kombináciu **vážneho** s **banálnym** a často dokonca
combination serious with banal and often even
až s **gýčovým** ňho mnohí považujú za zámernú
even with kitsch him many consider for purposeful
provokáciu.
provocation
'Many consider his combination of the **serious** with the banal
and often even with the kitsch to be a purposeful provocation.'
- b. Kombináciu toho **vážneho** s tým **banálnym** a často
combination TO serious with TO banal and often
dokonca až s tým **gýčovým** na jeho tvorbe ňho mnohí
even even with TO kitsch on his work him many
považujú za zámernú provokáciu.
consider for purposeful provocation
'Many consider the combination of the serious aspects with the

banal aspects and often even with the kitsch aspects of his work to be a purposeful provocation.’

In order to imagine a wider situational context for this sentence, suppose that there is a sculptor whose medium is household objects, some banal ones such as for instance empty food wrappers, some serious ones, such as for instance a framed wedding photograph, and some gaudy kitsch objects such as for instance pink plastic flamingos⁷. Under this context, the sentence as formulated in (32-a) would be used in a situation if the artist glued and stapled a number of each of those objects into a large sculpture; he thus has one object made up of individual elements that can either be described as banal (the individual wrappers on the left side of the sculpture are banal but not serious nor kitsch) and as serious (the framed wedding photo on the other side is serious but not banal nor kitsch), etc. The sentence (32-a) could be used in describing such a sculpture and the adjectives in nominal positions refer to those separate things that bear the properties denoted by the adjectives. We can paraphrase its main part as ‘a combination of the serious things/portions with the banal things/portions and the kitsch things/portions is provocative’. This is an example of what I call a **bearer A-DP**.

On the other hand, the sentence variant in (32-b) would be more felicitous if, for example, the sculptor decided to paint 100 flamingos black and make out of them a sculpture of a large exclamation point. Now, in describing such a sculpture with the adjectives serious, banal and kitsch, we comment less on the separate elements themselves than on the aspects of the sculpture as a whole. Those separate elements ended up being a hardly-divisible blend of serious, banal and kitsch features. In fact, a reference to the work via a prepositional phrase *na jeho tvorbe* ‘on his work’ is necessary for the interpretation of the sentence. When an adjective in a nominal position refers to the property rather than the bearer, I call it a **trope A-DP**. I use the phrase “[adjective] aspect” in this discussion as well as in the English glosses of the examples in an informal way to refer to a property token manifested in an entity, i.e. what has been referred to as a trope in the literature (Moltmann, 2013). For example, in (32-b), the A-DP *to gýčové na jeho tvorbe* (literally ‘the kitsch on his work’) refers to a token of the property *kitsch* manifested in the sculpture. This type of A-DP, recall from the literature overview in Chapter 1, was first was recognized in Dutch by McNally and de Swart (2015) where the term “relational inflected adjective construction”

⁷The actual wider context of the corpus text is of a young musician who brings youthful “street-genre” elements to the stale classical music scene. I decided to offer a different, still compatible context that will be more helpful in illuminating the interpretations.

is used as a name for it. Slovak trope A-DPs share the important characteristics that McNally and de Swart (2015) describe in Dutch trope A-DPs - their basic interpretation, incompatibility with quantification which was shown earlier, and the requirement of a prepositional phrase complement, which I will discuss further below.

To reinforce the differences I will now present a minimal pair in which the A-DPs are followed by prepositional phrases. The contrast clarifies the distinction between the property that the adjective denotes and the bearer of the property, and which of these the A-DP refers to. The following sentence (33) is a constructed example, not from the corpus.

- (33) **to smutné** na tom príbehu vnímame možno len my, ktorí sme
 TO sad on that story perceive maybe only we who PART
 niečo také zažili
 something such experienced
 ‘The sad aspect of (not: ‘part of’) this story may be perceived by those of us who have experienced something like it.’

This sentence (33) is felicitous in the context where the story is happy from beginning to end, but has a sad *implication* only perceivable to those who have had a similar experience. If the prepositional phrase is omitted (34-a), or if the preposition is changed to *v* ‘in’ (34-b) or to *z* ‘of/from’ (34-c)⁸, the sentence would be felicitous in the context where the story actually includes a sad part or portion. In this hypothetical situation, that sad portion is perceivable only to some people and not others.

- (34) a. **to smutné** vnímame možno len my, ktorí sme niečo
 TO sad perceive maybe only we who PART something
 také zažili
 such experienced
 ‘The sad (things) may be perceived by those of us who have experienced something like it.’
 b. **to smutné v tom príbehu** vnímame možno len my...
 TO sad in that story perceive maybe only we
 ‘The sad (parts) in/from this story may be perceived by us...’
 c. **to smutné z toho príbehu** vnímame možno len my...
 TO sad from that story perceive maybe only we
 ‘The sad (parts) in/from this story may be perceived by us...’

⁸The inflectional endings on the demonstrative and on the noun *príbeh* ‘story’ reflect that the preposition *v* ‘in’ selects for locative case, and the preposition *z* ‘of/from’ selects for genitive case.

Furthermore, we can confirm the distinction again by the contrast in whether they allow quantification; this difference has been mentioned earlier. Trope A-DPs cannot be quantified (35-a), while bearer A-DPs can (35-b).

- (35) a. *veľa smutného na tom príbehu
 much sad on that story
 intended: ‘a lot of the sad aspect of the story’
 b. veľa smutného v tom príbehu/ z toho príbehu
 much sad on that story of that story
 ‘a lot of the sad (things) in/from the story’

To generalize the observation from these few examples above, a bearer A-DP is used if what is referred to are entities distinguishable from the whole, if the whole is given by context or a prepositional phrase (e.g. individual parts of a sculpture or individual parts of a story, etc.), and these parts manifest a property that the adjective denotes. A trope A-DP is used if the referent is a token of the property itself and it is manifest in an entity wholistically, without any consideration of its parts. Sometimes the trope A-DP can be expressed in English using *-ness* nouns (e.g. seriousness of a sculpture or sadness of a story), however, I do not use this translation because *-ness* nouns express a meaning in English that is divided between trope A-DPs and derived nominals in Slovak, and therefore the English gloss with *-ness* might be misleading.

The following five examples each include an A-DP that refers to a trope. Observe that what they have in common is interpretationally, their best English translation is ‘[adjective] thing about’ or ‘[adjective] aspect of’, and syntactically, all of them are preceded by a demonstrative *to*, all of them are followed by a prepositional phrase, and all of them occur in specificational copular sentences. Furthermore, often what appears on the other side of the copula provides telling hints about the trope A-DP’s character; this will be addressed in Chapter 4.

- (36) Čo je podľa teba to **najhodnotnejšie** na človeku?
 what is according you TO most-valuable on person
 -Prirodzenosť a otvorenosť.
 genuineness and openness
 ‘In your opinion, what is the most valuable thing about a person? -
 Genuineness and openness.’

- (37) Stačí, aby ste vedeli, že Cesta do fantázie je japonský
suffices that PART know that journey to fantasy is Japanese
animovaný film určený rovnako deťom ako dospelým, a že
animated film intended equally children as adults and that
to **najdôležitejšie** na ňom je práve jeho japonskosť.
TO most-important on it is precisely its japaneseness
‘It’s enough for you to know that *Spirited Away* is a Japanese ani-
mated film intended for both children and adults and that the most
important thing about it is precisely its Japaneseness.’
- (38) ...to **živé** na pôvodne rozhlasovej hre Sneh je pocit, že
TO lively on originally radio play Snow is feeling that
človek poznačený životnou traumou, sa cíti medzi
person marked life trauma REFL feel among
“normálnymi“ ako blázon.
normal like madman
‘...the lively thing about the play *Snow*, originally a radio production,
is the feeling that a person who is affected by a life trauma feels like
a madman among the normal.’
- (39) “Theo Caulder je úplne iný, než postavy, ktoré som
Theo Caulder is completely different than characters which PART
hral predtým,” poznamenáva Gooding. “Je veľmi rezervovaný
played before notes Gooding is very reserved
a profesionálny. ...A to bolo asi to **najpríťažlivejšie** na
and professional and that was maybe TO most-attractive on
jeho postave.”
his character
“‘Theo Caulder is completely different from characters that I’ve
played before’, notes Gooding. “He is very reserved and profes-
sional. ...And that was probably the most attractive thing about his
character.”’
- (40) Myslím, že to **najlepšie** na albumoch od Pablo Honey až
think that TO best on albums from Pablo Honey until
po teraz je, že vždy presne vyjadrovali to, čo sme v
to now is that always exactly convey that what PART in
tej dobe cítili a kde sme sa ako kapela nachádzali.
that time feel and where PART REFL as band be-found
‘I think that the best thing about the albums by Pablo Honey up to
now is that they always accurately conveyed that which we felt at
the time and where we were as a band.’

The contrast between trope and bearer A-DPs is not that one refers to abstract and the other to concrete entities. It is unsurprising but should be emphasized, that some but not all bearer A-DPs refer to physical objects (clear examples of a physical referent appear in (41) and (42)). Abstract objects (43) and events (44), (45) can also bear and manifest a property and A-DPs can refer to these as well.

- (41) Pohybuje sa popri výdajnom pulte a pomaly nevie,
 moves REFL along dispensing counter and almost not-know
 čo by si z ponuky jedál a nápojov vybral.
 what would REFL from selection meals and drinks choose
 Pretože toľko tam toho **zaujímavého** a **chutného**
 because so-much there that interesting and tasty
 ponúkajú.
 offer
 ‘He moves along the dispensing counter and almost does not know what to choose from the selection of meals and drinks because they offer so much of **the interesting** and **the tasty**.’
- (42) Cestovanie je jednoducho moje bohatstvo. To **hmotné** pre mňa
 traveling is simply my wealth TO material for me
 veľa neznamená.
 much not-mean
 ‘Traveling is simply my wealth. The material does not mean much to me.’
- (43) “Mám ich rada a teším sa na stretnutie s nimi.
 have them glad and look-forward REFL on meeting with them
 Nenosím im len jedlo a veci, ale aj to **neviditeľné**
 not-bring them only food and things but also TO invisible
 a **nehmatateľné**, bez čoho by človek túto prácu
 and intangible without what would person this work
 vykonávať nemohol.”
 carry-out could-not
 (social worker:) “‘I like them and look forward to seeing them. I don’t bring them only food and things but also the invisible and the intangible without which one could not do this work.’”
- (44) domácich prehíer sme si zobrali ponaučenie a veríme, že
 home losses PART REFL take lesson and believe that
 to **zlé** z nich sa už nezopakuje.
 TO bad of them REFL already not-repeat

‘We learned from the home game losses and we believe that the bad (parts) of them will not happen again.’

- (45) deň sa len začína, príhodi sa nám veľa **dobrého**
day REFL only begins happen REFL us much good
‘The day is only beginning, a lot of good (things) will happen to us.’

In summary, whether the referent is abstract or concrete is irrelevant to the referent being a bearer or a trope. In order to distinguish the two A-DP types, it is more useful to consider their felicity in context, entailment patterns and whether the A-DP in question’s most natural interpretation is that of a (part of) an entity that manifests a property, or whether it is that of a token of the property itself. Of course, even more effective diagnostics are syntactic and distributional. I have already mentioned that two differences between bearer and trope A-DPs are that bearer A-DPs are quantifiable while trope A-DPs are not, and secondly, trope A-DPs always require the demonstrative and bearer A-DPs do not. I will now turn to two more syntactic distinctions between them.

2.4.2 Requirement of a prepositional phrase complement

The selection of a specific type of a prepositional phrase and the grammatical requirement of a prepositional phrase are two characteristics that will further sharpen the interpretational distinctions between bearer and trope A-DPs. They also reveal another interpretational difference between them, namely property predication entailment patterns.

The first contrast I will discuss is the type of prepositional phrase that is allowed with the two types of A-DPs I have identified. The following constructed examples show that bearer A-DPs most naturally combine with a PP in genitive case (46-a), (46-c) and trope A-DPs always require a PP in locative case (46-b), (46-d).⁹ The most felicitous continuations suggest that an A-DP followed by a genitive PP gains an interpretation in which the reference is to portions of the entity brought in by the PP. For example, in

⁹Bearer A-DPs also allow continuation by *na*-PPs if they are interpreted as geographic location, for example:

- (i) to nové na svete/ na Slovensku/ na policiach
TO new on world/ on Slovakia/ on shelves
‘the new (things) in the world/ in Slovakia/ on the shelves’

(46-a) the referent is specified further with a continuation that names a dish, which suggests that if we take a cuisine to comprise of a number of dishes, one of them is a bearer of the property ‘known’. The entailment is therefore not that Slovak cuisine is known; instead, the entailment is that one dish that belongs to the cuisine is known. An A-DP followed by a locative PP, in contrast, gains an interpretation in which the reference is to a characteristic of the entity brought in by the PP, a trope. It is felicitous to continue the sentence in (46-b) by specifying the referent of the A-DP to be ‘the variety of the cuisine’, also a characteristic manifested in the cuisine. In this case, the cuisine is the bearer of - the entity that manifests - the trope ‘zname’ and the entailment is that Slovak cuisine is known. Additional examples (46-c) and (46-d) demonstrate the identical pattern of the type of felicitous continuation as well as the entailment of a predication.

- (46) a. **to známe** zo slovenskej kuchyne
 TO known of Slovak cuisine
 ‘the well-known (dish) of Slovak cuisine’
 (...is “kapustnica”, a sour cabbage soup)
 (#...is its variety)
 ⇒ Slovak cuisine is known
- b. **to známe** na slovenskej kuchyni
 TO known on Slovak cuisine
 ‘the well-known thing about Slovak cuisine’
 (...is its variety)
 (#is cabbage soup)
 ⇒ Slovak cuisine is known
- c. **to zlé** z krízy
 TO bad of crisis
 ‘the bad of the crisis’ (...is behind us)
 ⇒ the crisis is bad
- d. **to zlé** na kríze
 TO bad on crisis
 ‘the bad thing about the crisis’ (...is that it has lasted so long)
 ⇒ the crisis is bad

The following two corpus examples show bearer and trope A-DPs that are followed by prepositional phrases and also include a preceding specification that illuminates what the reference is to. In (47), the A-DP is specified by

‘performance’, a portion of the evening. In (48), the A-DP is specified by ‘actors’ rendition’, obviously not a separable part of a movie like a scene would be, but rather a characteristic or an aspect of the movie.

- (47) Jej vystúpenie možno považovať za to **najzaujímavejšie** z
 her performance may consider for TO most-interesting of
 celého večera.
 whole evening
 ‘Her performance can be considered the most important (part) of the evening.’
- (48) Herecký výkon je to najmenej **zaujímavé** na tom filme.
 acting execution is that least interesting on that movie
 ‘The actors’ rendition/execution is the least interesting thing about the movie.’

Perhaps the different continuations that are felicitous may make it seem that it is the prepositional phrases that determine what the adjective in an A-DP applies to. In other words, *z-* prepositional phrases cause the adjective to predicate over an entity in the PP and *na-* prepositional phrases would in turn cause adjectives to predicate over the entity within the elaboration clause or phrase, but I suggest that the proper understanding of this contrast is that the A-DPs themselves refer to two different ontological sorts and the PPs they select for simply bring the difference to the surface. The most natural way to interpret these sentences is ‘the [adjective] part of the entity introduced by a *z*-PP’ and ‘the [adjective] aspect of the entity introduced by a *na*-PP’. The evidence that reinforces this claim is that bearer A-DPs are grammatical, interpretable, and frequent in the corpus without any prepositional phrase, while trope A-DPs are virtually always followed by a locative *na*-PP.

The prepositional phrase in the latter case can be omitted only if the bearer of the trope can be easily recovered from context, as exemplified in (49). In this sentence, the bearer of the property ‘beautiful’ is the forsythia plant¹⁰, mentioned in the preceding sentence and thus a strongly salient discourse referent, not needed to be repeated again by a locative *na*-PP. The referent of the A-DP is the beauty/the beautiful aspect of forsythia flowers. The fact that the reference is to the beauty of the flower and that it is the flower that is the contextually supplied bearer is supported by the use of the pronoun *ho* ‘him’, anaphorically bound to the forsythia plant (the word for which has masculine gender). If something connects the flower to the past, the only sensible interpretation is that it is the property (the beauty) of the

¹⁰Bright yellow small flowers growing as a shrub, traditionally used for decoration at Easter time.

flower itself that is doing so, and not some other beautiful entity external to (or a part of) the flower.

- (49) Milujem, keď v mojom meste rozkvitá zlatý dážd*i*.
 I-love when in my city blooms forsythia -plant.MASC
 Mám rada to **krásne**, čo ho*i* spája s dejinami,
 have glad TO beautiful what him connect with history,
 včerajškom aj dneškom.
 yesterday and today
 ‘I love when forsythia shrubs bloom in my city. I love the beautiful thing about them which connects them to history, to the past and present.’

Besides obligatoriness of a prepositional phrase complement, the two A-DP types differ with respect to their compatibility with relative clauses. I now turn to the discussion of these facts.

2.4.3 Modification by relative clauses

While bearer A-DPs occur in the corpus with both restrictive (exemplified in (50) and (51)) and nonrestrictive (exemplified in (52) and (53)) relative clauses, there are no corpus occurrences of trope A-DPs with either. I note that in Slovak, restrictive and non-restrictive relative clauses are not superficially distinct in what relative pronoun they use or, orthographically, in the use of a comma. Therefore, context and interpretation judgment is used to distinguish them.

- (50) ...bude to dosť ťažké, pretože zmeny predstavujú ďalšie
 will-be it quite difficult because changes represent further
 náklady a zmeny treba robiť jedine vtedy, keď to **nové**,
 costs and changes must make only then when TO new
 čo sa navrhuje, je podstatne lepšie.
 what REFL proposes is substantially better
 ‘...it will be quite difficult because the changes represent additional costs and changes should be done only when the new (things) that get proposed are much better.’
- (51) Počas ošetrovania Stadnyka diváci len pozerali, akú to máme
 during treatment Stadnyk viewers only watched what it have
 novú lekárku. Niektorí pridali aj komentár, že pani
 new doctor some added also commentary that lady

Tornayová bola to **najkrajšie**, čo počas zápasu videli.
 Tornayová was TO most-beautiful what during match saw
 ‘While she was treating Stadnyk, the audience members were surprised at the new doctor that we have. Some even commented that Mrs. Tornayova was the most beautiful (thing) that they saw during the match.’

- (52) ...vedela rozoznať to **skvelé**, čo v sebe nosí každá bytosť
 knew recognize TO great what in self carry every being
 a čo sa zjavuje iba jasnozrivému pohľadu lásky.
 and what REFL reveals only clear-sighted perspective love
 ‘...she was able to recognize the great (thing), which every human being carries within, and what is revealed only to the prudent perspective of love.’
- (53) títo ľudia to boli ochotní počúvať, a tak im vsugeroval,
 these people it were willing listen and so them coaxed
 že to je to **najdôležitejšie** na celom svete, o čom
 that this is TO most-important on whole world, about what
 by mali vedieť
 would should know
 ‘These people were willing to listen to it, so he persuaded them that this is the most important (thing) in the world, which they should know about.’

The following artificial example of a trope A-DP (54) is constructed to show that if combined with a restrictive relative clause, the resulting sentence is not natural. The main problem in interpreting this sentence arises from the fact that the relative clause implies that one and the same property is somehow manifest in a person more than once at the same time. The example (55) shows an A-DP that is followed by a nonrestrictive relative clause, which adds a speaker’s comment; this is a little more acceptable and more easily interpretable, even if not perfectly natural either.

- (54) #Čo je podľa teba to **hodnotné** na človeku, o čom
 what is according you TO valuable on person about what
 sme ešte nehovorili?
 PART so-far not-speak
 ‘In your opinion, what is the valuable thing about a person that we haven’t talked about yet?’

- (55) ?My však nesmieme stratiť to **podstatné** a trvalé na
 we however cannot lose TO essential and lasting on
 Vianociach, čo nám všetkým môže zaručiť stály pokoj
 Christmas, what us all can guarantee permanent peace
 duše, ktorý je prameňom radosti za každých okolností.
 mind which is spring joy for all circumstances
 ‘However, we cannot lose the essential and lasting thing about Christ-
 mas which can guarantee us all a permanent peace of mind, which
 is a spring of joy in all circumstances.’

Having shown the contrast in their compatibility with relative clauses, I conclude the description of interpretive and syntactic differences between bearer- and trope A-DPs and now turn to the presentation of my analysis.

2.5 Analysis of Slovak A-DPs

In order to lay the theoretical groundwork on which the specific proposals for the two types of A-DP structures will be built, it is necessary to first explain the approach to adjectival denotation that is taken in this thesis.

The proposal is couched within the understanding of natural language ontology in which properties are ontological primitives that entities can bear. Lexical categories correspond to ontological primitives in the following way. Adjectives describe relations between properties and their bearers, verbs describe relations between eventualities or states and their participants, and nouns describe entities. While the term “property” has been used in a fairly general way in other areas of semantics, under the view adopted for the analysis of A-DPs, the term is reserved for adjectival expressions and nominal or verbal predicates are excluded from describing properties.

I build on this structure of ontology and on the work by Moltmann (2004, 2007, 2013) who suggests that adjectives denote a two-place relation between properties and objects. To be precise, Moltmann identifies the implicit argument of adjectives as “trope”, a term that I adopt to avoid any confusion with the aforementioned alternative broader understandings of properties that they include non-adjectival predicates.

A definition and a few comments on the fundamental character of tropes are useful before I provide the formal representation. A trope is a concrete realization/instantiation of a property, in a unique bearer, and in time and space (Moltmann, 2004, 2013). Of central importance is that a trope’s existence is dependent on the existence of its bearer. Moltmann exemplifies it in (56), though note that this is an example of English deadjectival nominal-

ization. Slovak trope referring expressions are discussed in Section 5.2.¹¹

- (56) John’s happiness is particular to John, just as Mary’s happiness is particular to Mary. (Moltmann, 2013, p.9)

The use of the actual concept of a trope in semantics has been only fairly recently borrowed from the philosophical tradition; (Moltmann, 2013, p.47ff) provides an approachable overview of the history of the notion as well as dispels arguments that tropes are just types of events or states. The following is a short introductory excerpt:

The notion of a trope goes back already to ancient philosophy and has a precedent in Aristotle’s notion of an *accident* (especially in the *Categories* and in the notion of a *mode* of the subsequent Aristotelian medieval philosophy, in particular Ockham (*Summa Logicae*). Tropes also play a role in early modern philosophy (Locke, 1690) and well as in Husserl’s (1913–21) phenomenology, where they are called “moments”.

[...]

Despite the central role that tropes (as accidents or modes) have played in ancient and medieval metaphysics and philosophy of language, tropes have not played much of a role in contemporary semantics of natural language. Rather two other traditions have dominated linguistic semantics: Davidsonian event semantics and Montague Grammar. In Davidsonian event semantics, events, taken as primitive particular objects, act as implicit arguments of verbs. [...] Tropes play the kind of role in the semantics of adjectives that events play in the semantics of verbs, on the Davidsonian approach.

As a way of example of Moltmann’s semantic formalization of adjectival denotation that includes the idea of a trope, consider (57). The adjective *red* denotes a two-place relation between a trope *t* and an object, in this case *the rose*.

- (57) a. $\llbracket \text{deeply red} \rrbracket: \lambda x t [\mathbf{deep}(t) \ \& \ \mathbf{red}(t,x)]$
b. $\llbracket \text{the rose is deeply red} \rrbracket: \exists t (\mathbf{red}(t, [\mathbf{the rose}]) \ \& \ \mathbf{deeply}(t))$
((79) in Moltmann (2013))

¹¹The division of labor between A-DPs and derived nominalizations is addressed in Chapter 3.

I follow Moltmann and take the denotation of adjectives to include two inherent arguments, one for the trope of a property the adjective describes and one for the bearer of that trope. The representation is given in (58).

$$(58) \quad \llbracket \textit{adjective} \rrbracket : \lambda x \lambda y^{trope} [\textit{adjective}(y^{trope}) \wedge \textit{bearer}(y^{trope})(x)]$$

For example, the following shows the denotation of the Slovak adjective *nové* ‘new’.

$$(59) \quad \llbracket \textit{nové} \rrbracket : \lambda x \lambda y^{trope} [\textit{nové}(y^{trope}) \wedge \textit{bearer}(y^{trope})(x)]$$

There are two arguments within a denotation of an adjective (a trope y^{trope} uniquely related to and dependent on its bearer x), therefore, all adjectives are thus defined as relational. Recall that a relational definition of adjectives has also been posited in Glass (2014) (see Section 3.2 in Chapter 1), however, in her analysis there is a *state* variable within the denotation of an adjective, not a *trope*. It is important to stress that for Moltmann as well as in this thesis, tropes and states are fundamentally distinct notions. It is argued extensively in Moltmann (2007, 2013) that while a trope is a concrete manifestation of a property in time and space, a state consists just in the holding of a property of an object, without involving any particular way in which the property manifests itself in the object (i.e. a contrast in specificity or “groundedness”). This distinction is reflected for example in the fact that states cannot be described or evaluated, e.g. (60). Recall that nominalizations derived from adjectives (which, under Glass’s view, contain a state variable) are difficult to paraphrase with an expression explicitly describing “a state of being [adjective]”. This is an empirical consequence of the ontological specialization of adjectives that was pointed out at the beginning of this section.

(60) ??John described Mary’s **being beautiful**.

Having established what adjectives denote and introduced the term “trope” to be used for the property token that the bearer bears, there is one more relevant distinction to be made that will be valuable when accounting for the range of A-DP data. The distinction is between tokens and kinds. For the ontological category of entity, there are expressions that refer to tokens of entities (e.g. *his bicycle*) and there are those that refer to kinds of entities (e.g. *bicycles* or *the bicycle* in general). The same can be said about the ontological category of events; there are expressions that can describe a token of an event (e.g. *He was riding his bike today*) and also kinds of events (*riding a bike*). Therefore, for properties, the distinction is identical in principle. There are *tropes*, which are tokens or instances of a property, and there

are also *kinds of tropes*; the prediction being that there will be expressions to describe both. To clarify, in the formulation that I proposed in (58), adjectives denote relations between a trope (a token) and a particular bearer (also a token). The analysis, to which I now turn in the next section, will account for the possibility of adjectives to refer both to tropes and to bearers, at both a token and a kind level.

2.5.1 Syntax-Semantics of bearer A-DPs

Upon this foundation, this section will present the analysis for the bearer-type of A-DPs, exemplified here by two representative examples (61) and (62).

- (61) ...mal onú pravú silu, ktorá tvorila **veľké** bez toho, že
 had that right power which created big.ACC without that that
 by si to predsavzala.
 would REFL that setting-out
 ‘...he had that right ability which created great things (something great) without setting out to.’
- (62) V **novom** je často dobré iba to, čo v ňom ostalo zo
 in good.LOC is often good only that what in it remained from
starého.
 old.GEN
 ‘Often, the new things are good only because of what was left in them from the old.’

Recall that this interpretation can be conveyed by an A-DP that is preceded by *to* or by a mass quantifier, but also by a bare A-DP without *to* or a quantifier. This expression has no requirement for any argument or modifier (cf. the requirement of a PP for the trope A-DPs). The intuitive interpretation is not of property, but of the stuff that bears the property. The clues to this interpretation, as was discussed in the first part of the chapter, come from the context and predicate selection. In the first example, the predicate is ‘to create’ and the A-DP in the object position is understood as denoting things that bear the trope of the property ‘great’. In the second example, the clue is the partitive nature of ‘the new’ and ‘the old’. The interpretation of the A-DPs is that of things, customs, ideas, etc. which are new and which retain some of the old ones.

I propose the same basic syntax for both manifestations of A-DP, bearer- and trope-type. An adjective phrase is embedded directly under a determiner phrase; there is no nominal projection in the structure. This structural

possibility was presented first in Abney (1987)¹² and in other precedents (McNally and de Swart (2011, 2015), Villalba and Bartra-Kaufmann (2010), Villalba (2013)).



The bearer reading is derived by means of a type-shifter (similar to one defined in Glass (2014)), formalized in (64).

(64) $\llbracket \text{nom-bearer} \rrbracket : \lambda A_{\langle e, \langle e, t \rangle \rangle} \lambda x \exists y^{trope} A(x)(y^{trope})$

The type shifter selectively binds the trope variable and highlights the bearer argument (65).

(65) $\llbracket \text{nom-bearer}(\text{adjective}) \rrbracket :$
 $\lambda A_{\langle e, \langle e, t \rangle \rangle} \lambda x \exists y^{trope} A(x)(y^{trope})(\lambda x \lambda y^{trope} [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)])$
 $= \lambda x \exists y^{trope} [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$

The result of type shifting is a set of bearers, i.e. a predicate of mass stuff for which there exists a trope that the mass stuff is the bearer of. This predicate is now type $\langle e, t \rangle$. The type shifter is introduced in syntax (sister to A (66)), not by way of morphology, distinguishing this proposal from the one by McNally and de Swart (2015).

(66) $[_{DP} \text{ D } [_{AP} [_{A'} \text{ nom-bearer } [_A \text{ A}]]]]$

A simple calculation of the denotation of a bearer A-DP *velké* ‘great (things)’ from the above mentioned sentence in (61) is given below.

- (67) a. ... tvorila **velké** ...
 created great
 ‘she created great things/something great’
 b. **denotation of the adjective:**
 $\llbracket \text{velké} \rrbracket : \lambda x \lambda y^{trope} [\text{velké}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$
 c. **apply type-shifter:**
 $\llbracket \text{nom-bearer}(\text{velké}) \rrbracket :$

¹²Abney (1987) stipulates such a possibility for different purposes than an analysis of A-DPs.

- $$\lambda A \lambda x \exists y^{trope} A(x)(y^{trope})(\lambda x \lambda y^{trope} [adj(y^{trope}) \wedge bearer(y^{trope})(x)])$$
- $$= \lambda x \exists y^{trope} [\mathbf{veľké}(y^{trope}) \wedge bearer(y^{trope})(x)]$$
- d. **at the DP level, a discourse referent z is introduced:**
- $$\lambda x \exists y^{trope} [\mathbf{veľké}(y^{trope}) \wedge bearer(y^{trope})(x)](z)$$
- $$= \lambda z \exists y^{trope} [\mathbf{veľké}(y^{trope}) \wedge bearer(y^{trope})(z)]$$
- e. **existential binding:**
- $$\exists z \exists y^{trope} [\mathbf{veľké}(y^{trope}) \wedge bearer(y^{trope})(z)]$$

In contexts where the A-DP is preceded by the demonstrative *to*, the reading is typically definite. Chapter 4 will describe the interpretational and distributional particularities of the demonstrative *to* within Slovak A-DPs. Here, I will briefly note that the Slovak demonstrative is not identical to the English definite article *the* in its contribution to definiteness. The main difference is that the presence of *to* is not necessary for, nor does it always result in, a definite interpretation of A-DPs. See Šimík (2016), an analysis of Czech canonical and pragmatic contributions of demonstratives that is fully applicable to Slovak as well.

The denotation of the typical definite contribution of *to* when combined with an AP is shown in (68). The presence of *to* semantically introduces the type-shifting operator iota ι along with its uniqueness presupposition (68). Its application and an example derivation of a definite A-DP is shown in (69).

$$(68) \quad \llbracket to \ AP \rrbracket : \iota x \llbracket AP \rrbracket (x)$$

- (69) a. V jej spomienkach ostane **to pekné**, čo spolu prežili.
in her memories stay TO nice what together lived
‘She remembers the nice things they lived through together.’
- b. $\llbracket to \ (\text{nom-bearer}(\text{pekné})) \rrbracket :$
 $\iota z \exists y^{trope} [\mathbf{pekné}(y^{trope}) \wedge bearer(y^{trope})(z)]$

Bearer A-DPs can have a generic reference, as in for example the sentence (62). We can account for A-DPs in such contexts by applying Chierchia’s cap operator \cap to the DP. The operator is defined in (70) from (Chierchia, 1998, p.351). The cap operator intensionalizes the denotation in that it turns a description of token objects, in this case a mass of bearers, into an individual concept that corresponds to the kind of mass bearers.

- (70) For any property P and world/situation s ,
 $\cap P = \lambda s \iota P_s$, if $\lambda s \iota P_s$ is in K (set of kinds); undefined, otherwise

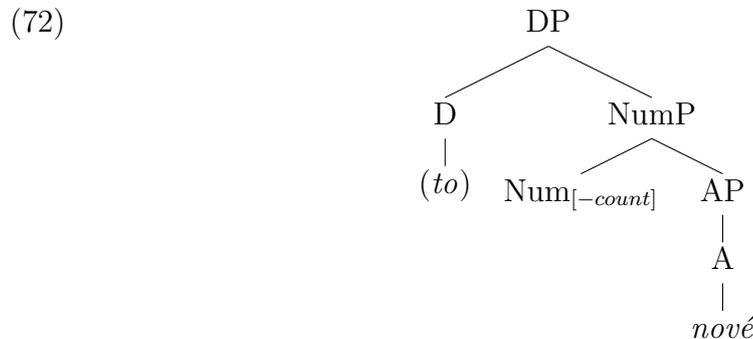
To expand this representation in prose, a predicate P denotes a set of entities that fit the description of P in s . When the iota is applied to the set of such

entities in s , the result is a maximal entity. When it is restricted to the set K of kinds, the denotation is intensionalized to all worlds (what Montague’s operator “pointy cap” does). In essence, the cap operator \cap maps a predicate onto a kind denotation.

The derivation of the kind level bearer A-DP *nové* ‘new’ in the sentence (62) looks like (71).

$$(71) \quad \cap_{\iota z} \exists y^{trope} [\mathbf{nové}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(z)]$$

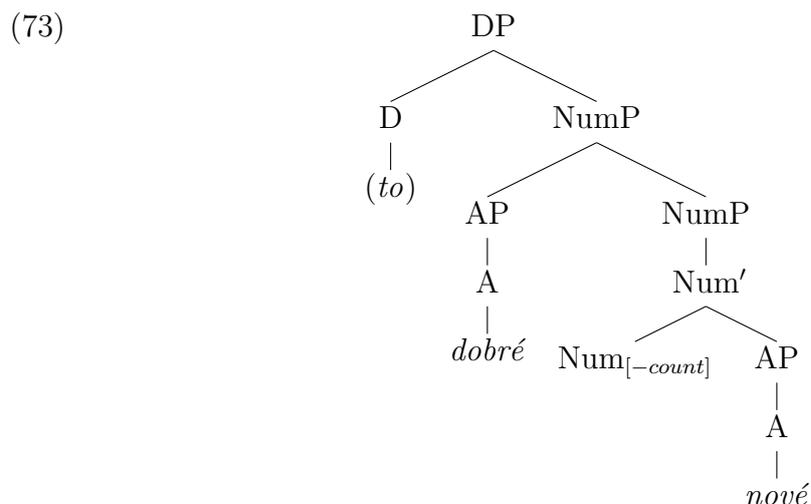
Bearer A-DPs are compatible with quantification; for an example of this refer back to (23) in the descriptive portion of the chapter. Although there is no nominal layer in the syntax, I posit the needed NumP functional layer in the syntax, the contribution of which is to mark a felicity condition of [-count] on the reference of the A-DP. The syntactic tree that includes NumP is shown in (72). The quantification must be the direct result of which variable is highlighted (recall that trope A-DP type is not quantifiable). When it is the bearer variable that is highlighted and the reference of the expression is the bearer of the property denoted by the adjective, there are two consequences which are likely related: the expression does not require a prepositional phrase and the mass quantification is available. The novelty of NumP embedding an AP is justified by means of the bearer variable within adjectives being sortally restricted to entities.¹³ This point in the analysis is speculative.



