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Ad hoc gradation of “non-gradable” adjectives
in Czech

Ad hoc stupňování „nestupňovatelných“ adjektiv
v češtině

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Acknowledgments

Most of this paper was written in the hot summer of 2017. I want to use this opportunity to call on everyone to fight global warming. Summer is the time of the year when academics do most of their writing and the increasing temperatures seriously jeopardize scientific research. Please consider what you can do to stop the ecological devastation we're facing.

I also want to thank my supervisor, Mgr. Jan Křivan, Ph.D., for his expertise, but most importantly his patience, encouragement, and friendship. The initial phase of this paper was presented at the Master's Student Seminar (Magisterský seminář) and Týnský lingvistický seminář, whose attendees helped me make my ideas clearer and suggested possible changes to my design.

And finally, huge thanks to my girlfriend Tereza who read and reviewed this paper and took care of me in this difficult time and always understood.

I hereby declare that I wrote this thesis independently, that I have properly cited all the sources and literature used and that the thesis has not been used in another university degree or to obtain another or the same degree.

In Prague, 14th August, 2017

Prohlašuji, že jsem diplomovou práci vypracoval samostatně, že jsem řádně citoval všechny použité prameny a literaturu a že práce nebyla využita v rámci jiného vysokoškolského studia či k získání jiného nebo stejného titulu.

V Praze dne 14. srpna, 2017

Abstract:

There are some adjectives in language which sound strange to a native speaker in their graded form. Consider this sentence: “These pearls are more real than the real ones!” (“Tyhle perly jsou pravější než pravé!”) How can they be more real? What does it even mean? I attempt to answer these and other questions in this paper.

While the phenomenon of rarely graded adjectives may quite peripheral, it is nonetheless interesting and understanding it is important for the general understanding of adjective gradation.

Adjectives such as *real* are traditionally considered non-gradable. However, as we can see from the example, that doesn't mean they can't be graded. The distinction between gradable and non-gradable adjectives apparently cannot be clear-cut. The goal of this paper is to describe this phenomenon, determine which properties rarely graded adjectives have and how they can be graded.

I use data from a large corpus of written Czech (SYN v4) to find these adjectives and the way they are used. I employ both quantitative and qualitative methods to reach a comprehensive overview of rarely graded adjectives. I use statistical methods to find parameters specific for this type of adjective and semantic analysis to divide it into well-motivated categories. I also explain why they are graded only rarely, how their gradation works and what functions it serves.

I conclude that gradability should be seen as a statistical tendency rather than a line dividing adjectives in a straightforward way.

Abstrakt:

Některá adjektiva mohou při stupňování připadat rodilým mluvčím velmi podivně, např. „Tyhle perly jsou pravější než pravé!“ Jak mohou být pravější a co to znamená? V této práci hledám odpověď na tuto a další relevantní otázky.

Ačkoli se fenomén řídky stupňovaných adjektiv může zdát jako periferní, je přesto zajímavý a jeho porozumění je klíčové pro získání obecného porozumění stupňování adjektiv.

Adjektiva jako *pravý* jsou tradičně považována za nestupňovatelná. Jak je však patrné z výše uvedeného příkladu, neznamená to, že nemohou být stupňována. Rozlišení mezi stupňovatelnými a nestupňovatelnými adjektivy tak zjevně nemůže být ostré. Cílem této práce

je popsat tento jev, určit, které vlastnosti řídce stupňovaná adjektiva mají a jak mohou být stupňována.

Analyzuji data z velkého korpusu psané češtiny (SYN v4), abych našel tato adjektiva a to, jak jsou v jazyce používána. Využívám kvantitativní i kvalitativní metody k dosažení detailního přehledu řídce stupňovaných adjektiv. Užívám statistických metod k tomu, abych odhalil parametry specifické pro tento typ adjektiv, a sémantickou analýzu, abych je rozdělil do kategorií, které budou dobře motivované. Rovněž vysvětluji, proč jsou tato adjektiva pouze řídce stupňována, jak jejich stupňování funguje a jaká je jeho funkce.

Mým nejdůležitějším závěrem pak je, že stupňovatelnost by měla být chápána spíše jako statistická tendence než jako vlastnost, která dělí adjektiva do ostrých kategorií.

Keywords:

adjectives, gradation, non-gradable adjectives, boundedness, language periphery

Klíčová slova:

adjektiva, stupňování, nestupňovatelná adjektiva, ohraničenost, jazyková periferie

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2 List of abbreviations

COMP: comparative of the adjective

p_{gc} : the likelihood of gradation coefficient

POS: positive of the adjective

SUP: superlative of the adjective

3 Introduction

Gradation is a typical property of adjectives and yet there are many adjectives claimed to be non-gradable. But I noticed that these non-gradable adjectives are, in fact, sometimes graded. Curious, I decided to write my thesis on those rarely graded adjectives. At first naïve and enthusiastic, I kept talking to people, telling them about those adjectives. And what struck me as a surprise was that after some necessary initial explanations, almost everyone finally said “Oh yeah, I’ve just recently noticed an adjective like that!” and went ahead to tell me about it. This was when I realized that this is a topic potentially interesting for many. Maybe this phenomenon wasn’t so insignificant after all.

At first, I wondered where to start. There isn’t a lot of literature on rarely graded adjectives around. And while I wanted to use some experimental methods, I first needed a basic understanding of what those adjectives are, what properties they have or how widespread their use is. That’s why I decided to do a corpus study to have some preliminary results which would serve as the basis for further research.

There is commonly claimed to be a line between gradable and non-gradable adjectives in literature, although linguists differ in their view as to where exactly it lies and what non-gradable means (see Section 4.3.1 for a detailed overview). I have a natural distrust when it comes to clear-cut boundaries in language. Hopper & Thompson (1984) showed that nouns and verbs were prototypical categories and that it is impossible to divide them clearly. And adjectives themselves are hard to define in a satisfactory fashion (Croft 2003 p. 16). Why would there be a straightforward division of adjectives into gradable and non-gradable? Based on what properties?

I think linguistics should focus on the processes leading to the emergence of the categories observed in languages. As Bybee puts it, “a theory of language could reasonably be focused on the dynamic processes that create languages and give them both their structure and their variance” (2010 p. 1). Rather than trying to draw borders where there are none, we should try to understand the motivations of speakers towards certain linguistic behavior leading to regularities.

One of the common issues of research in linguistics is emphasizing the central phenomena in language. In the case of adjectives, you have the well-behaved gradable adjectives, preferably scalar, and the slightly odd black sheep of non-gradable adjectives. But what about those non-gradable adjectives that are actually graded? Should we, as is so common, say that

this is merely a peripheral phenomenon and that it happens for “pragmatic reasons” and be done with it? No, we need to study these peripheral phenomena. Without understanding the rarely graded adjectives, we can’t claim to understand how gradation works, what purposes it serves, or what it is. This is why this topic is important. Language is not logic, it’s not well-behaved.

So I decided to write this preliminary study of the rarely graded adjectives. It is preliminary due to its limited scope and methodology but still shows promising results and will serve as a basis for further research. I wanted to know what regularities exist in this peripheral group of adjectives, whether they can be divided into well-motivated categories, what their semantic profile is, what role does context play and in which functions they can be used.

This a corpus analysis of adjectives which are very common in positive but rare in their graded forms. Using a large corpus of written Czech, I selected a reasonable sample of adjectives which are rarely graded. Not sure what properties are relevant, I observed a number of parameters for each token of each lemma. I then ran some basic statistical tests to find out whether some of the parameters were more important than others. Most importantly, however, I divided the adjectives into semantically motivated groups and explained why they are graded only rarely and how their gradation works.

As a result, I present a comprehensive analysis of rarely graded adjectives instead of the usually limited overview of examples (often artificially constructed) one finds in literature. I show that even not well-behaved phenomena are regular and crucial for our understanding of language. The results promise possibilities of further research which should answer questions concerning the nature of gradation.

4 Theoretical assumptions

In this section, I present basic theoretical terms and notions used in or relevant for this paper. I give the description of what adjective gradation is, talk about what is boundedness and how it is relevant to gradability. Then I present an account of gradable and non-gradable adjectives and mention. An important part is a theory of how a non-gradable adjective can become gradable. Then I briefly mention some classifications of adjectives.

4.1 Adjective gradation

The very straightforward and intuitive definition of gradation is based on the notion of higher degree of the property denoted by the adjective. For positive, this means that graded adjective expresses a higher degree of a property than the compared object, for superlative, this means that an object or a phenomenon has the highest of the property in comparison with every other object of a given group (Dokulil, Horálek, Hůrková, Knappová, & Petr 1986 pp. 379–380). So, “Peter is taller than Hellen” means that Peter has the property *tall* in a higher degree than Hellen.

According to Kennedy (2017), there are two main approaches to explaining gradability. The first type makes a categorical distinction between gradable and non-gradable predicates where gradable predicates “relate objects to values in an ordered domain of degrees”. The comparative “saturates the degree argument of the predicate and builds a property that is true of an object just in case the degree to which it is mapped exceeds the degree to which some other object—the standard—is mapped.” So, *taller* is true of Peter if on a scale *small-tall* Peter is closer to *tall* than the standard, i.e., Hellen.

The second type assumes that the positive form has as its basic lexical semantics a vague and context-dependent meaning, while a gradable predicate has an extension relative to a certain standard, parameter θ . Linguists have different opinions about what θ is but it can be understood as a basis for fixing the extension of the predicate in such a way that the entities of which the predicate is true have the relevant property in a higher degree than the ones of which the predicate is false. So, *taller* is true of Peter when θ is “being taller than Hellen” and is false of Hellen.¹

¹ Once we understand how comparative works, the superlative is probably assumed to work analogically.

The very idea of my research obviously goes against the first type. The kind of adjectives I'm interested in is exactly the one which would be called non-gradable. And while I find the second approach much more promising, I will show that adjective gradation doesn't always serve to express a higher degree of property even though this is the prototypical function.

4.2 Degree and boundedness

In this paper, I adopt Carita Paradis's view that "DEGREE is pervasive in language and may be associated with most meanings" (2008 p. 317). This allows one to use a single model to describe different, yet similar phenomena across different grammatical categories. Degree, understood in this way, is associated with most meanings. Adjective gradation which is the topic of this paper is thus only one of many linguistic domains where degree plays a major role.

Paradis defines degree as a "first and foremost a configurational meaning structure that combines with knowledge structures pertaining to THINGS, EVENTS and STATES" (2008 p. 318), i.e., it is from the realm of construals which are ways of structuring conceptual domains. She understands degree as "a BOUNDEDNESS configuration in space" (ibid.).

Importantly here, the interaction between construals and conceptual structures is always active, the couplings are not fixed once and for all but always allow changes. Without this, linguistic change (and generally every cognitive process) would hardly be possible.

Boundedness is a property of entities in conceptual space. Bounded entities are such that have a determinable limit, while unbounded entities are open and denote uncircumscribed regions (Frawley 1992 p. 81). Boundedness is relevant in many different parts of speech. For nouns, boundedness is realized as countability (count nouns are bounded, noncount nouns are unbounded), in verbs, boundedness has to do with aspect (continuity, noncontinuous verbs are bounded, continuous verbs are unbounded) (Paradis 2008 p. 331). But the reason I mention it is because it is tied to gradability in adjectives.

4.3 Gradation and boundedness

One of the areas where boundedness plays a role is adjective gradation. As Paradis (2001 p. 2) puts it, "the property of boundedness is situated in the domain of gradability". This means that whether an adjective is gradable or not depends on its configuration.

I don't want to get too deep into this, so in short: meanings are mapped on concepts in cognitive networks which consist of domains, of which there are two types: content domains

and schematic domains. Content domain involves meanings, while schematic domain provides conceptual representations for specific configurative frames (ibid.).

Adjectives are content words (they express properties etc.) but they are configured along the schematic domain. Gradation belongs to the schematic domain. Every adjective is predisposed for some properties in the schematic domain which is the reason why “completely young” is relatively hardly acceptable because *completely* is a totality modifier, while *young* is a scalar adjective.

