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EÖTVÖS LORÁND TUDOMÁNYEGYETEM

Bölcsészettudomány Kar

# ALAPSZAKOS SZAKDOLGOZAT

*Összehasonlító szerkezetek: különbségek és hasonlóságok az  
angolban és a magyarban*

*Comparing Comparatives: Differences and Similarities of  
Comparative Constructions in English and Hungarian*

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A HKR 336. § ad 76. § (4) a) pontja értelmében:

„... A szakdolgozathoz csatolni kell egy nyilatkozatot arról, hogy a munka a hallgató saját szellemi terméke...”

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a hallgató aláírása

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## Abstract

The aim of this thesis is to provide an overview of comparative and superlative constructions using earlier accounts from two different approaches to syntactic analyses, X'-theory and Distributed Morphology, and to propose possible solutions to certain issues which arise in the X'-theory based analyses.

Bácskai-Atkári (2014) proposes a uniform X'-theory based structure for comparatives and superlatives, however, there are questions to which the answers are not obvious. This uniform structure accommodates English comparatives and superlatives perfectly, but Hungarian superlative constructions contain two degree markers which appear to be separate from each other, and thus the framework cannot be fully implemented without modifications. Data from Bobaljik (2012) and Gorshenin (2012) suggest that these two degree markers are indeed separate elements, and Bobaljik (2012) proposes an analysis using Distributed Morphology as a framework. He suggests that the comparative marker is still present in the superlative form in all languages, building on cross-linguistic evidence of suppletive comparative and superlative forms, and introduces the Containment Hypothesis as a rule for this phenomenon. Using this rule and the data from Bobaljik (2012), this thesis proposes that the comparative DegP is located in the specifier position of the superlative DegP, where in comparatives the AP would be located, and thus resolves the issue of Hungarian superlative adjectives having two overt degree markers without changing Bácskai-Atkári's 2014 uniform structure.

Keywords: comparative, superlative, Containment Hypothesis, Hungarian, English

## Absztrakt

Jelen szakdolgozat célja a középfokú és felsőfokú összehasonlító szerkezetek bemutatása korábbi elemzések segítségével, melyek két különböző módon–X-vonás elmélettel és Szétosztott Morfológia alapján–közelítik meg a nyelvtant. Mindezek mellett megoldásokat ajánl, bizonyos felmerülő problémákra a magyar felsőfokot illetően.

Elsőként Bácskai-Atkári (2014) X-vonás alapú egységes elemzését és az abban felmerülő problémákat fogjuk megfigyelni, amely problémákra a válaszok nem egyértelműek. Ez az egységes struktúra tökéletesen illeszkedik az angol nyelvű közép- és felsőfokú mondatrészekhez, a problémák a magyar felsőfoknál jelennek meg, ugyanis a magyar felsőfokú melléknév látszólag két egymástól független toldalékot hordoz. (Gorshenin 2012, Bobaljik 2012) Emiatt az egységes struktúra nem tudja befogadni a magyar felsőfokot módosítás nélkül. Ezek után, Bobaljik (2012) Szétosztott Morfológia alapú tanulmánya alapján bemutatjuk, hogy a felsőfokú melléknév minden nyelvben magában hordozza a középfokú formát. Ezt Bobaljik (2012) több nyelvből vett példákkal bizonyítja, és a *Containment Hypothesis* szabállyal írja le. Ezt a szabályt és Bobaljik (2012) által összegyűjtött nagy mennyiségű adatot felhasználva a szakdolgozat Bácskai-Atkári (2014) X-vonás struktúrájának problémáira azt a megoldást javasolja, hogy a középfokú DegP a felsőfokú DegP specifikáló pozíciójában található, ahol középfokú szerkezetekben egy AP helyezkedne el. Ez a javaslat megoldja a magyarban feltűnő két toldalék problémáját, anélkül, hogy nagyobb változtatásokat tennénk a szerkezeten belül.

Kulcsszavak: középfok, felsőfok, összehasonlító szerkezet, Containment Hypothesis, magyar, angol

## 1. Introduction

The aim of this thesis is to give a summary of several previous accounts concerned with the structure and grammar of comparative and superlative constructions in English and in Hungarian. Two different approaches will be discussed; a generative framework proposed by Bácskai-Atkári from 2014, and a Distributed Morphology-based framework by Bobaljik, from 2012. These two accounts propose different solutions to problems of comparative and superlative analysis, and data from Bobaljik (2012) may resolve certain issues in Bácskai-Atkári's framework when used with superlatives.

Chapter 2 will deal with providing a definition for comparatives and superlatives. Two types of comparatives and superlatives will be discussed. The first type will be semantic, which carry their comparative and superlative interpretation only in meaning but not their syntax. The second type is the structural, or true comparative and superlative (Bácskai-Atkári 2014), and this type will be in the focus for the rest of the discussion on comparatives. These two types will be observed both in English and in Hungarian. This chapter will also define each characteristic element found in these structures.

Then, in Chapter 3, analyses based on the X' framework will be discussed. Summaries of Bresnan (1973), Izvorski (1995), Corver (1997) and Lechner (2004) will lead up to the discussion of Bácskai-Atkári (2014) to show how earlier accounts impacted this latest analysis. Based on Bácskai-Atkári's 2014 analysis, we will look at comparatives and superlatives in English and Hungarian, to see whether this framework is suitable for comparatives and superlatives cross-linguistically.

Chapter 4 will be an introduction to a different approach using Distributed Morphology as a framework. After a short history of DM and its theories including Halle and Marantz (1994), Harley and Noyer (1999) and Embick (2010), we will take a look at Bobaljik (2012) to find answers to questions that arose in Bácskai-Atkári's structure.



In Chapter 5, we will attempt to implement these theoretical answers into the framework, and account for the seemingly different behavior of Hungarian superlatives as compared to English superlatives.

## 2. Definition of comparatives and superlatives

Comparatives are an important and widely researched (Kennedy & Merchant, 2000) part of any language, with a very specific purpose. These structures give speakers means to express similarities and differences between properties of objects or entities (Bácskai-Atkári, 2014). Treis (2018) defines comparison as ‘[...] a mental act by which two or more items are examined in order to assess similarities and differences between them’. (2) Superlatives serve a similar, but somewhat different purpose. These structures still rely on comparisons; however, their aim is not to contrast two entities to each other, but to show how one entity is superior (or inferior) to a relevant group.

### 2.1 Differences between Semantic and Structural comparatives and superlatives

There have been many attempts to define a comprehensive analysis for comparatives, however, the traditional structure in the focal point of a lot of these analyses is only one way of many to express these comparisons and degrees of differences, as pointed out by Bácskai-Atkári (2014). Many languages, if not all, have ways to achieve the same meaning either in an implied or explicit way. In cases where this comparison is explicit, but without the traditional comparative structure being present, the basis of comparison remains vague, just an average taken from context. (Bácskai-Atkári, 2014) Let us look at some examples of these non-traditional comparatives.

- (1) a. Sarah was very angry when someone had backed into her car. But you should have seen her mother!
- b. Sarah is tall, but Susie is very tall.

The sentence in (1a) is an example of the implied comparison type. In this structure, there is no traditional comparative structure and no comparative complementizer. The comparison comes purely from the implied degree of anger, where Sarah was angry, but her mother was even angrier. The second structure is the explicit comparison of one shared characteristic of two entities, based on a contextual average, which both of them exceed but to varying degrees.

