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**English borrowings in West-Slavic and West-
Germanic languages in the context of Distributed
Morphology**

(Bakalářská práce)
(Bachelor thesis)

English borrowings in West-Slavic and West-Germanic languages in the context of Distributed Morphology

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Prohlašuji, že jsem tuto diplomovou práci vypracoval samostatně a uvedl plný seznam citované a použité literatury.

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Poděkování

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Abstract

This thesis deals with the word formative process of borrowing in the context of Distributed Morphology. Foundations of the Distributed Morphology model are laid down in the first and second chapter and these theoretical approaches are later fused with more traditional morphological points of view to better understand the borrowing process. The framework itself and its hierarchical principles are then used to analyze borrowings from English, which are entering or have entered West-Slavic and West-Germanic languages.

Analyses in the third chapter of this thesis focus on verbal borrowings and they can be divided into two main research areas. The first area examines the role of aspect by verbal borrowings and looks for possible requirements of this grammatical feature. The second area considers phrasal verb borrowings and its tendencies in the two different language groups.

The main aim of this thesis is to examine ways in which individual West-Slavic and West-Germanic languages handle Root and Functional Morpheme borrowing with regards to the various linguistic properties of these two language groups. Another major point of focus is the analysis of the word formative process itself and the demonstration of how it works.

The conclusion then summarizes how Distributed Morphology aligns with borrowing analysis and how do West-Slavic and West-Germanic languages borrow verbs. It also offers observations and tendencies for each of the two main research areas.

Keywords

borrowing, hybrid borrowing, Root, Functional Morpheme, affixation, morphology, morphosyntax, distributed morphology, Spell-Out, Syntactic Derivation, Slavic, Germanic, West-Slavic, West-Germanic

Anotace

Tato bakalářská práce se zabývá procesem přejímání slov v kontextu Distribuované Morfologie. Základy modelu Distribuované Morfologie jsou prezentovány v první a druhé kapitole a tyto základy jsou také později sloučeny s tradičnějšími přístupy morfologie, aby bylo možné přejímání lépe porozumět. Model jako takový a jeho hierarchické principy jsou využity k analýze přejatých slov pocházejících z angličtiny, které vstupují nebo již vstoupily do západních slovanských a západních germánských jazyků.

Analýzy ve třetí kapitole této práce se soustředí především na přejatá slovesa a mohou být rozděleny do dvou hlavních oblastí výzkumu. První oblast výzkumu se zabývá rolí dokonavosti u přejatých sloves a zkoumá, zda dokonavost klade požadavky na přejatá slovesa. Druhá oblast zkoumá přejatá frázová slovesa a jejich tendence v obou rozdílných jazykových skupinách.

Hlavním cílem této bakalářské práce je prozkoumat způsoby, jakými západní slovanské a západní germánské jazyky přejímají vypůjčené kořeny a funkční morfémy, vzhledem k specifickým lingvistickým vlastnostem těchto dvou jazykových skupin. Dalším důležitým záměrem této práce je analýza slovo tvorného procesu přejímání a demonstrace toho, jak tento proces funguje.

V závěru této práce je pak zhodnoceno, jak se distribuovaná morfologie hodí k analýzám přejatých slov a závěr také dále nabízí pozorování a tendence pro každou ze dvou hlavních oblastí výzkumu.

Klíčová slova

prejímání slov, hybridní přejímání slov, kořen, funkční morfém, afixace, morfologie, morfosyntaxe, distribuovaná morfologie, spell-out, syntaktická derivace, slovanské jazyky, germánské jazyky, západní slovanské jazyky, západní germánské jazyky

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1 Introduction

Borrowings are a well-known morphological group among linguists and the word formative process of borrowing itself is highly productive in all languages of the world. The productivity and frequency of this process throughout the language spectrum can be attributed to language interactions and to the contact, which many languages of the world regularly have or have had with each other. Borrowed 'words' and cross-linguistic similarities of morphemes or of whole phrases have been already documented in the past and even before linguistics became an empirical research area, 'words' and their origins have been a point of focus for many scholars and philologists. For quite a long time, the diachronic perspective was the predominant one and historical linguistics were widely used on all the known language layers.