Paradis suggests two criteria of adjective gradability:

- (i) the type of degree modifier the adjective may combine with (totality modifiers combine with bounded adjectives, scalar ones with unbounded adjectives)
- (ii) the type of oppositeness involved in the conceptualization of the adjective (Paradis 2001 p. 4)

Based on this, she finds four types of adjectives:

	Degree modifier	Oppositeness	Examples
<i>scalar adjectives</i>	scalar	antonymy	long, good
<i>extreme adjectives</i>	totality	antonymy	terrible, excellent
<i>limit adjectives</i>	totality	complementarity	dead, alive
<i>non-gradable adjectives</i>	none	?	classical ballet, daily newspapers

Table 1: Types of adjectives according to Paradis (2001)

Scalar adjectives typically take scalar degree modifiers and their mode of oppositeness is antonymy. They are fully gradable and have values on a scale between poles. They are implicit comparatives in the way that the notion of “long line” evokes the notion of “short line” as well. They are conceptualized as more-or-less. They are unbounded. The scale is open so totality modifiers don’t work very well with them (* “totally long”).

Extreme adjectives take totality modifiers, their mode of oppositeness is antonymy. They present endpoints of a scale. They are implicit superlatives and can be analyzed as gradable bounded adjectives. People differ in whether they find grading extreme adjectives acceptable or not. However, as will be clear from my analysis, extreme adjectives are graded (see Section 6.2.1).

Extreme adjectives take totality modifiers, their mode of oppositeness is complementarity. They bear no relationship to a scale and are conceptualized as either-or, *tertium non datur*. They split the domain into two different parts. For example, “George Washington is dead.” implies that he is not alive. Extreme adjectives are non-gradable. However, they can undergo a semantic change and be graded, as in “I’ve been writing my thesis for the past twelve hours, I’m more **dead** than alive.” *dead* doesn’t mean I’m actually dead but “merely” exhausted.

Non-gradable adjectives are a specific class in this treatment and are of utmost interest to us here, so I present them separately in the following section.

4.3.1 Non-gradable adjectives

Paradis mentions that there are adjectives which simply don’t allow grading. Let’s look at her example: “daily newspapers” doesn’t seem to gradable. We can only guess what “dailier newspapers” should even mean.

Most people agree that there are adjectives which cannot be graded. Pustet confidently writes: “There are, of course, adjectival concepts that are not scalar and thus not gradable. An example is ‘empty’.” (2006 p. 62) However, Czech equivalent of *empty*, *prázdný*, has 1,049 graded tokens in the SYN v4 corpus.² Such sweeping claims are emptier than a banker’s heart. Linguists tend to be more cautious than that, e.g., Bierwisch (1989 p. 87) notes that the distinction between gradable and non-gradable adjectives is far from clear-cut. The “same” adjective (form-wise) in different contexts can appear gradable in one, and non-gradable in the other.

Kennedy (2007 p. 22) writes that there are “true non-gradable adjectives” (his examples are all relational) but admits in a footnote that a gradable interpretation can be coerced from non-gradable adjectives, adding that such interpretations are clearly marked. I think that to claim that there is a straightforward difference between those two groups is somewhat wishful thinking but I agree with the idea in general. Yes, there are adjectives which appear strange when graded. But I don’t think that an essential distinction can be based on this. As Lehečková (2011 p. 55) puts it, this distinction should be seen as statistical and I completely agree.

The strangeness of non-gradable adjective gradation is caused by the fact that we don’t have a clear scale on which the grade can be placed. However, Paradis suggests a treatment of such gradation. She holds the thesis that “the property of boundedness in adjectives is not fixed

² I don’t understand why Pustet put only an adjective without a noun in the article. Gradability is extremely context-sensitive and without a noun, an adjective could mean some rather different things. But to be somewhat more understanding, I must admit that she had only very limited space to write about adjectives so I should not hold it against her too much.

but can be changed through contextual modulation (coercion)". She thinks that adjectives can't be categorized rigidly and that while there is a system of gradability, speakers are not tied down to it. This is good news for gradation of non-gradable adjectives.

Adjectives seem to be biased to shift towards scalar interpretation. Paradis claims that coercion by contextual modulation doesn't require a change in meaning. (2001 p. 11) I will show that this is, in fact, the case, although a change in meaning is common. Adjectives are often polysemous since they are underspecified and require a noun to arrive at an interpretation.

If we accept Paradis' solution, we can explain gradation of non-gradable adjectives in terms of a change in the schematic domain (shift from bounded to unbounded). And while this can very well happen within monosemy, polysemy is also very common, usually arising through metonymy³ about which I shortly write in the next section.

4.3.2 Metonymy and non-gradable adjectives

An apt but simple description of metonymy is offered by Riemer: "The common element in metonymy is the notion of contiguity: the things related by a metonymy can be understood as contiguous to (neighboring) each other, either conceptually or in the real world." (2010 p. 249) So, in "I ate the whole bag of chips.", the container (*bag*) can stand for the content (*chips*) thanks to their contiguity.

Metonymy is a way of generating new meanings for existing expressions (Bartsch 2002 p. 49). In an example I already mentioned, metonymization can be then seen as the process via which originally non-gradable adjectives become gradable. When we take the word *dead* meaning *not alive*, we see that it is conceptualized as either-or and it can't be graded, but it can also mean *exhausted* which is conceptualized as more-or-less and it can be graded. The process behind this change was metonymy:

dead (not alive) → *showing no activity* ← exhausted (*showing very limited activity*)⁴

Unless we take zombies in the account, dead people don't move or show any activity. And the same is characteristic for being exhausted. "Showing no activity" is a property contiguous to both being dead and being exhausted, and thus it provides a metonymical link

³ I don't want to say that it has to be changed through metonymy and can't be changed through metaphor, however, I don't have a single example of a (clearly) metaphorical change in my data so I will not talk about metaphor.

⁴ Slightly different analysis is, of course, possible but this example is here mostly for illustrative purposes.

between the two meanings. So now that *dead* means exhausted, it is a scalar adjective. This is an effect of coercion by contextual modulation just as Paradis writes but it requires a semantic shift.

4.4 The classification of adjectives: a remark

There are some influential classifications of adjectives, often based on formal logic. For illustrative purposes, Partee (2007) offers this classification^{5,6}:

(i) Intersective: when used in a noun phrase, the meaning of the NP is the intersection of two sets, e.g., “brown chair” is the intersection of a set of brown things and a set of chairs (further examples: sick, carnivorous, blond, rectangular, French)

(ii) Nonintersective but subsective: when used in a noun phrase, the meaning of the NP is the subset of N, e.g., “skillful artist” is a subset of the set of artists (further examples: typical, recent, good, perfect, legendary)

(iiia) Nonsubsective and privative: when used in a noun phrase, the meaning of the NP entails the negation of the noun property, e.g., a “former thief” is no longer a thief but does entail being a thief, so the person had to be a thief before (further examples: would-be, past, spurious, imaginary, fictitious, fabricated (in one sense), mythical (maybe debatable); there are prefixes with this property too, like ex-, pseudo-, non-)

(iiib) Plain nonsubsective: similar to privative adjectives but does not entail anything, e.g., “a potential winner” doesn’t have to be a winner at all (further examples: potential, alleged, arguable, likely, predicted, putative, questionable, disputed)

As interesting as I find this classification, I didn’t see how useful this would be for my research. Being in one of the categories doesn’t seem to influence the possibility of gradation, e.g. *perfect* and *good* are both subsective but *perfect* would (I assume) be deemed non-gradable since it is an extreme adjective.

In Czech linguistics, Čermák (2011 p. 202) offers a semantic classification in the following manner:

- a) descriptive: relation to a class (example: wooden)
- b) possessive: relation to an individual and for animals to a class (father’s, dog’s)
- c) evaluative: “good-bad” (great, lousy)

⁵ Which she calls “the adjective classification familiar since the work of the 1970s” (2007 p. 151). She also suggests a counterexample.

⁶ The examples are hers, the characteristics are mine and based on her description. The chance that I misunderstood it is not negligible, so any mistake is mine.

- d) intensifiers: “more-less like that” (complete, perfect)
- e) restrictive: restricting reference (main, mere)

He adds that especially evaluative adjectives are graded. His treatment is minimal but this is due to space constraints. Still, in some cases, it is not clear at all where some examples would belong.

But this is a major topic of linguistics and I can't do it justice here. Seeing the amount of work written on this subject and a limited relevance to my work, I decided to not adopt any kind of classification.

4.4.1 Relational and qualitative adjectives

I originally decided to look at and use in my research one common distinction: between relational and qualitative adjectives. As far as I know, this category is not often used in English linguistics, it is, however, often considered in Czech tradition.

The Academic grammar of Czech (Komárek, Kořenský, Petr, & Veselková 1986 pp. 70–75) describes qualitative adjectives as basic, primary, expressing a property in a non-relational way, naming properties of phenomena evaluated both objectively and subjectively. They are names of properties of living beings (people, animals), inanimate objects in nature or abstract phenomena.

Relational adjectives are characterized as expressing a relation to other phenomena, things, events to which the adjective is connected via its derivational history. They offer some sort of further classification for both groups but it is not clearly motivated.

Křivan (2013) presents an analysis attempting to shed some light on the notion of relational adjective and its definition. He ultimately arrives at the conclusion that there is a “scale of relation” (*škála relačnosti*) and that while the category of relational adjectives is well motivated, it is by no means clear-cut and should rather be seen as prototypical.

In terms of gradation, qualitative adjectives are considered well behaved and normally graded adjectives, while relational adjectives are not usually graded. When they are graded, it is in some different, qualitative meaning. However, Křivan (2013 p. 149) points out that this is often not the case, e.g., *dřevěný* (*wooden*) can be graded, when taken to mean “made of wood” in terms of the amount of wood present in the thing.

This distinction clearly has something to do with grading but since it's not straightforward, it also causes some troubles in the annotation. These will be discussed in Section 5.2.1.

4.5 Conclusion

Just to sum up the most important points, while adjectives are often seen as either gradable or non-gradable, I decline a straight line between the two categories (see Section 7.2 for my own view). I presented a distinction between schematic and content domain which allows for changes in gradability without the need for semantic change and also metonymy as the prime mechanism of the potential semantic change.

5 Methodology

When I'm talking about rarely graded adjectives, what I mean is that some adjectives are common in positive and yet rare in their graded form. Of course, rarely graded adjective could be any which only has a few graded tokens in the corpora. However, in such cases, it is likely that the low number of graded tokens is caused by the generally low frequency of the expression. This is why I take the number of tokens in positive into consideration.

In this chapter, I explain how I decided to implement my idea. I first give a short characterization of the corpora I used and how I processed my data. I then give a detailed view of my annotation and the parameters I observed.

5.1 Data

Since I was interested in how a certain phenomenon in Czech is realized and didn't know anything about it, I decided to perform a corpus analysis. While an experimental study or acceptability judgement would give me interesting results, I would first need an idea about how rarely graded adjectives are used in Czech and which adjectives these are.⁷

To be able to describe a rare phenomenon, I needed a large amount of data. This led me to use the SYN v4 corpus, which is a collection of written Czech. I now present the corpus itself and some of its specifics which affected my work and results.

5.1.1 SYN v4 corpus

The SYN v4 corpus was at the beginning of my work the largest referential corpus of Czech with over 3.6 billion words (Hnátková, Křen, Procházka, & Skoumalová 2014).⁸ It is comprised of several smaller corpuses which makes it non-representative with most the texts present being journalistic. It covers the Czech language since 1990 up to present days which is over 25 years. It's "marketed" as synchronic but the Czech language no doubt changed in the past 25 years quite a bit (together with a major cultural change). I did not find any particular problem in here but then I wasn't looking for one.