The other possibility is to express comparisons by using structures that are specific to comparatives. These constructions get their comparative meaning from their internal structure and syntax, while the examples in (1a) and (1b) are semantic comparatives, which become comparative in context and by meaning, not by structure.

(2) Sarah is smarter [than Susie.]

The above example is a traditional comparative, where the subclause is taken as the basis of comparison, and the matrix clause contains the entity which is compared to the basis. Bácskai-Atkári (2014) calls this the ‘true comparative’. These true, syntactic comparatives consist of four very easily recognizable parts which allow the listeners or readers to qualify the structure as a comparative. These structurally defined comparatives will be the focus of this thesis moving forward.

The behavior of superlatives is somewhat different, as there is no clear way of expressing superlative meaning without using some sort of degree marker. These structures either have a clearly defined superlative structure with the appropriate degree marker, or they appear as comparative structures, where the basis of comparison is a relevant group (e.g. *taller than anyone else*).

(3) Sarah is the smartest [of the class.]

Sarah is smarter than [everyone else.]

This thesis will focus on the syntactically defined superlative structures, where the adjective is superlative marked.

## 2.2 Elements of structural comparatives and superlatives

There are four basic components to comparative structures and three for superlatives, each with a defined purpose within the construction.

(4) Sarah is [smart [-er]] [than [Susie]]

These four elements are the standard value, the basis to which the matrix clause subject is compared; the adjective which denotes the feature which the comparison is based around; the degree marker, which attaches to the adjectival predicate to signal the degree of comparison; and in the case of comparatives, the standard marker, a complementizer which introduces the subclause which serves as the standard value. (Bácskai-Atkári 2014) Syntactic superlatives do not appear with the *than* complementizer, they choose PPs in English and different case-marked DPs and PPs in some cases in Hungarian as their standard values. Let us take a closer look at these elements one by one.

### 2.2.1 Standard value

The basis of the comparison – or standard value (Bácskai-Atkári, 2014) – is the subject of the subordinate clause, an entity and its usually elided attribute to which another entity's attribute is compared. In true comparative structures, the standard value is explicitly stated, and it is never a contextual or implied one. It is most often a DP, and it is located inside the CP complement selected by the degree marker.

Superlatives in English either choose an overt PP as complement, which describes a relevant group, or no complement, in which case the standard value is either contextual or a general one. Hungarian superlatives can choose DPs or PPs as complements.

### 2.2.2 Adjectival Predicate

The second element which is significant in comparatives is the adjectival predicate, an adjective or an adverb. These adjectives can be predicative or attributive in comparatives or superlatives, the only restriction is that they must be gradable, otherwise the sentence will be ungrammatical. There are adjectival predicates which are not gradable, and thus they cannot appear in comparisons. This gradeability feature allows the adjective to bear the degree marker, which is the *-er* suffix in English and the *-bb* suffix in Hungarian. (Bácskai-Atkári, 2014).

- (5) \*Sarah is more pregnant than Susie.

Even though *pregnant* is an adjective, it is not gradable the same way the adjectives *tall* or *smart* are<sup>1</sup>. It denotes a state of being, it is a classifying adjective, and thus it cannot be graded – just like the adjectives *impossible* or *dead* are unable to take degree markers.

There are other features which impact adjective usage in comparatives. Adjectives can be predicative-only, attributive-only, or in many cases, adjectives may appear as both.

Predicative adjectives are adjectives that can inherently appear as sentential predicates on their own. (Bácskai-Atkári 2014)

- (6) a. Sarah was afraid.  
b. \*I saw an afraid girl.

On the other hand, attributive-only adjectives cannot appear as predicates, only as attributes to an NP. Attributive-only adjectives are often non-gradable, but there are some exceptions to this.

- (7) a. That is the main reason.  
b. The reason was main.

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<sup>1</sup> As Bácskai-Atkári also points out, some may consider this to be a grammatical sentence, with the meaning that Sarah is closer to giving birth than Susie. In that context, *pregnant* may be viewed as a gradable adjective, and several processes which will be touched upon later can take place. Adjectives which express extremes or absolutes cannot be graded. (Bácskai-Atkári 2014)

This categorization along with the gradeability feature creates six separate groups of adjectives, based on the adjective being either predicative-only, attributive-only, both predicative and attributive, and being gradable or not. Bácskai-Atkári (2014) provides a table of the six possible feature combinations.

(8)

	predicative only	attributive only	both pred and attr
gradable	afraid	drunken	tall
non-gradable	alive	main	pregnant

(Bácskai-Atkári 2014; 55)

This classification shows whether adjectives can appear on their own as a predicate or only as an attribute of a separate NP in the structure. There is another benefit to a table like this, which is the easy feature assignment to these groups. Bácskai-Atkári calls these [+/-deg] for gradeability or, and [+nom] for adjectives that can function as a predicate with [-nom] being the feature of attributive-only adjectives that require a noun head to appear grammatically. (Bácskai-Atkári 2014) This binary notation allows the adjectival predicates to be classified in a very easy way, and while the [+/-nom] feature may seem counterintuitive (since there are adjectives which can be both predicative and attributive), it is not unheard of for an element to be underspecified for a certain feature.

The syntactic nature of gradable adjectives was already mentioned previously. The notation used by Bácskai-Atkári shows perfectly why it is important in comparatives for the adjective to be gradable, and what consequences it brings when it is not. The adjective in comparatives must agree with the Deg-head, and this feature is vital for comparatives.

### 2.2.3 Degree marker

The degree marker is responsible for the comparative or superlative interpretation of the adjective itself. In Hungarian, the comparative degree marker appears as the suffix *-bb*,

and in English it is the *-er* suffix, and the superlative markers are the *-leg* prefix in Hungarian and the *-est* suffix in English.

Not all languages have affixes to express comparisons and superlativity. For example, French uses a separate free morpheme, which appears before the adjective, similarly to how English operates with the degree markers *more* or *most* in certain structures – at least on the surface. Degree markers come in many different shapes, even English has more than just the suffixes *-er* for comparatives and *-est* for superlatives. There are other options, such as the morpheme *as*, which will not be discussed further, but is worth mentioning for the sake of completeness.

#### 2.2.4 Standard marker or complementizer

The last element of the traditional syntactic comparative is the complementizer *than*, which introduces the subordinate clause, and with it, the standard value. This is referred to as the standard marker, as it marks the subordinate clause for its syntactic role of the standard value. It is important to note, that with the degree marker *as*, the complementizer also changes to *as*. The standard marker *than* is exclusive to comparative structures, and it is invariably selected by the degree marker head as a complement. (Bácskai-Atkári 2014)

Superlative Deg-heads do not choose CP complements; they select PPs in English, and DPs marked for certain cases or PPs in Hungarian. The fact that superlative and comparative degree markers select different complements will be a very important point later, and it will be discussed in depth.

### 3. Principles and Parameters model analyses

The X'-theory based analysis is a very prevalent and widespread way to define structures and grammatical processes, equipped with a very efficient set of rules to describe the internal layout of most linguistic structures. It is based on structure building, and it is one of the mainstream approaches to the description of language. Many analyses concerned with

comparatives use this system as a basis, including Bácskai-Atkári (2014). In this chapter, some of these preliminary works will be discussed as mentioned in Bácskai-Atkári (2014) to show what analyses and theories led to her own framework of comparatives.