The approach to borrowings and morphology itself was no different and if any similarities across various languages of the world appeared, they have been misanalyzed or misinterpreted in part because of the narrow diachronic perspective (Brugmann, Delbrück, 1897). Hence the results and theories of many linguists of the time have been speculative, disorganized and the data behind the theories were insufficient or unable to explain the true complexity, that can be found by the word formative process of borrowing.

Therefore, the synchronic perspective of borrowings seems to be much more suitable for their analysis and nowadays we know that it can offer better insight than the methods used in the past.

Many linguistic frameworks are also available for synchronic approaches today and they can often provide a theoretical background for the research at hand. One of these many frameworks is the Distributed Morphology framework, which is an often-used theory in recent years, and I think that it could supply valuable definitions and distinctions for this thesis.

With that in mind, I have split the thesis into three main chapters, that are then further subdivided according to the need and extent of the discussed topic. The first chapter of the thesis begins with the elementary theoretical setting and the framework of Distributed Morphology is presented and explained there. The second chapter is then the core of this thesis and it deals with the application of Distributed Morphology on borrowings, in order to analyze their language-specific properties and to understand the borrowing process better. The third and final part of the thesis then sums up the theoretical approaches and draws observations and conclusions from the language data analyses.

2 Theoretical grounds of the Thesis

The main goal of this initial chapter is to present the main principles and theories of the Distributed Morphology framework, which are important for my further research activities. The second goal here is to consider the dependency of Distributed Morphology on syntactic computations and the role of Syntactic Derivation and Spell-Out throughout the language system in general. But first, what is the Distributed Morphology framework and what are its aims?

The Distributed Morphology framework accounts for and explains the internal structure of grammar and tries for a holistic and universal perspective on the language system. Alec Marantz and Morris Hale laid the foundations for this framework in the early 1990s and their theories about the structure of grammar were later developed and examined further by their students and colleagues at MIT. To this day the framework and its ideas resonate throughout linguistics and Distributed Morphology is still evolving and developing thanks to its usage by multiple linguists and by several linguistic schools.

Recent studies based on the Distributed Morphology framework follow the original holistic approach and researchers like Embick (2015) or Harley (2014) among others, are working with the model and adapting it to suit their needs. These two linguists are exploring processes responsible for Root formation and for word formation in general. They are trying to explain and define the distinction between Roots and Functional Morphemes, all while using the computational perspective of Distributed Morphology. Both of them are working with data from various languages of the world and they are comparing cross-linguistically to understand both Roots and Functional Morphemes better and in a more complex way.

As previously mentioned, the goal of the following sections is to set the theoretical foundations on which the thesis may build upon and therefore only the most relevant and fundamental theories of the Distributed Morphology framework are laid down further in the text. Distributed Morphology itself is an extensive topic with a lot of room for research, but for the purposes of this thesis, I only summarize the basics and then use them for language data analyses across West-Slavic and West-Germanic languages.

2.1 How is grammar built up in Distributed Morphology ?

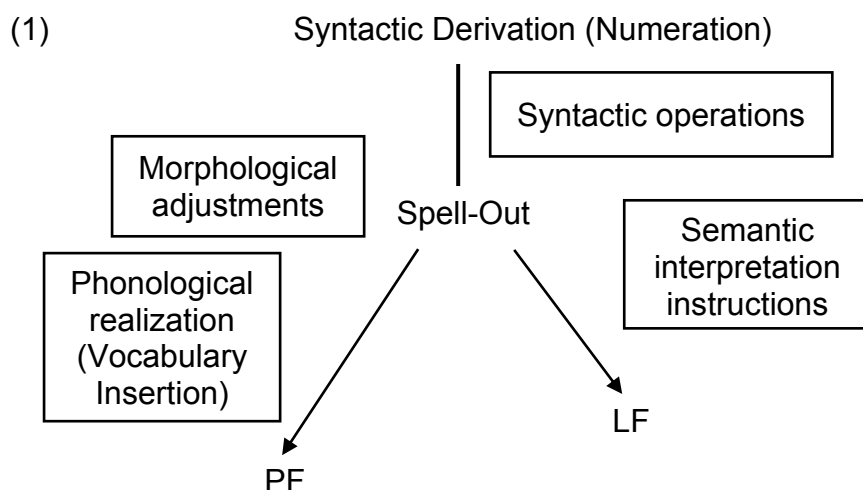
The starting point of all language building processes in Distributed Morphology (from now on abbreviated to DM) is the syntax, which generates all the language objects from the 'simplest' ones to the 'most complex' ones. Nevertheless, one should keep in mind that syntax is not the only relevant language layer as explained further below.