Next I will turn to the question of how the analysis accounts for adjectival modification. Bearer A-DPs are compatible with some adjectival modification, e.g. (15) shown earlier in the chapter, an unexpected finding because as has been mentioned already, adjectives do not normally modify an AP.

¹³See also Alexiadou et al. (2010) who advocate that ClassP, a functional layer additional to NumP, contributes the mass/count information. Refer to their work for the syntactic differences between NumP and ClassP.

Adjectival modification is treated analogously to adjectival modification of NPs (73)-(74). Though unorthodox, this is expected if the reference of the A-DP is “mass stuff”. The adjective that modifies a bearer A-DP gives additional information about the referent. Recall that in the semantics of bearer A-DPs, the trope variable is existentially bound and the adjective now denotes a set of mass entities that bear the property. It is telling to compare this fact to trope A-DPs which strongly resist adjectival modification.



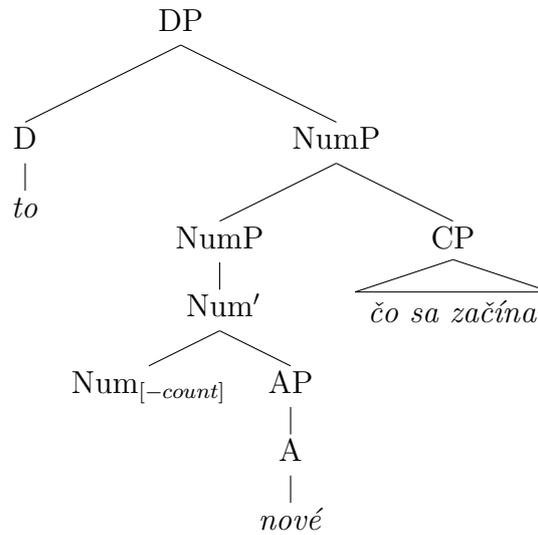
(74) $\llbracket \text{dobré nové} \rrbracket : \lambda x \exists y^{trope} [\mathbf{nové}(y^{trope}) \wedge \text{bearer}(y^{trope})(x) \wedge \mathbf{dobré}(x)]$

Under the assumption of Num in the syntactic structure and of it providing the information to individuate the mass referent, the descriptive adjectives can attach above that layer. In fact, adjectival modification is another piece of evidence in support of such a functional layer existing.

Bearer A-DPs are compatible with restrictive relative clauses. The representative example is (75). Restrictive relative clauses attach at NumP (76), and get the same conjunctive semantics as descriptive adjectives (77).

(75) Čo je to staré, čo končí a čo je to nové, čo sa
 what is TO old what ends and what is TO new what REFL
 začína?
 begins
 ‘What is that which is old and which is ending, and what is that
 which is new and is beginning?’

(76)



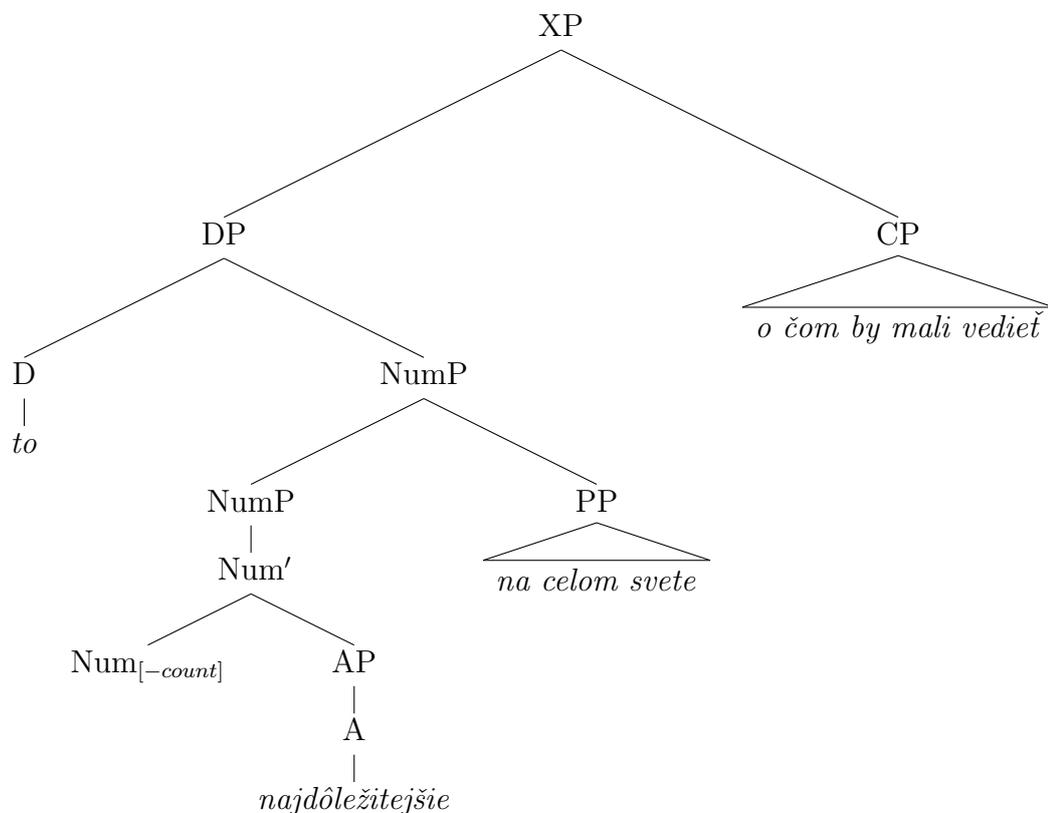
(77) $\llbracket \text{nové, čo sa začína} \rrbracket :$
 $\lambda x \exists y^{trope} [\mathbf{nové}(y^{trope}) \wedge \text{bearer}(y^{trope})(x) \wedge \mathbf{začína}(x)]$

Non-restrictive relative clauses, e.g. (78)¹⁴, which provide an elaboration/epiteth on the description of the referent, attach at a higher level, at DP (79).

(78) ...vsugeroval im, že to je **to najdôležitejšie** na celom
suggest them that that is TO most-important on whole
svete, o čom by mali vedieť.
world about what would have know
'...he led them to believe that this is the most important thing in the
world, which they should know about.'

¹⁴The preposition *na* does not in this case indicate the trope reading. It is conventional to say *na svete*, 'on world', to exceptionally mean 'in the world'.

(79)



(80) $[[\text{najdôležitejšie na celom svete}]] :$
 $\lambda x \exists y^{trope} [\text{najdôležitejšie}(y^{trope}) \wedge \text{bearer}(y^{trope})(x) \wedge \text{in}(x, w)]$

**Contribution of the nonrestrictive relative clause,
separate from the descriptive content:**

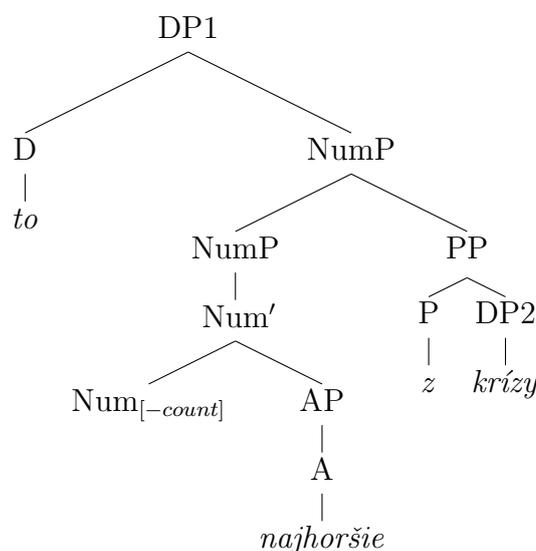
$[[\text{o čom by mali vedieť}]] :$
 $\lambda x \exists y^{trope} [\text{know}(z, \text{najdôležitejšie})]$

where z corresponds to *they*, the subject of the CP

Prepositional phrases can modify bearer A-DPs but they are not required for grammaticality or for interpretation. There can be multiple prepositional phrases, e.g. (81). Due to their optionality they are analyzed as adjuncts (82).

(81) to **najlepšie** zo slovenskej kuchyne v tejto reštaurácii
TO best of Slovak kitchen in this restaurant
'the best of Slovak cuisine in the restaurant'

(82) a. to **najhoršie** z krízy
TO worst of crisis
'the worst of the crisis'
b. Syntax of a bearer A-DP with a genitive prepositional adjunct



This concludes the section for bearer A-DP analysis. A final note is a speculation related to those A-DPs that have been set aside in this thesis, those that refer to humans. In almost all the literature on this topic, they are treated as a separate type. In Slovak, human reference A-DPs seem to be just the bearer A-DP. Intuitively, the humans referred to are picked out for reference via the property the adjective denotes and of which they are the bearers. By the character of the bearer, these A-DPs are count, not mass, and can appear in both singular and plural. Therefore, I suggest that they have the same structure as the neuter bearer A-DPs, with the exception that the NumP in their projection is specified for [+count]. Just like the non-human referring bearer A-DPs, they can be modified by adverbs (83) and quantified (84). Unlike the non-human bearer A-DPs, however, they are much more acceptable of adjectival modification and possessive pronoun (85).

- (83) Ak má niekto z **tu prítomných** k tomu čo povedať, nech
 if has someone of here present.PL to this what say let
 prehovorí, alebo nech naveky mlčí.
 speak or let forever be-silent
 ‘If anyone of those present here have anything to say, let him speak
 now or forever remain silent.’
- (84) Za takýchto okolností budú musieť **mnohí chorí** zvážiť,
 after these circumstances will have-to many sick.PL consider
 či si majú kúpiť lieky.
 if REFL have buy medicine
 ‘Under these circumstances, many of the sick must consider whether
 they should buy their medicine.’

- (85) ...uistite sa, či **vaša nová známa**, s
 ascertain REFL that your.FEM.SG new.FEM.SG known.FEM.SG with
 ktorou sa chystáte raňajkovať, nezabudla priniesť hodinky po
 whom REFL plan breakfast not-forget bring watch after
 vašom otcovi
 your father
 ‘...find out whether your new acquaintance, with whom you plan to
 have breakfast, didn’t forget to bring your father’s watch.’

In summary, the following behavior of bearer A-DPs is accounted by the analysis given here. The reference is to mass stuff that bears the property denoted by the adjective, due to the binding of the trope variable and the consequential promotion of the bearer variable. The non-count mass character and quantifiability are due to the specific feature of NumP in the structure. The optionality of *to* is due to the particularity of Slovak grammar which does not require an overt definite article on nouns nor, for A-DPs, adjectives. The optionality of prepositional phrases that combine with bearer A-DPs is an indication that they are adjuncts, not complements to the adjective.

2.5.2 Syntax-semantics of trope A-DPs

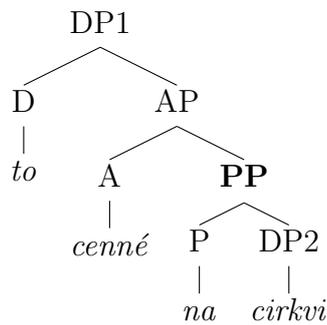
Throughout the chapter, I have highlighted some of the characteristics that unite trope A-DPs to - and those that distinguish them from - bearer A-DPs. Some notable differences are the requirement of a locative *na-* prepositional phrase (except where easily recovered from context, recall (49)), non-quantifiability, and interpretation paraphrasable not as “stuff/things” but as “aspect” or “thing about”. In (86) I reproduce again a representative example. The trope A-DP in (86) refers to the valuable aspect of church (which is that it is the salt of the earth and the light of the world); it is the church that is bearer of the trope referred to by the A-DP. Crucially, the reference is not to any part of the church, which itself is understood under the abstract sense of ‘institution’, not a physical building (a different word is used for that meaning in Slovak) or even a collection of people that could be divisible into parts.

- (86) **To cenné na cirkvi** nie je v jej všeobecnom vplyve a
 TO valuable on church not is in her general influence and
 postavení morálnej inštitúcie, ale skôr v tom, ako sa
 standing moral institution but rather in that how REFL
 dokáže stávať soľou zeme a svetlom sveta.
 manage become salt earth and light world

‘The valuable thing about church is not in its general influence and the standing as a moral institution but rather in how it is able to become the salt of the earth and the light of the world.’

As has been said before, the proposed syntax is the same for both manifestations of A-DPs, bearer- and trope- type. An AP is embedded directly under DP, sister to, in this case, an obligatory demonstrative *to*. There is no nominal projection in the structure. For the trope-type A-DP, there is an added syntactic requirement, that of a PP complement.

(87)



This syntactic structure is very much like what is proposed for Dutch (McNally and de Swart, 2015). The semantics, however, is different. While McNally and de Swart propose increasing the valence of the adjective by means of morphology (inflection on the adjective), in the proposal I defend, adjectives have two inherent arguments and both variables enter the derivation of both of the A-DP types. In other words, the inflectional suffixes contribute gender and number features, but do not affect the valence of the adjective itself. The advantage of analyzing adjectives this way is that there is no mystery about why inflection would be doing work in one construction but not in another despite no overt morphological distinction between them.

A crucial idea of the semantic analysis of trope A-DPs is the notion that tropes are not ontologically independent of their bearers. This important relation between a trope and its bearer has the consequence that for an A-DP with a reference to a trope to be grammatical, the bearer variable x within the denotation of the adjective needs to be saturated (i.e. anchored). The expression denoting the bearer has to be either overtly expressed in the sentence (in Slovak this is done via a locative *na-* prepositional phrase) or easily recoverable from the linguistic context or common ground/world knowledge.

A parallel to this notion that I defend for adjectival domain can be found in what has been noticed in the verbal domain by Rappaport Hovav and Levin (1998); Levin and Rappaport Hovav (1999); Rappaport Hovav and

Levin (2001). They have argued that there is a syntax/semantics interface requirement to express the anchor for each of the distinct subevents in the event denoted by a verb. Simple event structures, which only have one subevent (e.g. the verb *run* describes an event of running), require the expression of one participant (e.g. the event of running minimally involves the runner). Complex event structures, which can have two subevents, require the expression of two participants (e.g. change of state verbs such as *devour*). They summarize the principle in a condition which states (88):

- (88) ARGUMENT-PER-SUBEVENT CONDITION:
 There must be at least one argument XP in the syntax per subevent in the event structure.
 (Rappaport Hovav and Levin, 2001, p.779, (36))

This condition ensures that mapping to syntax preserves facets of event structure, with a great number of consequences for verbal behavior (realization of objects, object alternation, asymmetries between subjects and objects, etc). In adjectival domain, I suggest, a parallel pragmatic condition holds, and Levin and Rappaport Hovav’s formulation can thus be extended in this way (11-c)¹⁵:

- (89) BEARER-PER-TROPE CONDITION:
 There must be exactly one argument XP in the syntax (or a contextually salient discourse referent) for each trope.

Such a condition is in line with the characterization of tropes by Moltmann (2013), p.4, who stated:

- (90) “A trope can exist in a world at a time only if the bearer of the trope exists in that world at that time”.

Indirect support also comes from Grimm and McNally (2013) who build on Levin and Rappaport Hovav’s insight and observe a similar requirement in deverbal nominalizations. They show with natural data that argument structure nominals (e.g. *destruction*) do not obligatorily express their arguments. It is only in order to introduce a token eventuality (and certain subeventualities), i.e. to refer to the event, that it is obligatory to at the same time introduce some concrete participants to anchor that event. They state a semantic condition which they name “Event Instantiation Condition” (91):

¹⁵A speculation here is that just like there are complex verbs with subevents, there also are complex adjectives that might require two anchors (e.g. the adjective *similar*, or verbal participles that can be analyzed as adjectives).

- (91) The introduction of a token discourse referent for an eventuality e requires that e be anchored to a discourse referent corresponding to at least one of its participants.
(Grimm and McNally, 2013, p.128, (9))

Such a condition predicts and explains the variability in the presence and absence of participant PPs for both deverbal nominalizations, as well as for A-DPs. Whenever an A-DP is used, there must be one, and only one, token discourse referent to anchor a trope reference, typically specified via a locative PP. The PP is omissible if the anchor (the trope's bearer) has already been introduced and is immediately retrievable from the previous linguistic context (see (49)), or is retrievable from immediate extralinguistic context or world knowledge.

The semantics of the trope reference derivation for the example given earlier in (86) is shown in (92). To the adjective's denotation (92-b), the obligatory PP contributes the value for the bearer shown in (92-c). The demonstrative contributes an iota operator and makes the expression definite in (92-d). The final result is reference to a unique trope of the property *valuable* manifested in a particular bearer specified by the PP, the church.

- (92) a. to cenné na cirkvi
TO valuable on church
'that valuable aspect of church'
- b. **denotation of the adjective:**
[[cenné]] : $\lambda x \lambda y^{trope} [\mathbf{cenné}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(x)]$
- c. **saturating the bearer variable x by the N in the PP:**
[[cenné na cirkvi]] :
 $\lambda x \lambda y^{trope} [\mathbf{cenné}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(x)]$ (cirkev)
 $= \lambda y^{trope} [\mathbf{cenné}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(c)]$
- d. **contribution of the demonstrative (always present):**
[[to cenné na cirkvi]] : $\iota y^{trope} [\mathbf{cenné}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(c)]$

I now turn to a discussion of trope A-DPs' incompatibility with quantifiers, a fact that is puzzling in light of what is understood about the notion of *trope* itself from the work by Moltmann and how trope referring expressions behave in English (Moltmann 2004, 2007, 2013). For Moltmann, the English expression that is specialized for referring directly to a trope is the derived, affix-based, deadjectival nominalization, for example *happiness* in (93). English derived nominalizations are quantifiable, and the same is the case in Slovak as well (shown in Chapter 3).

- (93) a. all of Mary's happiness

- b. Mary's happiness exceeds Bill's happiness
- c. the extent of John's happiness

In Slovak, the division of labor among nominalization types with regard to trope reference is different, and displays a categorial contrast between referring to tropes via nouns and via adjectives. I have shown that while Slovak A-DPs refer to tropes, they do so without involving any internal part structure that could be quantified, see (35-a).

To account for the non-quantifiability of trope A-DPs, I suggest that the NumP in the syntactic structure contributes a felicity condition on the referent to be singular [+count, -PL]. This feature distinguishes trope A-DPs from bearer A-DPs, in which NumP was specified for mass [-count]. Furthermore, the adjective carries a uniqueness presupposition, provided by the inherent nature of the relation between tropes and their bearers. In other words, a Slovak trope-referring A-DP must denote a unique thing borne by any given bearer (cf. (90)). The examples below illustrate what is meant by that statement. The idea is similar to, for example, how strictly speaking a person has only one (biological) mother (94).¹⁶

- (94)
- a. Petrova matka # Petrove matky
Peter's mother Peter's mothers
'Peter's mother'
 - b. Petrova pýcha *Petrove dve pýchy
Peter's pride Peter's two prides
'Peter's pride'
 - c. to cenné na cirkvi
TO.SG valuable on church
'the valuable thing about church'
 - d. *tie cenné na cirkvi
TIE.PL valuable on church
 - e. *dve cenné na cirkvi
two valuable on church
 - f. *veľa cenného na cirkvi
a-lot valuable on church

This ontological dependency further explains why there cannot be multiple *na-* PP that would proceed a trope A-DP (95) and be interpreted as the trope's bearers. A unique trope is manifested in a given bearer (cf. (81)). If

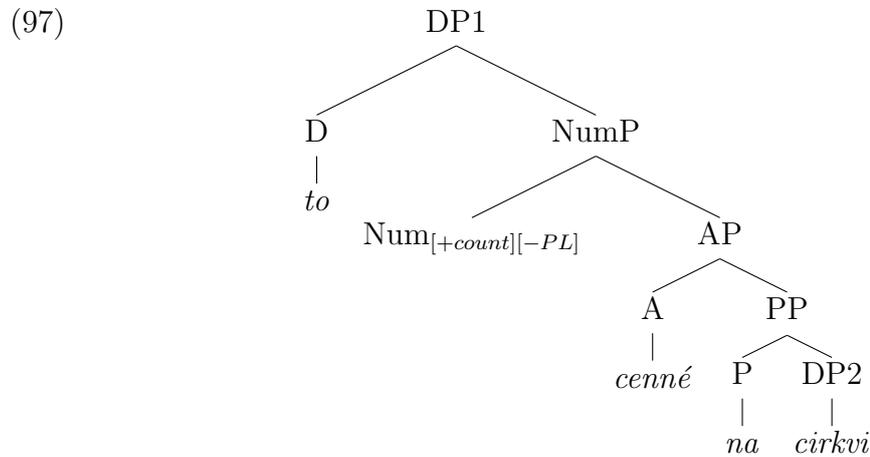
¹⁶There are some caveats to the unique relationship between a trope and its bearer, at least for English derived nominalizations, e.g. sounds could be bearer-less tropes, see (Moltmann, 2013, p.12). I set such marginal cases aside for the purposes of the analysis of trope A-DPs.

there are two prepositional phrases, as for example in (96), the second PP is necessarily interpreted as a modifier of the DP within the first PP (in this case, the church is located in this country).

(95) **to cenné na cirkvi na rodine*
 TO valuable on church on family

(96) *to cenné na cirkvi v tejto krajine*
 TO valuable on church in this country
 'the valuable thing about the church which is in this country'

The syntax given earlier in (87) is therefore revised to look like (97).



Turning now to other behavior of trope A-DPs that has been described at the beginning of the chapter, I will offer a few brief comments on the incompatibility with restrictive relative and with adjectives. The former is accounted for by the fact that the trope variable, along with the feature of NumP, contribute a uniqueness presupposition. There is no plural set from which a restrictive relative clause would help pick out the referent (again, there is only one ‘valuable thing about the church’). The latter is explained very much in the same vein. Restrictive adjectives are incompatible because there is no plural set to restrict. Further, I speculate, incompatibility with non-restrictive adjectival modification can be related to the standard understanding that adjectives do not modify (property-denoting) adjectives. While the possibility of adjectival modification of bearer A-DPs was surprising, I attributed it to the fact that their referent is “stuff”, not property. Within the denotation of trope A-DPs, in contrast, there is a highlighted trope variable, and I suggest that as such it is not compatible with adjectival modification.

Finally, I have shown that there are kind-level denoting bearer A-DPs. It is therefore expected that there are also kind-level trope A-DPs as well.

The following examples, (98), (99) and (100), are good candidates for this reading (the glosses are best approximations).

- (98) Deti majú jemné antény a rozoznávajú **pravdivé** od children have gentle antennas and distinguish truthful from **nepravdivého**, autenticnosť od zdania, to, čo vyrastá not.truthful authenticity from appearance that what grows znútra, od toho, čo sa len tak mimochodom urobí from-within from that what REFL only such incidentally do ‘Children have gentle antennas and tend to distinguish truth from falsehood, authenticity from appearance, that, which grows from within from that, which happens accidentally.’
- (99) Bibbyho knižka teda opäť ponúka fantasy štandard – tentoraz na Bibby’s book thus again offers fantasy standard this-time on rozhraní **vážneho** s **humorným**. edge serious with humorous ‘Bibby’s book again offers the standard of fantasy - this time on the edge between seriousness and humor.’
- (100) Ak čosi vyvoláva dojem inkompatibility, sú to if something evokes impression incompatibility are that nočné stretnutia s Joelovým novým kamarátom Turem, nightly meetings with Joel’s new friend Tur ktorý tu stelesňuje princíp zla, kontrast **silnejšieho** a who here embodies principle evil contrast stronger and **surovšieho** k **slabšiemu** a **manipulovateľnejšiemu** cruder to weaker and more-manipulable ‘If something evokes the impression of incompatibility, it is the nightly meetings with Joel’s new friend Tur, who embodies here the principle of evil, a contrast of strength and cruelty to weakness and manipulability.’

Although the denotations of these specific examples are debatable (e.g. in (99), the A-DPs could refer to ‘the ideas which are A’ or some other nuanced version of bearer of the property), the sentences (98)-(100) above have a certain intuitive interpretation of property, not stuff.¹⁷ For example, the

¹⁷These types of examples are most often found in intellectual texts, such as in literary criticism or in religious texts. This use is described in the Slovak grammar (Ján Horecký and Bosák, 1989, p.107) where it is mentioned as one of the ways of “naming categories” (other ways besides the use of bare adjectives in neuter are the suffix *-o*, e.g. *dobro* ‘the good’, and the suffix *-čnosť*, e.g. *komické* ‘comical-ness’). This gives a clue about the interpretation of the bare A-DP expression.

first sentence can also be paraphrased as something like ‘children distinguish *what it means to be* truthful and not truthful’ or ‘...truth and falsehood’. The third sentence expresses the idea that Joel’s friend *embodies* various seemingly incompatible things such as ‘the principle of evil’, ‘the contrast of strength and brutality to weakness and manipulability’. It seems reasonable that a person would embody properties.

To clarify the kind interpretations even further, consider that the A-DPs (e.g. in (98)) are coordinated with a derived nominalization (e.g. *autentickosť* ‘authenticity’). Recall that Moltmann (2013) considers derived nominalizations without the expression of the bearer to be kind-denoting. Furthermore, it is impossible to quantify these expressions. This is not surprising if there is no NumP in the structure as expected for kind expressions (Borik and Espinal, 2012).

Therefore, it is likely that the A-DPs in the examples (98), (99) and (100) denote kinds of tropes of the respective properties.

Interestingly, there is no requirement to express the bearer of the property. The pragmatic nature of the trope variable (i.e. the “one-argument-per-trope” condition) normally requires that the bearer variable is saturated either by expressing it linguistically or supplying the value from context/world knowledge (compare with the trope A-DP+PP expressions). However, the lack of the bearer follows from the uniqueness principle discussed earlier, according to which there can only be one unique trope per a unique bearer, and therefore, a kind/set of tropes necessarily requires a generic set of bearers. The conditions defined for verbs and for deverbal nominals, mentioned earlier, that capture the requirement to express a participant of every subevent, also only apply to tokens of events, not to event kinds (Grimm and McNally, 2013; Rappaport Hovav and Levin, 2001), in parallel to my analysis of trope A-DPs.

Their semantic derivation is shown in (101). The maximal genericity of the kind-of-trope A-DP expression is semantically achieved by binding off both of the variables (Barker, 1999). In the derivation, the cap operator \cap is applied. The intensionalizing effect of the cap comes about in generic contexts without an overt element, similar to how English bare plural kinds have been analyzed (Chierchia, 1998) (a kind of tropes is analogous to a kind of entity in its derivation). The result in (101-c) means “for all tropes of P and for all their bearers”, i.e. a large generalization/mass of all the property instantiations and their bearers.

- (101) a. Deti rozoznávajú **pravdivé** od nepravdivého.
 children distinguish truthful and not-truthful
 ‘Children distinguish truth and falsehood.’

- b. **denotation of the adjective:**
 $\llbracket \text{pravdivé} \rrbracket : \lambda x \lambda y^{trope} [\text{pravdivé}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$
- c. **binding off the variables by application of the Chierchia's (1998) cap operator:**
 $\cap x y^{trope} [\text{pravdivé}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$

2.6 Chapter summary and conclusion

This chapter was devoted to the introduction, description and analysis of Slovak A-DPs, affixless adjectives occurring in nominal positions and used for reference. A lot of new authentic data was presented as a basis for comparing their properties against those of nouns. Two types of A-DPs were identified, bearer A-DP and trope A-DP, and their properties were also contrasted. Table 2.1 summarizes the first, descriptive part of the chapter.

type of A-DP:	bearer A-DP	trope A-DP
Categorial properties		
Inflection	adjectival	adjectival
Gradability	yes	yes
Adverbial modification	yes	yes
Adjectival modification	yes	no
Quantifiability	yes	no
Demonstrative	not required	required
Interpretational properties		
Natural reading	“things” / “portions”	“aspect of” / “thing about”
Entailment	none	entity in PP is [adjective]
Distributional properties		
Sentence types	all	restricted to specificational
Prepositional phrase	optional adjunct	required <i>na</i> -PP complement
Restrictive relative clauses	yes	no
Nonrestr. relative clauses	yes	lower acceptability, not in corpus

Table 2.1: Summary of A-DP properties

The analysis of Slovak A-DPs defended in the second part of the chapter can be summarized in the following way. Adjective phrases, just like noun

phrases, can be used to individuate a referent. I took an approach to adjectives in which in their denotations they inherently carry an argument for a property token, i.e. a trope, and also an argument for the trope's bearer. I argued that they do not require a lexical category change to refer to entities, and they can also be used to refer to the property itself. On this view, the correct interpretation is achieved in each case by a combination of semantic, syntactic and pragmatic factors. The bearer reference arises when the bearer argument is highlighted via a type shifter that I defined building on an idea by Glass (2014). After the type shifter binds the trope variable within the adjective's denotation, it is the bearer variable that remains free so that at the point of the DP layer where a referent is introduced, the resulting reference of the A-DP is to the bearer of the trope (i.e. the things that manifest [adjective]). The trope reference (i.e. the adj property manifested in...), per the "bearer-per-trope condition" inspired by Rappaport Hovav and Levin (2001), arises only when the bearer variable is saturated via an entity contributed by a morphosyntactically properly related prepositional phrase. The proposal also includes claims about the syntax of A-DPs, the most important of which is that the adjective phrase is embedded directly under determiner phrase, a structural consequence of the DP hypothesis Abney (1987). Both manifestations of Slovak A-DPs have the same basic syntactic structure, with the difference that trope A-DPs always have a PP complement. This account predicts and accounts for a variety of characteristics displayed by A-DPs, especially their maintained adjectival character, the syntactic (in)compatibilities and distinct interpretations.

Chapter 3

DIFFERENCE BETWEEN DERIVED NOMINALIZATIONS AND A-DPs

3.1 Introduction

If a speaker wishes to make a reference to entities via adjectives, an intermediate step is typically required: derivation. Two examples are given in (1) to show what the morphological process of derivation of a deadjectival nominalization looks like in Slovak.¹

- (1) slab-*ý*.A.MASC ('weak')
 → slab-*ost'*.N.FEM ('weakness')
 → slab-*och*.N.MASC ('weak person')

The original adjective has an ending *-ý* which is a piece of inflectional adjectival morphology for masculine gender and singular number (it can orthographically appear as *-í*, e.g. in *cudzí* 'foreign'). In derivation, a suffix *-ost'* or the suffix *-och* are substituted and the resulting word is categorically a noun. In (2), I provide corpus examples of such affix-based derived nominalizations (DNs henceforth) used in context:

¹In the Slovak examples throughout this chapter, I will separate the relevant morphological units by dashes. This is not a standard in Slovak orthography, but here it serves the reader to more easily identify and distinguish the types of nominalizations. For example, in (2-a), *-i* in *slab-ost-i* is a suffix used for feminine plural. Refer to a chart on page 97 for Case, Gender and Number morphology for the relevant types of nouns and adjectives.

- (2) a. Každá generácia má svoje prednosti a **slab-ost-i**.
 every generation has its strengths and weak+*ost*.PL
 ‘Every generation has its strengths and weaknesses.’
- b. Ako to, že sa raz správa ako **slab-och**, inokedy ako
 how it that REFL once behave like weak+*och* other-times like
 ten, kto vytrvalo nasleduje cieľ?
 that who persistently follows goal
 ‘How is it that he sometimes acts as a weak person and other
 times as one who follows his goal with persistence?’

This chapter is devoted to the lexical competition between DNs and A-DPs and the division of labor between these expressions which apparently fulfill a very similar function.

Competition is a term used here for the situation in which various nominalization strategies are grammatically possible with a certain base and the resulting expressions are more or less synonymous. In the illustrative example (3), the three words for ‘whiteness’, derived with the suffixes *-oba*, *-ota* and *-ost*, are all grammatical, in normal use by speakers, and nearly synonymous:

- (3) **biel-ota** / **biel-oba** / **biel-ost**
 white+suffix
 ‘whiteness’

The following three examples (4) from the corpus show that the meaning of the derived alternatives to ‘whiteness’ are hardly distinguishable in their meaning. They all appear in the corpus describing properties of entities (or possibly the entities themselves) such as teeth, snow, laundry, or paper.

- (4) a. Pri úsmeve slnka odpovedá sneh tisícerymi variantmi **biel-oty**,
 at smile sun answers snow thousand varieties white-ota
 z ktorých oko postihne len nepatrnú časť.
 from which eye notices only small part
 ‘To the sun’s smile the snow answers with a thousand varieties
 of whiteness, out of which the eye notices only a fraction.’
- b. Zasnežené vinice uprostred treskúcej zimy ponúkali
 snowed-over vineyards in-middle bitter winter offered
 nezvyčajný pohľad. Krajina pokrytá **biel-ob-ou**
 unusual sight country covered white-oba.INSTR
 sfialovela strapcami hrozna.
 become-purple bunches grapes
 ‘The vineyards covered with snow in the middle of a bitter winter

offered an unusual sight. The countryside covered with whiteness became purple with bunches of grapes.’

- c. V roku 1774 mali svoju premiéru falošné zuby z porcelánu.
 in year 1774 had their premiere false teeth of porcelain
 No okrem krátkej životnosti mali ďalšiu obrovskú
 but besides short life had another great
 nevýhodu: pre prílišnú **biel-osť** boli nepresvedčivé.
 disadvantage for excessive white+*osť* were unconvincing
 ‘In the year 1774, false porcelain teeth had their premiere. How-
 ever, besides their low durability, they had another great disad-
 vantage: the excessive whiteness made them unconvincing.’

The fourth member that can be added to this group of competitors for how to talk about the concept for something like ‘whiteness’ or ‘white things’ in Slovak is simply a bare adjective *biele* ‘white’. See representative examples (5) below, where (a) is a bearer A-DP and (b-c) can be interpreted as trope A-DPs. The uses of the bare adjectives in these examples is comparable to that of the three derived nominalizations above to such an extent that one wonders whether the competing expressions are redundant.