### 3.1 Earlier analyses

Degree markers were very widely researched in the past: the syntactic nature of the marker *-er* in comparative structures was the focus of comparative analyses for a long time. Bácskai-Atkári (2014) presents a very comprehensive summary of the four most prominent earlier analyses. Bresnan 1973, Izvorski 1995, Corver 1997 and Lechner 1999 and 2004 all have a different approach to explain the processes by which the *-er* marker and the periphrastic *more+Adj* structures may be analyzed. These analyses all benefit from each other and are connected in a way where they try to solve the problems of their predecessors.

#### 3.1.1 Bresnan (1973)

The nature of the *-er* marker has been the center of attention ever since Bresnan's groundbreaking analysis was published in 1973.

The separation of the Deg and Q heads of comparatives, and the proposal that the more periphrastic degree marker is in fact the combination of the degree morpheme *-er* and *much* were a very novel way to look at comparatives. The need for separate Deg and Q elements was necessary, since certain degree-like elements behave differently and can appear together.

(9) Det {as, too, that, so, -er}

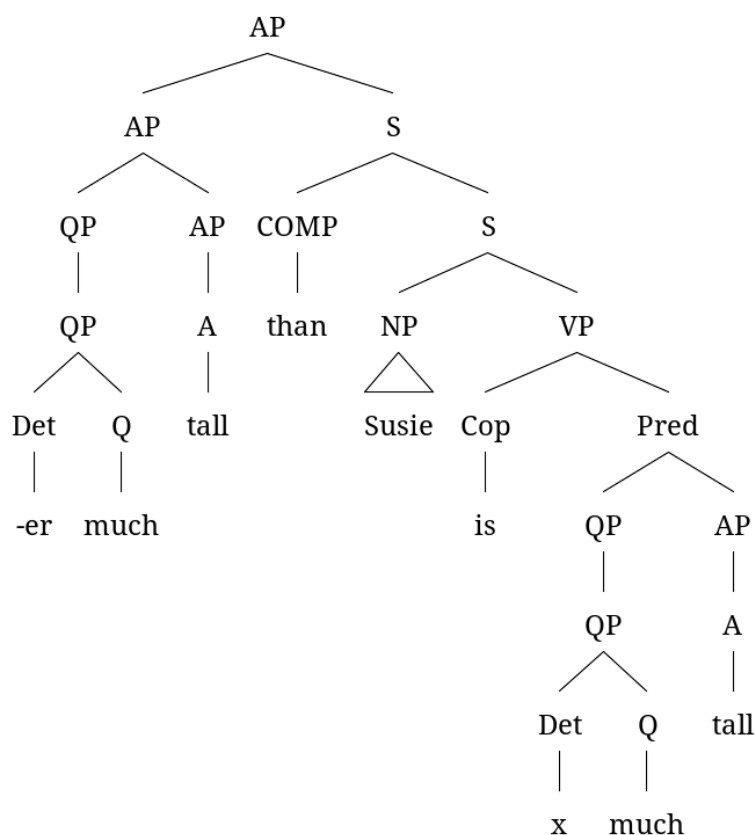
Q {much, many, little, few}

(Bresnan 1973; 277)

This analysis of degree-like elements helps exclude ungrammatical formations such as *\*too more*, but it does not hold up in structures such as *\*Sarah is so much intelligent*.

(Bácskai-Atkári 2014)

(10)



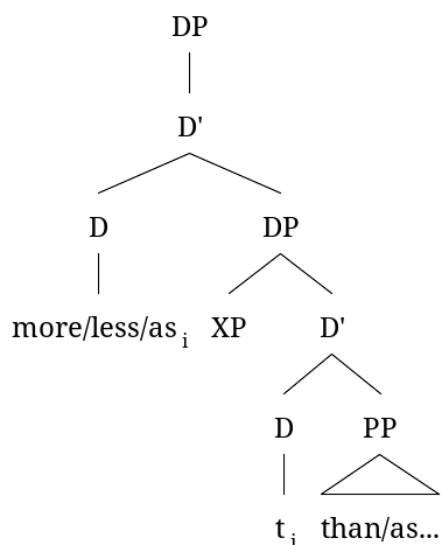
As pointed out by Bácskai-Atkári (2014), Bresnan’s model is not compatible with a minimalist framework. The separation of the Deg and Q heads is a welcome hypothesis, however, some problems arise if these constituents are treated as heads. The *-er* suffix is understood to be located in a specifier position of a QP according to Bresnan (1973), and if this is indeed the case, then the degree marker cannot be a head constituent for it could not move to a specifier position due to the minimalist framework rule of Head Movement Constraint, proposed by Travis (1984). To be fair, the Head Movement Constraint came into being and acceptance some eleven years after Bresnan’s proposal, however, with the HMC being a widely accepted rule of generative grammar today, Bresnan’s account – while proposing some ideas that would set the following analyses on a defined track – is outdated.



### 3.1.2 Izvorski (1995)

After Bresnan's early analysis, Izvorski's 1995 paper proposes a unified structure by introducing a DP shell for degree expressions. According to Bácskai-Atkári (2014), this is a favorable approach as it accounts for both predicative and nominal comparative constructions without having to propose different rules for each subtype. Izvorski's main argument is that a functional shell similar to a vP shell is present in comparatives, and thus the degree expressions *more*, *less* and *as* appear as determiner heads moved into a functional D-head position above the lexical projection, which is a bare AP or NP. An interesting thought to note is that Izvorski (1995) classifies the *than/as* phrases headed by the standard markers as PPs.

(11)



This structural representation shows that the D head of the degree expression originates below the XP (which represents the bare lexical AP or NP) and is moved to the higher head position of the DP shell, and this satisfies the Head Movement Constraint. It also ensures that there is no difference between the analysis of predicative and nominal structures, and that the degree element is directly related to the comparative PP complement. This view

is not very far from what Bácskai-Atkári (2014) proposes – at least structurally – but there are differences which make the latter account a better fit for these constructions.

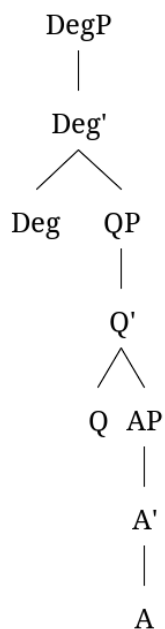
As appealing as a simple solution to a difficult problem like this may seem, this is not entirely unproblematic. The main problem stems from the fact that some degree expressions behave differently with predicative and nominal comparatives, and as Bácskai-Atkári (2014) points out, the analysis of the comparative complement as a PP is also questionable.

Izvorski’s account also omits attributive comparatives as a whole – the bare NP or AP cannot easily accommodate an attribute.

### 3.1.3 Corver (1997)

The third analysis mentioned by Bácskai-Atkári (2014) is that of Corver from 1997. His account builds on Bresnan (1973) in terms of the split degree hypothesis, but Corver does not view these degree expressions as single heads.