Linguists like Harley, Embick or Nevins, who follow the tradition of DM, don't examine solely the syntax level, but they try to show, how do syntactic computations work throughout the whole language system. They and other linguists working within the DM framework start their research at phonology and phonetics level and then they go layer by layer all the way up to semantics and pragmatics.

I will also adopt this approach subsequently, but first I need to establish how syntax generates morphosyntactic structures and how is this building of linguistic structures understood and described by Embick (2015) and many other distributed morphologists.

There is no better place, to begin with, than with the main process called Syntactic Derivation (Embick, 2015: 4), which is a process where syntactic, morphological, phonological, and semantic features are all considered. They are systematically chosen and specified by this process, while the speaker performs the Spell-Out operation. The Syntactic Derivation itself is triggered by syntax and then is followed by the Spell-Out operation on all other language layers.

DM divides the Spell-Out operation into two main areas or branches as represented in the graphic (1) (an adaptation of schemes in Embick, 2015: 4 and Harley 2014: 228). One of the two branches is called the Phonological Form (later abbreviated to PF) and the other branch is labeled as the Logical Form (later abbreviated to LF). Both of these branches are needed if a language system is to produce a morpheme or a morphosyntactic unit and their structure can be represented as follows:



The computation process depicted in the diagram above (Y model) puts all the language layers into a Spell-Out process, that is applicable for all ‘words’ and all complex phrasal structures occurring during a speech act.

In this scheme as well as in the framework of DM, the Syntactic Derivation is the initial operation, that is signaled by syntax and it has the aim to trigger the Spell-Out on both sides of the Y model, i.e. the LF branch and the PF branch. After the syntax finishes its main processes (Merge, Agree, Copy, etc.), it triggers the Spell-Out on the LF and the PF sides, where nodes of all hierarchically lower linguistic features are chosen and adjusted accordingly at the moment of a speech utterance in any given language.

On the LF side, the semantic feature nodes are accessed from the Encyclopedia and the speaker chooses those semantic features, which are suitable in a given context. The Encyclopedia and the semantics of the model are briefly described in section 2.5, so I will stick to this oversimplification for now.

Things get little more complicated on the PF side of the Spell-Out process as syntax, morphology, and phonology all play a role there. Firstly, the syntax sends its requirements through morphology to the Spell-Out and the morphology acts on these signals and behaves like an interface. The morphology can receive various signals from syntax and so it reacts by processes like impoverishment, fusion, or dissociated morphology.

However, that is not all that happens and after the syntactic requirements are fulfilled, the morphology gets its features from the syntactic feature nodes, depending on the language type and on the productivity of a certain morphology in a given language.

The last part of the Spell-Out at the PF side is the phonological realization of those morphosyntactic features, which were already computed beforehand. These morphosyntactic features get an assigned phonological form and then the Encyclopedia “connects a particular type of phonological representation with a particular type of semantic representation” (Embick, 2015: 6). That means that the PF and LF sides conjoin after the semantic meaning insertion and all the previously computed features now bear meaning and form. The semantic insertion from the Encyclopedia then closes off the Spell-Out process.

The phonological realization itself is tightly connected to so-called Vocabulary Items, which represent the connection between a certain phonological realization and its morphosyntactic context. Vocabulary Items and phonological realization also shape one of the three core properties of DM, namely the Late Insertion principle.

The Late Insertion principle and the argument, that arose around it, is described and discussed in section [2.3](#), where I shortly consider the argument from both sides of the perspective and where I comment on the problematic of this principle by phonological realization. But for now, let's leave the core properties aside and go back to the Y model and its application possibilities.

After seeing how the Y model processes work throughout all language layers and how DM predicts systematical forming of grammar, it clear that it can be used to explain diverse language generative processes. That is why the DM framework could be suitable for analyses of borrowings and why I examine it in this chapter.