- (5) a. To **biel-e**, čo všade leží, ozaj, nie je sniežik?
 TO white what everywhere lays really not is snow
 ‘The whiteness that is all around, is it not snow?’
- b. Prázdne slová sú pozoruhodné práve tým, že je to len
 empty words are remarkable precisely that that is it only
 úhľadné puzdro, do ktorého ľahko môžeme napchať, čo
 neat shell into which easily can stuff what
 sa nám zachce. Do **biel-e-ho** zabaliť čierne a povedať,
 REFL us pleases into white.GEN wrap black and say
 že sme to tak mysleli. Že **biel-e** vždy aj bolo čierne.
 that PART it so mean that white always also was black
 ‘Empty words are remarkable precisely by being only a neat shell
 into which we can easily stuff whatever we feel like. We can wrap
 blackness into whiteness and say that we meant it that way. We
 can say that whiteness has actually always been black.’
 (Anton Orech, journalist)
- c. (intelekt) Neučí rozlišovať **biel-e** od čierneho, ale
 (intellect) not-teach distinguish white from black but

správne od nesprávneho, ... čistotu od nečistoty, ...
 right from wrong white-ota from not-white-ota
 lásku od nenávisti, aby kultivoval jednu a utekal od
 love from hate so cultivate one and flee from
 druhuj.
 other

‘Intellect doesn’t teach to distinguish white from black but right from wrong, ... cleanness from dirtiness, ... love from hate, so that one is cultivated and the other fled from.’

The sentences illustrate the competition between affix-based derived nominalizations, and adjectival DPs. The existence of nearly synonymous words makes it seem that there is redundancy in the Slovak language. Such redundancy within nominal expressions is addressed in the Slovak literature but it has been concluded that it is resolved by stylistic differentiation, i.e. using one or the other suffix in different registers or types of texts (Buzássyová, 1986). However, though at first sight DNs and A-DPs might seem interchangeable, I will defend the stance in this chapter that because of the differences in the distribution of these nominalization strategies, they are in fact not redundant.

The remainder of the chapter is structured as follows. In Section 2, I summarize what existing Slovak literature says about the Slovak affixation system employed in derivation of nouns from adjectives. In Section 3, the descriptive core of the chapter, the morphosyntactic behavior of nominalizations derived with the suffix *-osť* and of A-DPs are compared. The focus of the description is data such as exemplified in the following minimal triple: a bearer A-DP (6-a), a trope A-DP (6-b) and an *-osť* DN (6-c).

- (6) a. zapamätať si **to dôležit-é** z tejto práce
 remember REFL TO important of this work.GEN
 ‘to remember the important things in this work’
 b. oceniť **to dôležit-é na tejto práci**
 appreciate TO important on this work.LOC
 ‘to appreciate the important thing about this work’
 c. oceniť **dôležit-osť** tejto práce
 appreciate important-ness this work.GEN
 ‘to appreciate the importance of this work’

The main contrast between the nominalization strategies is their compatibility with a genitive complement and with possessive structures and, related to that, the possibility of referential autonomy of each nominalization with and without a requirement of a complement. In Section 4, my objective is to

account for these facts and give an analysis of DNs that builds on the claims in Chapter 2. Section 5 will conclude the chapter.

3.2 Overview of derivational nominalization

In this section, I discuss the morphology and uses of derived nouns that have inanimate reference. DNs with the suffix *-osť*, the most common deadjectival nominalization derivational suffix, are highlighted as the main competitor to A-DPs. The list in Table 3.1 presents the inventory of Slovak word-forming morphology used for derived nouns with inanimate reference (Ján Horecký and Bosák (1989), Šmilauer (1972), Šimková (2010)). There are other nominalizing suffixes in the Slovak derivational system but I only include the ones that combine with an adjectival base.

SUFFIX	EXAMPLES
-osť	<i>viditeľnosť</i> ‘visibility’ <i>použitelnosť</i> ‘usability’
-stvo/ -(c)tvo	<i>vydavateľstvo</i> ‘publishing house’ <i>dobráctvo</i> ‘goodness’
-oba	<i>chudoba</i> ‘poverty’ <i>choroba</i> ‘sickness’
-ota	<i>hluchota</i> ‘deafness’ <i>čistota</i> ‘cleanliness’
-ava	<i>horúčava</i> ‘heat’ <i>čierňava</i> ‘blackness’
-ina	<i>divočina</i> ‘wilderness’ <i>človečina</i> ‘humanity’
-ita	<i>nervozita</i> ‘nervousness’ <i>anonymita</i> ‘anonymity’
-o	<i>ticho</i> ‘silence’ <i>sucho</i> ‘drought’
-čno	<i>tragično</i> ‘tragedy’

Table 3.1: Slovak derivational system of suffixes for deadjectival nominalizations with non-human reference

The deadjectival nominalization suffixes *-osť*, *-stvo/-(c)tvo*, *-oba*, *-ota*, *-ava*, *-ina*, *-ita*, *-o*, *-čno* are all in principle the competitors of A-DPs, depending on the base, though they tend to have specialized meanings. However,

the biggest competitor of A-DPs is the suffix *-ost'*, due to the fact that it is the most productive (Furdík (2002), Šimková (2010), Ján Horecký and Bosák (1989)). The list in (7) demonstrates the productivity of this derivational suffix and the breadth of the original derivational sources of the adjectives that *-ost'* DNs derive from.

- (7) a. **nonderived adjective source**
ostr-ý.ADJ ‘sharp’ → *ostr-ost'*.N ‘sharpness’
vesel-ý.ADJ ‘happy’ → *vesel-ost'*.N ‘happiness’
- b. **secondary adjective source**
mal-ý.ADJ ‘small’ → *mal-ičký*.ADJ ‘tiny’ → *maličk-ost'*.N ‘tinyness’
- c. **verbal source**
vidieť.V ‘to see’ → *vidi-teľný*.ADJ ‘visible’ → *viditeľn-ost'*.N ‘visibility’
súťažiť.V ‘to compete’ → *súťaživý*.ADJ ‘competitive’ → *súťaživ-ost'*.N ‘competitiveness’
- d. **nominal source**
zážitok.N ‘experience’ → *zážitk-ový*.ADJ → *zážitkov-ost'*.N ‘experientiality’
pojmem.N ‘concept’ → *pojmov-ový*.ADJ → *pojmov-ost'*.N ‘conceptuality’
- e. **adverbial source**
dnes.ADV ‘today’ → *dnešný*.ADJ roughly ‘today’s’ → *dnešn-ost'*.N roughly ‘today-ness’
naproti.ADV ‘across/contrary’ → *náprotivný*.ADJ roughly ‘contrary’ → *náprotivn-ost'*.N roughly ‘contrary-ness’
- g. **prepositional source**
pred.P ‘in front’ → *predný*.ADJ ‘frontal’ → *predn-ost'*.N roughly ‘front-ness/priority’
spod.P ‘from under’ → *spodný*.ADJ ‘bottom’ → *spodn-ost'*.N roughly ‘bottom-ness’
- h. **interjection source**
baka.I ‘yuck’ → *bakaný*.ADJ ‘yucky’ → *bakan-ost'*.N ‘yucky-ness’

The *-ost'* suffix can attach to practically any adjective, even though there are some exceptions to this in actual usage. Examples in (8) show that the few bases which are not compatible with *-ost'* are pronouns, including those

that have adjectival inflection (a), relational adjectives formed from bases of animal names (b), some possessive adjectives (c), present verbal participles (d), and possibly others.

- (8)
- | | | |
|----|--|---|
| a. | <i>ktorý</i> ‘which’ - * <i>ktorosť</i> | <i>každý</i> ‘every’ - * <i>každosť</i> |
| b. | <i>vlk</i> ‘wolf’, <i>vlčí.A</i> - * <i>vlčosť</i> | <i>vták</i> ‘bird’, <i>vtáčí.A</i> - * <i>vtáčosť</i> |
| c. | <i>matkin</i> ‘mother’s’ - * <i>matkinosť</i> | <i>Janov</i> ‘Jano’s’ - * <i>janovosť</i> |
| d. | <i>písací</i> ‘writing’ - * <i>písacosť</i> | <i>spiaci</i> ‘sleeping’ - * <i>spiacosť</i> |

Ján Horecký and Bosák (1989) lists some (traditionally accepted) meanings *-osť* DNs can have. For example, they are said to denote a state, motivated by an intermediate derivational step that involves a passive participle. Illustrated in (9).

- (9) *pripraviť.v* ‘prepare’ → *pripravený.PARTICIPLE/ADJ* ‘prepared’
 → ***pripraven-osť.N*** ‘preparedness’

There are also *-osť* nominalizations that express a “parameter”, in which a shift in meaning in the derivation has occurred: from the original verb denoting an event expressed qualitatively, through an adjective denoting a property, to the DN with a property correlate meaning expressed quantitatively. These words usually occur in scientific texts, and are collocated with measure-related words like *vysoká* ‘high’, *nízka* ‘low’, *stúpať* ‘rise’, *zvýšiť* ‘raise’, exact numeral measures, etc. For example, the following DNs all denote “number of cases” / “measure of the event” / “quantity”.

- (10) *umrieť.v* ‘to die’ → *úmrtň-osť* ‘(quantity of) mortality’
nezamestnať.v ‘to not employ’ → *nezamestnan-osť* ‘(quantity of) unemployment’

Other semantic categories according to which these DNs can be grouped are “character” (11-a), “ability” (11-b), “condition” (11-c), and “lack” (11-d) (Buzássyová and Jarošová, 2006).

- (11)
- | | |
|----|---|
| a. | <i>česk-osť</i> ‘Czech-ness’ |
| b. | <i>adaptovateľn-osť</i> ‘adaptability’ |
| c. | <i>bezprávn-osť</i> ‘lawlessness’ |
| d. | <i>bezcitn-osť</i> ‘callousness’, lit. ‘without-feeling-ness’ |

Some of the *-osť* DNs are said to have re-lexicalized from an abstract object denotation to a concrete one, i.e. thing(s) that carry the property, e.g. (12). In Ján Horecký and Bosák (1989), this is termed “secondary concretization”.

- | | | |
|------|--|---|
| (12) | <i>nehnutel'n-osť</i>
NEG.move.V+teľný.ADJ+osť.N
literally: 'immovability'
meaning: 'real estate' | <i>sladk-osť</i>
malt.N+ký.ADJ+osť.N
literally: 'sweetness'
meaning: 'a sweet food item' |
|------|--|---|

In other cases DNs can be interpreted as an act in which the property was displayed. As an illustration of this, consider the following corpus example (13) in which the DN in plural denotes 'acts of cruelty'.

- (13) *dejiny neprikryjú tol'ké ukrutn-osť-i*
 history not-cover so-many cruel+osť.PL
 'history won't cover so many atrocities'

As can be seen, *-osť* affixation is a highly productive nominalization strategy in Slovak and can be used to express a wide range of meanings related to the property denoted by the base adjective, as well as its bearer. Both characteristics, productivity and breadth of interpretations, are shared with the A-DP strategy. In the following section, I will begin a description of their differences, especially with regard to their distribution.

3.3 Comparing the nominalization strategies

3.3.1 Categorical contrast between DNs and A-DPs

While A-DPs clearly manifest adjective-like properties (Chapter 2, Section 2), DNs display nominal categorial properties, such as nominal inflection, compatibility with adjectives and incompatibility with adverbs. This section will briefly outline these facts.

Table 3.3.1 compares the inflectional morphology of feminine nominal endings of the DN *vážn-osť* 'seriousness' to feminine adjectival endings of *vážn-a* 'serious'.A.FEM and also to neuter adjectival endings, which A-DPs display. As can be seen, DNs do not have the same endings as A-DPs do, evidence of their distinct lexical categories.

	NOUN.FEM.SG/PL	ADJ.FEM.SG/PL	ADJ.NEUT.SG/PL
Nom	vážn-ost̃/-i	vážn-a/-e	vážn-e/-e
Gen	vážn-ost-i/-í	vážn-e-j/-ych	vážn-e-ho/-ych
Dat	vážn-ost-i/iam	vážn-e-j/-ym	vážn-e-mu/-ym
Acc	vážn-ost̃/-i	vážn-u/-e	vážn-e/-e
Loc	vážn-ost-i/-iach	vážn-e-j/-ych	vážn-om/-ych
Instr	vážn-ost̃-ou/-ami	vážn-ou/-ymi	vážn-ym/-ymi

Table 3.2: Comparison of inflectional morphology of DNs and A-DPs

DNs, being nouns, can be modified by adjectives but not adverbs. The following examples (14) and (15) show the contrast.

(14) tá **jediná nov-ost̃**, čo som sa dozvedel
 that unique new+*ost̃* what PART REFL found-out
 ‘that unique novelty that I learned about’

(15) *tá **jedine nov-ost̃**, čo som sa dozvedel
 that uniquely new+*ost̃* what PART REFL found-out

If a DN is used in a comparison, it requires an analytical comparative form. That is, a modification with an adjective that expresses ‘bigger’ or similar, e.g. (16).

(16) kontrast **väčšej surov-ost-i** k **väčšej slab-ost-i**
 contrast bigger crudeness to bigger weakness

All nouns, including those that end with the *-ost̃* affix, are incompatible with an attachment of a comparative infix *-š-*. The word like the one in (17-b) does not exist in Slovak.

(17) a. surový ‘crude’ → surov-š-í ‘cruder’
 b. surov-ost̃ ‘crudeness’ → *surov-š-ost̃

DNs can be countable and therefore can appear in both singular and plural, for example in (13) where the DN denotes ‘acts that are cruel’. Recall that both bearer and trope A-DPs always agree with singular modifiers and predicates.

Quantification of DNs is possible, by use of words like ‘much’ or ‘little’ which express amount; and by words like ‘large’, ‘small’ which describe size or ‘high’ and ‘low’ which modify the degree to which the property is manifested. Two examples are given in (18).² This is in contrast to the strict

²The sentence in (a) is retrieved from <http://www.knazi.sk/odpustenie-ako-prejav-lasky/>

ungrammaticality of quantifiers with trope A-DPs.

- (18) a. Mali sme **veľa zvedav-ost-i**, elánu, ale málo peňazí.
had PART a-lot curious+*ost'* enthusiasm but little money
'We had a lot of curiosity and enthusiasm, but little money.'
b. V Košiciach vládla **veľká zvedav-ost'**.
in Košice reigned large curious+*ost'*
'A large curiosity reigned in Košice.'

Next, three phenomena related to the notion of possession will be examined to inform on the differences between DNs and A-DPs.³

3.3.2 Genitive and possessive family as a test of contrast

Possession here is understood in a broad sense to include a range of similar relational notions, not just ownership in a literal sense (Heine, 1997), since the correspondences among morphological forms, syntactic positions, grammatical relations, and semantic interpretations are complex and subject to debate. For clarification, let us distinguish at least the following main ways of expressing possession in Slovak, adapted from (Partee and Borschev, 2003, p.69), listed in Table 3.3.

and (b) is from the corpus.

³The material in the following section is based on a presentation (Richtarcikova, 2016).

STRUCTURE	EXAMPLES
<p>Genitive</p> <ul style="list-style-type: none"> • post-nominal prepositionless genitive 	<p><i>dom prezidenta</i> (house president.GEN)</p>
<ul style="list-style-type: none"> • genitive prepositional phrase 	<p><i>dieťa z mesta</i> (child of city.GEN)</p>
<p>Possessive</p> <ul style="list-style-type: none"> • possessive pronouns 	<p><i>môj dom</i> (my house)</p>
<ul style="list-style-type: none"> • possessive quasi-adjectives 	<p><i>prezidentov dom</i> (president's house)</p>
<p>Predicate ‘have’</p>	<p><i>prezident má dom</i> (president has a house)</p>

Table 3.3: Possessive-Genitive structures in Slovak

In what follows I will discuss each structure from this genitive and possessive family in turn. First, I will illustrate the structure and characterize its function in general. Then, I will turn to an examination of how each one interacts with deadjectival nominalization strategies, revealing distributional contrasts. The (in)compatibility with genitive and possessive structures will shed light on how the property denoted by the adjective relates to its bearer.

Prepositionless genitive NP

The Slovak genitive constructions that answer the questions “Of who?”, “Whose?”; e.g. *of the president* or *the president’s* typically have the form of an adnominal bare, prepositionless genitive NP. For example, in (19), the genitive form of *prezident* ‘president’ is *prezident-a*, the relation is that of belonging, and the sentence is paraphrasable as ‘the house which belongs to the president’.

- (19) dom prezidenta
house.NOM president.GEN
‘the house of the president’

Although the belonging relation is a typical interpretation of bare adnominal GEN NP, there are other relations that it can express, exemplified in (20). They are belonging in a part-whole relationship (a), possession (b), participation in an event (c), belonging to a type (d), amount/measure (e), and origin (f) (the list given in MSJ (1966)).^{4,5}

- (20)
- a. strecha domu
roof house.GEN
'the roof of the house'
 - b. dom primátora
house mayor.GEN
'mayor's house'
 - c. plač dieťaťa
crying child.GEN
'crying of a child'
 - d. dieťa veľkomesta
child city.GEN
'an urban child'
 - e. ľahkosť pierka
lightness feather.GEN
'lightness of a feather'
 - f. cigarety nášho tabakového priemyslu
cigarettes our.GEN tobacco.GEN industry.GEN
'cigarettes of our tobacco industry'

⁴In an independent, object position bare GEN NP expresses partitive meaning (i-a). The genitive case is not required, however, as it is in some Slavic languages, e.g. Polish, Serbo-Croatian and Slovenian (Franks, 1995) after negated verbs, see the sentence with the object in accusative case (i-b). I do not consider this use of genitive case relevant to the discussion at hand.

- (i)
- a. Nepovedal slova.
not-say word.GEN
'He didn't say a word.'
 - b. Nepovedal slovo.
not-say word.ACC
'He didn't say a word.'

⁵A bare GEN complement, in a certain reversed fashion, can also express a characteristic of the head NP. This use is not productive.

- (i)
- muž odvahy
man courage.GEN
'man of courage'

Derived nominalizations allow a post-nominal genitive complement, but A-DPs do not, either in the trope- or the bearer- variety. I show the contrast in the following examples. First, in (21), I contrast a DN denoting a characteristic of ‘difficult-ness’ (meaning ‘difficulty’) that pertains to ‘democracy’ (21-a). The word for ‘democracy’ *demokracia* is in the genitive form, marked by the inflectional ending for singular feminine, *-e*, and is grammatical if it follows an *-osť* DN. If, however, it follows an A-DP, as in (21-b), it is ungrammatical. Instead, one needs to use a *na* PP, as was already shown in Chapter 2. The triple of examples in (22) supports the same pattern and contrast.

- (21) a. Neznositelná **ťažk-osť demokracie** je nielen v
 unbearable difficult-*osť* democracy.GEN is not-only in
 hľadání rovnováhy, ale aj v tom, že nás nezabavuje
 searching balance but also in that that us not-absolve
 zodpovednosti za hľadanie.
 responsibility for searching
 ‘The unbearable difficulty of democracy is not only in the search
 for balance but also in the fact that it doesn’t absolve us of the
 responsibility for its search.’
- b. *... (to) **ťažk-é demokracie**
 (TO) difficult democracy.GEN
 intended: ‘the difficulty (difficult aspect) of democracy’
- c. ... to **ťažk-é na demokracii**
 TO difficult on democracy.LOC
 ‘the difficulty (difficult aspect) of democracy’
- (22) a. Augustín uznáva mimoriadnu **ťažk-osť problému**
 Augustine recognizes exceptional difficult-*osť* problem.GEN
 ‘Augustine recognizes the exceptional difficulty of the problem.’
- b. ... *(to) **ťažk-é problému**
 TO difficult problem.GEN
 intended: ‘the difficulty (difficult aspect) of the problem’
- c. ... to **ťažk-é na probléme**
 TO difficult on problem.LOC
 ‘the difficulty (difficult aspect) of the problem’

Next, in (23), I compare the use of a bare GEN after nominalizations that denote not the property of difficulty itself but things/events/experiences that are difficult (‘difficult-ness’ here meaning ‘difficulties’). In (23-a), the nominalization expression means such experiences or events that are difficult for

students. The word for ‘students’ is in genitive, marked by the inflectional ending for masculine plural, *-ov*, and it is grammatical when it follows a DN. In contrast, it is ungrammatical when it follows a bearer A-DP, shown in (23-b).⁶ A grammatical paraphrase of (23-a) with an A-DP is given in (23-c). Another triple of examples in (24) confirms this contrast.

- (23) a. sledovanie zdravotného stavu a **ťažk-ost-í**
 monitoring medical state and difficult+*osť*.PL
žiakov
 students.GEN
 ‘monitoring of health and students’ difficulties.’
 b. *...(toho) **ťažk-é-ho žiakov**
 TO difficult students.GEN
 intended: ‘the difficulties of students’

⁶Sometimes a DN cannot be substituted by an A-DP because of the incompatibility with a bare GEN NP, and in addition, it cannot be paraphrased with an A-DP followed by a *z-* or *na-* PP either. In the following examples, A-DPs reject the trope reference to human characteristics and also the bearer reference with partitive relation to humans.

- (i) a. povinn-*osť* rodičov vyživovať dieťa
 obligated+*osť* parents.GEN provide-for child
 ‘the obligation of parents to provide for their child’
 b. *to povinn-*é* na rodičoch
 TO obligated on parents
- (ii) a. obdivuhodná bola vytrval-*osť* veriacich
 admirable was persevering+*osť* young.PL.GEN
 ‘(he) unveils the hidden problems and difficultie believers.GEN
 ‘the perseverance of believers was admirable’
 b. *to vytrval-*é* na veriacich
 TO persevering on believers’
- (iii) a. ťažk-*osť* ľudí súčasnej doby: nie sme schopní modliť sa
 difficult+*osť* people.GEN present time not are able pray REFL
 ‘difficulty of people in the present times: we’re not able to pray’
 b. *to ťažk-*é* na ľuďoch
 TO difficult on people
- (iv) a. odkrýva skryté problémy a ťažk-ost-i mladých
 unveil hidden problems and difficult+*osť* young.PL.GEN
 ‘(he) unveils the hidden problems and difficulties of youth’
 b. to ťažk-*é* *mladých / *z mladých / *v mladých
 TO difficult young.GEN / of young.GEN / in young.LOC

As can be seen, following an A-DP with a noun with human denotation is problematic for both the bearer- and the trope- variety. There seem to be independent reasons for this pattern.

- c. (toho) **ťažk-é-ho** čo žiaci prežívajú
 TO difficult what students experience
 ‘the difficult things students experience’ = ‘the students’ difficulties’
- (24) a. pohltení **ťažk-ost-ami života**, sa prirodzene
 overwhelmed difficult+*ost*.PL life.GEN REFL naturally
 sústreďujeme na praktické veci
 focus on practical things
 ‘Overwhelmed by the difficulties of life, we naturally focus on the practical things.’
- b. *(tým) **ťažk-ý-m života**
 TO difficult life.GEN
 intended: ‘the difficulties of life’
- c. *(tým) **ťažk-ý-m** v živote/zo života
 TO difficult in life/of life
 ‘the difficulties of life’

Next I turn to another genitive structure that reveals a contrast between the nominalization strategies, genitive prepositional phrase.

Genitive PP

The Slovak genitive construction that answers the questions “Out of what?” or “From what?” is *z*-prepositional phrase. Slovak preposition *z* (or for phonetic reason, its variant *zo*) serves the function that in English is served by two items *out* or *from*. (or for phonetic reason, its version *zo*).⁷

From the fact that Slovak has both bare and prepositional genitive and they are not interchangeable, it is clear that the preposition is meaningful. Consider the phrases with a bare GEN NP in (20). I will only repeat two of them that clearly show that if the preposition *z* is inserted, the meaning changes, as in (a), can become very strange, as in (b), and even unacceptable based on world knowledge, e.g. in (c).

- (25) a. dieťa z veľkomesta
 child of city.GEN
 ‘a child from the city’

⁷In Slovak, the genitive form of a word is used after the preposition *z* ‘of’ but also a variety of other prepositions: *bez* ‘without’, *blízko* ‘near’, *do* ‘to’, *doprostred* ‘into the middle’, *mimo* ‘aside’, *namiesto* ‘instead’, *okolo* ‘around’, *od* ‘from’, *podľa* ‘according to’, *pomimo* ‘beside’, *pomocou* ‘by’, *pozdĺž* ‘along’, *u* ‘at’, *uprostred* ‘in the middle’, *vedľa* ‘next to’, *vnútri* ‘inside’, and *vyše* ‘more than’.

Only the preposition *z* has the meaning relevant for the discussion.

- b. #plač z dieťaťa
crying of child.GEN
'crying from within a child'
- c. *dom z primatora
house of mayor.GEN
'house from within/made out of the mayor'

A genitive PP is allowed for both derived nominalizations and bearer A-DPs, with one caveat. The GEN PP is not allowed for the trope A-DPs. I illustrate the contrast in (26), the *z* PP denotes the origin of the interesting piece of information. Both sentences use the nominalization to refer to a thing that is interesting, not the property of interestingness itself.

- (26) a. Pri nedávnej ceste autom sa mi dostala do uší
along recent trip car PART me get to ears
zaujímav-osť z rádia
interesting+*osť* of/from radio
'While driving recently, I heard an interesting thing from the radio broadcast.'
cannot mean: ...'I heard interestingness from the radio broadcast.'
- b. to **zaujímav-é** z rádia
TO interesting of/from radio
'the interesting things from the radio broadcast'
cannot mean: ...'I heard an interesting aspect of the radio broadcast.'

In the following pair of examples in (27), the DN now denotes the property of poetic-ness (i.e. something like 'the quality of being poetic') that can be traced to the twentieth century. However, if an A-DP is substituted, it can only denote the poetic *things* (i.e. that which is poetic) that pertain to the twentieth century, i.e. only the bearer A-DP type is compatible with a genitive PP.

- (27) a. Brezina sa snaží obsiahnuť **poetick-osť** z konca
Brezina REFL tries include poetic+*osť* of/from end
dvadsiateho storočia.
twentieth century
'Brezina tries to include the poeticness found at the end of the twentieth century.'

- b. ... to **poetick-é** z konca dvadsiateho storočia
 TO poetic of/from end twentieth century
 ‘the poetic things of the twentieth century’
 cannot mean: ‘the poetic aspect of the twentieth century’

Lastly, a telling example of the interaction between a genitive PP and the two types of nominalizations is the contrast exemplified in (28). In the first sentence, the DN refers to “moistness”/moisture and the statement that a dryer removes it from the towels is sensical. However, the A-DP in the second sentence refers to the wet parts of the towel, not the moisture itself. A statement that a dryer would remove the wet fibers from the towel is nonsensical.

- (28) a. Odstraňuje **vlhk-osť** z uterákov, keď nie je iný zdroj
 removes wet+osť from towels when not is other source
 tepla.
 heat
 ‘A towel dryer removes the moisture from towels when there is
 no other source of heat.’
- b. #...odstraňuje to **vlhk-é** z uterákov
 removes TO wet of/from towels
 ‘(the dryer) removes the wet parts of the towels’
 cannot mean: ‘(the dryer) removes the moisture from the tow-
 els.’

The following table gives the summary of results of the genitive tests.

	GEN NP	GEN PP
(29) DN	yes	yes
bearer A-DP	no	yes
trope A-DP	no	no

So far I have used two tests to demonstrate the contrast between DNs and A-DPs: compatibility with a bare genitive and a genitive prepositional phrase. I have shown that A-DPs cannot be modified with a bare genitive but bearer A-DPs can take a genitive PP, yet with a different meaning than DNs produce. In particular, A-DPs that are followed by a genitive (PP), express what the referent (the bearer of the property) is part of or where its origin is, and not ascription of the property to the genitive noun. From this, we can tentatively draw an intermediate conclusion that it is not genitive case per se that is forbidden for A-DPs. It is the specific relationship between noun in genitive and the deadjectival nominalization.

The next subsection will continue with the possessive tests which will support this idea that syntactic acceptability of a modifier goes hand in hand with what the nominalization strategy is specialized for interpretationally (bearer or trope) and how it is packaged (in a noun or in an adjective).

Possessive pronouns

The next test I will use to show the differences between nominalization strategies will be their compatibility with possessive pronouns. Possessive pronouns include *môj* ‘my’, *tvoj* ‘your’, *náš* ‘our’, *váš* ‘your.PL’, *jeho* ‘his’, *jej* ‘her’, *ich* ‘their’, *svoj* ‘one’s own’ and have these inflectional forms, illustrated by *môj* ‘my’.⁸ The items *tvoj*, *svoj*, *náš* and *váš* decline with the same endings as *môj* shown in the table. The items *jeho*, *jej* and *ich* stay in the same basic form in all cases.

	MASC.	NEUT.	FEM.	PLURAL
(30) N	<i>môj</i>	<i>moje</i>	<i>moja</i>	<i>moje/moji</i>
G	<i>môjho</i>	<i>môjho</i>	<i>mojej</i>	<i>mojich</i>
D	<i>môjmu</i>	<i>môjmu</i>	<i>mojej</i>	<i>mojim</i>
A	<i>môj/môjho</i>	<i>moje</i>	<i>moju</i>	<i>moje/mojich</i>
L	<i>mojom</i>	<i>mojom</i>	<i>mojej</i>	<i>mojich</i>
I	<i>mojim</i>	<i>mojim</i>	<i>mojou</i>	<i>mojimi</i>

Possessive pronouns are not simply personal pronouns in genitive case even if they are related in meaning. The forms of personal pronouns in genitive case are shown in the following table (31). The first person is highlighted to show that *ma/mňa* ‘I.GEN’ does not match the form of a possessive pronoun *môj* ‘my’. Only the third person possessive pronouns are homophonous with the genitive form (*ho* ‘he.GEN’ = one of the forms of ‘his.POSS’, *jej* ‘she.GEN’ = ‘her.POSS’, *ich* ‘they.GEN’ = ‘their.POSS’).

	1ST P	2ND P	3RD P		
(31) N	<i>ja</i> ‘I’	<i>ty</i> ‘you’	<i>on</i> ‘he’	<i>ona</i> ‘she’	<i>ono</i> ‘it’
G	<i>ma/mňa</i>	<i>ťa/teba</i>	<i>ho/jeho/neho</i>	<i>jej/nej</i>	<i>ho/jeho/neho</i>
N	<i>my</i> ‘we’	<i>vy</i> ‘you.PL’	<i>oni/ony</i> ‘they’		
G	<i>náš</i>	<i>váš</i>	<i>ich/nich</i>		

⁸Possessive pronouns have the same form whether they are dependent or independent (unlike English which has *my* and *mine*).

While possessive pronouns have the inflection and distribution like that of adjectives, genitive pronouns are used where a preposition, such as *z*, or a verb selects a genitive complement, as illustrated in (32).

- (32) a. **môj** / *ma/mňa dar
 my I.GEN gift
 ‘my gift’
 b. dar odo **mňa** / *môj
 gift from I.GEN my
 ‘gift from me’
 c. “Už je zo **mňa** / *môj Bratislavčan”
 already is of I.GEN my Bratislavan
 ‘I’ve become a Bratislavan’

The following examples show that possessive pronouns are allowed with derived nominalizations (33), however, they are not allowed with either trope- (34), or bearer- (35) A-DPs.

- (33) Stačí, aby ste vedeli, že Cesta do fantázie je japonský
 suffices that PART know that journey to fantasy is Japanese
 animovaný film určený rovnako deťom ako dospelým,
 animated film.MASC intended equally children as adults
 a že to najdôležitejšie na ňom je práve **jeho**
 and that TO most-important on him is precisely his
japonsk-osť.
 Japanese+*osť*
 ‘It’s enough for you to know that Spirited Away is a Japanese ani-
 mated film intended for both children and adults and that the most
 important thing about it is precisely its Japanese-ness.’
- (34) a. to najdôležitejšie je práve **to japonsk-é** na ňom
 TO most-important is precisely TO Japanese on him
 ‘the most important thing is precisely the Japanese thing about
 it’
 b. *to najdôležitejšie je práve **jeho japonsk-é** na ňom
 TO most-important is precisely his Japanese on him
 intended: ‘the most important thing is precisely its Japanese
 thing about it’
- (35) a. je pohltený (tým) **ťažk-ý-m** zo života
 is overwhelmed (TO) difficult in life/of life
 ‘he is overwhelmed with the difficulties of life’

- b. *je pohltený **jeho tašk-ý-m** zo života
 is overwhelmed his difficult in life/of life
 intended 'he is overwhelmed with his difficulties of life'

The next structure from the possessive family that I will test against nominalizations is a type of expression in Slovak which I will call the *possessive quasi-adjective*.

Possessive quasi-adjectives

This term “possessive quasi-adjectives” is not from traditional Slovak grammar but is used in the literature for Russian, for example by Partee and Borschev (2003). The term fits the Slovak structure that I describe here well. These words are formed by nouns taking on a designated possessive suffix (different from other adjective-deriving suffixes which typically end in *-ý/í/á/é*) and forming a word that agrees in gender, number and case with the head noun, like an adjective would. This is illustrated in (36).

(36)	NOM	prezident- ov .NOM dom.NOM 'the president's house'
	GEN	z prezident ov-ho .GEN domu.GEN 'of the president's house'
	DAT	oproti prezident- ov-mu .DAT domu.DAT 'across the president's house'
	ACC	vidím prezident- ov .ACC dom.ACC 'I see the president's house'
	LOC	v prezident- ov-om .LOC dome.LOC 'in the president's house'
	INSTR	s prezident- ov-ým .INSTR domom.INSTR 'with the president's house'

The possessive quasi-adjective is a counterpart to the English Saxon 's and is used to express belonging, origin, or a range of other vague relations that are also possible with other possessive constructions. The form of this possessive expression is derived from animate masculine nouns by the suffix *-ov/-ova/-ovo* (37-a) and from animate feminine nouns with the suffix *-in/-ina/-ino* (37-b). Possessive adjectives are formed only out of masculine and feminine

words denoting people or animals. There is no possessive suffix that would attach to neuter nouns or inanimate feminine and inanimate masculine nouns (37-c). The possessive function for those nouns is fulfilled by the GEN form of the noun (37-d).

- (37) a. prezident**ov** dom
 president.MASC.POSS house
 ‘president’s house’
 b. sestri**n** dom
 sister.FEM.POSS house
 ‘sister’s house’
 c. *dievčati**n/ov** kabát
 girl.NEUT.POSS coat
 intended: ‘girl’s coat’
 d. kabát dievča**ŕa**
 coat girl.NEUT.GEN
 ‘girl’s coat’

Again, as for the possessive pronouns, the possessive nominal suffixes are not simply genitive case endings, even if related in meaning. The possessive quasi-adjectival form of ‘president’ (38-a) is different from genitive of either the base noun (38-b) or the quasi-adjective (38-c).