(12)



Corver’s analysis assumes that there are two types of degree expressions, quantifier-like and determiner-like degree items. Here, the focus is on functional heads instead of lexical heads, and the AP is below two functional layers in the structure. This allows for the bound

morpheme *-er* degree marker to accept the attaching A-head in its own head position (much alike how inflections attach to V-heads) and does not violate the Head Movement Constraint.

Corver also differentiates between the two types of *much* that can appear in comparatives. One is a ‘functional dummy quantifier’, and the other is a lexical quantifier. This alleviates some of the problems that Bresnan could not find a solution to. Corver calls for a last-resort type insertion of the dummy *much* in structures where the adjective does not move to the Q head to accept a degree marker.

Corver also proves the existence of the QP layer, by way of so-pronominalization.

(13) Sarah seems *fond of Susie*, and Josh seems [much less *so*]

In this example, *so* replaces the AP *fond of Susie*, not just the adjective *fond* and not the entire degree expression either, because the degree element *less* is still present alongside *so*. (Bácskai-Atkári 2014)

Corver’s analysis however still raises several questions. He proposes that modifier APs receive case, either by movement to the spec, QP or by the *-ly* morpheme. There is no clear evidence of this being necessary. His distinction of certain elements such as *far* and *extremely* also leave some issues unaddressed. These two elements appear with different degrees regularly; *far* with comparatives and *extremely* with the absolute degree. According to Bácskai-Atkári (2014), the example *far different* in Corver (1997) is not a suitable one since *different* is inherently comparative. (Bácskai-Atkári 2014)

#### 3.1.4 Lechner (2004)

The last analysis Bácskai-Atkári summarizes is that of Lechner’s 2004 analysis, which she regards as one of the most important in terms of the relationship of the AP and the Deg head, and the revised functional AP-hypothesis. Lechner (2004) suggests first that the AP is located in the spec, DegP, and the comparative morphology is derived here as well. This analysis is also concerned with the variation between periphrastic and affixed

comparatives, but seemingly draws an incorrect conclusion. In this analysis, the structure shows the word order *\*intelligent more*, without a proposed solution. A previous account, Lechner (1999) however mentions a QP layer above the comparative DegP, and the periphrastic more degree marker may move out to the Q-head position thus solve the issue.

The problems in this analysis is the assumption that the APs are head-final, which raises questions regarding the PP argument. The paper claims that the PP precedes the A-head, and according to Bácskai-Atkári (2014), Lechner (2004) builds on misleading data to prove this. Another area which is not explained is the state of QPs in general, thus the position of modifiers remains unanswered as well.

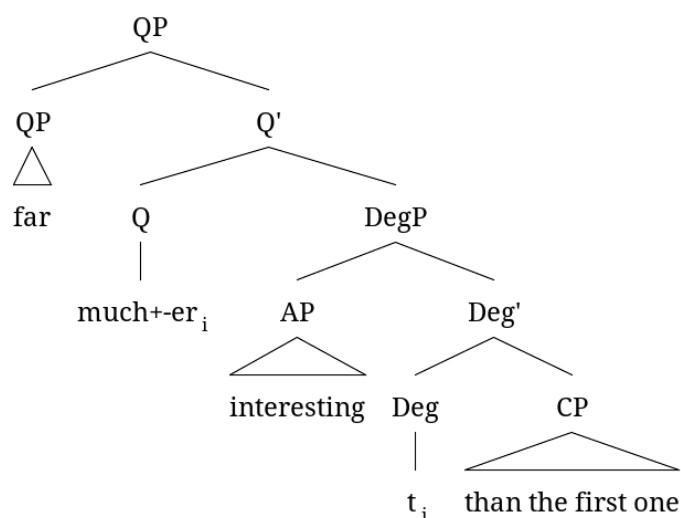
### 3.2 Bácskai-Atkári (2014)

With all these earlier accounts taken into consideration, Bácskai-Atkári (2014) proposes an analysis to resolve some of the issues brought forward by the discussed hypotheses. In the analysis of Bácskai-Atkári (2014), a uniform structure is presented, which is assumed to be able to accommodate absolute constructions, comparatives and superlatives as well. However, her account does not discuss superlatives at length, and the question whether the structure is truly able to support the Hungarian superlative remains unanswered.

#### 3.2.1 Comparatives

Bácskai-Atkári's analysis of the DegP and QP is similar to that of Corver's, in the sense that these elements are treated as full phrases, and to Izvorski's analysis, since these elements create a functional shell above the standard value, which Bácskai-Atkári labels a CP for true comparatives introduced by *than*. This approach also takes Bresnan's idea of *more* being a conglomerate of *much+er* into consideration and expands upon it. She gives the sentence '*far more interesting than the first one*' as an example with the structure included.

(14)



(Bácskai-Atkári 2014; 46)

The simplicity of the presented structure is very appealing. It accounts for modifiers in a way that allows for both a modifier QP to appear in the spec, QP position and the dummy *much* in the Q-head, where it takes the Deg-head degree marker which must move there, since it is not possible for it to attach to the A-head.

This structure is relevant for different types of comparatives as well. Bácskai-Atkári shows that this structure type is also able to support other comparative types with different degree markers, as the degree marker itself selects its complement. This selection of different complements does not seem to interfere with the general structure shown above, and this may allow for a more general analysis which is preferred by the minimalist framework. Let us look at examples similar to what is given in Bácskai-Atkári (2014; 46):

- (15) a. Sarah is tall [PP for a schoolgirl].  
b. Sarah is taller [CP than her classmates].  
c. Sarah is the tallest [PP of the girls].

These examples do not disrupt the above structure, as the Deg-head is different in all three, and selects its complement based on the requirements. In (15a) the absolute construction has a zero Deg-head, which selects a PP headed by *for* as a complement.

Example (15b) is what is shown in the structure as well, with an overt comparative Deg-marker and a CP complement introduced by *than*. The superlative in (15c) has an overt superlative degree marker in the Deg-head and it selects a PP as well, in this case, headed by *of*.<sup>2</sup> (Bácskai-Atkári 2014)

The approach of the degree marker choosing its complement to be a PP or a CP also helps with the explanation of why some of these elements are able to move out to the front of the sentence. Bácskai-Atkári (2014) shows that cross-linguistically, there is a possibility for PP complements of absolutes and superlatives to move to the front, but CP complements are less likely to undergo the same type of movement. This phenomenon may be a result of the phrasal or clausal nature of these complements, and in Hungarian, the CP and Adessive DP also show this difference. While the Adessive DP (which is phrasal) can be moved out to the front of the matrix clause, the CP, which is clausal, cannot. This is not just a difference in the type of the clause itself, as both are comparatives which have the same meaning as English true comparatives.

- (16) a. \*[CP Mint Sári] okosabb vagyok *t*.  
b. [DP-Ade Sárinál] okosabb vagyok *t*.

This behavior and the ungrammaticality of the first example of the CP moving shows that it is not a problem with different types of comparatives or different degrees, but in fact an independent restriction of movement of the different syntactic categories.