Journalistic texts make the absolute majority of the text in the corpus because the newspapers are easily available and are printed daily. Journalists have to use a rather lively and current language and often work with it in a new and original way but not too new and original

⁷ I do want to follow the work done in here with an experimental study, so this thesis is, in a way, a preparatory study.

⁸ As of now, however, the new SYN v5 is slightly larger with 3.8 billion words.

way to be understood (as poets tend to do). They also share topics as they write about what's happening now. No one would say that journalists write in a way which represents the general or majority usage of a language; but who does?

I would much rather use a spoken language corpus ORAL but it pales in comparison with SYN regarding its size and is not lemmatized and not morphologically tagged.⁹ Each one of those problems would have made my efforts difficult. Combined, they would have made it impossible.

5.1.2 Data processing

I wanted to find those adjectives which were frequent in the positive but very rare in the comparative and superlative, i.e., the rarely graded adjectives.

My first step was to download all the adjective lemmas in all grades with their respective numbers of occurrences.¹⁰ This meant that I simply asked for all the adjectives in the positive, comparative and superlative grades, then downloaded 3 xlsx files, each containing a list of lemmas and a number of occurrences.¹¹ I then combined the 3 Excel files into one using the V.LOOKUP formula in Excel. I checked whether it worked properly (it did).

Then I used a formula to calculate the *likelihood of gradation coefficient* (p_{lgc}):

$$p_{lgc} = \frac{(COMP + SUP)}{(POS + COMP + SUP)} \times 1000$$

where *POS* is the number of occurrences in positive, *COMP* is the number of occurrences in comparative and *SUP* is the number of occurrences in superlative.

The p_{lgc} thus represents the ratio of the sum of graded tokens of a lemma and the sum of all the tokens of a lemma, i.e., what percentage of the all the tokens of a lemma is graded. Since the numbers tended to be rather small, I multiplied them by 1,000.

Having done that for every adjective in the corpus, I sorted the list by p_{lgc} from the smallest to the highest.¹² I'd found my culprits but the case was just beginning.¹³

⁹ It is now... I chose an unfortunate time to start my study.

¹⁰ I only consider synthetic grading since analytical grading is not marked in the corpus and analytically graded adjectives are difficult to find in a reliable way.

¹¹ I am very grateful to Mgr. David Lukeš from the Institute of the Czech National Corpus for his help here: this was too much data and the web interface was not built for it but David used some computer magic and sent me the files.

¹² Part of the list is shown in Annex no. 1.

¹³ I would like to mention here that the list I have can be used for further research. An obvious example is the exact opposite of what I'm doing here: I could look for adjectives which are more frequent when graded than in the positive.

5.1.3 An issue with the p_{lgc} formula

Unfortunately, the formula I used causes a high frequency bias in my data. Only very frequent adjectives were examined which in combination with the unreferential character of the corpus means that I missed some very interesting tokens. And I found others which were less interesting.

Still, it was necessary to operationalize my notion into a tangible formula, rather than simply pick what I deemed interesting. Also, the only way to be sure an adjective is rarely graded is to compare its number of occurrences in comparative or superlative with the one in positive.

5.2 Further processing

I had to decide about the scope of my research, i.e., how many tokens I should describe. My original plan was a bit grandiose, as it turned out. Due to spatiotemporal problems (I didn't have a lot of time and space in this paper to describe all I wanted to), I picked the first 120 lemmas with the lowest p_{lgc} . That meant 278 tokens.

I used the CQL command “[lemma="lemma.1|lemma.2|...|lemma.n" & tag=".....[23].*"]” to find every token of the graded lemmas and saved the concordance in an xlsx file and sorted it alphabetically.

I then created an Excel file for annotation which I describe in the next section.

5.2.1 Annotation

I put following pieces of data in the annotation:

- | | |
|---|---|
| 1. lemma | 11. is positive present in the same sentence? |
| 2. text | 12. semantic change |
| 3. doc.id | 13. vehicle/source of the change |
| 4. genre | 14. target of the change |
| 5. grade | 15. syntactic type |
| 6. [adjectival category] | 16. compared object |
| 7. semantics of the adjective in positive | 17. semantics of the compared object |
| 8. semantics of the graded adjective | 18. standard of comparison |
| 9. antonym | 19. are quotation marks present? |
| 10. domain | |

I shall shortly explain what I mean by these categories. The lemma is obvious. The text is a slightly modified version of the text from the corpus. I tried to choose an appropriate length of the text to ensure easy interpretation. Doc.id is supplied by the corpus and allows for an easy identification of the text.

As for genres, while the corpus has fairly detailed categorization, I chose to only use 3 types of genre to keep everything simple: journalistic, fiction and non-fiction.

The grade is also obvious, it's either comparative or superlative. By adjective category, I mean whether it's relational or qualitative. That is not always easy to determine since those categories are by no means clear cut (see Section 4.4.1 for more detailed reasons). This category is problematic and in many cases, I was not sure. I have filled it for every token but in the end, I decided not to use it because of the high possibility of mistakes in annotation which would make any inference based on this parameter worthless.

Following next is the semantics of the adjective in positive. I merely assumed what the adjective would mean in the present context had it been in positive. In the next column, I note what it means when graded, i.e., what it means in the text. For both of those parameters, I originally wanted to be rather specific, only to later realize that this is not particularly useful for generalizations and not always quite possible. Many of my examples are simply too vague to be easily interpreted.¹⁴ I thus use quite general labels.

Since I'm dealing with adjective gradation, they should be graded along a scale and have poles. The high pole would be the adjective in superlative, the low pole would be its antonym. Therefore, I wanted to put it in the annotation. As for the scale, I mark this as a domain. Now, the same problem as above is present: there is too much vagueness. I again had to use general labels.

When I first looked at the data, I noticed that a sentence with the graded adjective often contains the same adjective in positive. That seemed quite interesting so I decided to mark that, even if I didn't know whether it's relevant or not.

The following three parameters are the most important ones, at least for devising a categorization of rarely graded adjectives. These adjectives are generally not scalar and often undergo some semantic change (see Section 4.3.1 for more details). I marked what kind of change it was and, assuming metonymy was to be expected (again, see Section 4.3.2 for more arguments)¹⁵. I marked the vehicle/source and target. This vehicle – target analysis was adopted

¹⁴ This will be obvious from later examples and will be commented on.

¹⁵ If it was a case of a coercion by contextual modulation, I marked it as not applied.

from Radden & Kövecses (1999) because it's apparently very useful for annotation (it allows to distinguish between cases where there is, e.g., a common target but uncommon vehicle, while still keeping them together). It would also work nicely if the change were metaphorical (which is why I name the parameter vehicle/source). I follow Traugott & Dasher (2001 p. 27) in that the mechanism of semantic change can be metonymization or metaphorization so my treatment in annotation covers both. To understand this parameter, an example is the best illustration: in "I drank two cups [of coffee]", the container (a cup) stands for content (coffee). Thus, the container is the vehicle while content is the target. This is merely a terminological novelty which doesn't change the way metonymy is usually understood.

There are, of course, some classifications of metonymy: I looked at Markert & Nissim (2002) and Radden & Kövecses (1999) but in the end, my data turned out to be too specific to use an established classification.

The next parameter is the syntactic use of the adjective, i.e., whether it's attributive, predicate or nominal. I didn't follow any theory and my understanding was based on prototypes. By attributive, I mean that the adjective and noun are part of the same phrase with a noun as its head, e.g., "a beautiful house". Predicative use suggests that the adjective is a part of the predicate and the property is predicated to the noun, e.g., "the house is beautiful". By nominal, I mean that the adjective works as a noun in the sentence, e.g., "the poor need our help". I admit that this is not particularly well-based but it also turned out to be a not very useful parameter so I decided to not try and make a better system.

I then wrote down the compared object and its semantic properties. The object itself was usually straightforward, however, sometimes it was a dropped subject in predicative use. As for its semantic properties, I only marked for concrete, abstract and proper names. The categories of concrete and abstract are fuzzy and prototypical. In practice, it often wasn't an easy decision to pick one.

I also observed whether the standard of comparison was implicit ("Mark is bigger.") or explicit ("Mark is bigger than Paul.") Another thing I noticed when looking at the data was that quite often the graded adjective is in quotation marks. This could mark that it is viewed as non-standard by the author which is interesting so I also marked it.

I also observed if there are "other" reasons for the adjective to be present on my list (such as for a purely poetic function) and had a column for notes. Those other reasons often meant that the adjective couldn't (and shouldn't) have been treated in my framework.

5.2.2 Filling up the annotation

Now came the hard work. I had to go through every token and mark it for all the parameters. However, at the end of the previous section, I suggested that I had to leave out some of the tokens.

In many cases, this was due to a mistake in the corpora (a token was attributed to a wrong lemma or grade) or a typo. In a few cases, I left out a token because I simply couldn't interpret it and didn't know what it meant. It was common in poetry but not limited to it.

Still, there were the cases with "other" reasons for their presence on the list. I will show some of the more interesting ones.

The first example shows that in some cases, the author used a word which is uncommon in this function:

„Aby se omezily tyto vlivy, resp, aby byl hledán **generelnější** přístup k návrhu tunelu [...]“

“In order to limit these influences or to look for a **more general** approach to the tunnel proposal [...]”

Example 1: Janota, Aleš - Příbyl, Pavel - Spalek, Juraj (2008): Analýza a řízení rizik v dopravě. Praha: Ben., doc.id: dopravpp

The expression *generální* (*generelní* is probably a mistake) is usually used in Czech in combination with words such as *ředitel* (*director*) and while it does mean *general* in those contexts, it seems to undergo a shift towards *main* because a general director is often the one in charge. *Generální* is a borrowing and used in fairly specific contexts so even though it usually means *general*, it does not replace the word *obecný* which is graded as expected.

In another example, the author uses an adjective in place of several other words:

„[...] na základě pospojování skupin virtuálních částic a antičástic v úrovni virtuální reality, které tak vytvářejí útvary **složenější**, a proto i pomalejší.“

“[...] on the basis of coupling groups of virtual particles and antiparticles at the level of virtual reality which thus create formations **more composite** and therefore slower.”

Example 2: Novotný, Ivan (2000): Nové vědění. Brno: L. Marek., doc.id: novotny

What the author obviously has in mind is that the formations are composed of more particles here. When we understand *composite* in this way, we see that it, in fact, is gradable and has at least one pole (*simple*). There are multiple examples of this kind in my data.

Some other tokens were a result of a very non-standard way of using language bordering ungrammatical or barely acceptable. Here is an example:

„Muži se také méně než my zajímají o potřeby druhých: naopak my jsme starostlivější, **pečovatelštější**.“

“Men, in comparison with us, are less interested in the needs of others while we are more thoughtful and **nursing**.”

Example 3: X (2010): Elle, č. 1/2010., doc.id: elle1001

Just quickly looking at the collocations of *pečovatelský*, it is apparent that it's usually used with expressions such as *služba* (service) or *dům* (home). I understand the example perfectly but it is so poorly formulated. This is not uncommon, in many cases, some formulations in my data are not very acceptable.

And finally, author often grade normally non-gradable adjectives to achieve a comical effect. In this case, the comical effect is the main reason for gradation:

„Nemáme čas o těchto věcech ani přemýšlet, nuceni nasadit zítra tempo ještě tempovnějši, aby byl výsledek ještě **výslednějši**.“

“We don't even have time to think about these things, being forced to set the pace tomorrow even faster so that the result is **more resulting**.” (lit. “even more pacy so that the result is more resulty”)

Example 4: X (2009): Deníky Moravia, 12. 3. 2009., doc.id: mdo90312

This may be the single most charming example in my data. The author uses a wordplay in that he takes an adjective similar to the noun to which it is predicated and grades it. If I were to attempt a semantic analysis, it probably means something along the line of “the result we truly want”, maybe, but I'm not at all sure. The comical effect is a rather common reason for gradation the rarely graded adjectives and this is a beautiful example.

In sum and for various reasons, out of the original 278 tokens I only used 232 tokens, so I left out 46 tokens, some 16.5 %.