- (38) a. prezident**ov** dom
 president.POSS house
 president’s house
 b. dom prezident**a**
 house president.GEN
 ‘house of the president’
 c. prezident**ovho** domu
 president.POSS.GEN house.GEN
 ‘(of) the president’s house’

Now as for the compatibility of nominalizations with possessive quasi-adjectives, DNs allow them (39-a) and trope A-DPs do not (39-b). Recall that trope A-DPs are incompatible with any adjectives at all. Despite the lack of attested examples in the corpus, a native Slovak speaker would not think it odd to hear a possessive quasi- adjectives in combination with a bearer A-DP. Consider the corpus example (40) where an idiosyncratic A-DP *biele* ‘white’, which stands for white wine, allows the possessive adjective *barónkine* ‘baroness’s’ to modify it. However, possessive quasi-adjectives seem highly degraded in the constructed non-corpus examples in (41).

- (39) a. Bol to umelecký zámer alebo **autorova neznal-ost'**?
 was it artistic intent or author.POSS not-knowing+*ost'*
 'Was it artistic intent or the author's ignorance?'
 b. *autorove neznal-é
 author.POSS not-knowing
 intended: 'author's ignorant aspect'
- (40) **Barónkine biel-e** bolo zlatisté, voňalo čerstvo vymlátenou
 baroness.POSS white was golden smelled fresh threshed
 slamou a v chuti bolo pevné, harmonické, tajomné.
 straw and in flavor was firm harmonious mysterious
 'Baroness's white (wine) was golden, smelled like freshly threshed
 straw and in flavor it was firm, harmoniou and mysterious.'
- (41) a. #to mechanikove pokazen-é
 TO mechanic.POSS broken
 intended 'that which is broken and is the mechanic's'
 b. #to otcove star-é
 TO father.POSS old
 intended 'that which is old and is the father's'
 c. #to doktorkine napisan-é
 TO doctor.FEM.POSS written
 'that which is written and is the doctor's'

The patterns of compatibility of nominalizations with both possessive pronouns and possessive quasi-adjectives are paralleled by their interaction with the verb *mať* 'have'.

Predicate 'have'

The predicate *mať* 'have', similarly to English *have*, can express a range of meanings, including but not limited to possession, control (42-a), as well as property ascription (42-b)-(42-c).

- (42) a. Mám dom. (cf. môj dom)
 I-have house my house
 'I have a house'
 b. Mám hlad.
 I-have hunger
 'I'm hungry.'
 c. Mám radosť.
 I-have gladness
 'I'm glad.'

The verb *mať* is allowed for derived nominalization, shown in the example (43). The sentence talks about a player who the speaker wishes *had speed*, meaning the speaker wishes *he were fast*. The DN *rýchľ-osť* ‘speed’ is used to ascribe the property *rýchľy* ‘fast’ to the implied subject *player*.

- (43) a. Kiež by **mal rýchľ-osť** i pohybovú techniku
 if-only would have fast+*osť* and-also movement technique
 svojho protihráča.
 his opponent
 ‘If only he (a player) had the speed and the movement technique
 of his opponent.’

For A-DPs, on the other hand, the predicate *mať* does not serve the function of property ascription. If the DN is substituted with an A-DP in the above example, as shown in (44), we cannot obtain the same meaning that the player is fast. A trope A-DP cannot be used with the predicate *mať*. However, another similar sentence (not from SNK) in (45) shows that a bearer A-DP is acceptable. The sentence means that the country has *things* that are modern, fast, clean and safe. The difference is subtle, but there is no entailment that the *country* itself is modern, fast, clean and safe; i.e. there is no predication of the property denoted by the adjective within the A-DP on the subject.

- (44) *Kiež by **mal (to) rýchľ-e...**
 if-only would have TO fast
 cannot mean: ‘If only he were fast...’
- (45) Dobre sa tu žije. Táto krajina **má** to moderné, **rýchľe**,
 well REFL here live this country has TO modern fast
 čisté a bezpečné.
 clean and safe
 ‘Life here is good. This country has that which is modern, fast, clean
 and safe.’

The above contrast shows that DNs are allowed to combine with the predicate *mať* to express that the subject of *mať* ‘have’ can be described by the property denoted by the base of the DN. The verb *mať* itself is also syntactically possible with A-DPs, but only with bearer A-DPs and with an interpretation of temporary control, not property ascription.

The following table summarizes the findings of all the tests that I have discussed.

	GEN NP	GEN PP	POSS PRONs	POSS ADJs	HAVE
DN	yes	yes	yes	yes	yes
bearer A-DP	no	yes	no	no	yes
trope A-DP	no	no	no	no	no

Table 3.4: Compatibility of DNs and A-DPs with Possessive-Genitive structures

3.4 Syntax and semantics of derived nominalizations

With the descriptive foundation laid, in this section I will present the analysis of the syntax and semantics of *-ost'* derived nominalizations, building on the analysis of A-DPs which was presented in Chapter 2. The main characteristic of DNs that I aim to account for in the analysis is that a DN, as a noun, can be autonomously used for reference and does not require an anchor, i.e. an expression of the bearer is not obligatory for reference. I will show that the bearer argument of the base adjective is existentially bound by means of derivational morphology. The role of genitive and possessive structures such as bare GEN NPs and the predicate *mať* 'have' is to provide, via a pragmatically determined relation to the bearer, additional restrictive information in order to identify the bearer. The pragmatically determined relation they contribute is not in itself a sufficient anchor for the bearer which explains the basic contrast between the reference to property via a noun and via an adjective. In Slovak nominalizations, this analysis accounts for the ungrammaticality of trope A-DPs in genitive and possessive structures.

I propose the following simple syntactic structure for DNs, based on their nominal behavior.



The nominal layer accounts for DN's nominal inflection, incompatibility with adverbs, compatibility with adjectives and pronouns. The *-ost'* suffix is introduced in the N position. I will show further in this section that this is so in order to supply what is needed to make the property denoted by the base adjective manifest, and crucially do so below the DP projection. Not represented is the NumP layer with a [+count] feature which I suggest is

present for certain DNs and accounts for the fact that *-osť* nominalizations can appear in plural when reified. For the purposes of the analysis, I will be setting aside those DNs that refer to the bearers of the property and focus only on the comparison of trope-denoting nominalizations. Furthermore, the syntactic tree likely contains an AP layer as well that would explain adverbial incorporation in DNs such as in (47) and others. I omit representing an AP layer because it is not directly involved in explaining the grammaticality of DNs in genitive and possessive structures described in this chapter.

- (47) a. krátko-zrak-osť
 shortly.ADV + sight.ADJ + *osť*
 ‘shortsightedness’
 b. tvrdο-hlav-osť
 hard.ADV + head.ADJ + *osť*
 ‘stubbornness’
 c. márnο-tratn-osť
 in-vain.ADV + spending.ADJ + *osť*
 ‘wastefulness’

The basic idea of the semantic proposal for DNs finds inspiration in the analysis of deverbal nouns by Winter and Zwarts (2011). Their claim is that the suffix *-er* binds the event variable posited for deverbal nouns, such as for example *dancer* (48).

$$(48) \quad \llbracket \text{danc-er} \rrbracket : \lambda x \exists e [\mathbf{dance} (e, x)]$$

The suffix *-osť* applies to adjectives in a similar way. It existentially binds the bearer variable within the denotation of the adjective, proposed in Chapter 2 and for convenience represented again in (49). The denotation of the deadjectival nominalizing suffix *-osť* is shown in (50).

$$(49) \quad \llbracket A \rrbracket : \lambda x \lambda y^{trope} [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$$

$$(50) \quad \llbracket -osť \rrbracket : \lambda A_{\langle e, \langle e, t \rangle \rangle} \lambda y^{trope} \exists x [A(y^{trope})(x)]$$

The denotation of a DN, then, is derived by the morphological application of the suffix to the adjective, shown in (51).

$$(51) \quad \llbracket A + -osť \rrbracket :$$

$$\begin{aligned} & \lambda A_{\langle e, \langle e, t \rangle \rangle} \lambda y^{trope} \exists x [A(y^{trope})(x)] (\lambda x \lambda y^{trope} [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]) \\ & = \lambda y^{trope} \exists x [\lambda x \lambda y^{trope} [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)] (y^{trope})(x)] \\ & = \lambda y^{trope} \exists x [\text{adj}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)] \end{aligned}$$

The one main difference between the semantic makeup of DNs and trope A-DPs provides a desirable prediction. The value for the bearer variable is supplied within the DN itself, by means of a derivational affix. In contrast, for the affixless trope A-DPs, the value for the bearer variable must be supplied by an external lexical item, namely by the required *na*-PP complement. The far-reaching consequence of how the bearer variable is saturated in adjectives boils down to this - the trope-denoting expression is either referentially autonomous without a complement (DNs) or it is not referentially autonomous without a complement (trope A-DPs). This difference accounts for the observable distributional differences as well as the differing interpretations that have been described.

3.4.1 Applying the analysis to possessive structures

Returning to the semantics of the derived nominalization, (51) denotes a set of tropes to be specified by the base adjective from which the DN is derived. For example, the denotation of *rýchľ-ost'* 'fastness'/'speed' in the sentence (52-a) is shown in (52-c). The DN being used in an argument position motivates the noun to embed under DP and further resolve as either definite or indefinite. For the sake of illustration, the trope variable is bound by an existential operator in (52-c), triggered by an indefinite interpretation.

- (52) a. hráč má **rýchľ-ost'**
 player has fast+*ost'*
 'the player has speed'
- b. $\llbracket \text{rýchľ-ost}' \rrbracket :$
 $\lambda y^{trope} \exists x [\text{rýchľy} (y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$
- c. $\exists y^{trope} \exists x [\text{rýchľy} (y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$

The DN in the previous example participates as an object of the predicate *mať*, a grammatically allowed and fairly common structure. It is comparable to expressions in English such as *Helen has more courage than beauty* (Francez and Koontz-Garboden, 2017, p.40), a pragmatically marked way to say that *Helen is more courageous than she is beautiful*. The "possessive" strategy of property ascription is not semantically equivalent to predication and is pragmatically marked in usage. In what follows, I will demonstrate how the non-predicative property ascription relation is a natural outcome of the given semantics of DNs and the semantics of the predicate *mať*.

The Slovak predicate *mať* denotes a simple underspecified relation. More details of quite what the underspecification means and what kind of things the relation holds between has been investigated for the predicate 'have'

in other languages, for example Francez and Koontz-Garboden (2017) and many others (see an overview in Myler (2014)). For my purposes a simple formulation in (53) suffices.

$$(53) \quad \llbracket \text{mař} \rrbracket : \lambda x \lambda y [\pi(y, x)]$$

(where π is a contextually determined relation)

I suggest that the underspecified relation π is pragmatically determined. In usage, it typically amounts to property ascription, due to the nature of the DN denotation of a trope.⁹ The denotation of *have speed* would be the following, which states that there is an ascription relationship between an individual z (the external argument of ‘have’) and a unique trope *fast*, a trope which holds of some bearer x existentially bound by the suffix *-osř*.

$$(54) \quad \llbracket \text{mař rýchl-osř} \rrbracket :$$

$$\lambda z \iota y^{trope} \exists x [\pi(z, (\mathbf{rýchl}y^{trope}) \wedge \text{bearer}(y^{trope})(x)))]$$

The validity of the derivation of ‘have’ + DN cannot be fully appreciated without an observation of how a trope A-DP behaves when in the object position of the same predicate. The denotation of trope A-DP is reproduced in (55) where, as argued for in Chapter 2, x is to be supplied by the PP complement and y to be bound by an obligatory presence of *to*. As (56) shows, a derivation inevitably fails since the adjective by itself is incompatible: it contributes too many unsaturated variables. Simply put, because the adjective is not predicated on anything, it does not have reference, rendering the sentence ungrammatical. As evidenced in the descriptive section, the possessive ‘have’ structure can only be saved if the interpretation of a bare adjective in the object position is that of a bearer A-DP. Again, I provide the denotation of bearer A-DPs in (57) for reference. If the variables are bound, the DP layer can assign reference and the result is a denotation of ‘to have fast things’ (58). In this case the π relation would be contextually determined as control.

$$(55) \quad \llbracket \text{trope A-DP} \rrbracket : \lambda x \lambda y^{trope} [\text{adj}^{trope}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)]$$

$$(56) \quad * \llbracket \text{mař rýchl-e}_{trope-A-DP} \rrbracket :$$

$$\lambda x \lambda y \lambda y^{trope} [\pi(y, (\mathbf{rýchl-e}^{trope}(y^{trope}) \wedge \text{bearer}(y^{trope})(x)))]$$

$$(57) \quad \llbracket \text{bearer A-DP} \rrbracket : \iota z \exists y^{trope} [\text{adj}^{trope}(y^{trope}) \wedge \text{bearer}(y^{trope})(z)]$$

$$(58) \quad \llbracket \text{mař rýchl-e}_{bearer-A-DP} \rrbracket :$$

⁹If the DN is reified, for example for *tažk-osř* *tažký+osř* ‘difficult’+*osř* = ‘difficulty’/‘trouble’/‘thing that is difficult’ (can be pluralized), then π would be specified by the situation as control, not ascription.

$$\lambda y \iota z \exists y^{trope} [\pi(y, (\mathbf{r\acute{y}chl-e}^{trope}(y^{trope}) \wedge \mathit{bearer}(y^{trope})(z)))]$$

The following corpus examples (59) show that *mať* ‘have’ can take an A-DP as its object (examples such as these are not abundant, but they exist):

- (59) a. Nemám viac než potrebujem pre správny a
not-have more than need for right and
plnohodnotný život. **Mám to podstatn-é** a
comfortable life have TO basic and
najdôležitejš-ie.
most-important
‘I don’t have more than I need for a right and comfortable life.
I have the basic and the most important (things).’
- b. **Máme toho zl-é-ho** v sebe dosť zo znečisteného
have TO bad in us enough of polluted
prostredia a chemicky ovplyvňovanej stravy.
environment and chemically manipulated food
‘We have enough of the bad in us from the polluted environment
and chemically manipulated food.’

The sentences above have an interpretation of control of the basic and most important stuff in (a), and of the bad stuff/particles in (b). The predicate ‘have’ establishes the control relation between the subjects and the A-DPs in the object position, but not ascription of the property on the subject. The sentences also seem to come with a strong preference for the presence of the demonstrative *to*. If the demonstrative precedes an A-DP in the object position, it unambiguously marks it as definite and referential. Remember that an adjective without a DP layer, i.e. without being referentially anchored, cannot enter a ‘have’ relation. This is true for either type of A-DP. For trope A-DPs, in particular, this means that they could, in theory, only become an object of *mať* ‘have’, if they are referentially anchored in an expressed bearer. Yet, in practice, trope A-DPs are never grammatical as an argument of ‘have’. See (60) for three attempts to form such a sentence with the intended meaning ‘The game has speed/The game is fast’. The first (a) could be said to fail because the argument ‘game’ appears twice. In (b), ‘game’ is embedded in the prepositional phrase and cannot be interpreted as the subject of the predicate *mať*. In (c), again the subject of the predicate cannot be interpreted as the bearer of the property.

- (60) a. *Hra má to rýchly-e na hre.
game has TO fast on game
intended: ‘The game has speed.’

- b. *Má to rýchľ-e na hre.
 has TO fast on game
 intended: ‘The game has speed.’
- c. *Hra má to rýchľ-e.
 game has TO fast
 intended: ‘The game has speed.’

These three ungrammatical examples show that the trope A-DP’s incompatibility with ‘have’ cannot be overcome by the subject supplying the value for the bearer variable. The bearer variable cannot be saturated across the DP layer boundary.

To summarize this simple idea, the bearer variable for DNs is saturated by the derivational suffix. This happens before the nominalization combines with the predicate ‘have’. Therefore, the subject of ‘have’ only gives more identifying information about the bearer of the property and is crucially not predicated upon by either the DN or the base adjective within.

The explanation for the pattern of A-DPs’ incompatibility with possessive quasi-adjectives derives from extending to them the semantics that was proposed for the predicate *mať* ‘have’ (53). The precedent is found in Partee and Borschev’s (2003) representation of the English ’s possessive structure, given in (61)¹⁰ and adopted for Slovak POSS ADJs. I assume the particular manifestation of the English possessive in the form of ’s is purely syntactic and has no additional semantic import that would make it, for the present purposes, significantly distinct from the Slovak suffixes *-ov/-in*.

$$(61) \quad \llbracket \text{autor-ov} \rrbracket \approx \llbracket \text{author's} \rrbracket_{(e,t)} : \lambda x[\pi_{POSS}(\text{author}, x)]$$

Note the semantics is virtually the same as for the predicate ‘have’. Both the predicate ‘have’ and the POSS ADJ denote a contextually determined relation between the external argument and the deadjectival nominalization that is referentially autonomous, i.e. DN or bearer-denoting A-DP only. Therefore, because the explanation that was given for the incompatibility of trope A-DPs with the ‘have’ rested on the fact of a semantic type mismatch (i.e. the remaining unsaturated bearer variable crashes the derivation), the same idea basically transfers to the possessive quasi-adjectives. Likewise, Slovak possessive pronouns can be included in the account of possessive quasi-adjectives. Exact semantic representation and some problems remain for

¹⁰The subscript POSS is from Partee and Borschev (2003), though in their formalization they use *R* in place of π . I set aside whether there is only one underspecified relation or there are distinct types of π relation each of these genitive/possessive structures contribute on the semantic level, and whether this affects the varied ways they get instantiated in syntax.

further research; for example, while ‘have’ can combine with bearer A-DPs, possessive adjectives cannot do so as easily, see (34) and (41).

3.4.2 Applying the analysis to genitive structures

Another contrast between the nominalization strategies that was revealed in the first part of the chapter pertains to their (in)compatibility with genitive complements. Examples such as (21), (22-a), (23) and (24) in this chapter show that DNs allow a bare GEN NP complement. A-DPs, both bearer and trope type, strictly reject bare GEN NP; this is shown in examples (21-b), (22-b), (23-b) and (24-b). For convenience, I summarize the contrast in the minimal pair in (62).

- (62) a. **ťažk-ost̃ demokracie**
difficul+*ost̃* democracy.GEN
‘the difficulty of democracy’
b. *...(to) **ťažk-é demokracie**
(TO) difficult democracy.GEN
intended: ‘the difficulty (difficult aspect) of democracy’

The genitive structure is typically considered to belong under the general umbrella of possessives and as such it is related to the predicate ‘have’. Yet, in light of the explanation just given in the previous subsection, the pattern of compatibility with DNs and incompatibility with A-DPs is puzzling. It was said that DNs are referentially autonomous and therefore a suitable object of the verb *mať* ‘have’. It is unexpected, then, that it would be DNs that would so naturally come with a complement.¹¹ We should expect a reverse pattern, in which the trope A-DPs would accept a genitive complement, because they are referentially incomplete unless the bearer is linguistically expressed. I will address this puzzle in the following paragraphs by way of exploring two

¹¹The reading in (62-a), at some intuitive level, is that the democracy is difficult. Such an intuition is so strongly perceived in parallel structures in other languages that it has led some authors to propose that DNs require a complement for interpretability, and that in their internal syntax (under assumptions of Distributed Morphology), the categorical head N embeds a PredP, a predicative phrase (e.g. Roy (2010), Arsenijević (2012)). I do not agree with such an analysis for Slovak DNs, on the basis of counterexamples such as the following, none of which predicate the property onto the GEN N:

- (i) a. *nezamestnanosť národa* ‘unemployment of a nation’
b. *návštevnosť divadla* ‘attendance of a theater’
c. *pravdivosť materiálov* ‘truthfulness of materials’
d. *budúcnosť letectva* ‘future of aviation’

hypotheses related to a long debated topic in the literature: whether genitive complements are arguments or modifiers. While so doing, I will show further support for the main thesis of this work - that A-DPs behave as adjectives because there is no nominal projection in their structure.

The first hypothesis I will consider is that the (in)compatibility is a result of the fact that all genitives are modifiers, and A-DPs are not compatible with modifiers. The second hypothesis I will consider is that genitive NPs are not modifiers but arguments that have such properties that would make them unsuitable to be selected by A-DPs for the purposes of identifying the property bearer. I will conclude that a bare genitive, if selected by a noun (any noun, not only DNs) can be in the “external argument” relation to the head noun and therefore it is expected that the inference of property ascription would arise when GEN NP follows a DN. And, if selected by an adjective (in fact I will show that adjectives can assign cases, including genitive, to arguments), GEN NP can only be in an “internal argument” relation with the head adjective.

Under the first hypothesis, the contrasting patterning of DNs and A-DPs with bare GEN NP would be the consequence of the fact that the GEN NP acts as a modifier, not an argument. The basic idea is that as modifiers (specifically, as intersective $\langle e, t \rangle$ predicates), GEN NPs would provide identifying information about the referent by restricting the domain given by the head DN or the adjective withing an A-DP in a sentence. A uniform modifier approach to all genitives is taken for example in Hellan (1980), Kolliakou (1999), Solstad (2010) and also thoroughly explored in Partee and Borschev (2003). For the purposes of this discussion, I will not employ any one of these analyses in full, but rather aim to show that such an approach could in principle account for some of the empirical data of Slovak nominalizations, however, a few immediate problematic consequences arise.

Adnominal bare genitive can express a broad range of possible “functions” (relations), part-whole relationship, event participation, type belonging, amount/measure, origin, etc. (Partee and Borschev (1998), Borschev and Partee (1999), and MSJ (1966)), see also (20). These functions, under the modifier hypothesis, are not separate canonical meanings but only pragmatic inferences of modification. The GEN NP technically provides nothing more than the answer to the question ‘what type of x?’ or ‘which x?’. For example, *dom primatora* ‘house mayor.GEN’ in (20) is an answer to *ktory dom?* ‘which house?’ (cf. not necessarily ‘whose house?’) and using the modifier *primatora* is a way we restrict the domain of houses to pick out the one referent intended by the speaker.

The implication of characterizing genitives as modifiers is that A-DPs would not be expected to be compatible with them presumably because they

do not allow any modifiers at all. This actually works very well for trope A-DPs, which reject adjectival modification. It was shown in Chapter 2 that the reason why they reject adjectival modification is because the uniqueness presupposition of the trope variable in the denotation of trope A-DPs requires the referent to be in a singleton set. There is no reason to further restrict a singleton set to pick out the referent from it and thus restrictive modification is infelicitous.

While this explanation may work for trope A-DPs based on the uniqueness presupposition condition I had proposed for them, much more would have to be said to explain the contrast between them and bearer A-DPs or DNs. One of the problems that arises is that the number feature proposed for bearer A-DPs is [-count], and in fact, they accept adjectival modification (see Section 3.1 in Chapter 2). If it is only a matter of infelicity with a uniqueness presupposition carried by the trope variable, I see no obvious reason why bearer-referring A-DPs would reject bare GEN NP modifiers. Second, the fact that DNs accept a bare GEN NP modifier would lead to one of two possibilities. The first is that they denote tropes but a type of one with no uniqueness presupposition; this would raise further (philosophical) questions about the character of tropes. Recall that a trope is defined as a concrete manifestation of a property in a particular bearer, with a unique dependence relationship between the two; it is contradictory under this definition to say the unique manifestation is manifest in multiple bearers. The second possibility is that DNs would not denote tropes at all, contrary to Moltmann (2004). A case could be made for analyses that treat DNs not as manifestations of properties but as denoting eventualities (e.g. Glass (2014), Villalba (2013), Roy (2010)), or portions of qualities (e.g. Frances and Koontz-Garboden (2017)). In this thesis I take the stance for a simpler ontology and so I leave this thread of analysis open for the time being. For empirical problems that do not directly involve DNs and A-DPs, and also serious theoretical challenges to treating genitives as intersective modifiers, see Partee (1997) and Partee and Borschev (2003).

I now turn to the second hypothesis, that GEN NPs are arguments. This approach is advocated by Jensen and Vikner (1994), Partee and Borschev (1998), Borschev and Partee (1999) and Vikner and Jensen (2002). As arguments, GEN NPs are selected by relational DNs, though I show that the selection is optional. On the other hand, they are not compatible with A-DPs, which will be explained under this hypothesis. Although it is an ongoing and controversial linguistic problem whether nouns can be transitive in the same sense that verbs are, it is normally recognized that there are nouns that are relational, like English *stranger*, *enemy* and *sake*. Derived nominalizations, especially deverbal ones, are usually included in this group.

Semantically, they are said to denote two-place relations and inherit the argument structure of its base (Chomsky (1970), Grimshaw (1990)). However, linguists have also noted the optionality of nominal arguments, even if the noun conceptually entails the existence of an object that it is related to. The illustrative examples in (63) from Barker (2011) show that depending on the lexical item, the presence of an overtly expressed argument can be (a) prohibited, (b) optional or (c) required.

- (63) a. the stranger → *the stranger of John
 b. the enemy → the enemy of John
 c. *the sake → the sake of John

In the case of Slovak DNs, the level of optionality of their genitive argument would place them in the group (b); as can be seen in (64). Both of the following sentence variants are grammatical and the DN with or without a genitive argument could have the same referent.

- (64) a. Bol to umelecký zámer alebo **neznal-osť** **autora**?
 was it artistic intent or not-knowing-ost̃ author.GEN
 ‘Was it artistic intent or the ignorance of the author?’
 b. Bol to umelecký zámer alebo **neznal-osť**?
 was it artistic intent or not-knowing-ost̃
 ‘Was it artistic intent or ignorance?’

At this point, it would be convenient to argue that only relational nouns, like DNs, are able to select an argument and assign genitive case to it, and adjectives are not able to do that. That would explain why GEN NPs are incompatible with A-DPs. However, this does not turn out to be the case. There are adjectives in Slovak that take on bare, prepositionless arguments and assign cases to them, some of them are listed in (65).

- (65) a. pln-é chýb
 full mistakes.GEN
 ‘full of mistakes’
 b. primeran-é okolnostiam
 appropriate circumstances.DAT
 ‘appropriate for the circumstances’
 c. podobn-é štýlom
 similar style.INSTR
 ‘similar in style’
 d. ovplyvňujúc-e človeka
 influencing person.ACC
 ‘influencing a person’

Any of the above combinations of an adjective and its direct argument could serve as A-DPs. For example, in the pair of constructed examples in (66), a bare GEN NP follows a bearer A-DP in (a) and a trope A-DP in (b), though the latter does not have a natural colloquial translation in English. Note that this seemingly contradicts what had been claimed for examples such as e.g. (21-b).

- (66) a. To správne dal profesor na jednu a to **pln-é**
 TO correct put professor on one and TO full
chýb dal na druhú stranu.
 mistakes.GEN put on other side
 ‘The professor put that which was correct on one side, and that which was full of mistakes on the other.’
- b. ?To **schopn-é výkonu** na tomto mužstve je to,
 TO capable performance.GEN on this team is that
 že sa nikdy nevzdávajú.
 that REFL never give-up
 ‘That can-do attitude of the team is that they never give up.’

These facts, however, do not contradict the previously stated generalization that A-DPs are not compatible with bare GEN NP. When adjectives select a genitive complement, they assign an internal argument role to the discourse referent it supplies (i.e. the theme, the controlled, the possessee, etc.). For example, in (66-a), it is not the mistakes that are full, on the contrary, it is the mistakes that fill some other entity, like homework assignments. In the same vein, in (66-b), the performance is not the entity that is capable, it is what the sports team is capable of. Furthermore, not all adjectives are free to select a bare genitive complement, like nouns at large are; only certain adjectives do, e.g. *plný* ‘full’ or *schopný* ‘capable’. Most adjectives are ungrammatical and nonsensical in combination with genitive, for example those in (67).

- (67) a. *primeran-é okolností
 appropriate circumstances.GEN
- b. *ťažk-é žiakov
 difficult students.GEN
 (intended bearer reading, cf. (23-b))

As opposed to the narrow availability of genitive argument selection for adjectives, all DNs, without any exception, can take a bare GEN NP. In all cases the relation that is established between a DN and its GEN NP argument is something like possession and property ascription (e.g. ‘difficulty of

democracy’ implies that democracy is difficult, see (62-a)). It is crucial to point out that even regular sortal nouns, without exception, can freely take bare GEN NPs and they all establish this kind of relation.¹² The relation is characterized by the GEN NP being assigned by the head noun an external argument role to the discourse referent it supplies (the controller, the possessor, the property bearer, etc.).

In summary, it is independently rare for adjectives to select a genitive argument. For those adjectives that do, they never stand in such a relation to it that the genitive NP would be a suitable description of the property’s bearer. Therefore, GEN NPs are rejected by trope A-DPs, because trope A-DPs require an overt expression of the property’s bearer, i.e. trope A-DPs require an external argument, a function that genitive case cannot contribute to adjectives.¹³

In addition to the incompatibility with trope A-DPs, GEN NPs are rejected by bearer A-DPs as well, e.g. in (23-b). Genitive complements do not have the function of describing the bearer for any adjectives. These conclusions reinforce the claim in this thesis that A-DPs are true adjectives and there is no nominal projection in their syntactic structure.

Before I conclude this section, I will briefly comment on the remaining contrast from the possessive/genitive family: *z*- prepositional phrase. Despite similarities to the rest of the possessive and genitive family, GEN PP is distinct in not always being paraphrasable with the other structures (see (25)). It does not consistently give rise to a property ascription interpretation for DNs, never does so for bearer A-DPs, and is never grammatical with trope A-DPs (in fact, it serves as a reliable diagnostic for discerning the bearer and trope A-DPs). Therefore, I suggest the preposition *z* (with its semantic contribution of ‘directional source’/‘origin’) is not the overt realization of the possessive relation π , as it is perhaps the case for the English analogue preposition *of*. Because of this, I do not extend the analysis of bare

¹²Admittedly a generalization, but I submit that ascription, control, part-whole etc. listed in (20) fall under possession and its metaphoric extensions. For example, in (i), the house is a non-relational noun. The relationship between the head noun house and its genitive complement mayor is that the mayor controls/owns the house and the house can be described by a belonging relation to the mayor.

- (i) dom primatora
house mayor.GEN
‘the house of the mayor’

¹³Out of the six Slovak cases, prepositionless arguments in nominative and locative are nonexistent. This seems to be a clue to why locative *na* PP complement would be specialized for expressing the bearer in trope A-DPs.

GEN NPs to the *z*- prepositional phrase.

3.5 Chapter summary and conclusion

In this chapter I presented a comparison between A-DPs and nominalizations derived with a suffix *-ost'*. The main claim of this chapter was that understanding the syntactic distributional differences between them, specifically each nominalization strategy's compatibility with a variety of possessive and genitive structures, is one of key supporting arguments for the thesis that A-DPs allow for reference via true adjectives embedded under a determiner phrase.

This chapter lays out many commonalities and some of the main differences between reference via nouns and reference via adjectives. The main commonality is that both DNs and A-DPs can refer to tropes of properties and also to the bearers of the properties denoted by the adjective, supporting the claim this chapter began with: these expressions are in competition and convey a very similar, most of the time nearly identical, meaning. This initial observation is superficial, however, because the chief contrast between them is that the bearer variable contributed by the core adjective can be identified in multiple ways when the reference is made a derived nominalization. Any one of the structures within the genitive/possessive family: GEN NPs, GEN PPs, POSS ADJs, POSS PRONs as well as the predicate 'have' can give information to identify the bearer of the property. In contrast, the expression of the bearer for trope A-DPs is not only required but also restricted to only one way, namely locative PPs.

The chapter was for the reasons of scope limited to description and mostly informal discussion of the semantics of Slovak deadjectival nominalizations. The subject of the syntactic correspondence to the semantics of these expressions (e.g. the type of the relation π and its place in the syntax) was barely broached. Further research should be carried out to better support the assumptions and claims I made about the argument/adjunct distinction of the various possessive and genitive structures, testing them against more thorough diagnostics at the syntax/semantic interface (e.g. quantification, extraction, etc.). Though open questions remain, the evidence of distributional patterning decidedly points to differences between the nominalization strategies and the crux of those differences lies in the fundamental categorial distinction between them, namely what thematic role adjectives and nouns assign to their complements.

The contrastive analysis of nominalization strategies in this chapter provokes further questions about the nature of reference via adjectives. What is

it precisely that is the crucial element for reference - if it is not the presence of nominalization morphology, is it the presence of a determiner? Slovak is unique in the literature on A-DP expressions because the determiner element *to* is not obligatory. The next chapter takes up this question and provides an explanation of the determiner's presence in the A-DP structure.

Chapter 4

THE ROLE OF A DEMONSTRATIVE IN A-DPs

4.1 Introduction

Most A-DPs in Slovak include the element *to* which precedes the core adjective, as evidenced by many examples shown throughout this work thus far. Some do not include *to*. To illustrate, two examples are given here (repeated from the previous chapters), showing the main puzzle this chapter will focus on: What is the contribution of *to* in Slovak A-DPs?

- (1) Mám **to** podstatné a najdôležitejšie.
have TO relevant and most-important
'I have the basic and the most important (things).'
- (2) Dokážu oddelovať podstatné od nepodstatného.
manage separate relevant from irrelevant
'They are able to separate relevant from irrelevant (things).'

My goal in this chapter is to investigate data like these and explain why Slovak A-DPs do not require *to* in every instance. In order to do so, a necessary step is to understand the role of *to* within A-DPs. In larger Slovak grammar, *to* has both a determiner (3-a) and a pronominal use (3-b). Modified pronouns (always post-modified), as for example in (4-a), have certain surface-level similarity to A-DPs (4-b). Therefore, a large portion of the chapter will deal with the question of which of the grammatical roles *to* has in the structure of A-DPs in particular.

- (3) a. Mám rada **to** mesto.
have like TO town

- ‘I like **that** town.’
- b. Pozri sa na **to**!
 look REFL on TO
 ‘Look at **that**!’
- (4) a. **niečo** krásne
 something beautiful
 ‘something beautiful’
- b. **to** krásne
 TO beautiful
 ‘the beautiful (things)’

The structure of this chapter will be the following. In Section 2, I will describe the properties of *to* and its distribution in Slovak grammar in general. Then, in Section 3 I will turn my attention to its category within A-DPs specifically. I will consider the evidence for a pronominal and determiner hypotheses. A number of diagnostics will be used in Section 3.1 to show that while A-DPs are similar to cases of post-pronominal modification in some ways, the pronominal hypothesis is still the weaker one. The determiner character of *to* will be further confirmed in Section 3.2, in which I will show that its diverse functions in A-DPs are parallel to *to*’s behavior when in combination with Slovak nouns. In this section, *to*’s semantic and pragmatic contribution to this type of deadjectival nominalization will be laid out in detail. In Section 4, the cases where *to* is not present in the bearer A-DP structure, and the cases of obligatory presence of *to* in the trope A-DP structure occurring in specificational sentences will be explained in light of information structure-driven word order in Slovak. Section 5 will conclude with a summary.

4.2 Distribution of *to* within Slovak grammar

The item *to* is the singular, neuter form of *ten*, a word comparable to the English demonstrative *that*. The inflectional forms for all three genders of *ten* in all cases and numbers are shown in the Table 4.1, followed by a few examples for illustrative purposes (5). Only singular neuter is relevant to Slovak A-DPs.