This also benefits the analysis of ungradable adjectives producing ungrammatical configurations within this structure when appearing in the spec, DegP position. These adjectives must agree with the Deg head to produce a grammatical construction. Since ungradable adjectives cannot have degrees marked on them, this agreement will not happen,

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<sup>2</sup> English seems to only have the standard value complement CP headed by *than*; however, this is not the case in all languages. Bácskai-Atkári (2014) shows examples from Italian, where there is a choice between the complementizer *che* ‘that’ and the PP headed by *di* ‘of’. Hungarian has the options of a CP headed by *mint* ‘than’ and a DP which is inherently Adessive. Russian allows for either a CP or a Genitive NP subclause.

and the construction will be ungrammatical. There is evidence for this agreement in Icelandic, where the degree markers (which are bound morphemes in Icelandic) must agree with the adjective in grammatical gender, both in attributive and predicative contexts.

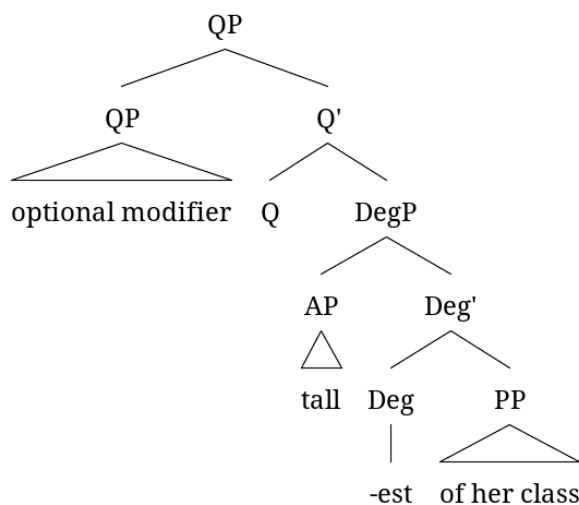
(Bácskai-Atkári 2014)

The QP layer is always present in this analysis. Bácskai-Atkári specifies that contrary to Bresnan's *much*-deletion hypothesis, *much* appears as a dummy element whenever it is needed. This dummy-insertion is present in other, structurally similar environments (such as a dummy-do insertion to bear inflection in a functional layer's head position when the lexical verb is unable to move higher up to accommodate another bound morpheme). The proposal put forward by Corver and endorsed by Bácskai-Atkári is a very simple way to account for the presence of *much* in these structures without needing to formulate completely new rules for the phenomenon. This way of approaching the element *much* and its dummy-like nature also helps explain the formation of periphrastic *more* and *most* degree markers in comparatives and superlatives.

### 3.2.2 Superlatives

According to Treis (2018) building on Gorshenin (2012), superlatives can be described as structures, where the '[...] comparee has a parameter to a higher degree than each individual entity in a group of more than two' (12). The English sentence '*Sarah is the tallest*' behaves as expected in the structure, as English has one overt marker to express superlativity which can occupy the same Deg-head position as the comparative degree marker *-er* without any structural change.

(17)



The framework clearly supports the components perfectly, and the Deg-head is allowed to choose its own suitable complement without any issue.

The analysis becomes more difficult when looking at Hungarian superlatives. One important peculiarity of Hungarian is that the superlative form of an adjective is – supposedly – generated from the comparative form with the added prefix *-leg*. (Gorshenin 2012, Bobaljik 2012) If this is indeed the case, the structure needs to accommodate two separate elements that work in tandem so that the superlative meaning, and grammaticality are retained.

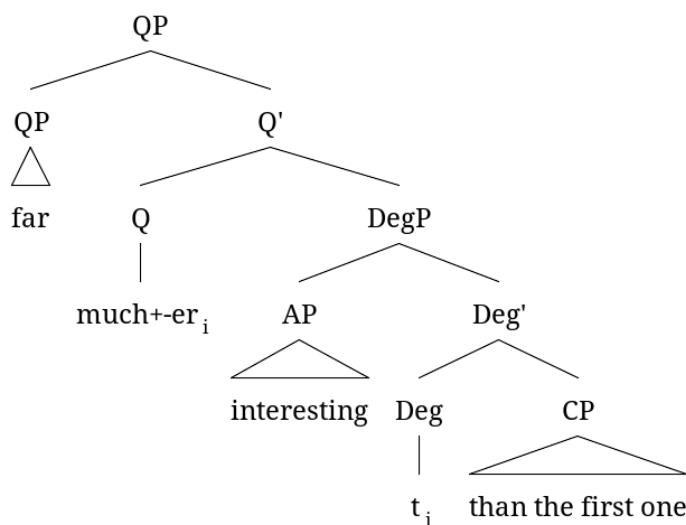
### 3.3 The universality of Bácskai-Atkári's framework

With all this said of comparatives and superlatives, let us take a look at how the framework presented in Bácskai-Atkári (2014) would accommodate superlatives for both English and Hungarian.

It is quite obvious, that the framework is suitable for English comparatives. Example (14) is repeated here as (18).



(18)



Bácskai-Atkári's analysis assumes that the QP and DegP layers are always present, even if there is no element present in certain structures that would warrant the presence of one – at least overtly. Building on the works presented previously, Bácskai-Atkári concludes that the two functional layers atop the CP are always required in comparative structures.

Let us look at some examples of comparatives and the two different ways of expressing superlatives in English and Hungarian.

(19)

- |  |  |
|--|--|
| a. Sarah is [taller than Susie.]         | d. Sári [magasabb Zsuzsinál].          |
| b. Sarah is [taller than everyone else.] | e. Sári [magasabb mindenkinél].        |
| c. Sarah is [the tallest of her class.]  | f. Sári [a legmagasabb az osztályban.] |

Hungarian does have more possible comparative constructions than the ones presented here. In Hungarian, there is a choice of using either the above presented DP with inherent Adessive (or in some instances Ablative<sup>3</sup>) case, but a just as widely used option for the standard value is a CP headed by the complementizer *mint*. The structure with the CP

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<sup>3</sup> Prescriptivists will often say that the Ablative version is incorrect; I will not argue whether or not it is correct, as it is used by speakers regardless. The difference likely stems from dialectal variation, and there are many speakers who prefer the Ablative to the Adessive form.

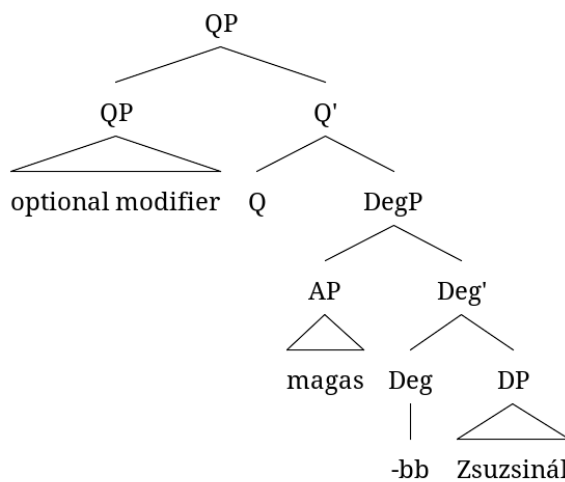
subclause however is not viewed as a true comparative by Bácskai-Atkári and Kántor (2012) and they call it a ‘reduced clause comparative’, with the inherently case marked Adessive type stated as a ‘genuine phrasal comparative’. These two types should have the same analysis in theory, but most of the research focuses on the Adessive case marked DP standard values in Hungarian.

Let us return to the implementation of Bácskai-Atkári’s structure. The English and Hungarian comparatives do not pose a problem as they both work well with the proposed analysis. The lexical superlatives in examples (19b) and (19e) both have the same structure as the comparatives, as their superlative meanings are derived from semantic factors.