5.2.3 Analysis

Once I had finished my annotation, I checked it for mistakes. Because I was working on it in the span of more than a week and because I realized some need for change (more general approach) I also had to unify my annotation practice. Having done that, I started working on my analysis.

I first carried out a simple statistical analysis which described my sample for every observed parameter in terms of a number of occurrences and percentage. The results are in Section 6.1.

I then divided my data into categories based on the type semantic change, i.e., the kind of metonymical change the adjective underwent (if any), and semantic properties of the adjective. These were the major regularities in my data. The categories and their motivation can be found in Section 6.2.

I then described the categories in terms of statistical prevalence of the observed parameters in comparison to the whole sample. Because the categories were of drastically different sizes, I couldn't compare them statistically using the standard chi-squared test. Instead, I used the Exact Multinomial Test which is a goodness-of-fit test for discrete multivariate data. The calculations were performed using RStudio.¹⁶

¹⁶ I am very grateful to my supervisor, Mgr. Jan Křivan, PhD., for his help. Due to my very limited knowledge of statistics, I couldn't have done this without his consultation.

6 Results

I now present the results of my analysis. I first provide a quantitative overview of my sample and its properties in terms of the observed parameters. Then, I introduce the categories into which I divided the sample based mostly on their semantic properties. For each category, I give a concise description, a number of examples with comments and a quantitative analysis with explanations of observed specifics of the data.

6.1 General description of the sample

This section contains a general description of the sample based on the parameters which were observed in my annotation. I will shortly comment on each parameter.

First, as for genre, the absolute majority of the tokens was from a journalistic text (202, 87%) with only 25 tokens (11%) from fiction literature and 5 (2%) non-fiction. This is unsurprising given that the SYN v4 corpus is comprised mostly of journalistic texts.

In the sample, 129 adjectives (56%) were present in the comparative grade, 103 in superlative (44%). In the whole SYN v4 corpus, there are 11,388,511 adjectives in comparative and 10,184,473 adjectives in the superlative (52.8% vs. 47.2% of the graded adjectives). The difference between my sample and the population is not significant, I ran the multinomial test with the result of $p=0.3937$. Furthermore, it's not even the goal of the sample to describe the whole population of adjectives. Rather, I want to show that in terms of grade, rarely graded adjectives are not particularly different from other adjectives.¹⁷

Positive of the same lemma was present in the same sentence the graded adjective in 28 cases (12%), not present in 204 cases (88%). I will, however, show that in some categories, it was present quite often.

By far, the most common type of syntactic use was attributive with 169 tokens (73%), followed by predicative with 57 cases (25%) and nominal with 6 cases (3%).

As for the semantic properties of the compared object, in 93 tokens (41%) the object was abstract, in 106 tokens (47%) it was concrete and in 27 cases (12%) it was a proper name. I didn't mark it in 6 cases where the compared object was not clear.

¹⁷ It would be ideal to be able to compare the sample with the population for each parameter but this is not possible since the parameters are a result of an analysis.

The comparative standard tended to be implicit with 185 tokens (80%), it was explicit in 47 cases (20%).

And finally, quotation marks were present in 32 cases (14%), not present in 200 cases (86%).

I present the numbers in a table on the following page. In the next section, I describe the categories into which I divided the data.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	202	87%
Fiction	25	11%
Non-fiction	5	2%
<u>Grade</u>		
Comparative	129	56%
Superlative	103	44%
<u>Positive present in the same sentence</u>		
Yes	28	12%
No	204	88%
<u>Syntactic use</u>		
Attributive	169	73%
Predicative	57	25%
Nominal	6	3%
<u>Semantic properties of the compared object</u>		
Abstract	93	41%
Concrete	106	47%
Proper name	27	12%
<u>Comparative standard</u>		
Implicit	185	80%
Explicit	47	20%
<u>Quotation marks present</u>		
Yes	32	14%
No	200	86%
<i>Table 2: The overview of observed parameters in the sample</i>		

6.2 Categories

Dividing the tokens into categories was based on the presence and the type of semantic change the adjectives undergo. In other words, the criterion is basically semantic. I first filtered

the data in my Excel table according to the semantic change and then checked a) if the resulting categories are coherent, b) if they can be further divided in a convincingly motivated way, c) what label is the most cogent.

The first step resulted in six categories, the second split one of them further into two. This meant that I had seven categories in total. They are presented with a number of tokens in the table below.

Category	# of tokens	Percentage
EXTREME FOR HIGH DEGREE	15	6%
LIMIT TO SCALAR	15	6%
TEMPORAL	18	8%
ITERATIVE	11	5%
LITERAL	8	3%
OVERT FOR COVERT	153	66%
OFC: TYPICAL OF SOMETHING	12	5%
sum	232	100%

Table 3: The overview of categories

As can be seen, the by far largest category is Overt for covert with 66% of the tokens. It is also the most diversified category. The other categories are, in comparison, rather small.

I now go through each category in detail, first giving general characteristics, the motivation for establishing the category, numerous illustrative, commented examples, and quantitative analysis. **Extreme for high degree**

The first category discussed is EXTREME FOR HIGH DEGREE. It features extreme adjectives which present endpoints of a scale (see Section 4.3, page 12 for further details). As such, they are conceptualized on a scale but since they are the endpoints, they can't be graded. They simply are the end, there is no sensible way in which a property they express can be present in a higher degree. They are implicit superlatives.¹⁸

But they are commonly graded. Because they are conceptualized as a scale, they don't require any semantic change and only are coerced by contextual modulation. This can be seen as a change from an endpoint (an extreme) to a high degree.

¹⁸ Expressions such as *ideal* or *optimal* belong here and are often graded. Too often to be in my sample, I'm afraid.

As was stated in Section 4.3 (page 12), the acceptability of the gradation of extreme adjectives differs among speakers. It can easily be seen as exaggeration in that we use an implicit superlative and suggest that something is greater even than that.

Let's look at some examples.

The first example is very clear and prototypical.

„Tvor, který před Krásčíným otcem nyní stanul, mu v jeho zmatení připadal **obrovštější** než celý dům, těžkopádný a přitom mrštný.“

“He found the creature that now stood in front of Beauty's father seemed to him in his confusion **more gigantic** that the whole house, cumbersome and yet agile.”

Example 5: Carterová, Angela (1997): Krvavá komnata. Překlad: Hábová, Dana. Praha: Argo., doc.id: carter

In this case, the graded adjective, *gigantic*, can be considered extreme. It expresses an endpoint of the scale of size. There can be nothing larger than something gigantic. But as we see, it is nevertheless graded. Thus, via a contextual modulation, the extreme adjective is coerced into a scalar one, simply expressing a high degree of the property. This example shows that this, in fact, is a sort of exaggeration and the intended effect is to suggest to the reader that the creature is something truly enormous.

The next example shows that extreme adjectives don't necessarily make a closed category.

„Odpověď, že zloděj, bacil či opilý vandal, našeho tazatele většinou neuspokojí – za tím musí být cosi **označenějšího!**“

“The answer that it was a thief, a germ, or a drunk vandal [who did something] doesn't usually satisfy the one who has a question. It must be something **more definite!**” [lit. “more marked”]

Example 6: X (1998): Mladá fronta DNES, 20. 5. 1998., doc.id: mf980520

As I understand the example, the author tried to convey that people require more certainty, that the person responsible for something must be identified with more definiteness and specificity. This would make a sort of specificity scale on which *definite (označený)* should be regarded an endpoint. I must, however, admit that in cases like this, the scale is somewhat

problematic. An alternative is to put such examples in the next category, LIMIT TO SCALAR. It is obvious that these categories are by no means clear-cut. But I understand definiteness as a scale.

In this example, we see that a position on a common scale can also be expressed with an uncommon adjective.

„Jeho dvojrole malého židovského holiče a majestátního diktátora Adenoida Hynkela je dodnes tou **nejmistrovštější** filmovou politickou karikaturou.“

“His double role as a small Jewish barber and a majestic dictator Adenoid Hynkel is still **the best** political caricature in the cinema.” [lit. “the most masterly”]

Example 7: X (1998): Mladá fronta DNES, 20. 5. 1998., doc.id: mf980520

Masterly (mistrovský) is again an implicit superlative, stating that someone is the very best through the reference to someone who is a master. It thus expresses an extreme pole of the scale “good – bad”. When graded, it loses its extreme meaning and means simply “very good”.

Now, I present a statistical analysis of this category.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	8	53%
Fiction	7	47%
Non-fiction	0	0%
p-value	0.0012¹⁹	
<u>Grade</u>		
Comparative	9	60%
Superlative	6	40%
p-value	0.8001	
<u>Positive present in the same sentence</u>		
Yes	2	13%
No	13	87%
p-value	0.7009	
<u>Syntactic use</u>		
Attributive	10	67%
Predicative	5	33%
Nominal	0	0%
p-value	0.6969	
<u>Semantic properties of the compared object</u>		
Abstract	10	67%
Concrete	5	33%
Proper name	0	0%
p-value	0.1155	
<u>Comparative standard</u>		
Implicit	10	67%
Explicit	5	33%
p-value	0.2045	
<u>Quotation marks present</u>		
Yes	0	0%
No	15	100%
p-value	0.2497	
<i>Table 4: The overview of observed parameters in the category EXTREME FOR HIGH DEGREE and their statistical significance of difference from the whole sample</i>		

As can be seen from the table, the difference between the category EXTREME FOR HIGH DEGREE and the sample is statistically significant for the parameter genre ($p = 0.0012$). It is the expression *gigantic (obrovský)* as seen in Example 5 which skews the data here since it was used

¹⁹ Statistically significant results are in bold.

in fiction only. This is probably due to its aforementioned exaggerating character which is not very welcome in journalism.

Another interesting parameter is the semantic properties of the compared object. There is a strong tendency toward abstract objects. While the result is not statistically significant ($p = 0.1155$), increasing the size of the sample could move it towards significance. I don't, however, have an explanation as to why an abstract object is preferred. The sample is too small to jump to conclusion.

And finally, in no case is the adjective present with quotation marks. While this is not statistically significant ($p = 0.2497$), it shows that graded EXTREME FOR HIGH DEGREE adjectives are seen as normal and standard which makes sense considering that no semantic change takes place.

This category especially deserves further research. It appears to be common enough in language and could shed some light on the coercion from extreme to scalar. It may, in some cases, lead even to diachronic change. Words such as *ideal* (*ideálni*) appear to undergo a shift towards meaning "very suitable". But further research is needed.

6.2.2 Limit to scalar

The most similar category to EXTREME FOR HIGH DEGREE is LIMIT TO SCALAR. Originally, I didn't even separate them into two. The main difference is that EXTREME FOR HIGH DEGREE adjectives are extreme, while LIMIT TO SCALAR adjectives are limit. This isn't just a terminology difference. Extreme adjectives are conceptualized as endpoints of a scale, but limit adjectives are conceptualized as either-or and are not scalar in any way. They are thus semantically quite different. I again must point out that these categories, and these two especially, are fuzzy.

Since they are understood as either-or, *tertium non datur*, grading intuitively appears to be much stranger. But they can often bear a close relation towards a scalar concept, as will be apparent from the examples.

The first example is interesting in that I couldn't at first understand why it's on my list. I have come up with a hypothesis but am unsure whether it is correct.

„Mě zajímají všechna témata, která se mě silně dotknou, a čím je téma 'jinější' než předchozí, tím jsem radši, protože mě nutí hledat jiné otázky – a odpovědi.“

“I’m interested in every topic which touches me deeply, and the ‘**more different**’ the topic is than the prior one, the happier I am because it makes me look for different questions – and answers.” [lit. “more distinct”]

Example 8: X (2000): Právo, 16. 3. 2000., doc.id: pro00316

English as a metalanguage works quite well here (it’s only going to get worse from now on) since there does seem to exist the distinction between *different* and *distinct*, with *different* meaning “not alike in character or quality; distinct in nature; dissimilar”, and *distinct* meaning “distinguished as not being the same; not identical; separate”. The same difference appears to be in Czech, with *odlišný* being more or less an equivalent of *different*, and *jiný* of *distinct*. Now, the distinction is not exactly clear in English or in Czech but the fact that *jiný* is so rarely graded gives us a hint.