	MASC SG/PL	FEM SG/PL	NEUT SG/PL
NOM	ten / tí	tá / tie	to / tie
GEN	toho / tých	tej / tých	to / tých
DAT	tomu / tým	tej / tým	tomu / tým
ACC	toho / tých	tú / tie	toho / tie
LOC	tom / tých	tej / tých	tom / tých
INSTR	tým / tými	tou / tými	tým / tými

Table 4.1: Inflectional forms of the demonstrative *ten*

- (5) a. Chlieb, **ten** je na **tom** stole.
bread.M.NOM TEN.M.NOM is on TEN.M.LOC table.M.LOC
'As for the bread, it is on that table.'
- b. Káva, **tá** je na **tej** policičke.
coffee.F.NOM TÁ.F.NOM is on TÁ.F.LOC shelf.F.LOC
'As for the coffee, it is on that shelf.'
- c. Maslo, **to** je k **tomu** pečivu.
butter.N.NOM TO.N.NOM is for TO.N.DAT pastry.N.DAT
'As for the butter, it is for that pastry.'

The Morphology of the Slovak Language (MSJ, 1966, pp.267-269) characterizes *to* as a pronoun that is mainly used to refer to proximate objects but has a wide flexibility in how it is used in the language. MSJ identifies as many as 13 functions (see Appendix at the end of this chapter), though some could be considered sub-types of the others (e.g. variations of the anaphoric function). In a more modern study, Gajdošová (2008) compiles a spoken corpus to determine the frequency of each of the MSJ's functions. She identifies the most frequent uses to be as an anaphoric and an emphatic determiner. Similarly, Dudok (2007, pp. 341-353) identifies 14 uses of *to* within discourse. KSSJ (2003) condenses the complexity of this lexical item into only three main functions: (i) pronoun, (ii) conjunction, (iii) particle-like discourse connector. Functions (ii) and (iii) indicate that the neuter variant of this lexical item is employed for functions outside of a typical pronoun or determiner, which its masculine and feminine counterparts are not. These cited works of Slovak linguistic literature, though descriptively quite extensive, lack any notable recognition, not to mention an explanation, of *to*'s combination with adjectives in forming the A-DP expressions. Nevertheless, the distribution of *to* in Slovak grammar, to the extent it is described in Slovak literature, still reveals its core characteristics (e.g. anaphoric, deictic), and thus warrants a short overview of it. The examples below are from

Gajdošová (2008), supplemented by my own findings from the SNK.

First, let us consider the situations in which *to* appears independently, as a pronoun. In the following cases, *to* is a pronoun anaphoric to an entity mentioned in the previous context (6-a), and anaphoric to a proposition expressed by the previous coordinated sentence in (6-b). Another related possibility is for the *to* to be cataphoric, as in (6-c).

- (6) a. Ale asi najviac mám najradšej taliančinu_i, **to**_i je taká
but maybe most have preferably Italian TO is such
moja láska.
my love
'Maybe I like Italian the most. That is something of a love-affair
for me.'
- b. [Káva vychladla]_i a Anna si **to**_i ani nevšimla.
coffee got-cold and Anna REFL it not-even notice
'The coffee got cold and Anna didn't even notice it.'
- c. A **to**_i nie je pekné, že [tomu dotyčnému závidí odmenu]_i.
and TO not is nice that the concerned envy reward
'That is not nice that she holds back a reward from the concerned
person.'

A demonstrative pronoun is used deictically when the speaker is pointing to an entity in the extralinguistic context (7-a). The deictic pointing/drawing attention to an entity can be literal or metaphorical. In its deictic function, *to* can take on additional affixes to express distal (the prefix *tam-*) and proximal (the suffix *-to*) meaning (7-b).

- (7) a. Kto je **to**? (pointing to a man)
who is TO
'Who is that?'
- b. **Toto** (tu) je moje auto, a **tamto** (tam) je môjho
TO-TO here is my car and TAM-TO there is my
brata.
brother's
'This (here) is my car and that (there) is my brother's.'

The pronoun *to* is also used in relative clauses, exemplified in (8).¹

- (8) a. Uspokoj sa s **tým**, čo máš.
satisfy REFL with it what have

¹Slovak punctuation uses a comma for both restrictive and nonrestrictive relative clauses.

- ‘Be content with what you have.’
- b. Dostane **to**, čo si zaslúži.
 get it what REFL deserve
 ‘He’ll get what he deserves.’

A highly frequent use of *to* is as a determiner preceding nouns, illustrated in the following three examples. The first is a deictic determiner (9), the second an anaphoric (10) and the third an emphatic determiner (11). This use will be explained in greater detail in Section 3.2.

- (9) Vošiel do krčmy a tu koho nevidí. Za stolom sedel jeho
 entered in pub and here who not-see behind table sat his
 kamarát. “A čože máš v **tom** vreci?!” opýtal sa.
 friend and what have in TO bag asked part.
 ‘He entered the pub and his friend sat behind the table. “What do
 you have in that bag?!” he asked.’
- (10) a. Potom ma zobrali autom_i domov, ja som im v **tom_i** aute
 then me take car home I part. them in TO car
 zaspievala a už ma brali do kapely.
 sing and already me take into band
 ‘Then they gave me a ride home by car, I sang for them in that
 car, and they immediately brought me into their band.’
- b. Pretože [vtáka poznáš po perí_i]. Poznáte **to_i**
 because bird recognize after feathers know TO
 porekadlo.
 proverb
 ‘Because you know the bird by its feather. You know that say-
 ing.’
- (11) Občerstvenie aj nejaké **to** pívko určite bude.
 refreshments also some TO beer.diminutive certainly will-be
 ‘There will certainly be some refreshments and even some of that
 beer.’

Other types of uses, which are common but will not be as relevant in the rest of the chapter as it relates to A-DPs, are as a conjunction akin to ‘or’ (12), and as a discourse particle (13). Neither has a perfectly equivalent English translation.

- (12) Ostatní ju môžu naďalej považovať **to** za volačiu starú matku,
 others her can further consider TO for some old mother
to za akúsi vdovu, **to** za dajakú vidiečanku, **to** za obyčajnú
 TO for some widow TO for some villager TO for common
 robotníčku.
 laborer
 ‘Others may take her for either an old mother or some widow or
 some villager or some common laborer.’
- (13) a. **to** on len žartoval
 TO he only joked
 ‘(it’s that) he was only joking’
 b. **to** musíš tak kričať?
 TO must so scream
 ‘(it’s that) do you have to scream like that?’
 c. Poobede budete čakať márne, **to** chodím do telocvične.
 afternoon will wait in-vain TO go to gym
 ‘In the afternoon you’ll wait in vain, (it’s that) I am at the gym
 then.’

It is also worth pointing out, in light of uses like (12) and (13) (and various other interesting but marginal uses like these that do not carry enough resemblance to the use in A-DPs), that although *to* can be translated to English as *that*, they cannot be thought of as the same. There are other differences between them. For example, in English *that* can be used as a subordinate conjunction (e.g. *They said that it was finished*), as a relative pronoun (e.g. *The people that were present*, a demonstrative adverb (e.g. *They are that hungry*), etc., while Slovak *to* would not be grammatical in any of these syntactic positions.

In short, there is a wide range of functions that the lexical item *to* serves in Slovak; in the next section I discuss which of these is best reflected within the A-DPs.

4.3 The category of *to* within A-DPs

So far in this thesis, I have been building a description and an analysis of adjectival referential expressions in Slovak with an underlying assumption that the item *to* that often accompanies them is a determiner. The endeavor of the thesis has been worthwhile not in the least because a combination of a determiner and a bare adjective is, in Slovak and cross-linguistically, truly unusual and interesting in many ways. This assumption comes under a thor-

ough examination in this section. Establishing the syntactic function of *to*, when it appears in A-DPs², is crucial for the analysis of their structure as proposed in Chapter 2 to stand. Namely, the claim that A-DPs are true adjectives used referentially depends on the question whether *to* is a determiner or a pronoun.

The three possibilities for what *to*'s grammatical category can be are illustrated with the example sentence in (14).

(14) *toľko tam toho zaujímavého ponúkajú*
 so-much there TO.GEN interesting.NEUT.SG.GEN offer
 'they offer so much of the interesting (stuff) there'

- a. *to* is a pronoun, the head of the phrase, and it is post-modified by the adjective *zaujímavé*
 [*to*_{PRON} ADJ]
- b. *to* is a determiner and the adjective *zaujímavé* modifies a null noun (*pro*) which is the head of the phrase
 [*to*_{DET} ADJ N-*pro*]
- c. *to* is a determiner and combines with the adjective *zaujímavé* directly, with no noun in the structure
 [*to*_{DET} ADJ]

Each of the above possibilities has been entertained in the literature for parallel elements in A-DP-like expressions in other languages. For example, Bosque and Moreno (1990) examine Spanish A-DPs in which they conclude the obligatory element *lo* is a pronoun, aligning with the option (a). Kester (1996) and in a way, also Glass (2014) align with the option (b); Kester taking the Dutch *het* to be a determiner that embeds a null noun, modified by the adjective,³ and Glass takes the determiner *the* in English A-DPs to embed a noun phrase as well.⁴ As for the option (c), McNally and de Swart (2015) consider *dat*, a similar element in Dutch A-DPs to be a determiner that directly embeds an AP.⁵ Villalba (2013) likewise considers Spanish *lo* to be a determiner that directly embeds an AP.⁶ It is my aim to present

²Henceforth, I will not make claims about the lexical item's other roles in the whole of Slovak grammar; any claims about *to*'s category, function or role will be meant as limited only to A-DPs.

³See Section 3.4 in Chapter 1.

⁴The nuance of her proposal is that the head of the NP is a type shifter and not strictly a null noun; see Section 3.2 in Chapter 1.

⁵This analysis is given only for the relational type A-DP; see Section 3.5 in Chapter 1.

⁶See Section 3.3 in Chapter 1.

here evidence in support of the hypothesis that the option (c) is the most reasonable analysis for Slovak *to* within A-DPs.

Pronominality of *to* is the most obvious place to begin this discussion. From examples such as (5)-(8), it is clear that this word can stand alone and be referential, just like a pronoun would. Traditionally, Slovak grammar books categorize *to* as a demonstrative *pronoun*. The characterization as such in descriptive grammar texts is not particularly informative. I will supplement it with empirical arguments from A-DP's distribution that could lead to the conclusion that *to* is pronominal. I will now turn to these arguments.

4.3.1 Evidence from adjective ordering and pronominal modification

In this section I will explore evidence from postmodified pronouns and adjective ordering in order to test the possibility that *to* is a type of Slovak pronoun that can be postmodified, similarly to indefinite quantificational pronouns (15).

- (15) a. *niečo krásne*
 something beautiful
 'something beautiful'
- b. *nič krásne*
 nothing beautiful
 'nothing beautiful'
- c. *hocičo krásne*
 anything beautiful
 'anything beautiful'
- d. **krásne niečo/nič/hocičo*
 beautiful something/nothing/anything

The immediately noticeable difference between the quantificational pronouns above and the demonstrative pronoun *to* is their (lack of) definiteness. In fact, in masculine or feminine genders, the demonstrative pronouns normally cannot be modified, in either order (16-a), (16-b). These expressions, in the order demonstrative-adjective, are grammatical only if a noun clearly understood from the preceding context is elided (16-c), or if it is a "human reference" bearer A-DP (16-d).

- (16) a. **vysoký ten,* **vysoká tá*
 tall that.MASC tall that.FEM

- b. *ten vysoký, *tá vysoká
that.MASC tall that.FEM tall
- c. Na ten nízky kopec vyjdeme, ale na ten vysoký _ nie.
on that short hill go-up but on that tall not
'We'll climb the small hill but not the big one.'
- d. Ešte stále chodí s tým vysokým?
still go-out with that tall
'Is she still going out with that tall guy?'

Slovak personal pronouns cannot be modified with adjectives (17) either.

- (17) a. *vysoká ona, *vysoký on, *vysoké ono
tall she tall he tall it
- b. *ona vysoká, *on vysoký, *ono vysoké
she tall he tall it tall

The question remains whether *to* in neuter gender is exceptional with respect to adjectival modification. There are certain similarities in semantic and distributional patterns between postmodified indefinite pronouns and *to*-containing A-DPs that warrant testing the hypothesis that *to* is actually acting as a postmodified pronoun within A-DPs. I will now present some of these pattern similarities, structured around five diagnostics adapted from Larson and Marušič (2004). The first three, concerning (non)restrictive interpretation, comparative complement interpretation and transitive complement ordering seem to suggest that A-DPs are like postmodified pronouns, although a postmodified null noun in the structure is not ruled out. For the reader's reference, Table 4.2 on p.145 summarizes the first set of findings. I go on to reject both of these possibilities due to the results of the remaining two diagnostics, concerning compatibility with some types of adjectives and stage/individual level interpretations. Table 4.3 on p.150 summarizes the second set of findings. In addition to the diagnostics, due to parallels between the demonstrative *to*'s functions within nominal DPs and adjectival DPs, discussed in Section 3.2.

While presenting the data, I first illustrate a phenomenon in English, with examples drawn from Larson and Marušič (2004) and then show that the particular contrast they identify in English is also informative in Slovak.

Restrictive/nonrestrictive interpretation

In English, prenominal adjectives are ambiguous between having restrictive and nonrestrictive interpretations (Bolinger, 1967). For example, the sentence in (18) can be interpreted two ways: the nonrestrictive interpretation

that every word was deleted and they happen to be unsuitable, or the restrictive interpretation that only those words which were unsuitable were deleted.

- (18) Every **unsuitable word** was deleted.
a. NONRESTRICTIVE ‘Every word was deleted; they were unsuitable.’
b. RESTRICTIVE ‘Every word that was unsuitable was deleted.’
(31a) in Larson and Marušič (2004))

Postnominal adjectives in English, on the other hand, only have a restrictive interpretation. The sentence in (19) can only be understood that those words that were found unsuitable were deleted and not necessarily all the words.

- (19) Every **word unsuitable** was deleted.
a. NONRESTRICTIVE #‘Every word was deleted; they were unsuitable.’
b. RESTRICTIVE ‘Every word that was unsuitable was deleted.’
(31b) in Larson and Marušič (2004))

Modified indefinite pronouns in English have only restrictive interpretation as well, see (20).

- (20) **Everything unsuitable** was deleted.
a. NONRESTRICTIVE #‘Every word was deleted; they were unsuitable.’
b. RESTRICTIVE ‘Every word that was unsuitable was deleted.’

To summarize these facts, postmodified indefinite pronouns behave like postmodified nouns with respect to restrictive and nonrestrictive interpretations.⁷ If *to* within A-DPs is a pronoun, it would likewise be expected to follow such a pattern adjusted for Slovak data. This, interestingly, turns out to be the case. Consider the restrictive and nonrestrictive interpretations of the following Slovak sentences, with the added complexity of the absence and presence of *to*. The context of the following data is one in which a person asks another whether they had made the requested changes on the company website, and

⁷The original intention of this and a number of other diagnostics in Larson and Marušič (2004) is to argue that adjectives that participate in modification of indefinite pronouns are not underlyingly prenominal, contrary to some popular noun-rising analyses (e.g. Abney (1987) and Kishimoto (2000)). However, I set aside the discussion of their particular analysis for the purposes of analyzing A-DPs. The usefulness of these diagnostics is in probing whether A-DPs indeed sometimes pattern with postnominal, and postpronominal adjectives, raising questions about the categorial and functional status of the element *to* within them.

the second person answers as follows.

Prenominal adjectives in Slovak only allow a restrictive interpretation. In the example (21), the available reading is that those words, which were unsuitable, were deleted and possibly no others. There is no ambiguity (in contrast to English (18)); the reading that all words, which also happen to be unsuitable, were deleted is not available.

- (21) Všetky **nevhodné slová** boli vymazané.
all unsuitable words were deleted
'Every unsuitable word was deleted.'
a. NONRESTRICTIVE #Všetky slová boli vymazané. Boli nevhodné.
'All words were deleted. They were unsuitable.'
b. RESTRICTIVE Každé slovo, ktoré bolo nevhodné, bolo vymazané.
'Every word that was unsuitable was deleted.'

The following sentence (22) is identical to the one above, but additionally includes a demonstrative *tie* 'those'. The reading becomes ambiguous, and the non-restrictive interpretation is now available. The presence of a demonstrative allows for the non-restrictive interpretation.

- (22) Všetky **tie nevhodné slová** boli vymazane.
all those unsuitable words were deleted
'All those unsuitable words were deleted.'
a. NONRESTRICTIVE Všetky slová boli vymazané. Boli nevhodné.
'All words were deleted. They were unsuitable.'
b. RESTRICTIVE Každé slovo, ktoré bolo nevhodné, bolo vymazané.
'Every word that was unsuitable was deleted.'

Before I present the data on postnominal adjectives, I will make a brief preliminary comment on their use and characteristics in Slovak. Postnominal adjectives are more limited in Slovak (traditionally thought to be marginal, archaic and exceptional (Mistrík, 1966) than in English, regardless of derivational morphology. For example, while postnominal adjectives in English are common with participial adjectives, with adjectives formed with the suffixes *-able/-ible* and the prefix *a-* (e.g. *the jewels stolen*, *the individuals responsible* and *the people asleep/abroad/ashore*) (Bolinger, 1967), none of these factors play a role in Slovak. Prenominal modification is strongly preferred in Slovak; however, corpus studies demonstrate adjectives appear frequently in what is typically considered an "inverted word order". Karčová (2013) conducts a sophisticated study using the Slovak National Corpus and the quantitative results showed that the proportion is about 47,000,000 occurrences adjective-noun word order to 3,900,000 occurrences of noun-adjective word order. The

inversion is shown to be manifested mainly under the influence of Latin in religious texts and natural science terminology, in emotionally emphasized direct addressing, in highly descriptive literary texts, in advertising texts, in coordination with postnominal bare genitive, and in various contexts in order to express contrast and emphasis, etc. The following two corpus examples illustrate only the coordination and the focus/contrast contexts:

- (23) Národnú otázku vo všeobecnosti vnímal ako otázku svetových dejín, ale aj ako **otázku sociálnu** a nábožensko **mravnú**.
 national question in general perceive as question world history.GEN but also a question social and religious moral
 ‘He generally perceived the national question as a matter of world history, but also as a question that is social, religious and moral.’
- (24) Ku **dňu škaredému** pridal i **deň pekný**.
 to day ugly added also day pretty
 ‘For one bad day he also had one that was good.’

I return to the diagnostic of restrictive and nonrestrictive interpretations. Postnominal adjectives, by virtue of not being as freely available, do not give us perfectly clear facts. For example, the following two sentences are not natural utterances in an unmarked discourse but are acceptable if they are used to express contrastive focus. Such a context would be if one person asks another to make changes on the company website but unlike the last time, when the suitable words were deleted by mistake, it is the *unsuitable* ones that must be deleted. The person could phrase the request as (25), or as (26) including the demonstrative.

- (25) Všetky **slová nevhodné** musia byť vymazané.
 all words unsuitable must be deleted
 ‘All words unsuitable must be deleted.’
 a. NONRESTRICTIVE #‘Every word must be deleted. They are unsuitable.’
 b. RESTRICTIVE ‘Every word that is unsuitable must be deleted.’
- (26) Všetky **tie slová nevhodné** musia byť vymazané.
 all those words unsuitable must be deleted
 ‘All those words unsuitable must be deleted.’
 a. NONRESTRICTIVE ‘Every word must be deleted. They are unsuitable.’
 b. RESTRICTIVE ‘Every word that is unsuitable must be deleted.’

Postnominal adjectives, even if limited in contexts in which they are felicitous, follow the pattern of prenominal adjectives. They appear to have only the restrictive interpretation without a demonstrative, and can be understood both restrictively and non-restrictively with a demonstrative present. In summary, the presence of the demonstrative is the crucial requirement for the non-restrictive, parenthetical, reading of the phrase. The following is a corpus example that illustrates the contrast.

- (27) a. Ich bohatstvo bolo také veľké, aké sa nevyskytlo v
 their wealth was so big which REFL not-occur in
 žiadnych **rodoch** **kráľovských**.
 any houses/families royal
 ONLY RESTRICTIVE
 ‘Such great wealth had not existed in the royal houses/families.’
- b. Ich bohatstvo bolo také veľké, aké sa nevyskytlo v
 their wealth was so big which REFL not-occur in
 žiadnych **tých rodoch** **kráľovských**.
 any those houses/families royal
 AMBIGUOUS: NONRESTRICTIVE
 ‘Such great wealth had not existed in any of those houses/families
 (which were royal by the way).’
 AND RESTRICTIVE
 ‘Such great wealth had not existed in the royal houses/families.’

When it comes to modified indefinite pronouns, they have restrictive interpretation no matter whether the demonstrative is present or not. Both (28-a) and (28-b) have the sole reading that only those things that were unsuitable were deleted.⁸

- (28) a. **Všetko nevhodné** bolo vymazané.
 everything unsuitable was deleted
 ‘Everything unsuitable was deleted.’
- b. **To všetko nevhodné** bolo vymazané.
 that everything unsuitable was deleted
 ‘Everything unsuitable was deleted.’

Having described these two interpretive patterns, restrictive only (for postmodified pronouns) or ambiguous (for pre- and post- modified nouns),

⁸The combination of *všetko* ‘everything’/‘all’ followed by an adjective could possibly be a quantified A-DP. For example, *všetko nevhodné* is interpretable as ‘all the unsuitable (things)’, just like *všetko maslo* means ‘all the butter’. This possibility is left for further research.

which of them does the *to* + adjective combination follow? If it allows both interpretations, restrictive and non-restrictive, this would be a piece of evidence toward characterizing *to* as a determiner and expecting a silent noun in the structure. If it only allows a restrictive interpretation, it would provide some support for the hypothesis that *to* is a postmodified pronoun. The latter turns out to be the case. A nonrestrictive interpretation is unavailable for *to* + adjective combination.

Examples (29-a), (29-b) and (29-c) have only the restrictive reading. Note that I consider the phrases in these examples to be quantified A-DPs (i.e. [Quantifier [*to*-Adjective]]) and unlikely to be cases of postpronominal modification because the demonstrative *to* interrupts the phrase; this would be a very unusual circumstance (i.e. [Pronoun-Demonstrative-Adjective]).⁹ Example (29-c) is the most telling as it does not contain a questionable quantifier and still maintains a non-ambiguous restrictive interpretation.

- (29) a. **Všetko to nevhodné** bolo vymazané.
 all TO unsuitable was deleted
 RESTRICTIVE ‘All that which was unsuitable was deleted’
- b. **Veľa/Trochu (toho) nevhodného** bolo vymazané.
 much/little (TO.GEN) unsuitable.GEN was deleted
 RESTRICTIVE WITH AND WITHOUT *to* ‘A lot/a little of that which is unsuitable was deleted.’
- c. **To nevhodné** na webstránke, že ju vôbec dovolili, je
 TO unsuitable on website that her even allowed is
 znakom neschopného vedenia.
 sign incompetent leadership
 RESTRICTIVE ‘That which is unsuitable on the website (they should not have even allowed it) is a sign of incompetent leadership.’

In summary, both prenominal and postnominal Slovak adjectives strongly prefer restrictive interpretation if the phrase appears without the demonstrative *to*, but are ambiguous between restrictive and non-restrictive interpretations with the demonstrative present. Postmodified pronouns have restrictive interpretation no matter the presence or absence of the demonstrative. So far, Slovak A-DPs pattern like postmodified pronouns. Though no strong conclusions can be drawn yet, by the method of elimination it can be stated that the null noun analysis is not very plausible.

⁹Furthermore, the examples (28-a) and (28-b), if they are actually analyzed as quantified A-DPs, only carry the restrictive meaning.

Comparative adjectives with complements

The second diagnostic to be discussed is based on the premise that there is a semantic asymmetry in pre- and post-nominal comparative adjectives and their selection of a comparative complement (CC) with respect to what type of standard of comparison it provides. The asymmetry is as follows. If a prenominal comparative adjective is used, the noun must be true of the object in the comparative complement. To illustrate, note that in (30) ((35) in Larson and Marušič (2004)), Max must be a person and cannot be a dog, for example. Likewise, a comparison to a bookshelf - not a person - fails.

- (30) a. a **taller person** than Max
- felicitous if Max is a person
- b. #a **taller person** than this bookshelf
- bookshelf is not a person

The order above, [... A N CC...], compares heights of Ns and requires the standard of comparison to be a N itself.

On the other hand, if postnominal comparative adjective is used, the noun does not need to be true of the object in the CC, e.g. (31) ((36) in Larson and Marušič (2004)).

- (31) a. a **person taller** than Max
b. a **person taller** than this bookshelf

The order above, [... N A CC...], simply compares the heights and does not require the standard of comparison to be an N itself.

When it comes to postmodified indefinite pronouns,¹⁰ they pattern with postnominal comparative adjectives: the reading is not anomalous, despite the comparative complement not being a person, e.g. (32) ((37) in Larson and Marusic (2004)).

- (32) **someone taller** than this bookshelf

Bringing Slovak into this picture, the asymmetry looks like this. The order [... A N CC...] is the same as in English; it is only felicitous if the comparative complement is the same type of entity as the modified noun, a person in (33), and a traitor in the corpus example in (34).

¹⁰Under the N-raising analysis we would expect it to be underlyingly [... A N CC...]: *some taller one than this bookshelf*, and the reading should be anomalous – entailing that the bookshelf is a person.

- (33) a. **vyšší človek** ako Max
taller person than Max
'a taller person than Max'
b. #**vyšší človek** ako táto skriňa
taller person than this armoire
intended: 'a taller person than this armoire'
- (34) **Vojaci sú ešte väčší zradcovia** ako Judáš.
soldiers are even bigger traitors than Judas
'Soldiers are even bigger traitors than Judas.'

The order [...N A CC...], in contrast, allows the comparative complement to not be a person (35), or, in the corpus example (36), to not be a fairy.

- (35) a. **človek vyšší** ako Max
person taller than Max
'a person taller than Max'
b. **človek vyšší** ako táto skriňa
person taller than this armoire
'a person taller than this armoire'
- (36) **Počas jarých prázdnin sa tu môžete stretnúť s vílou**
during spring break REFL here can meet with fairy
menšou ako makové zrnko
smaller than poppy seed
'During the spring break you will be able to meet a fairy smaller
than a poppy seed.'

The important data point is that both postmodified pronouns (37) and A-DPs (38) pattern with postnominal comparative modification [...N A CC...], in which only the property is compared and the nouns can be distinct types of entities. Note that I will change the adjective in the following example from 'tall' to 'interesting' to make them more natural.

- (37) a. **niekto vyšší** ako Max
someone taller than Max
'someone taller than Max'
b. **niekto vyšší** ako táto skriňa
someone taller than this armoire
'someone taller than this armoire'
- (38) a. **to zaujímavejšie** ako Max
to more-interesting than Max
'that which is more interesting than Max'

- b. **to zaujímavejšie** ako táto skriňa
to more-interesting than this armoire
 ‘that which is more interesting than this armoire’

The A-DP in the example above is the bearer A-DP type. The interpretation is of some (unspecified) stuff that has the property ‘interesting’ in a greater extent than the complement, Max or an armoire. The stuff is not necessarily of the same type as the complement, otherwise *to zaujímavejšie ako Max* ‘that which is more interesting than Max’ would require us to interpret *to zaujímavejšie* (TO.NEUT more-interesting.NEUT), as a person.

Trope A-DPs also follow this pattern; the comparative complement can be of a different sort than the referent of A-DP. In the case below, A-DP refers to property while the comparative complement refers to things that the man had said.

- (39) Ten pán povedal zvláštne veci. Ale **to zaujímavejšie na**
 that man said strange things. but TO more-interesting on
tejto situácii ako čo povedal je to, že sa to stalo
 this situation than what he-said is that that REFL it happened
 tak rýchlo.
 so quickly
 ‘The man said some strange things. But a more interesting aspect of
 this situation than what he had said is that it happened so quickly.’

The conclusion from what has been described so far is that the diagnostic of comparative adjectives with complements gives us another reason to suspect that within A-DPs, *to* could be a postmodified pronoun. It patterns with pronouns and with postmodified nouns in that it also allows for the comparative complement to be an entity distinct from the referent of the modified noun.

I now turn to the last of the three diagnostics from Larson and Marušič (2004) that support the pronominal analysis of *to*.

Transitive adjectives with complements

Larson and Marušič (2004) state a generalization¹¹ that for prenominal adjectives with transitive complements, the only permitted word order is that the complement must precede the adjective. For postnominal adjectives, such complements must follow the adjective. This generalization holds in Slovak, illustrated in the following examples. Prenominal adjectival modification is

¹¹This generalization in Larson and Marušič (2004) is derived from Slovenian facts (Orešnik (1996) and Marušič (2001)), not reproduced here.

presented in (40). In (40-a), the prenominal adjective *primerané* ‘appropriate’ is pre-modified with a complement *okolnostiam* ‘circumstances’.DAT and the word order [... *to* Compl A N...] of the expression is grammatical. In (40-b), the complement follows the adjective and the word order * [... *to* A Compl N...] is ungrammatical. Postnominal adjectival modification is presented in (41). In (41-a), the word order in which the complement precedes the adjective, [... *to* N Compl A...] is only acceptable if the adjective is in contrastive focus. In (41-b), the word order [... *to* N A Compl...] is perfectly grammatical.

- (40) a. *to* [okolnostiam primerané] opatrenie
 that circumstances.DAT appropriate.NOM measure.NOM
 ‘that measure appropriate for the circumstances’
 b. **to* [primerané okolnostiam] opatrenie
 that appropriate.NOM circumstance.DAT measures.NOM
- (41) a. #*to* opatrenie [okolnostiam primerané]
 that measures.NOM circumstances.DAT appropriate.NOM
 # ‘that measure appropriate for the circumstances (...as opposed to not-appropriate)’
 b. *to* opatrenie [primerané okolnostiam]
 that measure.NOM appropriate.NOM circumstances.DAT
 ‘that measure appropriate for the circumstances’

Postmodified pronouns pattern with postnominal adjectives; the order in which the complement precedes the adjective [... Pron Compl A...] is limited to contexts of contrastive focus (42-a) and the order [... Pron A Compl...] is preferable in neutral contexts (42-b).

- (42) a. #niečo [okolnostiam primerané]
 something.NOM circumstances.DAT appropriate.NOM
 #‘something appropriate for the circumstances (...as opposed to not appropriate)’
 b. niečo [primerané okolnostiam]
 something.NOM appropriate.NOM circumstances.DAT
 ‘something appropriate for the circumstances’

As with the other diagnostics, A-DPs follow the pattern of postnominal adjectives and postmodified pronouns. In example (43), a complement can precede the adjective [... *TO* Compl A...] only if the interpretation is contrastive; otherwise the neutral and preferred word order is for the complement to follow the adjective [... *TO* A Compl...].

- (43) a. #Máš prikázané zrobiť **to okolnostiam primerané** (a
 you-have ordered to-do TO circumstances appropriate and
 nič viac).
 nothing more.
 #‘You are ordered to do that which is appropriate for the cir-
 cumstances (and nothing else).’
- b. Máš prikázané zrobiť **primerané okolnostiam**.
 you-have ordered to-do TO appropriate circumstances
 ‘You are ordered to do that which is appropriate for the circum-
 stances.’

In summary, A-DPs pattern with postmodified pronouns with regards to the position of the adjective’s complement. This is yet another fact in support of the hypothesis that *to* within A-DPs might be a pronoun. The conclusion for this third diagnostic is qualified, however, because even the less preferred word order for A-DPs is acceptable and interpretable under certain conditions.

Table 4.2 summarizes the findings in this section.

Diagnostic:	Prenom. A	Postnom. A	Modified Pron	<i>to</i> + A
1. restrictive/ nonrestrictive interpretation	without <i>to</i> : restrictive with <i>to</i> : ambiguous		restrictive	
2. comparative complement interpretation	must be same entity	can be distinct entity		
3. complex adjective word order	✓ _[to Compl A N] * _[to A Compl N]	# _[to N Compl A] ✓ _[to N A Compl]	# _[Pron Compl A] ✓ _[Pron A Compl]	# _[to Compl A] ✓ _[to A Compl]

Table 4.2: Diagnostics results 1

The most convincing result of the three diagnostics so far is that A-DPs are different from prenominal adjectival modification. A differentiation between the three possibilities, that (i) A-DPs have a null noun present in the order [*to pro* A], (ii) that *to* is a postmodified pronoun, and (iii) that the structure is simply a determiner *to* preceding an adjective with no *pro* cannot be made yet, based on the evidence presented. The following two diagnostics will bring forth evidence in support of the hypothesis that *to* is not a pronoun within A-DPs but rather a determiner.

Compatibility with derived relational adjectives

I will begin the presentation of evidence in support of the determiner hypothesis by applying two more tests inspired by Larson and Marušič (2004). First, I will use a distributional test of compatibility with certain relational adjectives, and a semantic test of stage versus individual level interpretation. Both of these show that A-DPs are different from postmodified pronouns, results that are in contrast to what was found in the previous section (for reference, the results of these two tests are again summarized at the end of the discussion, see Table 4.3).

The first diagnostic that will raise doubts that the demonstrative *to* in A-DPs is a pronoun concerns its compatibility with a certain type of adjectives. This type of adjectives includes words like *školský* ‘school’.ADJ, *štátny* ‘state’.ADJ, *ľudský* ‘human’, *horský* ‘mountain’.ADJ, and others which are classified in Slovak as derived relational adjectives. The characteristic I describe here is not true of all relational adjectives, only some of those that are derived deverbally and denominally, and are not gradable. Such adjectives cannot appear predicatively, only attributively (44).

- (44) a. štátny rozpočet
state budget
‘state budget’
b. *rozpočet je štátny
budget is state

These adjectives are not compatible with pronouns, a fact that has been observed for some adjectives in English (Bolinger, 1967) and Slovenian¹² (Marušič and Žaucer, 2006). In Slovak, attributive relational adjective are

¹²Marušič and Žaucer (2006) describe a whole class of adjectives in Slovenian, called “classifying” or “type” adjectives (as distinct from the classes of qualitative adjectives and possessive adjectives). Such a basic classification is traditionally accepted for Slovak as well, but in Slovenian the “type” adjectives as a whole differ morphologically, syntactically and semantically in a more pronounced way than in Slovak. The one aspect of these differences relevant to this discussion is that they are never allowed in predicative positions. They are also not allowed to modify pronouns. An example of this contrast is the following, (23) and (24) from Larson and Marušič (2004).

- (i) a. javni uslužbenec
public employee
b. *Ta uslužbenec je javni.
this employee is public
c. *nekdo javni
someone public

degraded in combination with pronouns; *niečo štátne*, intended: ‘something state’, does not occur in the corpus, there are few results from a search online (see a rare one in (45-b)¹³) and an example is difficult to construct artificially. In combination with A-DPs they are grammatical, see the corpus example in (45-d).