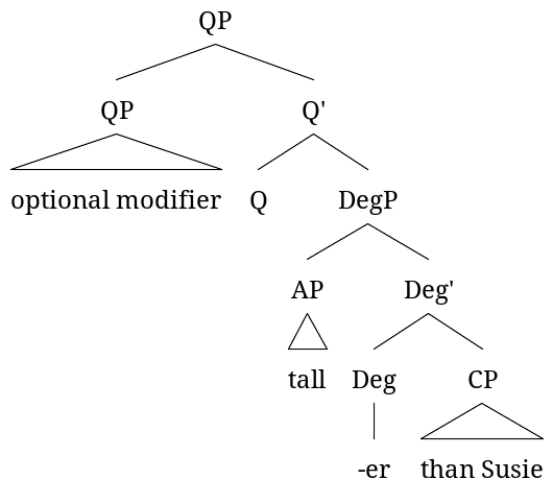
The difference between the complement of the DegP in English and Hungarian is also accounted for, as the Deg element is allowed to choose different phrases as complements.

(20)

a.

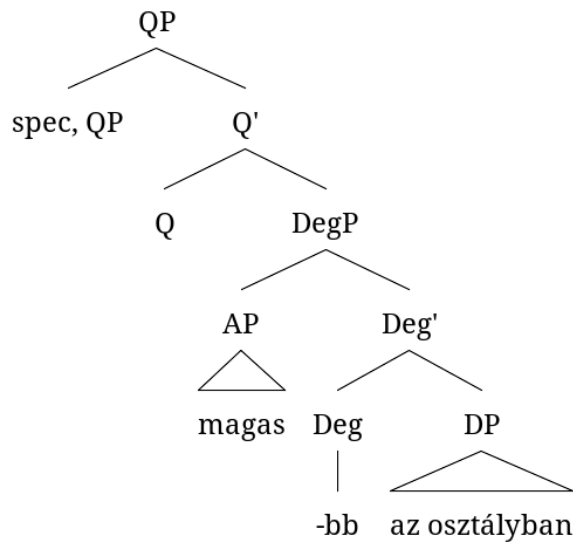


b.



### 3.3.1 Problems

(21)



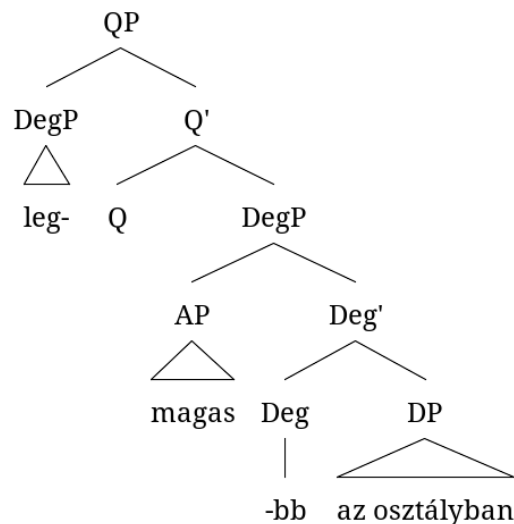
The structure in (21) shows the positions of the adjective, the comparative degree marker *-bb* and the standard value, all of them in the same position as they would be in a comparative structure. The superlative *leg-* cannot appear in the same position as the comparative marker at the same time, if they are assumed to be different elements, and their appearing together would violate basic X' theory rules. Since Bobaljik (2012) and Gorshenin

(2012) suggest that these are in fact two different degree markers, they will be treated as so. There is no obvious place for the superlative prefix, but there are a couple positions that in theory, could be suitable for the superlative degree marker *leg-*. In the following section, I present different possible positions for the Hungarian superlative marker and point out problems of the analyses.

### 3.3.2 Possible configurations

The first of these possible positions is the spec, QP, which normally is reserved for additional quantifiers.

(22)



This structure would be very simple, but there are problems with this particular analysis because it poses bigger questions than it would answer. First of all, if this is the correct analysis, there would be no place for modifiers such as *messze* ‘by far’, and the structure below would be ungrammatical, as the degree marker *leg-* would occupy the position of the modifier.

(23) a. Sári [messze a legmagasabb az osztályban.]

Sarah by.far the leg-tall-bb the class-in

Sarah is by far the tallest in the class.

Since this sentence is grammatical, this is already a compelling piece of evidence that this will not be the correct solution.

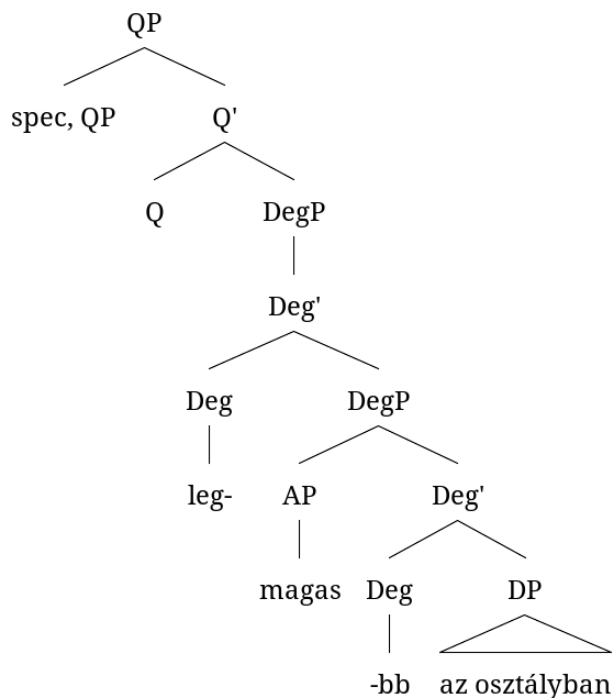
Secondly, since this position is reserved for modifiers that do not appear in every case, it is safe to say that it is not a position that is required to be filled for the structure to be grammatical. From this, the conclusion would be that the superlative marker *leg-* is omissible, the same way other elements are omissible in this position. This is not true, as the sentence loses grammaticality if all other elements except the superlative marker are present.

(24) \*Sári messze a magasabb az osztályban.

So, while this solution would retain the word order without changing the structure, it will not be viewed as a viable analysis for this problem.

Another possibility is to add a secondary DegP reserved for the superlative marker. The insertion of this secondary DegP is possible with the knowledge that Hungarian adjectives can structurally carry two different affixes. (Kiefer et al. 2000)

(25)



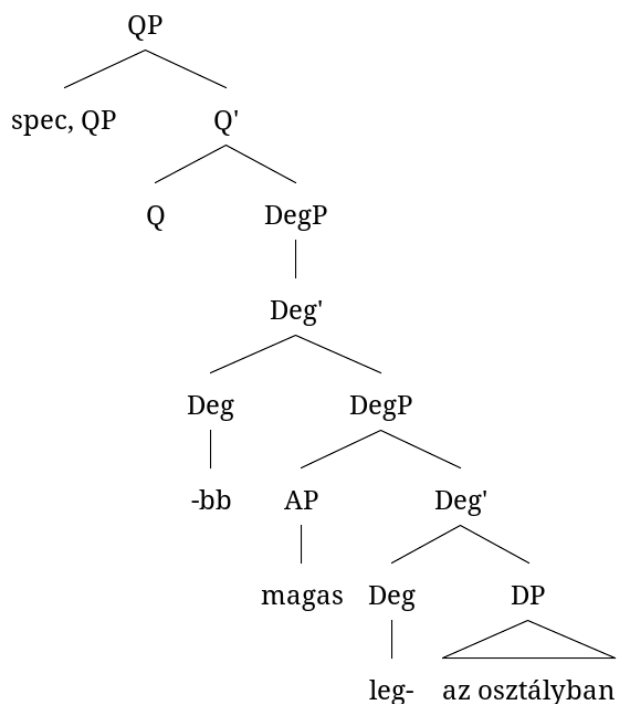
This would be an excellent way to accommodate both of these elements, but it adds a new layer to the structure, which some might argue makes the structure not universal anymore. DegP recursion may also be a problem, however, if they are different DegPs, this issue is resolvable.