*Distinct (jiný)*²⁰ on this interpretation appears to be a limit adjective, while *different (odlišný)* would be scalar. *Distinct (jiný)* would mean “not identical”: two things can either be the same or not; and if not then they are distinct. There is no scale of identity here. And yet, two things are distinct because they differ in some respect. We can take a third thing and say that it’s more different from the first thing than the second one is. They are both *distinct* but *different* to a different degree. (I hope reader’s brain is still intact. Mine is not.)

This explains why the adjective is not usually graded and how it can, in fact, be graded. It expresses a non-gradable concept but is also fairly close to a gradable one. But upon such a change, it appears to signify a rather strong difference, possibly because distinct entities are assumed to be very different.

The next example again shows that limit adjectives often have conceptually close scale along which they can be graded.

²⁰ Just to be clear, I am talking about the Czech adjective *jiný*. English *distinct* serves here merely as a metalanguage. I cannot and do not make any claims about the gradation of English adjectives.

„Výběr trasy zůstal na ‚**nejmístnějších**‘ pořadatelích, kteří znají dobře terén a vědí, kudy prospěje jet.“

“The choice of the route remained up to the ‘**most local**’ organizers who know the terrain well and know which way is best to go.”

Example 9: X (2006): Deníky Bohemia, 30. 9. 2006., doc.id: dbo60930

I start with a disclaimer that this sentence is cumbersome even in Czech. The adjective *local* means something like “from here” and it can only be negated via complementary *foreign*. However, this is obviously connected to a scale of distance. Someone from a different country may be *foreign*, someone from a neighboring village is *local* and someone from the very same village is the *most local*. The adjective is thus coerced by a context which emphasizes distance as the main feature of being *local*.

The last example shows a much less obvious, yet close scale.

„Vím, že kdyby místo Zídka a Peňáse to v těch novinách vzal někdo **opačnější**, bylo by toho víc a bylo by to opačné.“

“I know that if in the newspapers someone **more opposite** took it instead of Zídek and Peňás, there would be more of it and it would be inverse.”

Example 10: X (2011): Lidové noviny, 26. 7. 2011., doc.id: ln110726

Similar to the previous example, *opposite* here makes a complementary pair with its antonym *same*. As such, it is non-gradable. But the idea of being opposite requires a difference in some parameters. This leads to the fact that someone could be more opposite than someone else if we take being opposite to stand for something more complex. For example, if person A likes chocolate, person B only likes white chocolate and person C hates chocolate, it creates a certain scale of “liking chocolate”. Person B and C are both opposite to person A but person C is more opposite than person B.

In this example, the author suggests that Zídek and Peňás’ opinions differ from her or his own (in fact, are opposite) but that someone’s opinions are even more different (*more opposite*) which could potentially have some consequences. He thus devises a scale along which oppositeness can be graded.

Now, I present statistical characteristics of this category.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	14	93%
Fiction	0	0%
Non-fiction	1	7%
p-value	0.187	
<u>Grade</u>		
Comparative	9	60%
Superlative	6	40%
p-value	0.8001	
<u>Positive present in the same sentence</u>		
Yes	4	27%
No	11	73%
p-value	0.0975	
<u>Syntactic use</u>		
Attributive	10	67%
Predicative	5	33%
Nominal	0	0%
p-value	0.6969	
<u>Semantic properties of the compared object</u>		
Abstract	8	53%
Concrete	5	33%
Proper name	2	13%
p-value	0.5402	
<u>Comparative standard</u>		
Implicit	11	73%
Explicit	4	27%
p-value	0.5228	
<u>Quotation marks present</u>		
Yes	5	33%
No	10	67%
p-value	0.0453	
<i>Table 5: The overview of observed parameters in the category LIMIT TO SCALAR and their statistical significance of difference from the whole sample</i>		

Only in one case is the difference between the category and the sample significant: for the presence of quotation marks. They are used in 5 out of 15 tokens (33%). This suggests that authors often view gradation of limit adjectives as marked and potentially non-standard or creative.

Another promising parameter is the presence of the positive in the same sentence (4 out of 15 tokens, 27%, $p = 0.0975$). The positive could possibly be used to mark overtly that the

adjective is scalar, i.e., show that there is a scale between the entity described by an adjective in positive and the entity described by the graded adjective.

6.2.3 Temporal

TEMPORAL appears to be the most anomalous category. It is another category not featuring semantic change but mere coercion by contextual modulation. Characteristic are the adjectives with temporal meaning.

It consists of merely three lemmas, each of them referring to the past. When used, the adjective places the noun in the past. But when the adjective is graded, things get a little bit more complicated. As will be seen from the examples, the adjective's gradation changes the temporal reference point from the currently specified past to the immediately previous past, resulting in the noun being now placed prior to the immediately previous event. In other words, something happened in the past, but the event expressed by the noun happened prior to this.

There is no need for any semantic change as time is conceptualized as a scale. However, the adjectives have a fixed reference to a point on the scale and thus couldn't normally be graded.

This is all rather abstract but examples should illustrate what I mean.

„Když jsem v jednom z **minulejších** fejetonů zmiňoval syna, požádal jsem ho o svolení, jestli mohu kousek jeho života publikovat.“

“When I mentioned in one of my **previous** essays my son I asked for his permission to make a part of his life public.” [lit. “more previous essays”]

Example 11: X (2009): Mladá fronta DNES, 14. 11. 2009., doc.id: mf091114

Here, the author expresses that the essay was written in the past but is not the most recent one as the expression *previous* (*minulý*) would suggest. By negating that it is the most recent one and saying that it was even prior to the last one, it shifts the point of reference to it. However, the semantic properties of the adjective *previous* (*minulý*) still ensure that this event didn't happen in a too distant past.

The next example appears quite similar but shows that the point of reference can be in a more distant past.

„[...] bychom je dohledali před sto lety v době vrcholící průmyslové revoluce, v dobách josefínských reforem i časech mnohem **přededešlejších**.“

“[...] we would find them a hundred years ago, in the age of culminating industrial revolution, in the age of Josephinism and even times much **further back**.” [lit. “more previous times”]

Example 12: X (2011): Právo, 25. 1. 2011., doc.id: p110125

This example is similar to the previous one. It uses the expression *přededešlý* (*previous*) which expresses that an event happened prior to something. But in this case, the reference point is explicitly stated as “the age of culminating industrial revolution [and] the age of Josephinism”. The expression *přededešlý* (*previous*) in positive would suggest that the event happened just before those two periods. It is somewhat strange since Josephinism occurred in the late 18th century and the culmination of the industrial revolution was in about 1820s or 1840s, so it is not really the same time. Still, when graded, the adjective means that this happened even further back than this. The modifier *mnohem* (*much*) even strengthens this.

The most common lemma of this category is *bývalý* (*former*), the next example illustrates the way it works when graded.

„Nová divadelní hra musela přesvědčit i nevěřící škarohlídy: bývalý prezident a ještě **bývalejší** dramatik se vrátil svěžím jazykem, vtipem, hloubkou i výbornou dramatickou zkratkou.“

“The new play must have convinced even non-believing grouches: the former president and **more former** playwright returned with fresh language, joke, depth and excellent dramatic abbreviation.”

Example 13: X (2007): Hospodářské noviny, 31. 12. 2007., doc.id: hn071231

In this case, the person referred to used to be a president but before that, he was a playwright. The first occurrence of the expression *former* (*bývalý*) refers to the past prior to present time (to the time when the person was a president), but when it is graded, it refers to the past prior the time when he was a president.

There is one last example which is quite different and requires a semantic change.

„Takto nesmýšlí zdaleka jen frustrovaný bývalý lídr stále **bývalejší** partaje.“

“It’s not only the frustrated former leader of the **disappearing** party who thinks like this.” [lit. “still more former”]

Example 14: X (2009): Právo, 12. 9. 2009., doc.id: pro90912

The graded adjective *former* (*bývalý*) here appears to have a meaning of disappearing, coming out of existence. Former things no longer exist. Important here is the word *still* (*stále*) which suggests that this is a process. Otherwise, it doesn’t make much sense to grade “non-existent”. Rather, this means that the party is becoming non-existent, it is disappearing and “becoming former”. This means that this is a kind of metonymy in that we take the property of former to express the property associated with it, i.e., non-existent.

On the other hand, as was brought to my attention by my supervisor, since the expression *bývalý* etymologically means “it used to be but no longer is”, the temporal element here is secondary. The primary existential element might be the thing which is graded. This would be an alternative. I find both analyses plausible and they seem to be only based on a different viewpoint.

The quantitative analysis follows next.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	17	94%
Fiction	1	6%
Non-fiction	0	0%
p-value	0.8062	
<u>Grade</u>		
Comparative	18	100%
Superlative	0	0%
p-value	0	
<u>Positive present in the same sentence</u>		
Yes	11	61%
No	7	39%
p-value	0	
<u>Syntactic use</u>		
Attributive	18	100%
Predicative	0	0%
Nominal	0	0%
p-value	0.0261	
<u>Semantic properties of the compared object</u>		
Abstract	3	17%
Concrete	13	72%
Proper name	2	11%
p-value	0.0553	
<u>Comparative standard</u>		
Implicit	6	33%
Explicit	12	67%
p-value	0	
<u>Quotation marks present</u>		
Yes	1	6%
No	17	94%
p-value	0.4981	
<i>Table 6: The overview of observed parameters in the category TEMPORAL and their statistical significance of difference from the whole sample</i>		

As I said at the beginning of this section, the category TEMPORAL differs dramatically from the rest of the sample. The quantitative analysis suggests that this is the case. The difference between the sample and the category turned out to be statistically significant for four parameters: grade, whether the positive form is present in the same sentence, type of syntactic use, and comparative standard.

Every token here is in comparative. Even though this makes it statistically significant ($p = 0$), I am not sure if this isn't just an accidental property of the data from the sample. A temporal adjective *premature* (*předčasný*) which is not a part of the sample appears in the SYN v4 corpus in superlative in seven cases.

Related is the fact that tokens of this category seem to prefer explicit comparative standards (12 explicit, 6 implicit, $p = 0$) and that there often is a positive form present in the same sentence (12 present, 6 not present, $p = 0$). This is probably because the gradation involves changes in temporal reference so the original reference should be expressed overtly which is often done by the positive.

In each token, the syntactic type of use is attributive, which is unusual in comparison to the sample ($p = 0$). I don't have any explanation of that.

The category TEMPORAL is very interesting and deserves further research with more lemmas.

6.2.4 Iterative

The adjectives in the ITERATIVE category all relate to some event and when graded they express repetition of this event. They are often (but not always) deverbative adjectives. Again, no semantic change takes place, this is also coercion by contextual modulation. It is similar to a change in verbal aspect, in fact, in support of Paradis' claim that degree can explain both the gradability of adjectives and verbal aspect (see Section 4.2 for further details).

The property expressed by the adjective is a result of some event. When graded, this means that the event happened multiple times. As such, this is a change in the schematic domain but not in content domain since the adjective still expresses the result of an event.

I now illustrate this with several examples.

„O věcech, co se povedou, média neinformují. **Nejpsanější** téma byla přitom před volbami otázka platů.“

“Media don't inform about things which are successful. However, before the election, wages were the topic **most commonly written about.**” [lit “most written”]

Example 15: X (2014): Mladá fronta DNES, 27. 5. 2014., doc.id: mfi40527

Written (*psané*) is the result of an activity of writing (an event). In this example, the graded adjective means that the event of writing happened multiple times. Because this is a

superlative form, it means that there were other topics about which people wrote but none received as much attention as wages.

The next example is quite similar.