- (45) a. #niečo štátne
something state.A
- b. Je skoro nemožné nájsť niečo “štátne” čo funguje
is almost impossible find something state.A what works
lepšie ako neštátne.
better than not-state.A
‘It is almost impossible to find something that is run by the
state and works better than something not run by the state.’
- c. to štátne
TO state.A
‘that which is of the state’
- d. Premiér si myslí, že iba **to štátne** je dobré
prime-minister REFL think that only TO state.A is good
a všetko, čo je v rukách súkromného vlastníka,
and everything what is in hands private owner
chce okradnúť ťažko pracujúcich občanov.
wants rob hard working citizens
‘The prime minister thinks that only that which is of the state
is good and all that which is in the hands of private owners robs
the hard working citizens.’

There would be no difference in acceptability if *to* were a pronoun that is postmodified by the adjective *statne*. The contrast depicted under this diagnostic serves as supporting evidence¹⁴ in addition to other facts such as the stage vs. individual level pattern to which I now turn.

¹³Retrieved from < <https://www.menejstatu.sk/> >.

¹⁴Furthermore, Slovak has no intrinsically predicative adjectives, so the other side of the premise is difficult to test in Slovak. For example, English has pairs of adjectives such as *live/alive* which display a contrast in their acceptability with pronouns (**something live/something alive*). In Slovak, there is only one exceptional adjective that is intrinsically predicative, *rád* ‘glad’. However, there is no A-DP **to rado* ‘TO glad’, because the adjective ‘glad’ denotes a mental state, which typically do not describe things.

Stage and individual level interpretation

Another way that A-DPs do not pattern with postmodified pronouns is their distinct semantics with regards to stage and individual level interpretation. Bolinger (1967) made the observation that while prenominal adjectives can attribute their property intrinsically/inherently but also temporarily/episodically, therefore making them ambiguous in this regard, postnominal adjectives can only attribute their property temporarily/episodically. Postnominal adjectives are not ambiguous, they can only appear in episodic sentences. This can be illustrated in the minimal pair below.

- (46) a. the visible stars
b. the stars visible

In (46-a), *the visible stars* can refer to those stars that it is possible to see, in general, or those that are currently being seen. In (46-b), *the stars visible* is an expression that can be used to refer only to those stars that are currently being seen. These two interpretations correspond to stage level (i.e. intrinsic attribution) and individual level (i.e. temporary attribution) (Carlson, 1977). A useful pair of sentences to see the difference is (47). Because prenominal modification in (47-a) has a stage level interpretation, it is possible to list the stars even if we do not see them. But because (47-b) only allows an individual level interpretation, the sentence becomes contradictory as we are asked to list what we see even if we do not see it.

- (47) a. List all the visible stars, whether we can see them or not.
b. ?List all the stars visible, whether we can see them or not.

In Slovak, a similar interpretational pattern can be observed, illustrated here with the adjective *verejný* ‘public’. Note that I understand this particular adjective to potentially allow two readings: (i) the individual level reading amounts to being *inherently* public, i.e. such that it belongs to the public as opposed to being private (e.g. public roads, common areas in a housing complex, etc.); or (ii) stage level reading of this adjective in Slovak amounts to being public in a sense of revealed to and known by the public *now*, i.e. not secret (e.g. *verejná informácia* ‘publicly known information’). With these two interpretational possibilities in mind, the example (48) shows that prenominal adjectives appear to be interpretable as both individual and stage level. I convey the ambiguity in the English translations.

- (48) Názor ľudí na **verejné veci** zavážil viac ako v minulosti.
opinion people on public things weighed more than in past
‘People’s opinion on public things mattered more than it had in the

past.'

INDIVIDUAL

Can be continued by: (...a primátor sľúbil že cesty opravené budú)
'...and the mayor promised to repair the roads'

STAGE

Can be continued by: (... aj keď o nich média vôbec neinformovali)
'...even though the media did not inform the people about them'

The postnominally modified phrase *veci verejné*, exemplified in (49) can only have an individual level interpretation. It is understood in the sense of belonging to the public.

- (49) Názor ľudí na **veci verejné** zavážil viac ako v minulosti.
opinion people on public things weighed more than in past
'People's opinion on public (or: publicly known) things mattered more than it had in the past.'
INDIVIDUAL '...and the mayor promised to repair the roads'
STAGE #...'even though the media did not inform the people about them'

The same holds for postmodified indefinite pronouns, as in (50) where the interpretation is individual level and in a corpus example in (51) where the reading is very clear: a person contributed financially to public things which must mean 'not private' as opposed to 'not known'.

- (50) **niečo verejné**
something public
'public/common things' (such as services, roads, etc.)
- (51) Mafiáni vo svete nekonajú vždy len zlo. Napríklad... slovenský
mafia in world not-act always only evil for-example Slovak
Černák občas prispel na **niečo verejné** a
Černák occasionally contributed to something public and
navyše aj prospešné, ale hlavne verejné. Preto je
in-addition also beneficial but especially public that's-why is
dodnes u určitých ľudí priam ľudovým hrdinom.
until-today at certain people downright popular hero
'Mafia in the world do not always act evil. For example... Černák
from Slovakia has occasionally contributed to something public and
even beneficial. Especially if it was something public. That is why,
to certain people, he is a downright popular hero.'

When it comes to applying this diagnostic to A-DPs, the result is an ambiguity between a stage and individual level interpretation; a pattern like prenominal adjectives and unlike postmodified pronouns, which get individual level interpretation only.

- (52) *Názor ľudí na to verejné* zavážil viac ako v minulosti.
 opinion people on TO public weighed more than in past
 INDIVIDUAL LEVEL
 ‘People’s opinion on that which is public (common) was more important than it had been in the past.’ (...and the mayor promised to repair the roads)
 STAGE LEVEL
 ‘People’s opinion on that which is public (known by all) was more important than it had been in the past.’ (...even though the media did not inform the people about them)

This contrast in available interpretations suggests that *to* in A-DPs is not a pronoun. The results of the above two diagnostics are summarized in Table 4.3.

Diagnostic	Prenominal A	Postnominal A	Modified Pronoun	<i>to</i> + A
1. inherently attributive As	-	-	unnatural	natural
2. stage vs. individual level interpretation	ambiguous	individual level	individual level	ambiguous

Table 4.3: Diagnostics results 2

In the next section, I show that the strongest support for the determiner hypothesis comes from evidence that *to* within A-DPs displays properties parallel to determiners in nominal DPs.

4.3.2 Parallels to nominal DPs

Slovak has nouns that have neuter grammatical gender and *to* can precede these (in contrast to e.g. Spanish, where there are no neuter nouns that could combine with *lo*, a counterpart to *to* in A-DPs). The following are just a few examples of the diverse range of neuter nouns that can appear together with the demonstrative *to*: a concrete entity in (53-a), an abstract entity in (53-b) and verbal gerund in (53-c).

- (53) a. *to maslo*
 TO butter.NEUT
 ‘the/that butter’
 b. *to zdravie*
 TO health.NEUT
 ‘the/that health’
 c. *to spievanie*
 TO singing.NEUT
 ‘the/that singing’

The word *to* has the demonstrative article/determiner function, not just a pronominal function. It serves to distinguish a definite (anaphoric)/indefinite interpretation when used, as for example in the following pair of sentences.

- (54) a. *Kúpili auto.*
 they-bought car
 ‘They bought **a** car.’
 b. *Kúpili **to** auto.*
 they-bought TO car
 ‘They bought **the/that** car.’

We can distinguish four functions of the Slovak demonstrative *ten* (and its neuter form *to*) in combination with nouns that fall under the role of a determiner and not a pronoun. I argue that these same four functions also hold when the demonstrative combines with adjectives. In the following paragraphs I will present the data that attest that *to* acts as a determiner within A-DPs and holds the range of functions. I will draw on Šimík’s (2016) work on Czech demonstratives. Because Slovak parallels Czech with regards to the properties of demonstratives, his analysis is relevant to the understanding of *to* in A-DPs. In particular, the analysis predicts that A-DPs do not necessarily have to be definite, a prediction that is borne by the data. I will now turn to the four specific functions of the Slovak demonstrative determiner.

Canonical uses of the demonstrative

First, as expected from demonstratives (see (7) at the beginning of the chapter), Slovak *to* can be used **(i) deictically** to facilitate pointing out some entity in the physical environment around the speaker at the moment of the utterance, or do so metaphorically. This use can be diagnosed by the possibility of adding morphology to the demonstrative. The suffix *-to* can

be added for proximal meaning ('this here'), and the prefix *tam-* for distal meaning ('that over there').

Examples of the deictic use are given below, first preceding nouns (55) and then adjectives (A-DPs). Proximal demonstrative are shown in (56) and distal demonstrative in (57). Note that the distance is not physical. The expression in (56) refers to an object that is "close" in that it is within the speaker - his wonderful feelings and joy, and the expression in (57) is "far" because it is in the past - past events in the memories of the speaker. The proximal and distal demonstratives are felicitous for metaphorical purposes. This function is quite rare in the written corpus for obvious reasons and is limited to the bearer A-DP type.

- (55) A čo ak **toto tajomstvo** súvisí s **tamtým**
 and what if this secret relates with *tam*+TO.INSTR
tajomstvom?
 secret
 'And what if this secret here relates to that secret over there?'
- (56) Cítil som, že sa vo mne začína rýchlo šíriť jediná
 feel PART that REFL in me begins quickly spread single
 myšlienka! Myšlienka — že **toto báječn-é** - táto radosť -
 thought thought that TO+*to* wonderful this joy
 čo som dnes prežil, sa už nemôže nikdy
 what PART today experience REFL already cannot never
 opakovať.
 repeat
 'I felt that a single thought quickly began to spread within me! A thought that these wonderful things, this joy that I experienced today, can never happen again.'
- (57) Ide sa motať po uliciach veľkého mesta. Všetko **tamto**
 goes REFL wander in streets big city all *tam*+TO
minulé sa v dokonalých detailoch otáča v jeho mysli.
 previous REFL in perfect details spins in his mind
 'He goes to wander in the streets of the big city. All that which is from the past is spinning in his mind in perfect detail.'

Another canonical, very common, use of demonstratives both within nominal DPs and within A-DPs is (ii) **anaphoric**; i.e. they are used to point out something from the previous linguistic context or some other relevant situation. This use is not so different from definite articles in English – the semantic contribution of *to* is, as with *the*, to shift the property denoted by

its complement to the single individual in its extension. In fact, even though in Slovak there are no grammatically obligatory articles exactly equivalent to English *the*, some situations in which a Slovak speaker would use the demonstrative *ten/to* are the same as when an English speaker would use the definite article *the*. Besides the demonstrative, the options to express definiteness in Slovak also include word order driven by information structure and prosody (Šimík et al. 2017).

For illustration of this canonical definite use of a demonstrative, see (58) where it appears in front of a noun, and (59) where it appears within A-DPs. The anaphorically bound antecedent is bolded.

- (58) Mám **šťastie** robiť s ľuďmi, ako je Bohdan. Veľa českých
 have fortune work with people like is Bohdan many Czech
 hercov **to** **šťastie** nemá.
 actors TO fortune not-have
 ‘I am fortunate to work with people like Bohdan. Many Czech actors
 do not have that fortune.’
- (59) lenže nový život ešte nenastal, ba nevedela si ho ani
 however new life yet not-occur even not-know REFL him even
 jasne predstaviť. Bolo len očakávanie – obavy a radosť
 clearly imagine was only expectation fears and joy
 pred **novým** a neznámym. O chvíľu však bude
 before new and unknown after while however will
 očakávaníu a všetkému neznámemu aj ľútosti z toho, že
 expectation and everything unknown also regret of that that
 sa odriekla starého života, koniec, a nastane niečo nové.
 REFL give-up old life end and occur something new
To nové ju pochopiteľne desilo svojou neznámou podstatou
 TO new her understandingly terrify its unknown nature
 ‘However, the new life hasn’t come yet, she could not even imagine
 it clearly. There were only expectations - fears and joy of the new
 and the unknown. In a little while, however, there will be an end
 to the expectations and all the unknown and even the regret of the
 fact that she gave up her old life, and something new will come. The
 new understandingly terrified her because of its unknown nature.’

Another pair of examples show that *to* acts as a definite article where there is no anaphoricity, (60) in nominal DP and (61) in A-DP.

- (60) Možno sa raz stretneme, práve na **tom mieste**, kde sme
 maybe REFL once meet exactly on TO place where PART

sa stretli prvýkrát.
 REFL meet first-time
 ‘Maybe we will see each other one day, exactly at the place where we met for the first time.’

- (61) Ach, **to hlavné** som vám nepovedala.
 ach TO main PART you not-tell
 ‘Oh, I didn’t tell you the main thing.’

Another use of the demonstrative determiner is to mark A-DPs in which the adjective is in superlative form. The artificially constructed example (62) would be ungrammatical if *to* was omitted.

- (62) Ach, **to najdôležitejšie** som vám nepovedala.
 ach TO most-important PART you not-tell
 ‘Oh, I didn’t tell you the most important thing.’

Such sentences as above are examples of A-DPs in which the role of the demonstrative *to* is like that of a definite determiner which shifts the adjectival phrase to a definite referential expression. It can contribute additional content on top, such as proximal or distal deixis or anaphora.

Pragmatic uses of the demonstrative

Another use that can be observed in A-DPs is **(iii) affective/emotive**, which does not shift the semantics of its complement like a definite article would. This pragmatically motivated use communicates emotion about the entity denoting phrase it combines with, or evokes the hearer’s solidarity with the speaker’s own view (Lakoff, 1974). The affective function is non-typeshifting, i.e. unlike the canonical anaphoric demonstrative use, the affective use does not shift the property denoted by its complement and it remains of the same type (e.g. can remain indefinite).

The Slovak affective demonstrative can be seen in context in (63) where it combines with a proper name and adds an emotive flavor. The example (64) that follows shows that the affective use is a function of *to* within Slovak A-DPs as well.

- (63) **To Slovensko** naše posiaľ tvrdo spalo.
 TO Slovakia.NEUT our until-now heavily slept
 ‘That Slovakia of ours has been fast asleep so far.’
 (from the Slovak national anthem)

- (64) Tréner nečakal na naše otázky, ale iniciatívne začal: “Veľa
 coach not-wait on our questions but with-initiative begin a-lot

toho nového vám dnes nepoviem.”

TO.GEN new.GEN you today not-say

‘Coach didn’t wait for our questions, rather, he took the initiative and began: “I won’t tell you a lot of new things today (...and we all feel the same about new things!)”’

In the above intuitively exclamative sentence (64), *to* is affective and does not shift the type of the complement. The utterance is out of the blue at a beginning of an interview and the previous context in the corpus gives no reason to characterize it as anaphoric or deictic. There is also no obvious new entity in the extralinguistic context to which the interviewed coach could be pointing to. A neutral, unaffected version of this sentence would be as follows, without the demonstrative determiner *to* and an adjusted word order.

(65) “Dnes vám veľa **nového** nepoviem.”

today you a-lot new not-say

‘Today I will not tell you a lot of new things.’

Examples such as this one suggest that the use of *to* in some A-DPs is affective/emotive and does not necessarily serve to make the expression definite and referential.

The last relevant use of the Slovak demonstrative determiner is what Šimík (2016) calls the **(iv) pragmatic discourse anaphoric** use. In this use, the demonstrative does not change the semantics of its complement to a definite, referential expression either. Rather, it establishes a pragmatic anaphora, that is, an anaphoric (or: *reminding*) relation between the denotation of a demonstrative description and some *utterance* about that denotation that is part of previous discourse or the common ground (Stalnaker, 1970). In other words, this use of a demonstrative communicates something like “this piece of information has been mentioned sometime in the past”. In this discourse anaphoric use, the complement of the demonstrative can be property-denoting, predicative, referential or a non-specific indefinite expression and its type remains unaffected by the demonstrative. The following Czech example (66) from Šimík illustrates this use well.

(66) Katedra lingvistiky ještě hledá **tu sekretářku**.

department linguistics still looks-for that secretary

a. ‘The linguistics department is still looking for the secretary [that disappeared yesterday].’

b. ‘The linguistics department is still looking for a secretary [remember, we spoke about them needing one].’

((8) in Šimík (2016))

In the above sentence, the demonstrative *tu* is ambiguous between two available interpretations. The first is a canonical reading that turns the expression into a definite and referential one; it points out a unique secretary much like a definite article *the* would. If the uniqueness presupposition fails, for example, the reaction from the hearer could be “*Wait a minute, which secretary?*” The second reading is a pragmatic anaphoric reading. The demonstrative serves to simply point to a previous mention of the department looking for a secretary, reminding the hearer that the previous mention is in the common ground. The expression remains indefinite and non-referential, however. Šimík shows that the Czech demonstrative exhibits a systemic ambiguity between canonical and pragmatic reading, and this is true in Slovak *to* as well, as for example in (67) and (68)-(69), with nominal DPs and A-DPs respectively. The ambiguous readings are given in (a) and (b) colloquial translations for each example.

- (67) “No poď, Vierka, uvarím ti **to kakao** a sebe čaj.”
 well come Vierka cook you TO cocoa and self tea
 a. (neighbor:) “Come, Vierka, I’ll make you the hot chocolate and a tea for myself.” (In response to Vierka’s question: “When will we get together for a hot chocolate again?”)
 b. (neighbor:) “Come, Vierka, I’ll make you that hot chocolate and a tea for myself.” (They met earlier that day at a grocery store where Vierka commented on the neighbor buying a hot chocolate mix.)
- (68) Pre mňa bola literárna práca **tým posvätným**, čím som
 for me was literary work TO.INSTR sacred.INSTR which PART
 pocítil spojenie s krajinou svojich predkov.
 feel connection with land my ancestors
 a. ‘Literary work was for me that sacred thing through which I felt a connection with the land of my ancestors.’ (in a response to the question: “What is the one thing that helped you prepare for your role in this historical movie?”)
 b. ‘Literary work was for me a sacred thing, through which I felt a connection with the land of my ancestors.’ (the interlocutors have talked about eternity and sacredness before)

The above example of an A-DP preceded by *to* is ambiguous and one reading fits what Šimík calls pragmatic anaphora. The ambiguity is between a canonical interpretation (a), where the demonstrative expression is specific, referential, and the sentence is equative (the reading is something like ‘Lit-

erary work is the sacred thing’), and a pragmatic one (b), where the demonstrative expression is a non-referential predicate (this reading is something like ‘Literary work is that which we talked about before: the sacred’). The difference between these two possible interpretations can be noted through the interpretation of the relative clause that follows, restrictive in (a) and non-restrictive in (b). Another example of pragmatic demonstrative is (69).

- (69) Mal som vtedy dvadsaťdva rokov, dnes mám osemdesiatpäť
 I-had PART then twenty-two years today I-have eighty-five
 a píše sa rok 2007. Myslím, že už aj tieto
 and write REFL year 2007 I-think that already even these
 čísla sú dosť výrečné, aby z nich čitateľ mohol aj
 numbers are enough telling so-that from them reader can also
to nenapísané vyčítať, domyslieť a pochopiť.
 TO unwritten read fill-in and understand
- a. ‘I was twenty-two then, today I’m eighty-five and it’s the year 2007. I think that even just these numbers are telling enough for the reader to read from them, fill in and understand even that unwritten thing (which is my age).’
- b. ‘I was twenty-two then, today I’m eighty-five and it’s the year 2007. I think that even just these numbers are telling enough for the reader to read from them, fill in and understand even unwritten things (we talked about how some things stay unwritten, remember?).’

One reading, (a), is specific, definite, referential, canonical. The expression *to nenapísané* ‘the unwritten’ refers to a unique piece of information that can be identified. If there is no unique referent, the hearer could possibly ask about the identity with: “Wait a minute, which/what unwritten thing?” The other available possibility is the reading (b), pragmatic, that it is actually a non-specific indefinite expression and it stays so even after combining with a demonstrative because *to* only contributes a pragmatic reminder that something has previously (probably not in the same discourse) been said about its complement. If the hearer cannot interpret this reading, they could respond with: “Wait a minute, I don’t remember talking about this.’

Based on the parallel between the semantic and pragmatic contributions when the demonstrative *to* combines with nouns and when it combines with adjectives, it is my claim that characterizing *to* as a determiner within A-DPs is the correct analysis. Having described the four determiner functions of *to*, the next section will now turn to the discussion of its apparent optionality. I

will first explain why *to* is not actually optional in the sense of redundancy; instead, it is present or absent to achieve different interpretations, while also interacting with information structure driven word order. I will examine attested corpus occurrences of A-DPs with and without the demonstrative article, informed by the four determiner functions of the demonstrative presented above.

4.4 Distribution of *to* within A-DPs

To's distribution provides another strong reason for rejecting the hypothesis that it is a pronoun. It is an unlikely core of the phrase, given the fact that it is not always present. The following example (70) shows that bearer A-DPs are grammatical without a demonstrative; the case of trope A-DPs will be addressed in the following section.

- (70) Dôverujem občanom, že dokážu oddelovať **podstatné** od **nepodstatného, pravdivé** od **vymysleného**.
 trust citizens that manage separate relevant from irrelevant truthful from made-up
 'I trust the citizens that they are capable of separating the relevant from the irrelevant and the truthful from the fabricated.'

Determinerless A-DPs (considering only bare adjectives in nominal positions, aside from those A-DPs that are preceded with quantifiers or possessive pronouns) have not, to my knowledge, been extensively discussed in any case studies in recent literature. For example, we know that bearer A-DPs in English come with a definite determiner *the* (71-a), in Spanish with the obligatory *lo* (71-b), in Dutch with the neuter definite article *het* or the demonstratives *dit/dat* (71-c), and in Greek the obligatory neuter article *to* (71-d). In Slovak, a demonstrative determiner is present sometimes but is not obligatory in all situations, as many determinerless examples in this thesis have already shown.

- (71) a. I think *(**the**) silly is my favorite part of your books.
 (ENGLISH, Glass 2014)
 b. *(**Lo**) bueno si breve, dos veces bueno.
 LO good if brief two times good
 'Good things, when short, are twice as good.'
 (SPANISH, Villalba 2009)
 c. Ze haatte *(**dat**) onverschillige in zijn houding.
 she hated that indifferent in his attitude

‘She hated that indifference in his attitude.’
(DUTCH, McNally and de Swart 2015)

- d. Polus anthropus tus elkii *(to) agnosto
many people them attract the unknown
‘Many people are attracted to the unknown.’
(GREEK, Giannakidou and Stavrou 1999)

This section addresses this apparent optionality of the determiner within Slovak A-DPs. I will examine the situations in which it is and is not present and suggest that the distribution of *to* is in fact principled. It is “optional” only in a sense that Slovak A-DPs both with and without it occur, but in each individual occurrence, its presence is either required or illicit in order to express a distinct reading that the speaker intends, namely, it is typically motivated by one of the functions mentioned in the previous section. Furthermore, information structure driven word order will be shown to be a significant factor that relieves the determiner from its role in establishing givenness if the A-DP expression occurs in a sentence-initial position.

4.4.1 Data on the presence vs. absence of determiners with A-DPs

The examples (72)-(74) appear without *to* in the corpus but remain grammatical if it is added. For each, I will discuss the difference in interpretation that the demonstrative makes. Distinct readings dependent on the presence of the determiner make it evident that while the two versions are equally grammatical, they have different distributions in discourse.

In the first example (72), the preferred interpretation of the A-DP expression, if the demonstrative is absent, is generic. The translation of this example could be paraphrased as ‘Normally it is useful to talk about problematic things in general...’. If the demonstrative is present, the preferred interpretation of the A-DP is anaphorically bound to a previous mention of the referent. The paraphrase would be ‘It is useful to talk about those specific problematic things (that have been mentioned)...’. Another possible interpretation of the expression with the determiner is pragmatic anaphoric, in which, as was described earlier, *to* gives rise to a pragmatic inference that ‘problematic things have been talked about before’ (whether generically or specifically would depend on the context).

- (72) Nemá sa také dačo ani predstierať. O (tom)
not-have REFL such something even pretend about TO

problematickom je užitočné hovoriť problematicky.
 problematic is useful talk problematically
 'One shouldn't even fake something like this. It is useful to talk about problematic things/the problematic things in a problematic way.'

The second example (73) demonstrates the same pattern of interpretations. Without the demonstrative, the reading of the A-DPs is nonspecific as 'anything that is relevant, irrelevant, etc.'. With the demonstrative, there is a strong preference to bind to an expression mentioned in the preceding context (canonical anaphoric), making the A-DP definite and specific, or to an utterance in the common ground (discourse anaphoric). Another possible reading in this instance is also emphatic/emotive.

- (73) Dôverujem občanom, že dokážu oddelovať (to) **podstatné** od
 trust citizens that manage separate TO relevant from
 (toho) **nepodstatného**, (to) **pravdivé** od (toho)
 TO irrelevant TO truthful from TO
vymysleného.
 made-up
 WITHOUT A DEMONSTRATIVE
 'I trust that the citizens are capable of separating anything that is relevant from what is irrelevant and anything that is truthful from what is fabricated.'
 WITH A DEMONSTRATIVE
 'I trust that the citizens are capable of separating the relevant things from the irrelevant ones and the truthful things from the fabricated ones.'

The last example (74) once again shows a sentence with an A-DP with two grammatical alternations, without and with the determiner and with corresponding contrasting interpretations. If *to* is absent, as it is originally in the corpus, the reading is 'Kleist didn't have the ability to create something great (great things) without setting out to'. The determinerless A-DP expression is indefinite and nonspecific. If *to* is added to the sentence, the reading changes to anaphoric definite and can be paraphrased as '...the ability which creates the great things which have been mentioned' or point the reader to a referent in the common ground, something like '...those great things, we all know which, ...'.

- (74) A k básnikom druhého sledu patrí napr. Kleist, ktorý
 and to poets second order belongs for-example Kleist who

bažil po umeleckej veľkosti, ale nemal onú pravú
 yearned after artistic greatness but did-not-have that right
 silu, ktorá tvorí (to) veľké bez toho, že by si
 power which creates TO big without that that would REFL
 to predsavzala.
 that setting-out

‘Second-order poets include, for example, Kleist, who yearned to
 have artistic greatness, but didn’t have the ability to create (the)
 great things without setting out to.’

The evidence points again and again to the conclusion that the determiner *to* has a meaningful contribution to A-DPs. Just as in combination with a noun, so in combination with a bare adjective, the purposes for using the determiner are to anaphorically bind, to invoke an emotive solidarity, or to remind the reader that the referent is in the common ground. The use of the demonstrative to express these functions is obligatory only in the sense that it is the preferred strategy in that context to express that meaning. In each case, if it is not used, the meaning either will not be expressed at all, or something else can step in to achieve that meaning. That something else can be word order driven by information structure, and I now turn to address how it affects the distribution of the determiner *to*.

In Slovak, there is no strict requirement to mark definiteness or indefiniteness with determiners (in contrast with, for example, English). Even though sometimes definite phrases are marked with a possessive pronoun or a demonstrative, a phrase can be definite through the means of prosody, or word order. It was briefly mentioned in the introduction to the Slovak language in Chapter 1 that word order in Slovak is highly flexible and speakers prefer to move phrases to express the givenness and newness of the information. In a declarative sentence, if the word order and prosody are unmarked, new information is placed in the sentence-final position where it receives stress (Mistrík, 1983, p.130-131). In selecting examples in this section I avoided texts with potentially marked prosody (such as transcripts of speech or fictional dialogues, etc.) and thus will focus solely on word order and set prosody aside. Furthermore, between the factors of word order and prosody in Slovak, word order is the more flexible one. Non-default word order is preferred over non-canonical sentence stress, so that sentence stress is not placed on expressions with given information. For further reading on this topic, see the experimental studies on the interaction between prosody and word order in West Slavic languages by Šimík and Wierzba (to appear).

It is important to note that information structure informs us about givenness (old/given information tends to precede new information), and is not

specifically about definiteness. But even though ‘given’ and ‘definite’ are not the same, there is a relevant overlap between given information and definite marking. In particular, most anaphoric definites are given, obviously, because they refer to an expression in the previous discourse.

The following holds in unmarked Slovak sentences: (i) the canonical word order is that of subject preceding verbs and verbs preceding objects (SVO), (ii) given information is usually sentence-initial (Hajičová et al., 1998), and (iii) DPs that carry given information are usually marked by *to*. The prediction that follows from the interaction of these factors is the key to understanding why some A-DPs are not marked by the determiner *to*. The prediction is that some A-DPs, though they encode given information, do not need to be marked with the determiner if they are clearly in a given position in the sentence word order. For example, there should be cases in which, motivated by information structure, an object A-DP is placed in sentence initial position. If the word order strategy is sufficient to express definiteness and givenness of that A-DP, the determiner in such an A-DP is optionally omitted but the definite interpretation is maintained.

The simplest word order variants can be schematically represented in the following way in (75) (S=subject, V=verb, O=object). The demonstrative is in the parentheses to show that it is precisely the expression of definiteness/givenness that the word order strategy can be sufficient for, rendering the determiner optional for some sentence-initial expressions.

- (75) a. **(to)S** V O : default, see examples (76), (77)
 b. **(to)O** V S : marked, see examples (78), (79)
 c. more rare:
 S V *to*+O : see examples (80), (81)
 O V *to*+S : see example (82)

A few corpus examples of A-DPs illustrate each of these variants in order. They show that the aforementioned prediction, that *to* in definite A-DPs is unnecessary when information structure marks their familiarity, captures some instances of A-DPs without the determiner. In the examples, relevant sentence elements are bolded for convenience.

a. **(to)S V O**

In the sentence (76), there is no *to* in front of the A-DP *nové* ‘new’ which is the subject of the sentence. The reason for the absence of the determiner is that the A-DP is in the position of given information, preceding the verb *láka* ‘attracts’.

- (76) Už má dosť jednofarebnosti. Na tú je totiž zvyknutý.
 already has enough monotony on that is in-fact accustomed
 Okrem toho, **nové** ho **láka**.
 besides that new him attracts
 ‘He’s had enough of monotony. In fact, he’s used to it. Besides, the
 new (things) attract him.’

The example (77) provides an expected scenario. The A-DPs are the objects of the verb *vníma* ‘perceive’ and they happen to appear in their default word order position, post-verbally. Encoding new information and being placed in the appropriate sentence-final position, it would be unusual if they were marked by the determiner, and they in fact appear without it.

- (77) Vajanský Slovenské Pohľady paradoxne neuzavrel ani
 Vajanský Slovak Perspectives paradoxically not-close even
 pred dielami, ktoré narúšali bežnú “panenskost’” vtedajšej
 before works which disrupt typical virginity contemporary
 slovenskej literatúry. Tým sa potvrdzuje, že predsa
 Slovak literature this REFL confirm that after-all
vníma nekonvenčné, ale myšlienково - umelecky **nové**,
 perceives unconventional but intellectually artistically new
 vývinovo **pozitívne**. Signalizovala sa tým i potreba
 progressively positive signaled REFL that also need
 premeny v celku slovenskej literatúry.
 change in whole Slovak literature
 ‘Paradoxically, editor Vajanský did not close the journal *Slovak Perspectives* to the works which disrupted the typical “virginity” of the contemporary Slovak literature. Thus it is confirmed that he after all did perceive unconventional (things), intellectually-artistically new (things), progressively positive (things). It also signaled the need of change in the whole of Slovak literature.’

b. (to)O V S

In the sentence (78-a), the A-DP *nové-mu* ‘new (things)’.DAT is an object of the predicate *prispôsobujú* ‘adapt’. The A-DP expresses given information as supported by finding the mention of ‘new places’ in the previous context; new things are a salient discourse referent. In an unmarked word order, the object would follow the verb and being definite, be marked by the determiner, as artificially constructed in (78-b). In this case, the word order is marked and the A-DP is moved to the sentence-initial position, informing the reader

of its given status. As such, it seems that the determiner can be omitted and retain the same pragmatic effect.

- (78) a. Neboja sa ďalekých ciest, preto často odchádzajú do
 not-fear REFL faraway trips that's-why often leave to
 nových miest, lebo sa môžu cítiť dobre hocikde.
 new places because REFL can feel well anywhere
Novému sa rýchlo **prispôsobujú** a rýchlo zabúdajú
 new REFL quickly adapt and quickly forget
 na to, čo sa im stalo.
 on that what REFL them happened
 'They are not afraid of traveling far away, that is why they often
 leave to new places because they feel comfortable anywhere.
 They quickly adapt to the new (things) and quickly forget what
 has happened to them.'
- b. ...rýchlo sa **prispôsobujú** tomu **novému** a rýchlo
 quickly REFL adapt TO new and quickly
 zabúdajú na to, čo sa im stalo.
 forget on that what REFL them happened
 '...they quickly adapt to the new (things) and quickly forget
 what has happened to them.'

Example (79) shows a non-canonical word order motivated by information structure. The word order is verb - subject, the reverse of the default order. The marked word order is motivated because the subject, which is an A-DP *nové* 'new', is new information and as such it is preferable that it follows the given information, expressed by the verb *vzniká* 'emerge'. The marked word order makes it explicit that the A-DP is new, therefore, it is not surprising that a demonstrative is not used before the adjective.

- (79) Čas je neúprosný. Všetko dočasné v ňom zaniká,
 time is relentless everything temporary in it disappears
vzniká nové a chceme dúfať v ustavičné zdokonaľovanie
 emerges new and want hope in continuous improvement
 spoločnosti.
 society
 'Time is relentless. Everything temporary disappears, new things
 emerge and we want to hope in the continuous improvement of soci-
 ety.'

c. S V to+O and O V to+S

More factors must be considered if an expression in the information-new position comes with a determiner, such as whether it is in focus. The following two sentences (80)-(81) are examples of a post-verbal object A-DP being marked by *to*. In the first sentence (80), the reason is likely the emotive pragmatic flavor that *to* contributes. The text praises some person and the intent of the author seems to be to call on the reader to relate in some sense, something like ‘*that goodness* in people, you know?’. In the second sentence (81), the presence of *to* is more mysterious. Arguably it is due to the focus nature of the A-DP, i.e. *to kruté* is an answer to the question under discussion (e.g. ‘How does the western society hate itself?’). Conversely, the pragmatic anaphoric function of *to* can be at play as well, to remind the reader that the information has been mentioned in a previous discourse.

- (80) Práca je pre neho poslaním a životným krédom. Dokáže o
 work is for him calling and life crede manages about
 nej hovoriť hodiny, no neberie ju ako chladný a tvrdý
 her talk hours but not-take her as cold and hard
 obchod. Je vyznávačom “obchodu so srdcom”. **Hľadá** v
 business is proponent business with heart looks-for in
 ľuďoch **to dobré**. Hovorí, že jeho úspech je najmä úspechom
 people TO good says that his success is mostly success
 ľudí, ktorí ho obklopujú.
 people who him surround
 ‘Work is for him a calling and a life creed. He can talk about it for
 hours, but he doesn’t consider it to be a cold and hard business. He
 is a proponent of “business with a heart”. He looks for the good in
 people. He says that his success is mostly the success of the people
 who surround him.’
- (81) Západná spoločnosť sa síce chvályhodným spôsobom
 western society REFL although praiseworthy manner
 otvára cudzím hodnotám, ale má problém, že sama seba
 open foreign values but has problem that alone herself
 neznáša. Z vlastných dejín **vidí** už len **to kruté**, to
 hate of own history see already only TO cruel TO
 veľké a čisté však nevidí.
 great and pure however not-see
 ‘Although Western society opens itself in a praiseworthy way to for-
 eign values, it has a problem of hating itself. It can only see the cruel
 in its own history anymore, and it doesn’t see the great and pure.’