Another problem with this analysis is that the lower structure is essentially the same as the comparative one, thus complement selection becomes an issue. The comparative structures can clearly only select DPs marked for Adessive or Ablative, or a CP with the complementizer *mint*. Superlatives, in every case, can only have DPs inherently marked for Inessive or Elative, or a PP; each of these elements mark a relevant group from which the comparee is outstanding in some aspect.

With the reversal of the two DegPs, this particular problem might be resolved, but there are two ways of reversing these items.

The first option is to reverse the order of the two DegPs with the AP remaining in the spec, DegP position of the lower – in this case, the superlative – degree marker.

(26)



This allows the superlative marker to choose the complement, but it implies that in superlatives, the adjective gets the superlative marker first, and the comparative *-bb* later. Given that the omission of the superlative marker in superlative structures yields an ungrammatical sentence, it may be a favorable action to assume that in these structures, the superlative *leg-* is the element that selects both the adjective in the specifier and the relevant group in the complement. However, as it will be shown later, Bobaljik (2012) deduces from a large set of data that superlative-marked adjectives receive the comparative marker first regardless of surface form; the above analysis contradicts this.

The problem of the changed structure still remains. If the aim is to retain the structure to its smallest possible size without changing anything from Bácskai-Atkári's original framework, we must investigate other possible positions for the superlative marker.

The Q-head could also be a suitable position; however, this particular analysis comes with the assumption that the superlative marker is not a degree expression, but a quantifier. While the *leg-* marker might have some quantifier-like quality to it, exploring this possibility is out of the scope of this thesis. This position also makes it impossible for the superlative marker to choose a suitable complement, thus it remains an issue. While the order of suffixes would be good, this solution will not be regarded as the right one here.

#### 4. Distributed morphology

Let us move on, to another prevalent approach to grammar and syntax, which was first proposed in the early 1990s. It is a set of theories, which aim to explain the connections and processes which take place between certain elements in the grammar. (Bobaljik 2015)

There are two main theories behind all of DM, which are listed in Bobaljik (2015) as such:

- (27) a. Syntax-all-the-way-down: The primary mode of meaningful composition in the grammar, both above and below the word-level, is the syntax. Syntax operates on sub-word units, and thus (some) word-formation is syntactic.

b. Late Insertion / Realization: The pieces manipulated by the syntax (functional morphemes) are abstract, lacking phonological content. The pairing of phonological features with the terminals of the syntax (vocabulary insertion or exponence) happens post-syntactically, in the mapping from syntax to phonological form (PF). (Bobaljik 2015; 1-2)

#### 4.1 Earlier analyses

The framework was first introduced under this name by Halle and Marantz in 1994, and some landmark papers afterwards include Harley and Noyer (1999), Embick (2010) and Bobaljik (2015).

##### 4.1.1 Halle and Marantz (1994)

This paper uses Spanish to argue for the two hypotheses shown above, with the aim of arguing for not only Late Insertion and the Syntax-all-the-way-down approach, but also Underspecification; the theory which states that ‘identifying features of the vocabulary item must be a subset of the features at the terminal node’ (Halle and Marantz 1994, 2). An important addition to this is that the vocabulary items do not need to match every feature, however, the one with the most matching features will be inserted in every case. The work of Halle and Marantz paved the way for later expansions of this framework, allowing it to be still relevant today.

##### 4.1.2 Harley and Noyer (1999)

Harley and Noyer (1999) introduce the concept of the f-morpheme and the l-morpheme (which loosely equal the functional and lexical categories), as well as a way to differentiate between suppletion and allomorphy in English.

According to their article, f-morphemes do not offer the choice of vocabulary insertion. These elements are purely grammatical, and they have one unique phonological



expression. Another way to approach the term is by closed- or open-class definition, in which case f-morphemes would be closed-class.

L-morphemes on the other hand allow for variation. These are the elements in the syntax which are interchangeable in structures, without a change to the construction itself. Harley and Noyer propose the L-morpheme Hypothesis, which says that the categorical labels of noun, verb, adjective, etc. are not significant, and every vocabulary item is an acategorical l-morpheme which has its category defined by the f-morpheme which c-commands it.

Regarding suppletion and allomorphy, the article states a proposal from Marantz (1997) according to which true suppletion only occurs when l-morphemes compete for f-morphemes. In line with this theory, this article suggests that pairs such as *bad-worse* must represent the spelling of f-morphemes and thus, the number of f-morphemes becomes larger. Building on this data, Harley and Noyer conclude that true suppletion must be limited to ‘universal syntactico-semantic categories’, and that some processes similar to suppletion may be Readjustment-driven allomorphy instead. (1997; 3) Readjustment is the phonological process by which a vocabulary item undergoes morphological change triggered by an element of the morphosyntactic context. (Haugen 2016)

#### 4.1.3 Embick (2010)

In his much later analysis, Embick mentions rules that are relevant for the discussion on comparatives. First, the difference between synthetic and analytic constructions is mentioned, to explain why both *\*more smart* and *\*intelligenter* are unable to form under the rules of Distributed Morphology. He explains that the grammatically correct item does not block the incorrect formation, but it is the syntax which may specify whether the degree marker will be affixed to the adjective or not. In cases where it is specified, the synthetic

*smarter* is the surface form, and when it is not, the analytic *more intelligent* is formed.

However, there is no mention of superlatives and the way they are formed.

#### 4.2 Bobaljik's framework (2012)

Bobaljik (2012) conducted a large sample size linguistic research, with data from over 300 languages. It is based on the previously discussed Distributed Morphology framework, which he argues is more suited to explain certain processes which take place in comparative and superlative structures.

##### 4.2.1 Suppletive patterns

Bobaljik (2012) points out that comparative and superlative marked adjectives of any language can only have either of three patterns. His stance is that these three possible patterns are AAA (regular), ABB (suppletive) and ABC (doubly suppletive), and the few patterns which seem different from these need to be reanalyzed. Let us look at examples of the three possible types from Bobaljik (2012).

(28)	Pos	Cmpr	Sprl		
a. Latin	<i>bonus</i>	<i>melior</i>	<i>optimus</i>	ABC	'good'
b. Hungarian	<i>jó</i>	<i>jobb</i>	<i>legjobb</i>	AAA	'good'
c. English	<i>good</i>	<i>better</i>	<i>best</i>	ABB	'good'

There is intra-linguistic variation both in English and Hungarian. There are Hungarian adjectives that appear as suppletive ABB, and English adjectives that appear in regular AAA patterns.