„Spojil v sobě prokurátora a soudce a dodal řeč nádherně prefabrikovnou z **nejschválenějších** rčení.“

“He merged the role of prosecutor and judge in himself and gave a speech beautifully prefabricated from the **most approved** phrases.”

Example 16: Škvorecký, Josef (1991): Mirákl. Brno: Atlantis., doc.id: mirak

Again, this example means that the phrases used were the ones most commonly approved. The author thus claims that the event of approving them was repeated multiple times. But there is implicitly present a kind of quality of being agreeable to the regime and although it requires some interpretation based on the knowledge of the world and pragmatics, it is arguably what the author is trying to convey.

Now follows the quantitative analysis.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	9	82%
Fiction	2	18%
Non-fiction	0	0%
p-value	0.4852	
<u>Grade</u>		
Comparative	3	27%
Superlative	8	73%
p-value	0.0715	
<u>Positive present in the same sentence</u>		
Yes	0	0%
No	11	100%
p-value	0.3814	
<u>Syntactic use</u>		
Attributive	7	64%
Predicative	3	27%
Nominal	1	9%
p-value	0.2466	
<u>Semantic properties of the compared object</u>		
Abstract	4	36%
Concrete	5	45%
Proper name	0	0%
p-value	0.8003	
<u>Comparative standard</u>		
Implicit	9	82%
Explicit	2	18%
p-value	1	
<u>Quotation marks present</u>		
Yes	0	0%
No	11	100%
p-value	0.3809	
<i>Table 7: The overview of observed parameters in the category ITERATIVE and their statistical significance of difference from the whole sample</i>		

No parameter here shows a statistically significant difference between the category and the sample. However, there is an interesting result concerning the grade: there are only 3 comparatives (27%) and 8 superlatives (73%) ($p = 0.0715$). It seems that in most cases, speakers grade these adjectives to suggest that something happened often, even most often.

While the ITERATIVE category is small, there are tokens from other categories with an iterative character which is, however, not dominant.

6.2.5 Literal

With only 8 tokens, LITERAL is the smallest category in my data. Its name is a placeholder suggesting that grading these adjectives expresses that they are used in the literal sense and seriously. It again doesn't include a semantic change, however, the scale along which these adjectives are graded appears to be universally "being literal".

I'll present this category in two examples. The first one shows that grading can sometimes be semantically redundant and serve merely a stylistic function.

„[...] střed země české a jejich hlavní město již od jejího **nejsamotnějšího** počátku [...]"

"[...] the center of the Czech country and its capital city since its **very** beginning [...]" [lit. "most very beginning"]

Example 17: X (1992): Lidové noviny, č. 253/1992., doc.id: lnd92253

The adjective *very* (*samotný*) on its own mean that Prague is the center of Bohemia since its beginning. But the author decided to grade it, possibly to emphasize the importance of the fact by saying that there is no other place which would ever be the center.

In the second example, the adjective as a sort of abbreviation for a longer phrase.

„[...] neboť vskutku není lidem nic **společnějšího** než podzimní deprese [...]"

"[...] for there's nothing **more common** to people than autumn depression [...]"

Example 18: X (1992): Lidové noviny, č. 253/1992., doc.id: lnd92253

We could rewrite the phrase as "there is nothing as common as autumn depression", meaning "nothing is shared by so many people as autumn depression". In other words, grading here suggests that autumn depression is the thing common to everybody, i.e., common in the literal sense.

Next is the quantitative analysis.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	6	75%
Fiction	1	13%
Non-fiction	1	13%
p-value	0.1356	
<u>Grade</u>		
Comparative	3	38%
Superlative	5	63%
p-value	0.4796	
<u>Positive present in the same sentence</u>		
Yes	1	13%
No	7	88%
p-value	1	
<u>Syntactic use</u>		
Attributive	5	63%
Predicative	3	38%
Nominal	1	13%
p-value	0.5335	
<u>Semantic properties of the compared object</u>		
Abstract	6	75%
Concrete	0	0%
Proper name	2	25%
p-value	0.0098	
<u>Comparative standard</u>		
Implicit	6	75%
Explicit	2	25%
p-value	0.6677	
<u>Quotation marks present</u>		
Yes	1	13%
No	7	88%
p-value	1	
<i>Table 8: The overview of observed parameters in the category LITERAL and their statistical significance of difference from the whole sample</i>		

Adjectives in the category LITERAL prefer abstract objects (6, 75%), interestingly, they also often describe an entity referred to with a proper name (2, 25%). Its profile is thus different from the whole sample ($p = 0.0098$). I don't see a reason for that, it's probably caused by the small size of the sample.

This category is small and varied but it didn't seem possible to do without it. A larger sample would be needed to define it more convincingly.

6.2.6 Overt for covert

We finally meet the largest category with 153 tokens (66% of the sample): OVERT FOR COVERT. This is also the first category to feature semantic change. Overt for covert adjectives are typically relational adjectives and as such shouldn't be gradable (see Section 4.4.1). However, they are often graded.

The feature which allows their gradation is the fact that while they express an overt property which is non-gradable (usually in terms of a relationship with some entity), this overt property stands for a bundle of covert properties which are usually qualitative and can be graded.

This gradation can happen thanks to the metonymical change which can be generalized as “having relational property A → having other properties characteristic for an entity with property A”. Gradation can express either having more of the covert properties or having some of the covert properties in a higher degree. However, it is usually difficult to say with certainty which of those two it is.

While this semantic change allows creating a scale, this scale often isn't clear. This leads to vagueness and difficulties in interpretation which is very dependent on context, both linguistic and (maybe more commonly) extralinguistic. (See Section X for discussion of vagueness.)

Even though this category is the largest, I present only several examples because they are very similar. The first example shows that vagueness inherent in the gradation of these adjectives can often lead to further explications

„**Nejhorštější** lyžování Orlických hor se nachází v Říčkách, jejichž sjezdovky stékají z vrcholu Zakletého – jsou pestré, akorát široké a díky vyšší nadmořské výšce mívají obvykle povrch z přírodního sněhu.“

“The **most mountain-like** skiing in Orlické hory is in Říčky, whose slopes run from the top of Zakletý – they are varied, quite wide and due to the higher altitude, they usually have a surface of natural snow.”

Example 19: X (2012): Magazín Víkend DNES, č. 6/2012., doc.id: mfmv1206

Mountain-like (horské) would usually mean “being situated in mountains” but this also brings with it some other properties. In this case, the author decided to specify what these properties are because they are otherwise not clear. By using superlative here, they suggest that no other place in Orlické hory has so many of the characteristic of being mountain-like or has

them in such a high degree. This semantic change allows gradation of an originally relational adjective.

The author of the next example was not so considerate.

„Zorro podruhé. Starší, **ženatější**, vybavený dítětem... a o dost horší.“
 “Second time of Zorro. Older, **more married**, having a child... and much worse.”
Example 20: X (2006): DVD MAG, č. 3/2006., doc.id: dvdmo603

Married (ženatý) is a limit adjective which has an antonym *unmarried (svobodný)* and as such wouldn't allow grading. In this case, however, *married (ženatý)* stands for some gradable properties. We see the vagueness typical for these graded adjectives. *Married (ženatý)* stands here for properties often associated with being married and they are further specified by the reference to Zorro, a kind of superhero. In his case, being married probably brings out his unwillingness to take risks, being settled down, possibly even out of shape. And these properties can be graded. But to interpret this adjective, we need help from context, both linguistic (the final expression *worse (horší)* suggests that this is not a good thing), and extralinguistic (knowledge of Zorro and his previous behavior).

In some cases, the interpretation of the adjective requires a lot of inferential steps as I show in the next example where context plays a major role.

„Když šlo po válce o politické změny, byli soudruzi z Ostravy **pražštější** než Pražáci.“
 “When it came to postwar political changes, the comrades from Ostrava were **more Prague-like** than Prague citizens.” [lit. “more from Prague”]
Example 21: X (2006): Deníky Moravia, 28. 1. 2006., doc.id: mdo60128

I first must explain that the translation doesn't capture the tone of the sentence. *Pražák (Prague citizen)* is a somewhat derogatory name which is important here. *Prague-like (pražský)* means primary “being from Prague” but this also brings various properties with it. In this case, those properties are not easily retrievable.

Reading the example further, the author goes on to talk about the destruction of monasteries after the communistic coup of 1948 and a deputy from Ostrava who was more radical than his comrades from Prague. Knowing that we can infer that communists from Prague were more radical. But as far as I know, being from Prague doesn't suggest that one is radical in

general. This means that in this context, a new, *ad hoc* meaning was created, owing its ephemeral existence to a highly specific context. *Prague-like* (*pražský*) is taken to express “radical” and thus can be graded.

Other times, context doesn't play a major role as is shown in the next example.

„Literáti vám do hlavy a vašeho vědomí obtiskují větší, **genetičtější** informaci, než nabídne pouhé sledování historie a faktů.“

“Writers imprint more and **more genetic** information into your head and consciousness than to simple observation of history and facts would.”

Example 22: X (2014): Pátek Lidových novin, č. 43/2014., doc.id: lnpa1443

Genetic (*genetický*) normally means “being stored in genes” and doesn't allow grading. But the author here uses one property of *genetic*, its definiteness, longevity or essentiality of information stored, to express that information communicated by writers becomes more deeply rooted than simple observation of history would do. This doesn't require much interpretative help from context.

And another example shows again a prototypical member of this category.

„The Daily Telegraph: od předešlých titulů se liší především mladistvějším a **počítačovějším** designem, jinak je ovšem připravován se stejnou pečlivostí a profesionalitou.“

“The Daily Telegraph: from previous titles, it differs mainly in a more youthful and **more computer** design, but it is prepared with the same care and professionalism.”

Example 23: X (1998): Reflex, č. 1/1998., doc.id: refl9801

Computer (*počítačový*) is a somewhat expected property of a web page meaning simply “having to do with computers”. However, in this case, it stands for a bundle of properties, the major one here is probably that it looks like a modern web page and uses features typical for them. This example is, after all, from 1998 when web pages were a new thing. This also illustrates that even though this adjective is graded, the scale is not very transparent.

The category OVERT FOR COVERT has 153 tokens so I could show many more examples but for the general introduction of the group, this should be sufficient. I now go over the quantitative analysis of this category.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	136	89%
Fiction	14	9%
Non-fiction	3	2%
p-value	0.8699	
<u>Grade</u>		
Comparative	83	54%
Superlative	70	46%
p-value	0.4796	
<u>Positive present in the same sentence</u>		
Yes	8	5%
No	145	95%
p-value	0.0061	
<u>Syntactic use</u>		
Attributive	111	73%
Predicative	38	25%
Nominal	4	3%
p-value	0.9555	
<u>Semantic properties of the compared object</u>		
Abstract	57	37%
Concrete	73	48%
Proper name	19	12%
p-value	0.7552	
<u>Comparative standard</u>		
Implicit	134	88%
Explicit	19	12%
p-value	0.0154	
<u>Quotation marks present</u>		
Yes	24	16%
No	129	84%
p-value	0.4819	
<i>Table 9: The overview of observed parameters in the category OVERT FOR COVERT and their statistical significance of difference from the whole sample</i>		

First, this category makes 66% of the sample so we may not expect it to be very different from the sample. But we still find that the difference is statistically significant for two parameters, presence of positive in the same sentence ($p = 0.0061$) and comparative standard ($p = 0.0154$).

OVERT FOR COVERT adjectives don't usually have positive present in the same sentence (not present in 145 tokens, 95%, present in 8, 5%). This could be possibly caused by the fact that

they often don't express comparison but rather a higher degree of some property. This explanation is supported by the other parameter, comparative standard, which tends to be implicit (134 tokens, 88%) rather than explicit (19 tokens, 12%).

No other parameter promises potential statistical significance even if the sample is increased. As I pointed out before, OVERT FOR COVERT adjectives make most of the sample so it makes sense that they are not much different from it.

Since this category is so large, I considered dividing it into more further categories. However, I didn't find any criterion which would motivate this division convincingly with one exception which follows next.