The last word order variant I present is in (82-a). The A-DP *podstatné* ‘essential (things)’ is the subject of the predicate *uniká* ‘escape’; in a default word order the subject would precede the verb, yet in this case it is not given information. It is moved to the focused sentence-final position and is marked with a determiner. In a different context, if ‘the essential (things)’ had been mentioned previously, the subject-verb order would be more natural, as in the constructed example (82-b). The same pragmatic inference of givenness is achieved even if the determiner is not required for expressing the same meaning, due to the fact that the word order strategy steps in and sufficiently communicates the givenness and definiteness.

- (82) a. Kto nevie odpočívať, nevie ani pracovať.
 who not-know rest not-know also work
 Dobiehaním domácich či iných prác v nedeľu sa od
 catch-up house or other work in Sunday REFL from
 nich neoslobodzujeme, ale zamotávame v aktivizme a zo
 them not-liberate but entangle in activism and of
 života nám **uniká to podstatné**.
 life us escape TO essential
 ‘Who doesn’t know how to rest, doesn’t know how to work. By
 catching up with housework on Sunday, we don’t free ourselves
 from it, instead we entangle ourselves in busy-ness and the es-
 sential (things) escape from our life.’
- b. ...zamotávame v aktivizme a **podstatné** nám **uniká** zo
 entangle in activism and essential us escape from
 života.
 life
 ‘...we entangle ourselves in busy-ness and the essential (things)
 escape from our life.’

To summarize, I have shown that the behavior of *to* within Slovak A-DPs is complex and it is quite common that A-DPs do not contain a determiner, for a variety of reasons. *To* is not required firstly because not all A-DPs are definite. Secondly, those A-DPs that are definite can sometimes be bare, specifically, in those cases when word order driven by information structure is the employed strategy to express definiteness of an A-DP, whether it is the subject or the object in the given sentence. The extent of the impact of information structure on the distribution of *to* has not been fully established in this section and the questions of when one strategy (word order) prevails over another (overt marking by *to*), and whether there is a scale for the speaker of emphasizing givenness, are left for further research. Some puzzling

data that deserve further consideration are, for example, when an A-DP is in the position of given information (sentence-initial) and the demonstrative *to* is present. An example of this is the sentence in (83). The demonstrative must be used here to achieve the anaphoric function of binding the preverbal subject A-DP to its antecedent. Another example is (84), where the A-DP is a preverbal object: it is also in the position of given-information and yet marked by a determiner to be anaphorically bound to an antecedent. Therefore, in order to explain sufficiently why a demonstrative is or is not used in any given instance, it is necessary to take into account what the information structure reveals, as well as take note of the larger context to detect whether anaphoricity might be the deciding factor.

(83) ...to všetko robí človeka náchylným báť sa, mať strach z
 that everything makes person susceptible fear REFL have fear of
nového. Najmä ak sa **to nové tvári** nepriateľsky a
 new especially if REFL TO new appears hostile and
 záhadne.
 mysterious
 ‘it all makes a person susceptible to fear, to be afraid of new things.
 Especially if these new things appear hostile and mysterious.’

(84) Ak vás už nebaví hrabať sa v tom, čo sa nedá
 if you already not-enjoy dig REFL in that what REFL cannot
 a nepodarilo, mám pre vás dobrú správu: v novembrovom
 and failed have for you good news in November
 Prečo Nie?! sme hľadali ľudí, ktorí **to zlé** okolo seba a v
 why not PART search people who TO bad around self and in
 sebe **prekonali**, aby uspeli, inšpirovali a plnili sny.
 self overcome so-that succeed inspire and fulfill dreams
 ‘If you no longer enjoy digging in difficulty and failure, I have good
 news for you: in the November issue of *Why Not?!* we looked for
 people who have overcome the bad (things) around them and within
 them, in order to succeed, to inspire and to fulfill their dreams.’

Having presented and discussed data that is acceptable both with and without *to*, I now consider those where it must be used and those where it cannot.

4.4.2 Data involving A-DPs with obligatory or illicit determiners

When the A-DP is followed by a relative clause, either restrictive (85)-(86) or nonrestrictive (87), the sentence without a demonstrative would not be grammatical.

- (85) V jej spomienkach ostane **to** pekné, čo spolu prežili,
in her memories remain TO nice what together experienced
a láska, ktorú k nemu cítila
and love which to him felt
'Those nice things that they experienced together will remain in her memories, as well as the love that she had felt for him.'
- (86) Našiel **to** nové, kvôli čomu stojí za to žiť.
found TO new for what stand for that live
'He found the new (things) which are worth living for.'
- (87) Jeho príchod znamená koniec starej éry a začiatok novej. A
his arrival means end old era and beginning new and
čo je **to** staré, čo končí a čo je **to** nové, čo sa
what is TO old what ends and what is TO new what REFL
začína?
begins
'His arrival signals the end of the old era and the beginning of the new. And what is that old thing, which is ending, and what is the new thing, which is beginning?'

A more detailed analysis of why the determiner is required in these types of sentences with relative clauses is left for further research, although one way to look at them is the traditional characterization that one of the functions the demonstrative serves is cataphora (Bajžíková (1980), Gajdošová (2008) and others). Under this view, the determiner could not be omitted, similarly to the canonical anaphoric and the pragmatic discourse anaphoric function, because it is the only means to bind the A-DP expression to the further specification of the referent by the clause that follows it.

There are other situations in which *to* cannot be used. Among these are such A-DPs that are used within idiosyncratic lexicalized phrases, e.g. (88). In this example, the word order is marked and the position of the bare A-DP *uvaden-é* is sentence initial (given information) instead of following the verb, but the demonstrative could not be used there. Nor could it be used if a lexicalized idiomatic expression appeared in a default post-verbal (new information) position, as shown in (89).

- (88) Z (*toho) **uveden-é-ho** logicky vyplýva, že čím ďalej,
 from TO.GEN given logically follows that what further
 tým väčšia časť peňazí v národnom hospodárstve je iba
 that bigger part money in national economy is only
 fiktívna.
 fictional
 ‘From the given (information) it logically follows that an increasingly
 greater part of the money in the economy is only fictional.’
- (89) svojej mladej priateľke by zniesol (*to) **modr-é z**
 his young girlfriend would bring-down TO blue from
neba
 sky
 ‘he would move heaven and earth for his young girlfriend.’

Also illicit is the determiner in phrases where adjectives are used adverbially (90). In this function, a bare adjective appears in a prepositional phrase, in a position where normally a noun would appear. For example, an adverbial *vo veľkom*, literally ‘in big.ADJ’, is made up of a preposition and an adjective, as opposed to a noun, like in the phrase *vo veľkosti* ‘in size.NOUN (bigness)’ which is not an adverbial. I include them in the discussion of A-DPs, though it is arguable whether such expressions contain a DP layer. In an adverbial use, the deadjectival nominalization expression is not referential, and therefore the demonstrative is not used.

- (90) a. začal rozmýšľať inak, **po** (*tom) **nov-om**
 began to-think differently after TO.LOC new.LOC
 ‘He began to think differently, in a novel way’
- b. Po Francúzsku a Nemecku investuje teraz **vo** (*tom)
 after France and Germany invest now in TO.LOC
veľkom do zlepšovania železničnej dopravy aj
 big.LOC into improvement railway transportation even
 Taliansko
 Italy
 ‘After France and Germany, now also Italy invests in railway
 transportation on a large scale.’
- c. keď niekto umrie, tak sa má naňho spomínať len
 when someone dies then REFL should him remember only
v (*tom) **dobr-om**
 in TO.LOC good.LOC
 ‘when someone dies, we should remember him well’

- d. Všetko je tu už vyše tridsať rokov pekne **po**
 everything is here already over thirty years nicely after
 (*tom) **star-om**.
 TO.LOC old.LOC
 ‘Everything has been running in the same old way for over thirty
 years.’

In summary of this section, requirement on the determiner in A-DPs accompanied by relative clauses and, conversely, the ban on the determiner in idiosyncratic A-DP expressions and A-DPs used adverbially follow from independently motivated considerations and are not related to information structure.

4.4.3 *To* in trope A-DPs

Trope A-DPs are largely confined to the sentence initial nominal position of copular sentences, in particular, specificational copular sentences (Higgins, 1973). Five typical examples are given in (91) - (95). In each, the sentence initial trope A-DP is connected by a copula *je* ‘is’.SG.NEUT to a phrase that further specifies what the referent restricted by the former is. As is common in the literature on copular sentences, I will for convenience within this discussion label the pre-copular expression XP1 and the post-copular expression XP2; these labels refer to the linear order of the phrases, independently of their syntactic category or syntactic function (e.g. subject, predicate). In the English gloss for the examples below, notice that in (91) the XP2 is a DN *japonsk-ost’* ‘Japaneseness’, in (92) it is a DN *nezmyseln-ost’* ‘senselessness’, in (93) it is a DN *skutočn-ost’* ‘fact’, in (94) it is a deverbal DN *akceptácia* ‘acceptance’, and in (95) it is a deverbal DN *vystúpenie* ‘performance’. This fact does not directly inform us about the presence of *to*; however, it further supports the analysis from Chapter 2 that trope A-DPs do not refer to mass stuff.

- (91) Stačí, aby ste vedeli, že Cesta do fantázie je japonský
 suffices that PART know that journey to fantasy is Japanese
 animovaný film určený rovnako deťom ako dospelým, a že
 animated film intended equally children as adults and that
to najdôležitejšie na ňom je práve jeho japonskosť.
 TO most-important on it is precisely its Japanese+ost
 ‘It’s enough for you to know that *Spirited Away* is a Japanese ani-
 mated film intended for both children and adults and that the most
 important thing about it is precisely its Japanese-ness.’

- (92) **to najstrašnejšie** na mojom treste je jeho krutá
 TO most-horrible on my punishment is its cruel
nezmyselnosť
 senselessness
 ‘the most horrible thing about my punishment is its cruel senseless-
 ness’
- (93) **To podstatné** na celej veci je totiž skutočnosť, že Božia
 TO relevant on whole thing is actually actual+*osť* that God’s
 spravodlivosť človeka mení.
 justice person change
 ‘the relevant thing about it all is actually the fact that God’s justice
 changes a person.’
- (94) **To podstatné** na zmene je jej akceptácia ľuďmi
 TO relevant on change is its acceptance people
 ‘The relevant thing about a change is its acceptance by people.’
- (95) Ale **to zaujímavé** na galavečere 53. ročníka bude špeciálne
 but TO interesting on gala-event 53rd year will-be special
vystúpenie Micka Jaggera
 performance Mick Jagger
 ‘But the interesting thing about the 53rd annual gala event will be
 the performance by Mick Jagger.’

In the above sentences, the determiner is obligatory. Without the demonstrative, they become either ungrammatical (96-a), (96-b), (96-c), or, if possible, reinterpreted so that the bare adjective is no longer nominal and referential (i.e. no longer an A-DP). The latter happens, for example, if *to* is omitted from (94), shown in (96-d) in which the adjective *zaujímave* ‘interesting’ is interpreted as simply predicating over *vystúpenie* ‘performance’ - this subtle but certain contrast can be seen in the English translation. The only reason this reinterpretation is possible is that the adjective *zaujímave* and the noun *vystúpenie* are both neuter and singular. In each of the sentences (96-a) - (96-c), there is a clash between the gender feature of the adjective in XP1 and the noun in XP2 and the result is ungrammaticality.

- (96) a. *...**najdôležitejšie** na ňom je práve jeho
 most-important.NEUT on it is precisely its
 japonskosť
 Japanese+*osť*.FEM
- b. ***podstatné** na celej veci je totiž skutočnosť
 relevant.NEUT on whole thing is actually fact.FEM

- c. ***podstatné** na zmene je jej akceptácia ľuďmi
 relevant.NEUT on change is its acceptance.FEM people
- d. **zaujímavé** na galavečere 53. ročníka bude
 interesting.NEUT.SG on gala-event 53rd year will-be
 špeciálne vystúpenie Micka Jaggera
 special performance.NEUT.SG Mick Jagger
 ‘The special performance of Mick Jagger during the 53rd annual
 gala event will be interesting.’

The ungrammaticality of determinerless trope A-DPs stems from the information structure of specificational copular sentences to which they are largely confined. In particular, trope A-DPs in sentence initial position of specificational sentences are the topic (“discourse-old” in the sense of Birner (1996)) element which must both carry an existential presupposition and be predicative. I will first empirically demonstrate the fact that XP1 is a predicate and the topic, then present the semantics of these sentences and then further below talk about how the information structure completes the explanatory picture of the determiner’s obligatoriness.

Specificational sentences are one of the four types of copular sentences identified by Higgins (1973:204-293); the other three being predicational, equative and identificational sentences. The identificational type is in more recent literature subsumed under one of the other types. These types of copular sentences have been differentiated by the referentiality status of the pre- and post-copular expressions. By referential, it is meant those expressions that are identified with semantic type e . For example, predicational sentences are essentially $XP1_e$ *be* $XP2_{\langle e,t \rangle}$ (the subscript identifies the semantic type of the expression), and equative sentences are $XP1_e$ *be* $XP2_e$ (or other two elements of the same semantic type). The referential status of XP1 and XP2 in specificational sentences has been the most controversial (for an overview of various semantic, syntactic and pragmatic analyses, see Mikkelsen (2011)). The consensus for Russian is that XP1 is of type $\langle e,t \rangle$ and XP2 is the grammatical subject of the sentence and of type e (Pađučeva and Uspenskij (1997), Partee (1998), Partee (2010), Geist (2007) and others). I suggest this is an appropriate analysis for Slovak and it informs us why the determiner *to* is present: to signal that the trope A-DP in the XP1 position is a certain kind of shifted sentence predicate. Before I expand on what that means, I mention the two reasons why the XP2 is the sentence subject in Slovak specificational sentences.

First, the copula agrees with XP2, a pattern that has been observed in other languages and served the same conclusion (e.g. Italian (Moro, 1997, p.28) and Russian (Geist, 2007)). For example, in (97), the verb must be in

plural to agree with the plural postcopular nouns. Secondly, the XP1 can be in instrumental case, e.g. (a) and (b) in (98) have the same meaning. In Slovak, predicates such as *člen kapely* ‘member of a band’ in (99) display, and thus can be diagnosed by, the instrumental-nominal case alteration (the instrumental case encodes temporal boundedness of a predicate denotation; for more information see Matushansky’s (2000) formal account of the same phenomenon in Russian).

- (97) **To zvláštne** na tejto noci nie **sú/*je** koledy, zvyky, nálady
 TO special on this night not are/is carols customs moods
 ‘The special thing about this night are not the carols, customs or the atmosphere’
- (98) a. **To podstatné** na celej veci je totiž skutočnosť,
 TO.NOM relevant.NOM on whole thing is actually actual+osť
 že Božia spravodlivosť človeka mení.
 that God’s justice person change
 ‘The relevant thing about it all is actually the fact that God’s justice changes a person.’
- b. **Tým podstatným** na celej veci je totiž
 TO.INSTR relevant.INSTR on whole thing is actually
 skutočnosť, že Božia spravodlivosť človeka mení.
 actual+osť that God’s justice person change
 ‘The relevant thing about it all is actually the fact that God’s justice changes a person.’
- (99) Bol **člen/členom** kapely.
 was member.NOM/member.INSTR band
 ‘He was a member of a band’

Based on the above I conclude that Slovak has a predicate in the XP1 position.¹⁵ Slovak specificational sentences are a type of predicate inversion, but the XP1 is not a normal predicate. Not all predicate expressions in general can appear in the initial position of specificational sentences:

- (100) *Člen kapely bol Pavol.
 member band was Pavol

The XP1 position in specificational sentences is sensitive to the semantics of the expression, specifically, it must be a definite DP used predicatively. I will employ the definition of such expressions found in the analysis by Partee

¹⁵Incidentally, this is not the case in English, which motivates a distinct analysis for that language not elaborated on here (e.g. Geist 2007, Partee 2010).

(1987) and the analysis of specificational sentences built upon it by Geist (2007). An example of a definite DP that is used predicatively is (101), where *the president of the club* denotes a property. The test to discern that it is predicative is that we ask with the interrogative pronoun *what* and not *who* (in the latter case it would be interpreted as denoting an individual). Therefore, (101) is a predicational sentence.

- (101) What is John? John is the president of the club.
 ((17) in Geist 2007)

To account for the predicative use of definite DPs, we apply the type-shifting operator *ident* from Partee (1987), shown in (102-a). This operator maps any element *y* onto the property of *being identical to y*. In the above sentence, for example, we can apply this operator to a definite expression of type $\langle e \rangle$. The DP *the president of the club* is shifted to a predicate $\langle e, t \rangle$ that denotes the property of *being identical to the president of the club*. The logical form of this shifted expression is in (102-b).

- (102) a. *ident*: $\lambda y \lambda x [y = x]$
 b. $[_{predDP} \text{the president of the club}]$:
 $\lambda x [_{\iota y} [\mathbf{president-of-club}(y)] = x]$

This shifted expression is now a predicate of a special sort - one that presupposes the existence of an individual fitting the descriptive content of the DP.

This is precisely the characteristic of the sentence initial trope A-DP expression in the specificational sentences that are presented in this section. Recall trope A-DPs are referential, of type $\langle e \rangle$. Trope A-DPs in specificational sentences, where the *ident* operator is applied to them, have the schematic representation as in (103).

- (103) $\lambda x [_{\iota y^{trope}} [\text{adj} (y^{trope}) \wedge \text{bearer} (y^{trope})(pp)] = x]$
 (the bearer variable is filled by means of the PP complement)

This characterization captures two intuitions. First, XP2 specifies the “value” of the description given by XP1 - this is why these sentences are called *specificational*. Secondly, XP1 enters into a relation very much like identification or equation. Because of the identity relation between XP1 and XP2, it is not surprising that XP2 is often a DN.

The copula in specificational sentences is not any different from what is used in predicational sentences. Its logical representation is given in (104).¹⁶ The copula takes the shifted expression which is now of type $\langle e, t \rangle$ and instructs to predicate this argument of its $\langle e \rangle$ argument. By way of example, the semantics of (95) is given in (105). XP1 is in (105-a), XP2 is in (105-b), and the combination yields (105-c). The result in (105-d) can be paraphrased as “the property of being the interesting thing about the gala-event holds of the performance by M.J.”

(104) $\lambda P \lambda x [P(x)]$

(105) a. $[_{predDP} \text{to zaujímavé na gala večere}]_{et}$:
 $\lambda x [_{t} y^{trope} [\mathbf{zaujímavé}(y^{trope}) \wedge \text{bearer}(y^{trope})(\mathbf{g.večer})]] = x]$
 b. $[_{DP} \text{vystúpenie}]_e$: $\lambda x [\mathbf{vystupenie}(x)]$
 c. $[\text{je vystúpenie}]$: $\lambda P [P(\mathbf{vystupenie})]$
 d. $[\text{to zaujímavé na gala večere je vystúpenie}]$:
 $\lambda y^{trope} [\mathbf{zaujímavé}(y^{trope}) \wedge \text{bearer}(y^{trope})(\mathbf{g.večer})] = \text{vystúpenie}$

This semantic analysis inspired by Geist (2007) has a desirable result that it combines predicative and equative characteristics observed in specificational sentences. The predicative characteristics are supported by the instrumental-nominal alteration of trope A-DPs in the XP1 position and verbal agreement with XP2, and the equative characteristics are supported by the referentiality of trope A-DPs and equally of the expression in XP2. The reason behind the obligatoriness of the determiner will become clear once one more feature of specificational sentences is considered: their information structure. It is recognized in the literature that XP1 is the topic (or: “link” in Vallduvi (1992)), i.e. the discourse-old information. There is a preference for the topic to be in the subject position (Prince (1981), Beaver et al. (2004)). XP2, on the other hand, is the comment (“focus” in Vallduvi), i.e. the discourse-new information. This is easily tested by the fact that the trope A-DP expression cannot be stressed as a sentence focus would.

(106) #TO ZAUJIMAVÉ NA GALA-VEČERE je vystúpenie...
 TO interesting on gala-event is performance

Further evidence of the topicality can be the preceding context. In the following example (107), it is clear that the trope A-DP in the XP1 position is the topic, as it is explicitly mentioned in the previous context (underlined).

¹⁶With regards to the order of the copula’s arguments, I assume that a separate component of the grammar accounts for the word order (e.g. rules governing the syntax/information structure interface).

- (107) KDH sa o prijatie takéhoto zákona usiluje už
 KDH REFL about acceptance such law endeavors already
 dlhú dobu a nie je teda nič zvláštne na tom, že
 long time and not is therefore nothing special on that that
 túto požiadavku nastoľuje i dnes. **Tým zvláštnym** na
 this requirement insist even today TO special on
 celej situácii je, že volanie po zákone tohto typu sa ozýva
 whole situation is that calling for law this type REFL sound
 aj z radov vládnuceho HZDS.
 also from ranks ruling HZDS
 ‘The party KDH has been endeavoring to pass such a law for a long
 time and therefore it is nothing special that they insist on it even
 today. The special aspect of the whole situation is that calling for
 such a law is heard even from the ranks of the ruling party HZDS.’

In other cases, it can be tested by the felicity of preceding the sentence with *Čo sa týka* ‘Concerning...’, illustrated in (108).

- (108) Čo sa týka **toho zvláštného** na celej situácii, to je,
 what REFL concern TO special on whole situation it is
 že...
 that
 ‘Concerning the special aspect of the whole situation, it is that...’

In those cases where we cannot identify the topic from the previous context, it is likely that the specificational sentence is used by the speaker as a “self-answering question”. The trope A-DP expression is in the topic position because it forms part of the question under discussion (QUD) (see pragmatic analyses of specificational sentences that make the argument that they are question-answer pairs, e.g. Ross (1972), Schlenker (2003)).

There are two topichood conditions that trope A-DPs meet, if they are marked by the determiner *to*: Strawson’s (1964) condition that topic have an existential presupposition (trope A-DPs presuppose the existence of the entity - the trope), and Reinhart’s (1981) condition that topic can be interpreted only if it is referential (trope A-DPs are of type *e*). What is achieved by marking the adjective by the determiner *to* is signaling these conditions are met and morphologically disambiguating the adjective within the A-DP expression from a regular predicate (regular meaning not a shifted sort of predicate achieved by *ident*). Recall that sometimes a sentence-initial adjective can be interpreted as a simple (non-specificational) case of inverted

predication (and fail those times whenever it does not have the same gender and number features as XP2, see (96-a)-(96-d) presented earlier). The determiner allows for the interpretation to be specificational instead of predicational. In sum, the demonstrative determiner, which has other pragmatic uses in the language, is the element employed for Slovak trope A-DPs in order to allow the adjective within them to be a suitable topic of a specificational sentence. Preceded by the definite determiner *to*, the adjective at the core of the trope A-DP is able to enter the type of specificational relationship with XP2 as shown in (105).

I have talked about specificational sentences in this section, which I claim are the predominant context in which trope A-DPs are found. There are other types of sentences attested that contain what seem to be trope A-DPs in object positions, some examples given here.

- (109) Zabudlo sa však na **to podstatné na škole** - na
 forgot REFL however on TO important on school - on
 študentov.
 students
 ‘However, the important thing about school was forgotten - the students.’
- (110) Vedela som, že teraz prežíva **to najhoršie na rozchode**,
 knew PART that now experience TO worst on breakup
 že čoskoro to už bude len lepšie.
 that soon it already will-be only better
 ‘I knew that she is now experiencing the worst aspect of a breakup and that soon it will get better.’
- (111) Prusko vycítilo so zdravým inštinktom **to revolučné na pojme** národ a odmietlo ho.
 Prussia discerned with healthy instinct TO revolutionary on
 concept nation and rejected it
 ‘Prussia discerned, with a healthy instinct, the revolutionary aspect of the concept of a nation, and rejected it.’
- (112) Hlavne pre SME nemusím určite zdôrazňovať **to zlé na**
 especially for SME not-have-to surely stress TO bad on
 vtedajšej alebo súčasnej **vláde**, to viete určite lepšie vy.
 former or current government that know surely better you
 ‘Surely I don’t have to stress the bad thing about the former and the current government, especially for the magazine SME. You surely know more about that.’

The question of whether the determiner is obligatory in these contexts as well, and if so, what the reasons might be, is left for further research.

4.5 Chapter summary and conclusion

This chapter was devoted to the element *to* that sometimes precedes the adjective in A-DPs. Consideration was given to a hypothesis that the construction which looks like deadjectival nominalization is actually a case of a postmodified pronoun. The hypothesis was rejected based on weak results from diagnostics that addressed the similarities between A-DPs and postmodified indefinite pronouns. Furthermore, evidence was presented that the range of semantic/pragmatic contributions of *to* in A-DPs is parallel to that when it combines with neuter nouns. The second half of the chapter dealt with the distribution of *to* in A-DPs. Interpretive contrasts between A-DPs with and without *to* shed light on the contribution of the determiner, helping clarify that what first appeared to be optionality is in fact principled distribution that reveals the range of contexts Slovak A-DPs are used in. The factor of information structure was addressed and I discussed corpus examples where word order, instead of the determiner, steps in to achieve definiteness of an A-DP. Lastly, trope A-DPs were highlighted as a unique case in which the determiner is always required. This was shown to be due to the special pragmatic character of specificational copular sentences in Slovak in which the pre-copular phrase is the predicate. Trope A-DPs appear as the sentence-initial topic and being referential expressions, must be disambiguated from predicative adjectives.

Appendix

FUNCTIONS OF *to*

(list and examples from MSJ, 1966, pp. s. 267 – 269)

a) referring to a discourse referent (regardless of grammatical gender or number of that referent)

- (113) Jeho mlčanie a sklúčená postava — **to** vyjadrovalo
his silence and depressed figure TO expressed
nevýslovný žiaľ.
unspeakable grief
'His silence and depressed figure - that expressed the unspeakable grief.'

b) referring to an infinitive and emphasizing it

- (114) Celý čas stáť pri tanečnom kole a iba sa prizerať na
whole time stand by dance circle and only REFL look at
ostatných, **to** by otrávil každého.
others TO would annoy everyone
'To stand by the dance floor and just look at the others the whole time, that would annoy anyone.'

c) postnominally, attaching a complement in affective text

- (115) Na rukách nemal tvrdých mozoľov, známky **to** vytrvalej
on hands not-have hard callouses signs TO tireless
roboty.
work
'He didn't have hard callouses on his hands, which would have been a sign of tireless work.'

d) reference to propositional content of speech in general or to the speech itself

- (116) “Keď chcem, pôjdem, keď nie, nie,” **to** boli tvoje reči.
if want go if not not TO were your words
“If I want to, I will go, and if I don't, then I won't,” those were your words.'

e) in spoken Slovak, competing with masculine and feminine forms: ten 'that'.MASC / tá 'that'.FEM

- (117) **To** bola zo všetkých najkrajšia a najväčšia.
 TO.NEUT was of all most-beautiful.FEM and biggest.FEM
 ‘That was the most beautiful and biggest one.’

f) reference to the currently perceived event (heard, seen), presenting the explanatory sentence.

- (118) Raz ti zahvízdá čosi vonku, ako čo by
 once you whistle something outside like what would
 tristo valachov na palci zahvízdalo. **To** už vietor
 three-hundred Vlachs on thumb whistled TO already wind
 dochodil a ešte zdaleka volal.
 went and still from-distance called
 ‘Something whistled outside, as if three hundred Vlachs whistled
 with their fingers. That was the wind that called from the distance.’

g) reference to an event and expression of the speaker’s affective interest in the event

- (119) Vieš, keď som **to** v dohviezdny večer chodil po dedine
 know when PART TO in Christmas Eve walk around village
 — sťa hoviadko bez gazdu.
 like calf without farmer
 ‘You know, that was when I was wandering around the village on
 Christmas Eve - like a sheep without a shepherd.’

h) reference to an event temporally bound to the pro-form ‘then’ and adding affective meaning

- (120) Raz, **to** plavili sa už po Visle, bola zázračná noc.
 once TO cruise REFL already along Vistula was magical night
 ‘One time, when they were cruising along the river Vistula, they
 had a magical night.’

i) reference to an event that is explained in a following subordinate sentence

- (121) Viete si **to** už aj trochu predstaviť, čo to dalo
 know REFL TO already also a-little imagine what TO give
 roboty vylámať všetko to kamenie a ešte ho aj rozdrviť.
 work break all TO stone and even it also crush
 ‘You can even imagine a little how much work it would be to break
 all that stone and then to crush it.’

j) nominalization of adjectives, adverbs, prepositional phrases and whole clauses

- (122) Tak a teraz vám povieme **to** hlavné.
so and now you tell TO main
'So now we will tell you the main thing.'

k) conjunction when expressing an order of events or circumstances, in a sense of 'once', 'also' or 'either/or'

- (123) Celou silou držím hlavu, aby sa mi pod tou ťarchou
whole strength hold head so REFL me under that weight
nesklátila **to** na jednu, **to** na druhú stranu.
break TO on one TO on other side
'I am holding my head with all my strength so it would not, under
all the weight, break either on one side or the other.'

l) conjunction when expressing cause and effect relationship between two events

- (124) A ak je mnoho peňazí, **to** si kúpia automobil.
and if is a-lot-of money TO REFL buy car
'And if they have a lot of money, then they will buy a car.'

Chapter 5

CONCLUSION

5.1 Summary of the thesis

This thesis described and put forth an analysis of Slovak adjectives used for reference. The primary objective was to thoroughly examine the lesser known, affixless, strategy of using adjectives for the referential purpose, which were named adjectival determiner phrases or “A-DPs”. Two types of Slovak A-DPs, differentiated primarily by whether they refer to an entity or to a property, are exemplified in (1).

- (1) BEARER A-DP
- a. **To príjemné** z koncertu netrvalo dlho.
TO pleasant of concert not-last long
‘The pleasant (portion) of the concert didn’t last long.’
- TROPE A-DP
- b. **To príjemné na koncerte** bola veselá atmosféra.
TO pleasant on concert was happy atmosphere
‘The pleasant (aspect) of the concert was the good atmosphere.’

An original, unified analysis for both types of the A-DP expressions was defended, one which does not involve a covert noun or pronoun, nor relies on a reanalysis of the adjective into a noun, despite the fact that they appear in nominal syntactic positions and thus are included under the umbrella of nominalization. The following paragraphs summarize the empirical findings and the claims of the thesis chapter by chapter.

Chapter 1 (Introduction) gave an overview of the grammar of Slovak, the language chosen for the case study. Slovak A-DPs had not been

previously examined and the novel data is particularly valuable to the effort of understanding the role of determiners in affixless nominalizations cross-linguistically. In the first chapter, the Slovak National Corpus was introduced and the methodology and obstacles in gathering A-DP data were discussed. One of the difficulties, for example, was that there is a lack of clarity or consistency about the lexical category of such expressions in the corpus, a symptom of the same deficiency in Slovak linguistic literature in general. The last part of Chapter 1 presented critical summaries of four distinct syntactic-semantic analyses of A-DPs that are available for other languages: Glass (2014) for English, Villalba (2013) for Spanish, Kester (1996) for Dutch, and McNally and de Swart (2015) and de Swart et al. (to appear) for Dutch. I discussed the strengths and weaknesses of each, and concluded that the available alternatives do not account for empirical details of Slovak A-DPs, thus motivating the search for a different analysis.

Chapter 2 (The morphosyntax-semantics interface of A-DPs) began by distinguishing productive A-DPs from ellipsis as well as from unproductive cases with idiosyncratic meanings. A large portion of Chapter 2 was devoted to a thorough description of interpretive and morphosyntactic properties of the two types of A-DPs, bearer and trope referring. Bearer A-DPs facilitate reference to the property's bearer; informally, the "stuff" that manifests the property denoted by the adjective, exemplified in (1-a) above. Trope A-DPs facilitate reference to the property itself; informally, the token of the [adjective] property that is manifested in a bearer which is expressed via a PP complement to the A-DP. A trope A-DP is exemplified in (1-b).

In comparing a large number of naturally occurring examples, the following distributional similarities and differences between these two A-DP types were found and consequently informed the analysis. Both A-DP types have adjectival inflection, are gradable and can be modified by adverbs, facts that argue against a lexical conversion from adjective to noun. The contrasts include their differing compatibility with adjectives, quantifiability, requirement of a PP complement and requirement of the demonstrative *to*, all strongly suggesting that the two A-DP types differ in their underlying syntax and semantics.

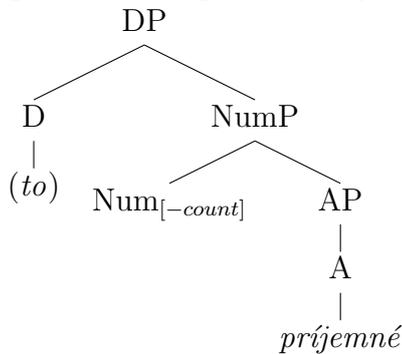
A syntactic-semantic analysis proposed in the second half of Chapter 2 was developed on the foundational idea that the denotation of adjectives includes two ever present variables, one for the bearer and one for the property token, or trope (the term and the original inspiration are taken from Moltmann (2004)), illustrated in (2). The instantiation of the latter variable is uniquely dependent on the instantiation of the former, a fact that was articulated in a "bearer-per-trope condition" (inspired mainly by a similar condition in the verbal domain proposed by Rappaport Hovav and Levin

(2001)). The proposed formulation of adjective denotations allows for both interpretations of A-DPs in Slovak, once one or the other variable is either existentially closed or saturated in an appropriate way.