The DM's language generative processes and its hierarchical approach to linguistic features could shed some light on the inner workings of the word formative process of borrowing. The analyses of borrowings will start in chapter [3](#), but before that, I need to establish the fundamental theoretical grounds further and define the basic distinctions of the DM in the following sections.

2.2 Morpheme definition in Distributed Morphology

The first thing to do when defining morphemes in DM is to throw the well-established morpheme definition out of the window. In DM morphemes are not just minimal units that have a meaning, but they are rather abstract nodes of features waiting to be realized. More precisely, DM perceives morphemes as syntactic terminal nodes,

which are supplied their morphosyntactic, phonological and semantic forms by the Syntactic Derivation, by the Spell-Out / Vocabulary Insertion ¹ and by the Encyclopedia.

I could refine this abstract definition of a Morpheme, but the definition itself isn't very pivotal and morphemes are more of a notional concept in DM rather than entities commanded by a set-in-stone definition.

Therefore, to better understand morphemes in DM it is more beneficial to make a distinction between them and sort them into two main groups rather than to strictly define them. The two main groups capture the morpheme variation of the framework and I will make the distinction in a two-step way as can be seen below.

The first genuine division of morphemes in DM was established by Harley and Noyer in 1998 after they modified the original notional distinctions of Halle and came up with the division between f-morphemes and l-morphemes (Harley and Noyer, 1998: 145). If I oversimplify their distinction, the main difference between these two morpheme classes is their choice of Spell-Out/Vocabulary Insertion or lack of this choice. To further stick with oversimplifications, f-morphemes are roughly like functional morphemes in the traditional morphology and l-morphemes had comparable characteristics to lexical morphemes. The main difference between the two types of morphemes is the way in which they either have prescribed realization and function, or they don't.

The second and more recent morpheme division follows the evolution of morpheme perception in DM and is used by Embick and Harley among others. It provides differentiation between two major morpheme groups: 1) Roots, 2) Functional Morphemes (Embick, 2015: 7). I will first start with the description of Roots and then explain how they contrast with Functional Morphemes later.

Roots are understood by modern DM as an open class vocabulary and they don't possess any morphosyntactic or semantic features. The lack of any morphosyntactic and semantic features thus categorizes Roots as empty syntactic nodes, which are waiting for the Y model to supply them with these features. Such an empty syntactic node can be seen in the example (2), where the Root stands in its most rudimental form and is waiting to be realized and categorized by the Y model as the noun *window*.

(2) \sqrt{WNDW}

Embick and some other linguists using the DM framework argue, that unrealized Roots such as the one above, have an underlying phonological form, contrary to Functional Morphemes, which do not. These Functional Morphemes with no underlying phonological form then possess syntactic and semantic features and they can be understood as closed class feature nodes, that are again waiting for the Y model and for a linguistic context, as shown in the example (3) below.

(3) $[+p!]$

¹ Both terms are synonymous, and they are used interchangeably in this work since they represent the same linguistic process.

Embick also further hypothesizes, that Functional Morphemes do not have any underlying phonological form because their phonological form gets realized only after the Spell-Out on the PF side.

The morpheme division made above, which comes from Embick is helpful and it can efficiently sort morphemes in the DM framework. I will adopt this distinction for the purposes of this thesis, but it is also worth to consider other approaches to Roots by linguists, who think differently about them.

Harley for instance, claims that Roots are phonologically empty and that they get their phonological features during the Spell-Out and only after they undergo the Late Insertion principle. Such an approach to Roots will be considered as well and it will be partly discussed in 2.3., where Roots are described in more detail.

2.3 Identity of Roots and their individuation

As previously already mentioned, the Root identity is a point of quite a heavy discussion in the DM field and the opinions on Root identity and Root individuation are divided. In this section, I will briefly explain the ongoing dispute in a condensed way and even though I will consider and accept Harley's remarks about the identity of Roots, the previously introduced terminology originating from Embick will still be used.

Consequently, the division between Roots and Functional Morphemes is necessary and the two separate groups of morphemes still can be adopted as only one of Embick's criterion for Root definition is violated by Harley's theory and by the Late Insertion principle.