6.2.7 Typical of something

This category could be seen as a subcategory of OVERT FOR COVERT, however, its existence is well motivated and coherent. It features an adjective normally expressing that someone or something is from some place. But it can also express that it is typical or characteristic of the place in question. It is this property of "being typical of something" which is graded. This can be analyzed as a metonymical change "being from place A → being typical of place A".

TYPICAL OF SOMETHING may be a well-motivated but still fuzzy category. Some tokens I categorize as OVERT FOR COVERT could reasonably be put under TYPICAL OF SOMETHING (and vice versa).

I will only illustrate this category with one example.

„Tradiční sýr, který je základem **nejslovenštějšího** jídla – brynzových halušek – může podle výsledků studie zveřejněné listem Sme výrazně snížit riziko ekzémů, astmatu, alergií [...]“

“Traditional cheese, which is the basis of the **most typical Slovak** meal – bryndzové halušky - can, according to the study published in the Sme list, significantly reduce the risk of eczema, asthma, allergies [...]” [lit. “the most Slovak meal”]

Example 24: X (2004): Deníky Moravia, 30. 8. 2004., doc.id: mdo40830

The adjective *Slovak* (*slovenský*) normally means simply “from Slovakia” but the graded form clearly means “the most typical of Slovakia”.

Now, I will present the quantitative analysis for this category.

PARAMETER	# OF TOKENS	PERCENTAGE
<u>Genre</u>		
Journalistic	12	100%
Fiction	0	0%
Non-fiction	0	0%
p-value	0.5262	
<u>Grade</u>		
Comparative	4	33%
Superlative	8	67%
p-value	0.1498	
<u>Positive present in the same sentence</u>		
Yes	2	17%
No	10	83%
p-value	0.6481	
<u>Syntactic use</u>		
Attributive	8	67%
Predicative	3	25%
Nominal	1	8%
p-value	0.3334	
<u>Semantic properties of the compared object</u>		
Abstract	5	42%
Concrete	5	42%
Proper name	2	17%
p-value	0.7761	
<u>Comparative standard</u>		
Implicit	9	75%
Explicit	3	25%
p-value	0.7184	
<u>Quotation marks present</u>		
Yes	1	8%
No	11	92%
p-value	1	
<i>Table 10: The overview of observed parameters in the category TYPICAL OF SOMETHING and their statistical significance of difference from the whole sample</i>		

No parameter shows statistically significant difference between the category TYPICAL OF SOMETHING and the whole sample. This is probably caused by two factors, the small number of tokens, and the fact that the category is similar to the OVERT FOR COVERT category which makes most of the sample.

However, superlative appears to be more used in this category than in the sample ($p = 0.1498$) with 8 tokens in superlative (67%) and 4 tokens in comparative (33%). This can be

explained by the pragmatic need to say something is the most typical thing rather than more typical than something.

6.2.8 Conclusion

These categories are best understood as semantic profiles of rarely graded adjectives which serve to explain why they are graded so rarely and how they are graded at all. While they are clearly motivated and coherent, they are still fuzzy categories. They are no more than ideal description of otherwise complex reality. Not every example fit the profile neatly.

As for the quantitative analysis, due to the usually very limited size of the categories, it should be taken with a grain of salt. Even the statistically most significant results only suggest a certain tendency towards some behavior.

6.3 Further functions of gradation of rarely graded adjectives

Apart from the functions specific to each category and a “pragmatic” need (to talk about something in the world), rarely graded adjectives have a common function thanks to the fact that they are viewed as non-standard.

First, they make the text sound more interesting and lively, sometimes even colloquial. The author can sometimes use these expressions to show she is invested in the topic and use it to carry some emotional effect. Also, when the author uses a non-standard and *ad hoc* expression she shows her creativity.

As I’ve mentioned several times, rarely graded adjectives are often very vague and despite a certain prejudice towards vagueness, it can sometimes be useful and purposeful. Rarely graded adjectives can serve as euphemisms or in some cases, the author simply wants to be vague.

Another possible function could be the increase in attention paid to the text thanks to the extra processing power required to interpret the adjective. This claim would, however, need to be substantiated by an experiment.

6.4 Conclusion

While I consider the categories well-motivated, they should be understood as ideal models. The categories are, in fact, quite fuzzy. However, each category has its own unique features and specifics.

Possibly the most interesting category turned out to be the TEMPORAL adjectives. It differs from other categories significantly and its specific behavior and working make future research in this area very promising.

However, since the OVERT FOR COVERT adjectives make most of the sample, they are the most relevant category for this phenomenon.

7 Discussion

In this section, I discuss some topics which are relevant to this topic and give comments reflecting the results of this study.

7.1 Gradation and increased degree

We can recall from Section 4.1 that adjective gradation expresses “higher degree of the property denoted by the adjective”. And while this definition fits most cases, my research showed that not every graded adjective expresses a higher degree of property. The categories TEMPORAL and LITERAL straightforwardly don’t do that and as for EXTREME adjectives, they require prior weakening to a high degree, while LIMIT TO SCALAR adjectives must be differently conceptualized.

EXTREME adjectives could fit the description of the function of gradation quite well if we take them to simply mean “a high degree”, i.e., if we deny that they are the endpoints of the scale. On such interpretation, in the sentence “The climate of Croatia is ideal for growing olives, but the climate of Greece is more ideal for that.”, *ideal* would be taken to mean “suitable [for growing olives]” and thus fit the definition.

LIMIT TO SCALAR adjectives would work analogically but also require from us devising a scale along which they could be graded. But as I’ve pointed out, this isn’t usually a problem.

But at for TEMPORAL, the problem is that the dimension of time is not like the scales normal properties are conceptualized along. The question of whether it’s an open scale or not is a bit problematic. The zero point is usually taken to “now” (Gärdenfors 2004 p. 5). Comparing entities in terms of time is different for many reasons I don’t want to get into here. In some cases, such as *young* or *old*, it is quite straightforward to say that *old* takes a larger portion of the domain of time than *young* does. When graded, we can reasonably say that *older* has the property of age in a higher degree than *old*. But in cases like *former* and *premature*, this isn’t so simple since there is a different point of reference in time. These adjectives are limit and need further changes in the schematic domain.

In the case of the LITERAL category, there again is no obvious way to increase the degree of properties in question. In those cases, gradation seems to be used for the purpose of exaggeration.

To conclude, the function of gradation isn’t always increasing the degree of a property. This certainly is the prototypical function but it doesn’t describe some peripheral cases.

7.2 Gradability as a statistical distinction

If I should highlight the most important point of this paper, it would be the refusal of a possibility of drawing a line between gradable and non-gradable adjectives. My position is that any adjective is potentially gradable if a suitable context is supplied. For some adjectives, this context may be extremely specific and pragmatically unlikely. In fact, in the SYN v4 corpus, only 8,736 out of 129,797 adjective lemmas (6.73%) are graded.²¹ But words such as *stabilizing-security* (*stabilizačně-bezpečnostní*) are not graded not because of some mysterious property they have but because the concept they express isn't likely needed in a higher degree.

If we understand gradability as a function of accepting different grading allowing contexts, we can say that the most gradable adjective is the least context-sensitive, while the least gradable adjective is the most context-sensitive. The prototypical scalar adjective such as *good* is extremely “context-promiscuous”. And the prototypically non-gradable adjectives are very context-sensitive.

This would allow us to sort adjectives according to their position a scale of gradability. We couldn't say that there are adjectives which are non-gradable but only very unlikely to be graded.

I obviously don't believe such a feat is really possible but it should serve as a Kantian regulative idea. Claiming that there are true non-gradable adjectives and drawing a line between gradable and non-gradable is not useful and doesn't reflect language use.

7.3 Prototypicality

The adjectives from the OVERT FOR COVERT category might perhaps be best understood as prototypical categories (Rosch 1978). Such an adjective is a bundle of properties all relevant to whether or not the adjective can be truthfully predicated to an entity but their relevance to this varies.

Let's consider two identical sentences in two different contexts:

- (i) Jane is more business-like than Paul. [because she knows how to use everything for profit]
- (ii) Jane is more business-like than Paul. [because at 27 she already has a house]

²¹ Although I should point out that a very large number of those lemmas are very obscure and probably wouldn't be considered lexemes.

Business-like can be defined in terms of a bundle of different properties. In case (i), we see that the property chosen to compare Jane and Paul is the ability to see potential chances to gain profit everywhere. This is likely one of the most important properties of being business-like.

However, in case (ii), the relevant property activated by the context, a result of being business-like, is by no means so relevant or prototypical. But it still is associated with the category and, if a suitable context is supplied, it can be used for comparison and becomes more prominent.

This is one the reasons why scales in the OVERT FOR COVERT category are often difficult to specify and determine with certainty.

7.4 Scale and context

One of my original goals was to come up with some generalizations about the kind of context required to grade rarely graded adjectives. Unfortunately, this was not successful. One of the reasons is the complex interplay between schematic and content properties of the adjective and the noun.

While whether or not an adjective is scalar is determined by the schematic domain, the kind of scale is determined by the content domain and further context. And the interplay between adjective's semantic properties and context is not easy to predict since many aspects come to play a role: cognitive, pragmatic, and sociolinguistic are the major ones. To coerce a non-scalar adjective into a scalar one and devising a scale for the adjective, things such as world knowledge, immediate linguistic context, linguistic and social conventions all play a significant role.

There isn't one specific type of context which would ensure that normally non-graded adjectives are gradable but there is always a need for some compatibility between relevant factors. A further research to shed some light on this is necessary, even though I don't know how exactly this could be achieved.

7.5 Rarely graded adjectives and standard language

One of the parameters in my annotation was the use of quotation marks around the rarely graded adjective. And while they were used in mere 14% cases (32 out of 232 tokens), it still suggests that authors sometimes realize that their language use is not standard. We may have expected a higher percentage of cases when quotation marks were used but there is nothing

that would force authors to use them to mark non-standard expression. In my experience, this is often even discouraged.

The definite claims cited in Section 4.3.1 suggest that it is commonly argued that rarely graded adjectives are non-gradable and that grading them is non-standard. But while they may be non-standard, the question of acceptability is likely not so straightforward. An acceptability judgement test would be required to determine which expressions and in which context speakers find acceptable and which. But as I was showing parts of my data to my colleagues and friends, I noticed that there are significant differences here. A further research could find some interesting results.

Also, the use of a non-standard expression in a text using otherwise standard language can make the text sound more lively and interesting. Non-standard doesn't equal wrong or of poor quality – some tokens of my data come from the work of great and famous writers.

7.6 Conclusion

In general, I tried to show that studying rarely graded adjectives and other peripheral phenomena can help us improve our understanding of how language and cognition work. The main idea here is that gradability is statistical property which has to do with context rather than some intrinsic properties of the adjective.

8 Conclusion

After having introduced the topic, I presented various ways in which adjective gradation is understood. I declined that we can draw a clear-cut line between gradable and non-gradable adjectives and introduced the notion of boundedness and its relevance to adjective gradation, together with the distinction of the schematic and content domain.

I then explained my methodology and presented results which included a general overview of the sample and the division into seven semantically motivated categories of rarely graded adjectives.

So, what are the most important results and topics mentioned? First, I showed that what would traditionally be considered a non-gradable adjective can be graded if the context is appropriate. I offered the possible reconceptualization of gradability as a statistical tendency and a property of contextual sensitivity to grading. This is, of course, a mere idea and much further work would be needed to make it clearer and useful.

My division of the rarely graded adjectives allows us to explain why and how an adjective with certain properties may or may not be graded and predict some of its properties, albeit with a large margin of error. Increasing the size of the sample could alleviate some of these problems and most certainly would make my description more accurate.

Possibly the most interesting category turned out to be the TEMPORAL adjectives which are very different from the sample and a further research could focus on them solely. That's not to say that the largest category, OVERT FOR COVERT, is not interesting. Each case is somewhat specific and further classification would be desirable.