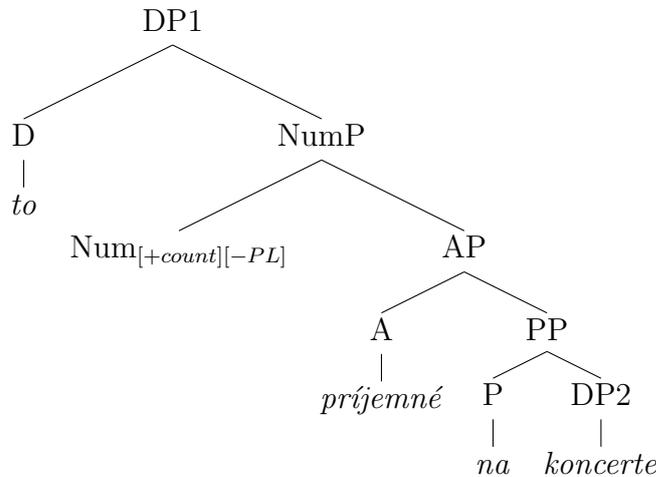
$$(2) \quad \llbracket \textit{adjective} \rrbracket : \lambda x \lambda y^{trope} [\textit{adjective}(y^{trope}) \wedge \textit{bearer}(y^{trope})(x)]$$

The syntactic structure of A-DPs rests on the assumption that one consequence of the DP hypothesis of Abney (1987) is that adjectives can be directly embedded under a determiner, as illustrated in (3). This syntactic structure is also proposed for Dutch trope A-DPs by McNally and de Swart (2015). Unlike some other alternative analyses, including that of McNally and de Swart, the idea defended in this thesis is that not just one type of A-DP but both have this syntax; nevertheless, the two specialized uses of A-DP are fairly straightforwardly accommodated. Bearer A-DPs derive by a type shifter, inspired by Glass (2014), which existentially binds the trope variable. In contrast, in trope A-DPs, the value for the bearer variable is supplied by an obligatory prepositional phrase complement. The basic semantics and syntax for bearer A-DPs are given in (3) and for the trope A-DPs in (4).

$$(3) \quad \textit{(to) príjemné} \textit{ 'the pleasant (stuff/portion)'} \\ \llbracket \textit{to príjemné} \rrbracket : \iota z \exists y^{trope} [\textit{príjemné}(y^{trope}) \wedge \textit{bearer}(y^{trope})(z)]$$



$$(4) \quad \textit{to príjemné na koncerte} \textit{ 'the pleasant aspect of the concert'} \\ \llbracket \textit{to príjemné na koncerte} \rrbracket : \iota y^{trope} [\textit{príjemné}(y^{trope}) \wedge \textit{bearer}(y^{trope})(k)]$$



The uniqueness of this semantic-syntactic analysis is that it shows how language, at least Slovak, can use not only nouns but also adjectives to individuate a referent. The referent can be an entity or even the property itself.

Adjectives do not require a category change marked by morphological derivation in order to be used for reference, though that strategy is also available in Slovak. The question of what makes A-DPs different from derived nominalizations, i.e. what makes reference through adjectives different from reference through nouns, was addressed in detail in **Chapter 3 (Difference between derived nominalizations and A-DPs)**. This chapter presented a systematic comparison of the previously introduced two types of A-DPs to derived nominalizations (DNs), with an emphasis on the most common deadjectival nominalization suffix, *-osť*.

A-DPs and DNs are in competition: both can be used for reference to entities that manifest the property denoted by the base adjective, and also to a trope of that property. However, trope referring adjectives are specialized by the language to situations where the bearer identification is required through a properly related prepositional phrase, while referring nouns allow a variety of ways for the bearer to be identified. Therefore, DNs are more flexible and A-DPs much more limited in their distribution. To reveal the difference, the nominalization strategies were tested for their compatibility with five possessive/genitive phenomena that can serve to identify the bearer of the trope denoted by the adjective. These structures include bare postnominal genitive noun phrase, genitive preposition phrase, possessive quasi-adjectives, possessive pronouns, as well as the predicate *mať* ‘have’. One example of a contrast is illustrated in (5). I concluded, in accord with the claims made in Chapter 2, that the incompatibility of A-DPs with genitive structures further confirms that the core of these expressions is a true, unconverted adjective

and there is no nominal layer in their syntactic structure.

- (5) a. **autorova/jeho neznal-ost̃**
author.POSS/his not-knowing+ *ost̃*
'author's/his ignorance'
- b. ***autorove/*jeho neznal-é**
author.POSS/his not-knowing
intended: 'author's/his ignorance'

Chapter 3 presented an analysis of DNs that built on the proposal that the adjectival denotation inherently contains a variable for a bearer and a variable for the trope. It was shown that DNs have distinct characteristics and behavior from A-DPs because they are a result of a lexical category change from adjective to noun.

Chapters 2 and 3 together answered the research questions set forth at the beginning of the thesis: What is the structure of A-DPs? What is the interpretation of A-DPs? In addition, I addressed some immediate secondary questions, such as, how do the structure of affixless A-DPs and their interpretations differ from those of affix-based derived nominalizations? The third research question posed at the beginning of the thesis, the question of what the seemingly optional determiner's role in A-DPs is, was the focus of the final chapter of the thesis.

Chapter 4 (The role of a demonstrative in deadjectival nominalization) investigated the structural and pragmatic role of the demonstrative element *to* that sometimes precedes the adjective in A-DPs. This chapter tested two hypotheses, one that *to* is a pronoun that is postmodified by the adjective, and the other that the demonstrative is not a pronoun but a determiner that directly combines with the adjective. The first, pronominal, hypothesis was rejected based on weak results from diagnostics that addressed the similarities between A-DPs and postmodified indefinite pronouns, inspired by Larson and Marušič (2004). The second hypothesis was accepted due to the parallel between the range of semantic/pragmatic contributions *to* makes when it combines with neuter nouns, and its behavior in A-DPs. The functions of the demonstrative that were examined were adopted from Šimík (2016) and included deictic, canonical anaphoric, affective/emotive and pragmatic discourse anaphoric function.

The second half of the chapter explained the puzzling distribution of *to* in A-DPs. Interpretive contrasts between A-DPs with and without *to* were highlighted and tested in a variety of contexts (e.g. with and without an anaphoric relationship to an antecedent), as well as word order variants influenced by information structure. It was observed that the word order in

Slovak, being crucial for discerning the givenness and newness of the information provided by sentence constituents, interacts with the presence of the determiner in achieving the definiteness of an A-DP. In other words, even when *to* is absent, the A-DP expression can be interpreted as definite if the word order marks it so.

Lastly, Chapter 4 highlighted trope A-DPs as a unique case in which the determiner is always required. The obligatoriness of *to* in trope A-DPs was shown to be due to the special pragmatic character of specificational copular sentences in Slovak, in which trope A-DPs most typically appear. Building on the analysis of specificational sentences by Partee (1987) and Geist (2007), it was argued from Slovak data that (i) the pre-copular phrase must be a definite phrase used predicatively, (ii) trope A-DPs appear as the sentence-initial topic and are referential expressions, and therefore (iii) must be disambiguated from simple predicative adjectives by the presence of the determiner.

5.2 Avenues for further research

The application of the analysis developed in this thesis to Slovak A-DPs opened numerous potential areas of further research worth pursuing. Although they fell outside the scope of this work, three of them will be briefly discussed in the following paragraphs.

The first direction to extend this research is to further develop the syntactic and semantic analysis in order to account for more ways that quantification interacts with A-DPs. For example, it is empirically interesting to consider the expressions that consist of a determiner, an indefinite quantificational pronoun and an adjective (the unclear nature of these expressions was first mentioned in Chapter 4, Section 3.1). The order of the determiner and indefinite pronoun can be reversed and the structure remains grammatical in Slovak, although the effect on the interpretation is unclear. Two naturally occurring examples found in the corpus are given below, (6) with ‘something’ and (7) with ‘everything’. The English translations are my best approximations; it is not obvious what meaning these expressions convey.

- (6) Si uvedomíme, že **niečo to minulé** bolo skutočne
REFL realize that something TO former was really
bezvýznamné, oproti tejto situácii.
meaningless in-comparison this situation
‘We will realize that some of the past was really meaningless, compared to this situation.’

- (7) Peniaze, majetok a jednoducho **všetko to hmotné**
 money possessions and simply everything TO material
 nemá žiadnu cenu.
 not-have any value
 ‘Money, possessions and simply all the material (stuff)/everything
 material are not worth anything.’

There is a certain ambiguity, reflected in the translation in the above sentence (7), between the interpretations as quantified A-DPs and postmodified quantificational pronouns.

Moltmann (2003) proposes semantics of quantified expressions in English that include *something*, *everything* and *nothing*. She includes the relative pronoun *what*, a fact that is possibly significant to the topic at hand because Slovak quantifying pronouns have a *wh*-base (*čo* ‘what’). Moltmann claims these expressions serve as quantifiers that range over and induce reference to tropes (related to the main predicate in the utterance via a special operation), and restricted by the attached adjective. Moltmann’s analysis has limitations, e.g. it only lends itself to certain sentential positions and syntax is not explored at all. Furthermore, Slovak A-DPs are quantifiable only when they are used to refer to bearers (as in the examples (6) and (7) above), not tropes (see Section 3.2 in Chapter 2). However, testing her proposal in Slovak could prove useful as a starting point in accounting for even the above data of quantified bearer A-DPs, particularly given the assumption that all adjectives contribute a trope variable with certain characteristics (e.g. being unique to a particular bearer).

Another perspective on quantification of A-DPs to consider in future research is that of McNally and de Swart (2015) and de Swart et al. (to appear), who note that in Dutch, *al* ‘all’, an analogue to Slovak *všetko*, is the only quantifier-like predeterminer that is compatible with Dutch A-DPs. They argue that *al* indicates maximality in the interpretation of the determiner. Their observation for Dutch could shed some light on the variable behavior and interpretations of quantificational pronouns, when combined with A-DPs in Slovak.

A second avenue for further research concerns the division of labor between the various deadjectival nominalization strategies, in Slovak and also cross-linguistically, and larger questions of natural language ontology. This thesis focused mainly on examining empirical evidence that showed significant differences between DNs and A-DPs, of both an interpretational and distributional character, such as quantifiability or the requirement that the bearer of the property be expressed. Nevertheless, it was also asserted that each strategy is used for reference to the *same* ontological categories: to

tropes (properties) and to bearers (entities), while speculating that this reference is uniquely “packaged” in nouns and in adjectives, bringing about the noted grammatical consequences. The division of labor within the natural language ontology that this case study of Slovak points to is schematized in Table (7). For property referring A-DPs, the token - kind distinction is signalled by the presence or absence of a locative prepositional phrase which identifies a particular trope bearer; however, for entity referring A-DPs and for DNs, the distinction is signalled by other contextual means, such as the predicate they combine with.

	PROPERTY		ENTITY	
	via ADJ	via NOUN	via ADJ	via NOUN
TOKEN	trope A-DP +PP	trope DN	bearer A-DP	bearer DN
KIND	trope A-DP (no PP)	trope DN	bearer A-DP	bearer DN

Table 5.1: Division of labor and natural language ontology

The above encapsulates the reason behind the title of this thesis and the somewhat unorthodox idea that language allows “reference **to** properties” and also reference to entities “**via** properties”. Although nouns are normally the dedicated form of referring, even adjectives have the appropriate make-up that allows them to establish reference under certain conditions, i.e. when embedded under a determiner phrase.

The characterization in Table (7) differs from - primarily in the fact that it is simpler than - that of several other authors that have alluded to natural language ontology in their work on A-DPs. I will mention three. Glass (2014) suggests that some A-DPs denote states. As was discussed in Chapter 1, I reject that deadjectival nominalizations refer to states because a state contains a temporal parameter that a property does not. For example, although *being trivial* is a state-referring expression, *triviality* is not and neither is the A-DP *the trivial*, evidenced by the impossibility to substitute between them in context. Villalba (2009) and the recently published work by Francez and Koontz-Garboden (2017) include the category “quality” in their ontology, although the latter do not address A-DPs directly. Francez and Koontz-Garboden (2017, p.39) explain that in their understanding, qualities are abstract mass entities or abstract ‘stuff’, intuitively a good fit for the denotation of Slovak DNs. Their model-theoretic account of qualities and quality possession is thorough and would be interesting to attempt to harmonize with the ideas presented in this thesis. Regardless of particular competing characterizations of natural language ontology in the literature, the larger question remains open as to whether the contrast in grammatical

behavior between nominalization strategies in Slovak indicates that a more complex ontology is justified.

The last research direction I will mention is the interest of a large scale comparison of A-DP expressions cross-linguistically. Cross-linguistic variation has already been the subject of a few comparative studies, none of which seriously considered the type of analysis presented in this thesis for all A-DPs uniformly. For example, de Swart et al. (to appear) compare Dutch, English, French, Slovak, Greek, Romanian, and German; and Alexiadou et al. (2012) compare French, German, Greek, and Romanian. One difficulty for gathering and relying on data from the literature at this time, due to the fact that it is a topic of a fairly recent interest, is that there is no agreement among the authors yet about the types of potentially available interpretations of A-DPs; moreover, the lack of common terminology, tools and diagnostics leads to conflation and omission of interpretations. For example, trope A-DPs are not recognized in many works (see Table 1.3 in Chapter 1).

In addition to cross-linguistic descriptive work, an application of the analysis here developed to other languages would be a helpful test of its strength, especially extending it to non-Slavic languages. For example, Spanish has a unique use recognized by Bosque and Moreno (1990) and Villalba (2013) as the “qualitative” or “quantificational” reading, illustrated in (8-a). This use does not exist in Slovak.

- (8) a. trabaja **lo necesario**
works LO necessary
‘he works the necessary amount’ (Bosque and Moreno, 1990)
- b. *robí **to potrebné**
works TO necessary
intended: ‘he works the necessary amount’
can be interpreted as: ‘he does the necessary (things)’

In facing the challenge to account for this type of Spanish A-DP (as well as Dutch degree-denoting DNs, see de Swart et al. (to appear)), the formulation of certain adjectives’ denotations, besides the contained variables for a trope and for a bearer, will probably have to be enriched with a semantics for degrees.

Finally, there is little understanding of which grammatical factors influence what uses A-DPs and DNs specialize in across languages. A presentation by McNally (2016) offers a few suggestions of the morphosyntactic parameters of variation, including restrictions on the determiner, the possibility that the ‘determiner’ is in fact a pronoun, and productivity of noun-forming morphology. More work should be done to examine these and other parameters

in a systematic way. Certainly, future research endeavors aiming to capture a fuller picture of the cross-linguistic landscape of deadjectival nominalization would gain much benefit from new, thorough, individual language case studies.

Bibliography

- Abney, S. (1987). *The English Noun Phrase in its Sentential Aspect*. PhD thesis, MIT.
- Alexiadou, A. (2011). Statives and nominalization. *Recherches linguistiques de Vincennes*, 40:25–52.
- Alexiadou, A. and Iordăchioaia, G. (2014). Two syntactic strategies to derive deadjectival nominals. *Anglica Wratislaviensia*, 52:65–83.
- Alexiadou, A., Iordăchioaia, G., Marzo, D., and Umbreit, B. (2012). Comparing lexicalist and syntactic insights on deadjectival nominalizations. Hand-out of talk given at the 7th Brussels Conference on Generative Linguistics: The Morphology-Syntax Interface, Brussels, 17–18 December, 2012.
- Alexiadou, A., Iordăchioaia, G., and Soare, E. (2010). Number/aspect interactions in the syntax of nominalizations: A distributed approach. *Journal of Linguistics*, 46(3):537–574.
- Arsenijević, B. (2012). The semantic ontology of deadjectival nominalizations in Serbo-Croatian. *Recherches linguistiques de Vincennes*, 40:53–72.
- Baglini, R. (2015). *Stative Predication and Semantic Ontology: A Crosslinguistic Study*. PhD thesis, University of Chicago.
- Bajžíková, E. (1980). Sémantika ukazovacích zámen v textovej syntaxi. In *Jazykovedné štúdie XVI. Materiály z vedeckej konferencie o sémantike*, pages 123–126.
- Barker, C. (1999). Individuation and quantification. *Linguistic Inquiry*, 30:683–691.
- Barker, C. (2011). Possessives and relational nouns. In *Semantics: An international handbook of natural language meaning 2*, pages 1109–1130. Berlin: De Gruyter Mouton.

- Beaver, D., Alvarez, I. G., Francez, I., Levinson, D., and Mikkelsen, L. (2004). Existentials: from angst to harmony? Paper presented at the Akademie Colloquium, Amsterdam.
- Birner, B. J. (1996). *The Discourse Function of Inversion in English*. New York: Garland Publishing.
- Bolinger, D. (1967). Adjectives in English: Attribution and predication. *Lingua*, 18:1–34.
- Borer, H. (2005). *The Normal Course of Events. Structuring Sense, Vol. II*. Oxford: Oxford University Press.
- Borer, H. and Roy, I. (2010). The name of the adjective. In *Adjectives: Formal Analyses in Syntax and Semantics*, pages 85–114. Amsterdam: John Benjamins Publishing.
- Borik, O. and Espinal, M. T. (2012). On definite kinds. *Recherches linguistiques de Vincennes*, (1):123–146.
- Borschev, V. and Partee, B. H. (1999). Semantic types and the Russian genitive modifier construction. In *Formal Approaches to Slavic Linguistics: The Seattle Meeting 1998*, pages 39–57. Ann Arbor: Michigan Slavic Publications.
- Bošković, Ž. (2005). On the locality of left branch extraction and the structure of NP. *Studia Linguistica*, 59(1):1–45.
- Bosque, I. and Moreno, J. C. (1990). Las construcciones con *lo* y *la* denotación del neutro. *Lingüística*, 2:5–50.
- Buzássyová, K. (1986). Konkurencia slovotvorných typov s formantmi *-ita* a *-ost'*. *Slovenská Reč*, 51:142–152.
- Buzássyová, K. and Jarošová, A. (2006). *Slovník Súčasného Slovenského Jazyka: A-G*. Bratislava: Veda.
- Carlson, G. N. (1977). *Reference to Kinds in English*. PhD thesis, University of Massachusetts at Amherst.
- Chierchia, G. (1998). Reference to kinds across languages. *Natural Language Semantics*, 6:339–405.
- Chomsky, N. (1970). Remarks on nominalization. In Jacobs, R. and Rosenbaum, P., editors, *Readings in English Transformational Grammar*, pages 184–221. Waltham, MA: Ginn & Co.

- de Swart, H., McNally, L., and Richtarcikova, V. (to appear). Reference to and via properties: A cross-linguistic perspective. Proceedings from the 52nd Annual Meeting of the Chicago Linguistic Society.
- Den Dikken, M. (2006). *Relators and Linkers: The Syntax of Predication, Predicate Inversion, and Copulas*. Cambridge, MA: MIT press.
- Embick, D. and Noyer, R. (2007). Distributed morphology and the syntax/morphology interface. In *The Oxford Handbook of Linguistic Interfaces*, pages 289–324. Oxford: Oxford University Press.
- Francez, I. and Koontz-Garboden, A. (2017). *Semantics and Morphosyntactic Variation: Qualities and the Grammar of Property Concepts*. Oxford: Oxford University Press.
- Franks, S. (1995). *Parameters of Slavic Morphosyntax*. Oxford: Oxford University Press.
- Furdík, J. (2002). Pojem produktivity v slovotvorbe a v morfológii. In Ondrejovič, S., editor, *Jazykoveda v Bibliografii. Bibliografia v Jazykovede.*, pages 22–29. Bratislava: Veda.
- Gajdošová, K. (2008). Lingvistická analýza výrazu *to* v pracovnej verzii hovoreného korpusu slovenčiny. Master's thesis, Univerzita Komenského v Bratislave.
- Gajdošová, K. (2010). Lingvistická analýza automatizovanej anotácie datívu adjektíva v heterogénnych menných skupinách v Slovenskom národnom korpuse. In Šimková, M., editor, *Slovo–Tvorba–Dynamickosť'. Na Počest' Kláry Buzássyovej*, pages 309–330. Bratislava: Veda.
- Geist, L. (2007). Predication and equation in copular sentences: Russian vs. English. In Comorovski, I. and von Heusinger, K., editors, *Existence: Semantics and Syntax*, pages 79–105. Dordrecht: Springer.
- Giannakidou, A. and Stavrou, M. (1999). Nominalization and ellipsis in the Greek DP. *The Linguistic Review*, 16(4):295–332.
- Glass, L. (2014). Deriving the two readings of English determiner+adjective. In Etxeberria, U., Fălăuş, A., Irurtzun, A., and Leferman, B., editors, *Proceedings of Sinn und Bedeutung 18*, pages 164–181.
- Grimm, S. and McNally, L. (2013). No ordered arguments needed for nouns. In *Proceedings of the 19th Amsterdam colloquium*, pages 123–130.

- Grimshaw, J. (1990). *Argument Structure*. Cambridge, MA: MIT Press.
- Günther, C. (to appear). The rich, the poor, the obvious: Arguing for an ellipsis analysis of “adjectives used as nouns”. In *NPs in English: Past and Present*. Amsterdam: John Benjamins.
- Hajičová, E., Partee, B. H., and Sgall, P. (1998). *Topic-Focus Articulation, Tripartite Structures, and Semantic Content*. Dordrecht: Kluwer Academic Publishers.
- Halle, M. and Marantz, A. (1993). Distributed morphology and the pieces of inflection. In *The View from Building 20*, pages 111–176. Cambridge, MA: MIT Press.
- Heine, B. (1997). *Possession: Cognitive Sources, Forces, and Grammaticalization*. Cambridge: Cambridge University Press.
- Hellan, L. (1980). *Toward an Integrated Theory of Noun Phrases*. PhD thesis, University of Trondheim.
- Higginbotham, J. (1985). On semantics. *Linguistic Inquiry*, 16:547–593.
- Higgins, F. R. (1973). *The Pseudo-cleft Construction in English*. PhD thesis, MIT.
- Hinterwimmer, S. (2013). Free relatives as kind-denoting terms. In *Generativity*, pages 140–156. Oxford: Oxford University Press.
- Horecký, J. (1971). *Slovenská Lexikológia 1*. Bratislava: Slovenské pedagogické nakladateľstvo.
- Ján Horecký, K. B. and Bosák, J. (1989). *Dynamika slovnej zásoby súčasnej slovenčiny*. Bratislava: Veda.
- Jarošová, A. (2011). Prípona -ák a -ár v kontexte lexikálnej variantnosti. In *Medzinárodná konferencia Vidy jazyka a jazykovedy. Na počesť Miloslavy Sokolovej*, pages 294–307.
- Jensen, P. A. and Vikner, C. (1994). Lexical knowledge and the semantic analysis of Danish genitive constructions. In *Topics in Knowledge-based NLP Systems*, pages 37–55. Copenhagen: Samfundslitteratur.
- Kačala, J. (2012). Slovo a slovosled. Od slova a spojenia slov k vete ak slovosledu. *Eslavística Complutense*, 12:87–95.

- Karčová, A. (2013). Postpozícia nerozvitého zhodného atribútu (výskum na báze Slovenského národného korpusu a českého korpusu ORWELL). In *Gramatika a korpus 2012 – Grammar and Corpora 2012*, pages 1–13. Hradec Králové: Gaudeamus.
- Kayne, R. S. (2005). On some prepositions that look DP-internal: English of and French *de*. *Catalan Journal of Linguistics*, 1:71–115.
- Kester, E.-P. (1996). Adjectival inflection and the licensing of empty categories in DP. *Journal of Linguistics*, 32(1):57–78.
- Kishimoto, H. (2000). Indefinite pronouns and overt N-raising. *Linguistic Inquiry*, 31(3):557–566.
- Kolliakou, D. (1999). *De*-phrase extractability and individual/property denotation. *Natural Language & Linguistic Theory*, 17(4):713–781.
- Lakoff, R. (1974). Remarks as *this* and *that*. In *Chicago Linguistics Society 10: Papers from the Tenth Regional Meeting of the Chicago Linguistics Society*, pages 345–356. Chicago: Chicago University Press.
- Landman, F. (2000). *Events and Plurality: The Jerusalem Lectures (Studies in Linguistics and Philosophy 76)*. Dordrecht: Kluwer.
- Larson, R. (2002). The grammar of intensionality. In *Logical Form and Language*, pages 228–262. Oxford: Oxford University Press.
- Larson, R. and Marušič, F. (2004). On indefinite pronoun structures with APs: Reply to Kishimoto. *Linguistic Inquiry*, 35(2):268–287.
- Lauwers, P. (2014). Between adjective and noun: category / function, mismatch, constructional overrides and coercion. In *Word classes: nature, typology and representations*, pages 203–225. Amsterdam/ Philadelphia: John Benjamins.
- Leonetti, M. (1999). El artículo. *Gramática descriptiva de la lengua española*, 1:787–890.
- Levin, B. and Rappaport Hovav, M. (1999). Two structures for compositionally derived events. In *Proceedings of Semantics and Linguistic Theory 9*, pages 199–223. Ithaca, NY: Cornell Linguistics Circle Publications.
- Levinson, J. (1978). Properties and related entities. *Philosophy and Phenomenological Research*, 39(1):1–22.

- Lobeck, A. (1995). *Ellipsis*. Oxford: Oxford University Press.
- Marantz, A. (1997). No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. In *Proceedings of the 21st Annual Penn Linguistics Colloquium*, University of Pennsylvania Working Papers in Linguistics 4.2, pages 201–225.
- Marušič, F. (2001). *Pre- and Postnominal Adjectives in Slovenian*. PhD thesis, Stony Brook University.
- Marušič, F. and Žaucer, R. (2006). The 'definite article' *ta* in colloquial Slovenian. In *Formal Approaches to Slavic Linguistics 14 (The Princeton Meeting)*, pages 189–204.
- Matushansky, O. (2000). The instrument of inversion: Instrumental case and verb raising in the Russian copula. In *Proceedings of the 19th West Coast Conference on Formal Linguistics*, pages 101–115.
- McNally, L. (2008). DP-internal *only*, amount relatives, and relatives out of existentials. *Linguistic Inquiry*, 39(1):161–169.
- McNally, L. (2016). Variation in reference to and via properties. Talk presented at the KNAW Academy Colloquium, Amsterdam.
- McNally, L. and de Swart, H. (2011). Inflection and derivation: How adjectives and nouns refer to abstract objects. In *Pre-proceedings of the 18th Amsterdam Colloquium*, pages 425–434.
- McNally, L. and de Swart, H. (2015). Reference to and via properties: The view from Dutch. *Linguistics and Philosophy*, 38(4):315–362.
- Mikkelsen, L. (2011). Copular clauses. In Maienborn, C., von Stechow, P., and Portner, P., editors, *Semantics: An International Handbook of Natural Language Meaning*, volume 2, chapter 68, pages 1805–1829. Berlin: Mouton de Gruyter.
- Mistrík, J. (1966). *Slovosled a Vetosled v Slovenčine*. Bratislava: Vydavateľstvo slovenskej akadémie vied.
- Mistrík, J. (1983). *A Grammar of Contemporary Slovak*. Bratislava: Slovenské Pedagogické Nakladateľstvo.
- Moltmann, F. (2003). Nominalizing quantifiers. *Journal of Philosophical Logic*, 32(5):445–481.

- Moltmann, F. (2004). Properties and kinds of tropes: New linguistic facts and old philosophical insights. *Mind*, 113(449):1–41.
- Moltmann, F. (2007). Events, tropes, and truthmaking. *Philosophical Studies*, 134(3):363–403.
- Moltmann, F. (2013). *Abstract Objects and the Semantics of Natural Language*. Oxford: Oxford University Press.
- Moro, A. (1997). *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge: Cambridge University Press.
- MSJ (1966). *Morfológia slovenského jazyka*. Bratislava: Vydavateľstvo Slovenskej Akadémie Vied. Dvonč, L., Horák, G., Miko, F., Mistrík, J., Oravec, J., Ružička, J., and Urbančok, M.
- Myler, N. (2014). *Building and Interpreting Possession Sentences*. PhD thesis, New York University.
- Orešnik, J. (1996). Nauk novejšje slovenistike o povedkovem prilastku [depictive secondary predication in recent slovenian linguistics]. In *Razprave II. razreda - Dissertationes Classis II*, volume 15, pages 255—267.
- Padučeva, E. and Uspenskij, V. A. (1997). Binominativnoe predloženie: problema soglasovanija svjazki. In Krysin, L., editor, *Oblik slova. Sbornik statej pamjati D.I. Šmeleva*, pages 170–182. Moscow: Nauka.
- Parsons, T. (1990). *Events in the Semantics of English*. Cambridge, MA: MIT Press.
- Parsons, T. (2000). Underlying states and time travel. In James Higginbotham, F. P. and Varzi, A., editors, *Speaking of Events*, pages 81–93. New York: Oxford University Press.
- Partee, B. H. (1997). Uniformity vs. versatility: Genitives, a case study. appendix to t. janssen, ‘compositionality’. In *The Handbook of Logic and Language*, pages pages 464—470. New York: Elsevier.
- Partee, B. H. (1998). Copula inversion puzzles in English and Russian. In *Formal Approaches to Slavic Linguistics: The Seattle Meeting*, pages 361–395. Ann Arbor: Michigan Slavic Publications.
- Partee, B. H. (2010). Privative adjectives: Subsective plus coercion. In Bäuele, R., Reyle, U., and Zimmermann, T. E., editors, *Presuppositions and Discourse: Essays offered to Hans Kamp*, pages 273–285. Bingley: Emerald Group Publishing.

- Partee, B. H. and Borschev, V. (1998). Integrating lexical and formal semantics: Genitives, relational nouns, and type-shifting. In *Proceedings of the Second Tbilisi Symposium on Language, Logic, and Computation*, pages 229–241. Tbilisi: Center on Language, Logic, Speech, Tbilisi State University.
- Partee, B. H. and Borschev, V. (2003). Genitives, relational nouns, and argument-modifier ambiguity. In *Modifying Adjuncts*, volume 4, pages 67–112. Berlin: Mouton de Gruyter.
- Pavlovič, J. (2012). *Syntax slovenského jazyka II*. Trnava: Pedagogická fakulta Trnavskej univerzity.
- Pereltsvaig, A. (2007). The universality of DP: A view from Russian. *Studia Linguistica*, 61(1):59–94.
- Prince, E. (1981). Topicalization, focus-movement, and Yiddish-movement: A pragmatic differentiation. In *Annual Meeting of the Berkeley Linguistics Society 7*, pages 249–264.
- Progovac, L. (1998). Determiner phrase in a language without determiners (with apologies to Jim Huang 1982). *Journal of Linguistics*, 34(1):165–179.
- Rappaport, G. (1998). The Slavic noun phrase. Paper presented at the Comparative Slavic Morphosyntax Workshop, Spencer, Indiana.
- Rappaport Hovav, M. and Levin, B. (1998). Building verb meanings. In *The Projection of Arguments: Lexical and Compositional Factors*, pages 97–134. Stanford: Center for the Study of Language and Information Publications.
- Rappaport Hovav, M. and Levin, B. (2001). An event structure account of English resultatives. *Language*, 77:766–797.
- Reinhart, T. (1981). A second COMP position. In Belletti, A., Brandi, L., and Rizzi, L., editors, *The Theory of Markedness in Generative Grammar*, pages 517–557. Pisa: Scuola Normale Superiore di Pisa.
- Richtarcikova, V. (2014). Referential DPs with adjectival core in Slovak: A corpus based study. Paper presented at The 9th Annual Meeting of the Slavic Linguistic Society, University of Washington, Seattle.
- Richtarcikova, V. (2016). Three deadjectival nominalization strategies in Slovak and how genitive structures help us tell them apart. Paper presented at

- The SIGGRAM “Meaning and Grammar” workshop, University of Alcalá de Henares, Spain.
- Rizzi, L. (1986). On chain formation. In Borer, H., editor, *The Syntax of Pronominal Clitics*, pages 65–96. New York: Academic Press.
- Ross, J. R. (1972). Act. In *Semantics of Natural Language*, pages 70–126. Dordrecht: Reidel.
- Rothstein, S. (1999). Fine-grained structure in the eventuality domain: The semantics of predicative adjective phrases and *be*. *Natural Language Semantics*, 7(4):347–420.
- Roy, I. (2010). Deadjectival nominalizations and the structure of the adjective. In *The Syntax of Nominalizations across Languages and Frameworks*, volume 23, pages 129–158. Berlin: Walter de Gruyter.
- Schlenker, P. (2003). Clausal equations (a note on the connectivity problem). *Natural Language & Linguistic Theory*, 21(1):157–214.
- Short, D. (1993). Slovak. *The Slavonic Languages*, pages 533–592.
- Šimík, R. (2016). On pragmatic demonstratives: The case of pragmatic discourse anaphora in Czech. In Bade, N., Berezovskaya, P., and Schöller, A., editors, *Proceedings of Sinn und Bedeutung 20*, pages 640–657.
- Šimík, R. and Wierzba, M. (2017). Expression of information structure in West Slavic: Modeling the impact of prosodic and word order factors. *Language*, 93(3):671–709.
- Šimková, M. (2010). Produktívne a neproduktívne formanty pri tvorení názvov vlastností v slovenčine a češtine (korpusovolingvistická analýza). In Šimková, M., editor, *Slovo – Tvorba – Dynamickosť*, pages 492–504. Bratislava: Veda.
- Sleeman, P. (1996). *Licensing Empty Nouns in French*. PhD thesis, University of Amsterdam.
- Šmilauer, V. (1972). *Nauka o Českém Jazyku*. Prague: Státní pedagogické nakladatelství.
- SNK: Slovenský národný korpus – prim-7.0-public-sk (2015). Online: <http://korpus.juls.savba.sk>. Bratislava: Jazykovedný ústav Ľ. Štúra SAV.

- Sokolová, M. (2007). *Nový Deklinačný Systém Slovenských Substantív*. Prešov: Filozofická fakulta Prešovskej univerzity v Prešove.
- Solstad, T. (2010). Post-nominal genitives and prepositional phrases in German: a uniform analysis. In *The Syntax of Nominalizations across Languages and Frameworks*, pages 219–249. Berlin: Walter de Gruyter.
- Stalnaker, R. (1970). Pragmatics. *Synthese*, 22:272–289.
- Strawson, P. F. (1964). Identifying reference and truth values. *Theoria*, 30(2):96–118.
- Vallduví, E. (1992). *The Informational Component*. New York: Garland Press.
- Veselovská, L. (1994). The universal DP analysis in articleless languages: A case study in Czech. In Veselovská, L. and Janebová, M., editors, *Nominal Structures: All in Complex DPs*, pages 12–28.
- Vikner, C. and Jensen, P. A. (2002). A semantic analysis of the English genitive. interaction of lexical and formal semantics. *Studia Linguistica*, 56(2):191–226.
- Villalba, X. (2009). Definite adjective nominalizations in Spanish. In Espinal, M. T., Leonetti, M., and McNally, L., editors, *Proceedings of the IV Nereus International Workshop “Definiteness and DP Structure in Romance Languages”*, pages 139–153.
- Villalba, X. (2013). Eventualities under deadjectival nominalizations. *Borealis*, 2(2):241–259.
- Villalba, X. and Bartra-Kaufmann, A. (2010). Predicate focus fronting in the Spanish determiner phrase. *Lingua*, 120(4):819–849.
- Winter, Y. and Zwarts, J. (2011). On the event semantics of nominals - the one-argument hypothesis. Paper presented at the 16th Sinn und Bedeutung, Utrecht University, September 2011.
- Zlatic, L. (1998). Slavic noun phrases are NPs not DPs. Paper presented at the Workshop on Comparative Slavic Morphosyntax, Indiana University.