(29)	Pos	Cmpr	Sprl		
a. English	<i>big</i>	<i>bigger</i>	<i>biggest</i>	AAA	'big'
b. Hungarian	<i>sok</i>	<i>több</i>	<i>legtöbb</i>	ABB	'many'

Bobaljik suggests that from the five logically possible patterns only these three are attested in languages; there is no example for a hypothetical ABA (\**good-better-goodest*) or

an AAB (\**good-gooder-best*) pattern. The reason for this gap is the Containment Hypothesis, which states that there must be some comparative element in superlatives, despite what the surface morphology appears as.

(30) The representation of the superlative properly contains that of the comparative. (Bobaljik 2012; 73)

(31) a. [[[adjective]comparative] superlative]  
b. \*[[adjective]superlative] (Bobaljik 2012; 19)

Even though the English superlative seems to appear as (31b), it cannot be true if the aim is to provide a universal analysis which is suitable for all languages. Czech and Hungarian both show transparent nesting; in most cases the superlative form overtly contains the comparative. With this knowledge then, the languages which behave similarly to Czech and Hungarian would not have the same internal comparative and superlative structures as English and other languages with opaque nesting processes.

The rules that explain the AAA-ABB-ABC variation are based on exponence. Bobaljik's rules show that regular adjectival roots have one form, while suppletive adjectival roots have multiple, and each root has a certain use scenario specified in the lexicon. These use cases are controlled by 'context-sensitive rules' and are impacted by the Subset principle which help selection and is very much a characteristic of Distributed Morphology.

This means that these adjectival roots have features assigned to them on the lexical level, and that when the selection process takes place for the PF spell-out, the suppletive roots check more of the required features and thus get selected over the absolute root. Let us look at some examples. Bobaljik (2012) gives the set of rules as presented below for the doubly suppletive forms of the Latin *bonus* 'good'.

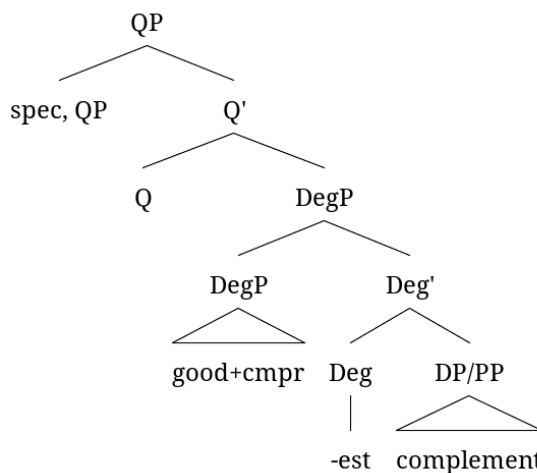


continuous formation of absolute, comparative, and superlative-marked adjectives may remain viable.

As the AP is contained inside this comparative DegP, the larger DegP may take the place where the AP would be located in a comparative structure. This construction would allow the superlative marker to choose the complement as expected, and the adjective could remain comparative-marked without needing to introduce another layer to the base structure. This analysis modifies the structure a little, but not as much as other previous ones would.

However, if we really do agree with Bobaljik’s proposal, that superlatives are always formed from comparative degree marked adjectives, the framework will change accordingly in any language. What this means, is that the English and Hungarian structures will not differ, if we assume that the English superlative also has a comparative-marked adjective in the structure.

(34)



The example here was deliberately chosen to be the adjective *good*, as it clearly shows variation between the absolute and the comparative form, and the superlative, as discussed earlier, has the same root as the comparative.

There are several questions still that remain, even with this revised structure. Firstly, there is no obvious position for the definite article present in superlatives in English,

Hungarian and many other languages. The main issue is that this definite article appears between the optional modifier and the degree-marked adjective.

(35) a. Sári messze a legmagasabb az osztályban.

Sarah by.far the leg-tall-bb the class-in

Sarah is by far the tallest in the class.

Second, even though Hungarian nesting is transparent, the same cannot be said of English. The comparative form being visible in Hungarian, Czech, and other languages may be enough evidence to assume that the same nesting process takes place in English. Bobaljik (2012) does provide a possible solution for this issue. The comparative degree marker may remain as a zero morpheme in the structure, thus resolving the problem – the superlative marker attaches as expected, and the comparative marker does not have any phonological content. This could potentially be described by DM rules too; the superlative suffix checks off the most features and is realized, and the comparative remains as a zero morpheme. Exploring this solution further is out of scope here, thus we will view this as a feasible approach suitable for the purposes of this thesis.

The third issue that remains is that it is unclear how exactly does the Hungarian superlative marker attach to the beginning of the adjective. The proposal needs to be complemented by a mechanism deriving the right order of the superlative marker and the comparative adjective. There is no clear answer to this question currently.

## 6. Conclusion

The aim of this thesis was to provide a summary of a few different approaches concerned with comparatives and superlatives, and to present an analysis of superlatives which allows Bácskai-Atkári's (2014) framework to accommodate for both comparatives and superlatives without changing the structure.

Building on earlier accounts by Bresnan (1973), Izvorski (1995), Corver (1997), Lechner (2004) and Bácskai-Atkári (2014), we concluded that comparatives have a universal syntactic structure which is comprised of elements that are peculiar to comparatives; the degree marker, which attaches to an adjective, the standard marker complementizer, and the standard value. After Bácskai-Atkári (2014), we adopted a uniform framework to test it both in English and Hungarian for comparatives as well as superlatives and concluded that while the framework is perfect for English, there are some problems that arise when dealing with Hungarian superlatives.

Since Gorshenin (2012) suggests that the Hungarian superlative is formed from the comparative degree-marked adjective and a superlative marker, the assumption was that the two degree markers *-bb* and *leg-* are separate elements. With this, we needed to find an analysis which would allow the *leg-* element to choose its complement, but one that would not disrupt the universal structure. Since the Hungarian superlative always has different complements than the comparative, it is apparent that the superlative degree marker needs to be in a position where it can choose its own required complement.

To account for this difference, we looked to a different method of syntactic analysis, Distributed Morphology, to try and find a solution to certain problems. After looking at earlier analyses of Halle and Marantz (1994), Harley and Noyer (1999) and Embick (2010), we continued with Bobaljik's Distributed Morphology approach. It was concluded that the superlative forms of adjectives must also contain the comparative form. Based on this and the exclusion of other possible configurations, we concluded that Bácskai-Atkári's structure works for Hungarian superlatives if the spec, DegP position where the bare AP would be located is filled by a comparative DegP with the AP contained inside it.

This analysis also requires the assumption that English superlatives – and other opaque nesting languages' superlatives – also contain the comparative form of the adjective

within the structure. The solution proposed by Bobaljik suggests that the comparative marker appears as a zero morpheme in superlatives, and thus is not realized phonologically. Taking all of these analyses into consideration, the proposed framework can accommodate comparatives and superlatives in English and Hungarian.

There are certain problems that still remain, for example the exact location of the definite article in superlative constructions, which is not at all accounted for in the discussed literature, or the exact process by which the Hungarian superlative attaches to the front of the adjective. Despite the large amount of research in the area, there are still issues that need to be resolved in the future.



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