But most importantly, I showed that a peripheral phenomenon such as rarely graded adjectives can and should be subjected to a study and be described. That it is no less systematic than the central phenomena. A further, more conclusive research (ideally using data from multiple languages, or at least using a larger sample) could arguable improve our understanding of adjective gradation and the semantics of adjectives. I would also like to try some psycholinguistic methods and acceptability judgement. But this paper provides a solid basis for any further research.

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10 Annex no. I: the list of rarely graded adjectives

This is the list of the first 250 rarely graded adjectives sort by p_{lgc} from lowest to highest.

lemma	POS	COMP	SUP	p_{lgc}
celý	4427889	4	0	0,00090336
dopravní	892300	1	0	0,0011207
jiný	3740136	5	0	0,00133685
zdravotní	700696	1	0	0,00142715
pražský	1468746	1	2	0,00204255
místní	1277594	0	3	0,00234816
generální	395393	1	0	0,00252912
olomoucký	394200	1	0	0,00253678
zlínský	353916	1	0	0,00282552
ostravský	338987	0	1	0,00294996
minulý	1416710	5	0	0,00352929
plzeňský	539907	1	1	0,00370433
ligový	260436	1	0	0,0038397
městský	1719788	6	2	0,00465171
olympijský	383242	1	1	0,00521861
sousední	174716	0	1	0,00572354
webový	169037	0	1	0,00591583
daný	333857	1	1	0,00599055
automobilový	143459	0	1	0,00697058
opoziční	139031	0	1	0,00719259
ochranný	137055	1	0	0,00729629
střelecký	134870	1	0	0,00741449
reklamní	131452	1	0	0,00760728
pěvecký	121767	0	1	0,00821234
tuzemský	235661	2	0	0,00848669
severočeský	117431	1	0	0,00851557
horský	232165	1	1	0,00861449
bodový	115825	1	0	0,00863364
bývalý	1479531	13	0	0,00878649
spojený	562407	5	0	0,00889028
letecký	220519	2	0	0,00906943
juniorský	107175	1	0	0,00933045
lázeňský	105824	1	0	0,00944956
zraněný	313397	2	1	0,00957243
společný	728256	6	1	0,00961191
samotný	590429	4	2	0,010162
jihocheský	286460	1	2	0,01047256
slovenský	571664	1	5	0,01049557
západočeský	92523	0	1	0,01080801
obchodní	731250	5	3	0,01094005
obrovský	547128	6	0	0,01096623
mořský	89869	1	0	0,0112718
vzájemný	266173	3	0	0,01127074

lemma	POS	COMP	SUP	p_{lgc}
extraligový	175969	2	0	0,01136551
složený	87578	1	0	0,01141826
připravovaný	87416	0	1	0,01143942
umístěný	84916	1	0	0,01177621
marketingový	83495	1	0	0,01197662
belgický	78589	0	1	0,01272427
palestinský	77286	0	1	0,01293879
mládežnický	76744	1	0	0,01303016
válečný	153238	1	1	0,01305142
cílový	76550	1	0	0,01306319
školský	74581	1	0	0,01340806
schválený	72205	0	1	0,01384926
architektonický	72096	1	0	0,0138702
romský	143508	1	1	0,01393631
podnikatelský	143379	1	1	0,01394885
částečný	70855	1	0	0,01411313
panelový	70394	0	1	0,01420555
internetový	351074	1	4	0,01424181
především	68803	1	0	0,01453404
mistrovský	197424	1	2	0,01519549
manželský	65641	0	1	0,01523415
rybářský	64780	0	1	0,01543662
povodňový	63029	1	0	0,01586546
brněnský	626551	0	10	0,01596014
léčebný	62022	1	0	0,01612305
valašský	185524	1	2	0,01617015
provedený	61782	0	1	0,01618568
jmenovaný	122765	0	2	0,01629102
zámořský	60659	0	1	0,01648533
ústřední	117318	1	1	0,01704739
strakonický	58484	0	1	0,0170984
nasazený	57412	0	1	0,01741766
uložený	56601	0	1	0,01766722
přidaný	56303	0	1	0,01776073
počítačový	165488	3	0	0,01812787
jaderný	220214	1	3	0,01816382
rostlinný	55014	1	0	0,01817686
památkový	109364	1	1	0,01828722
prodaný	53810	0	1	0,01858356
pečovatelský	53747	1	0	0,01860534
odsouzený	53429	1	0	0,01871608
výsledný	53362	1	0	0,01873958
chorvatský	52583	0	1	0,01901719

lemma	POS	COMP	SUP	Plgc
londýnský	104842	1	1	0,01907596
označený	50748	1	0	0,01970482
listopadový	50708	0	1	0,01972037
manažerský	50409	1	0	0,01983733
psaný	48824	0	1	0,02048131
navrhovaný	48764	0	1	0,02050651
doporučený	48437	1	0	0,02064495
pouliční	48116	0	1	0,02078268
genetický	47503	1	0	0,02105086
střední	850316	4	14	0,02116815
jihoafrický	46552	1	0	0,02148089
studentský	92093	1	1	0,02171671
naprostý	138138	0	3	0,02171694
jezdecký	45629	1	0	0,02191541
vietnamský	45510	0	1	0,02197271
náchodský	45301	0	1	0,02207408
mocenský	45207	1	0	0,02211998
reprezentační	222402	4	1	0,02248131
izraelský	132204	2	1	0,02269169
medailový	44048	0	1	0,02270199
sušený	43122	1	0	0,02318948
tepelný	86152	1	1	0,02321424
rozhlasový	85563	1	1	0,02337404
obnovený	42250	0	1	0,02366808
ukrajinský	83668	1	1	0,02390343
zadržžený	41664	1	0	0,02400096
inženýrský	40534	1	0	0,02467004
vydaný	80984	2	0	0,02469563
televizní	444437	6	5	0,0247498
portugalský	40285	0	1	0,02482252
zemědělský	315999	5	3	0,02531589
ženatý	39372	1	0	0,02539812
berlínský	39046	0	1	0,02561016
opačný	155887	2	2	0,02565895 ²²
znalecký	38905	1	0	0,02570298
třídní	37392	0	1	0,02674297
příslušný	221364	3	3	0,02710394
použitý	73327	2	0	0,02727434
bosenský	36328	1	0	0,02752622
hanácký	35957	0	1	0,02781022
vývojový	35915	1	0	0,02784274
zámecký	177095	4	1	0,02823264
porodní	34833	0	1	0,02870758
předběžný	104323	3	0	0,02875601
halový	69208	2	0	0,02889756
citronový	34429	0	1	0,02904444
vojenský	479599	10	4	0,0291902

lemma	POS	COMP	SUP	Plgc
svatební	68339	2	0	0,02926501
zvýšený	204814	6	0	0,02929401
majoritní	33996	1	0	0,02941436
celosvětový	67082	2	0	0,02981337
skleněný	100560	1	2	0,02983205
vybudovaný	33449	0	1	0,02989537
plánovaný	231968	6	1	0,03017567
měděný	32958	1	0	0,03034073
lyžařský	163222	2	3	0,03063219
afghánský	32353	0	1	0,03090808
celkový	830803	23	3	0,03129404
newyorský	63903	0	2	0,03129646
nepřetržitý	31676	0	1	0,03156865
krytý	63014	1	1	0,03173797
prezidentský	156388	3	2	0,03197074
rakouský	280292	6	3	0,03210834
český	6676098	73	144	0,03250296
sázkový	30240	0	1	0,03306769
penaltový	30123	1	0	0,03319612
polní	60103	0	2	0,0332751
golfový	59672	1	1	0,03351543
vystavený	59339	1	1	0,03370351
diskusní	29431	0	1	0,03397662
podpůrný	29106	1	0	0,034356
ovládaný	29053	1	0	0,03441867
dlouholetý	144658	4	1	0,03456309
natočený	28877	1	0	0,03462844
vzpomínkový	28616	0	1	0,03494426
pojízdný	28531	1	0	0,03504837
festivalový	56767	1	1	0,0352305
zrušený	28283	0	1	0,03535568
obytný	84546	3	0	0,03548238
vyhrazený	28101	1	0	0,03558466
pohřební	28023	1	0	0,0356837
šlechtický	27816	1	0	0,03594924
bezdrátový	27615	1	0	0,03621089
masný	27105	1	0	0,0368922
okamžitý	81094	3	0	0,03699274
běžecký	80814	2	1	0,0371209
změněný	26433	1	0	0,03783007
dělnický	52571	2	0	0,03804234
thajský	26169	0	1	0,03821169
životní	818847	16	16	0,03907781
zvýhodněný	25566	1	0	0,03911292
občanský	485729	15	4	0,03911493
vanilkový	25379	1	0	0,0394011
povinný	201027	5	3	0,03979407

²² This is the last example I worked with.

Annex no. I: the list of rarely graded adjectives

lemma	POS	COMP	SUP	P _{lgc}
silvestrovský	50237	1	1	0,03980971
bakalářský	25091	0	1	0,03985334
selský	24969	0	1	0,04004806
ruský	623914	16	9	0,04006802
ochotnický	24910	1	0	0,04014291
rozvedený	24848	1	0	0,04024307
realizovaný	24823	0	1	0,0402836
pozvaný	24669	0	1	0,04053506
kreslený	24633	0	1	0,0405943
oceněný	49239	1	1	0,04061656
střídavý	24549	1	0	0,0407332
zkrachovalý	24362	1	0	0,04104585
archivní	24062	1	0	0,04155758
klinický	48028	2	0	0,04164064
jednorázový	47919	2	0	0,04173536
prozatímní	23828	1	0	0,04196567
objízdný	23773	1	0	0,04206276
renesanční	47351	1	1	0,04223597
letní	567355	16	8	0,04229977
albánský	23433	1	0	0,04267304
vinný	69925	3	0	0,04290127
pravoslavný	23257	0	1	0,04299596
chodský	23244	0	1	0,04302
zapsaný	23238	0	1	0,04303111
vídeňský	69145	1	2	0,0433852
zájmový	45415	2	0	0,04403637
exhibiční	21990	1	0	0,04547315
římskokatolický	21922	0	1	0,0456142
dárkový	21904	1	0	0,04565168
brazilský	65667	1	2	0,04568296
rodný	130178	3	3	0,04608861
velikonoční	108128	1	4	0,04623935
polský	320798	7	8	0,04675621
učitelský	21198	1	0	0,04717204
výborný	359864	9	8	0,04723784

lemma	POS	COMP	SUP	P _{lgc}
existenční	21167	1	0	0,04724112
herecký	126505	5	1	0,04742671
spojenecký	20924	0	1	0,04778973
teroristický	81395	0	4	0,04914065
sněhový	121991	4	2	0,04918154
kmenový	40484	2	0	0,04939979
stříbrný	202206	4	6	0,04945207
olivový	40360	2	0	0,04955156
nulový	58667	2	1	0,05113346
kubánský	39036	0	2	0,05123213
ilustrační	19255	1	0	0,05193187
jihooamerický	19089	0	1	0,05238345
studijní	76259	4	0	0,05245007
oscarový	19014	0	1	0,05259006
uzamčený	18959	0	1	0,05274262
potrestaný	18943	0	1	0,05278716
uzený	18784	1	0	0,05323396
čajový	18743	1	0	0,05335041
paralelní	18639	0	1	0,05364807
pedagogický	91652	5	0	0,05455121
asfaltový	36634	2	0	0,05459111
motivační	18283	1	0	0,05469263
bulharský	36560	0	2	0,0547016
rekreační	109657	4	2	0,05471308
centrální	235049	13	0	0,05530456
uživatelský	18072	0	1	0,05533116
padlý	36025	1	1	0,05551392
napojený	17857	1	0	0,05599731
dostatečný	249593	14	0	0,05608817
chrámový	17719	0	1	0,05643341
rajský	17618	0	1	0,05675691
stejný	1447777	76	7	0,05732598
švédský	138641	1	7	0,05769966
činoherní	34625	1	1	0,0577584
diamantový	17156	1	0	0,05828525