To be more exact, it is needed to have a look at Harley's perspective when she proposes that Roots are neither phonologically (Harley, 2014: 231) nor semantically individuated (Harley, 2014: 238). She supports these claims with Root suppletion in Hiaki (Uto-Aztecan) and with triconsonantal Roots of the Semitic language family, that need a special morphosyntactic context so they can get a semantic meaning (Harley, 2014: 241).

Harley also agrees with some of Embick's claims and confirms that Roots are not individuated semantically or extra-semantically because they need a morphosyntactic context, to get their interpretation. Where the opinions diverge however is the phonological form of Roots with regards to its place in the Y model.

Harley disagrees with Embick's statement about the phonological form of Roots and states that Roots have no underlying phonological form (Harley, 2014: 239). She describes Roots as terminal nodes, which are not individuated by phonology or semantics (Harley, 2014: 269) and then further emphasizes that Roots need a morphosyntactic context to perform the Spell-Out.

According to her, the suppletive behavior of Roots in certain languages directly contradicts the presumptions of Embick and others, who claim that Roots are already phonologically specified when they go to Spell-Out (Embick, 2015: 8).

Harley then proposes, that Roots are only individuated syntactically as an abstract “indices on the Root node” (Harley, 2014: 269).² That means, that Roots get their morphosyntactic features and their phonological form only after the Syntactic derivation and the Spell-Out on both sides of the DM model happen.

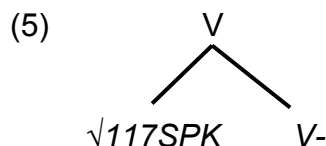
From this perspective, Roots are indeed empty terminal nodes waiting for commands from the Syntactic Derivation and from the Spell-Out in a given linguistic environment, as in (4).

(4) $\sqrt{168}$

These empty terminal nodes are only individuated at the level of syntax where their phonological and semantic roles are negligible and as already mentioned, they go through the essential syntactic operations such as Merge, Copy or Agree there.

Harley even goes an extra mile with the syntactically driven operations when she suggests that Roots can “merge directly with argument determiner phrases” (Harley, 2014: 262). She bases this prediction on the data provided by Hiaki and its case system and then goes on to discuss the immediate Local Environment and its importance to Root interpretation. But since Local Environment and Root identity are not central topics with which I wish to deal with extensively in this Thesis, I will simply leave both research areas aside and focus on only the most fundamental distinctions, that are needed for my analytic purposes. One of these distinctions is Root classification and if when I will follow Harley, Embick and the consensus of contemporary DM, I will be able to state three main claims about Roots, which create the suggested morpheme separation.

The first and probably the most crucial claim is that Roots are acategorical. This claim is centered around the ‘acategorical’ or ‘categoryless’ nature of Roots and it says that Roots in their ‘basic form’ don’t belong to any traditional word category such as N, V, or A. They are underspecified and ‘empty’ and they get their category attached only after they merge with a categorial head/ categorizer as can be seen in example (5) below.



The example (5) then shows, how do the empty Root nodes get their categorizer, which assigns them to the word category. In this case, the nodes are realized as the verb *to speak*. In the DM framework, Roots get categorized in the same manner as the one in example (5) and the categorization process is a part of the Y model, which influences even more complex structures, that are built up from certain Roots.

Another function of the categorization process is the distinction between root-derived and category-derived structures (Nevins, 2015: 48), that helps to organize and identify different components during the Syntactic derivation and during the Spell-Out.

² Harley uses the $\sqrt{\quad}$ sign to indicate Root nodes. I will adopt this system here and further on. The main difference between the two derivation types is the way in which they attach morphemes and categorizers. Root-derived structures attach their uncategorized morphemes straight to the Root and only later get categorized. As a result, they are relatively more 'free' in their choice of semantic and phonological features during the Spell-Out. The Category-Derived structures, on the other hand, attach morphemes to already categorized units and are quite predetermined while having less choice regarding their semantic or phonological features during the Spell-Out process.

The second important claim about Roots is, that they have no underlying phonological form. The argument around this phonological form of Roots has already been explained so let's just quickly summarize it and accentuate this essential property of Roots. The second claim follows the theory of Harley, Nevins, and others, who give empirical evidence that Roots have no underlying phonology. They give examples from multiple languages, where phonological forms compete to realize a Root during the Spell-Out and during the process of Late Insertion. One good example supporting this claim is the Root suppletion, as by the English verb *to go*, that gets late inserted and phonologically realized as the verb *went* in the past tense. Therefore, I will consider Roots as entities with no underlying phonology throughout this thesis and go straight to the last claim.

The third and final claim states, that Roots are syntactic nodes waiting to be spelled out. It is quite an obvious claim, that I have already described in this and in earlier sections, but let's just compile the main ideas behind this third and final claim. The classification of Roots as empty nodes puts them on the beginning of the Syntactic Derivation process where they are differentiated only syntactically. These syntactically empty nodes then get realized in the course of the Spell-Out and during the process, both the PF and the LF sides assign them their form, grammar, and their meaning on all the relevant linguistic layers.

To conclude this section, all three stated claims about Roots as well as about the morpheme separation made before them are crucial for the Root distinction and I will use the distinction throughout my thesis. I will also build upon the mentioned properties by the analyses of West-Slavic and West-Germanic language data in the next chapters, but before that, the properties of Functional Morphemes need to be defined.

2.4 Functional Morphemes and their sub-categorization

There are not just Roots in DM and another group of morphemes called Functional Morphemes can be distinguished. Functional Morphemes differ from Roots by their status in the DM system as already mentioned and they can be defined by three main claims as well.

The first difference between Roots on Functional Morphemes is that Functional Morphemes possess morphosyntactic and semantic features³ while Roots don't. These morphosyntactic and semantic features can assign morphemes certain roles and they can pose restrictions or requirements during the Spell-Out.

³ Terms morphosyntactic and semantic features/synsem features are used interchangeably. The second claim separating Functional Morphemes from Roots states that Functional Morphemes can be decomposed into their synsem features. When this happens and Functional Morphemes get decomposed, they can be observed in isolation, unlike Roots where the decomposition is not possible. One of many possible examples of a decomposable Functional Morpheme is the third person inflectional suffix *-s*, that denotes [+3.PS.] [+SG.] [+PRESENT].

The last and rather a subsidiary claim is that Functional Morphemes don't necessarily have to be acategorical, in comparison to Roots, which most definitely are. This statement about Functional Morphemes is tightly connected to their ability to have a predestined function, that is bound with a single or with multiple word categories. Functional Morphemes are usually closed-class and they are described by the traditional morphology as well, where a further division of morphemes is possible.

All the three statements made above have already been sketched out by the morpheme definition and distinction in section [2.2](#), but they are summarized here for the sake of clarity and coherence. They may seem quite general and obvious, but they are nonetheless correct and useful within the scope of the DM framework. However, even when DM provides the desired morpheme distinction, there is a need for a narrower classification of the two major groups of morphemes. Traditional generative Morphology is one of the possible ways of how to narrow the morpheme classification down and that is the reason why I will use it.

Certain traditional morphological views are generally compatible with DM perspective and I will need them for my later analyses, but it is also necessary to maintain a degree of separation with regards to different morpheme and Root perception in the two similar, yet different theoretical networks. Therefore, the theory of the two approaches won't be mixed completely, but it will rather be deliberately fused with the theoretical background of the DM framework. After doing that, I will be able to use some terminology and theories that contemporary morphology and syntax offer as well as the distinctions and theories that DM applies.

With that being said, only those morpheme taxonomy divisions, that are relevant and compatible with the methodology of this work will be presented. Lastly, all the possible types of affixes will be categorized as Functional Morphemes, which is a group of morphemes accommodating multiple conventional morpheme distinctions.

The first distinction of the traditional Morphology between bound and free morphemes overlaps in the two morpheme groups of the DM framework and the differentiation in terms of "independent occurrence" (Veselovská, 2017: 18) blends here together with other criteria. Therefore, one cannot see a clear division and both

Roots and Functional Morphemes can be either of the two morpheme types. What can be said instead is the fact that bound morphemes can only attach to already spelled-out Roots or Functional Morphemes (e.g. affixes), while free morphemes don't need to attach to any other morpheme type and are inherently independent.

The second overlapping taxonomy criterion necessary for my analyses is the position of a Functional Morpheme to a Root. Even though there is only one main category for all other morphemes, which are not Roots, it is needed to show their position to the Root in a context and during the Spell-Out process. Therefore, the conventional terminology for affixation will be used, to clarify, where do morphemes attach to or where do they form a phrase (Veselovská, 2017: 18-20).

The terminology itself is quite self-explanatory and describes the locality aspect of morphemes as follows:

2.4.1.1 Prefixes

Prefixes are morphemes, which stand in front of the Root and are spelled out as bound according to the conditions of their Syntactic Derivation. They add additional grammatical or lexical features to the Root and both West-Slavic and West-Germanic languages have quite an extensive prefixal morphology.

2.4.1.2 Suffixes

Suffixes are morphemes, which stand after the Root and are spelled out as bound according to their Syntactic Derivation. They also add grammatical or lexical features to the Root and are abundant in both West-Slavic and West-Germanic language groups.

2.4.1.3 Infixes

Infixes are morphemes, which are neither in front of the Root nor after it, because they seem to be 'inside' of it. They are quite unusual in West-Slavic and West-Germanic languages since they violate Root boundaries, but some infixes still can be found in German, Czech or in Polish. Other languages, such as the previously mentioned Semitic language family, have a multitude of infixes, where they often form a triconsonantal Root, that gets distributed across a morpheme or a phrase.

2.4.1.4 Circumfixes

Circumfixes are the last distinguishable morpheme group from the perspective of position to a Root and they can be defined as morphemes, which stand in front of the Root as well as after the Root. They basically surround the Root, such as the German past participle, that usually serves as a typical example of a circumfix. They can be found across the West-Slavic and West-Germanic language groups as well.

To fully conclude this section, Functional Morphemes are defined by their synsem features, into which they can be decomposed. They don't have to be strictly acategorical opposed to Roots and they can be further divided into the two above-defined morphological taxonomies regarding their independent occurrence and their

position to the Root. The two more traditional taxonomies will be used in the thesis when needed and even though they don't necessarily originate from the DM framework, they are certainly useful. Their main purpose further on will be the required terminological differentiation and a more accurate description of morpheme characteristics.

2.5 The role of semantics in Distributed Morphology

The whole second chapter was dedicated to the most crucial processes and distinctions of the DM framework. I have explained how the Syntactic Derivation and the Spell-Out processes work all the way up from syntax down to phonology and phonetics. While I was doing that, I was describing two of the three main lists, that form the grammar and basis of the DM framework (Embick, 2015: 20).

That is why there is a need to mention the last of the three lists, namely the Encyclopedia, to deal with the necessary semantic minimum and to properly close the theoretical part of this thesis off.

The Encyclopedia basically provides a Root with a semantic interpretation in any given context in which it is being spelled-out. By doing that the Encyclopedia is required to keep a list of instructions of all the idiosyncratic semantic information so that it can react to an actual context appropriately (Embick, 2015: 20, 21).

Furthermore, the content of Encyclopedia and Root semantics are language-specific, unlike the grammatical features of Functional Morphemes, which are language universal and have close ties to Universal Grammar. That is why the Encyclopedia is a specific part DM model and why it can be understood as the connection between semantic meaning and the contextually bound syntactic feature nodes as shown in the scheme below (Harley, 2014: 244).

PF instructions (List 2)

$\sqrt{77} \leftrightarrow /θrow/$

LF instructions (List 3)

$\sqrt{77} \leftrightarrow$ 'vomit' / [v [[] $\sqrt{}$ [up]P]]vP

$\sqrt{77} \leftrightarrow$ 'a light blanket' / [n [] $\sqrt{}$]

$\sqrt{77} \leftrightarrow$ 'throw' elsewhere

3 English borrowings in West-Slavic and West-Germanic

As already mentioned, and now demonstrated, the theory of DM itself is a complex topic, that could be explored in many ways and from multiple perspectives. It provides many research ideas and theoretical questions, but such extensive theoretical studies aren't the main purpose of this work. The main purpose of this work is the analysis of borrowings based on the elementary DM theories and distinctions.

That is why the previously laid out theory will be utilized and then fused with some more traditional morphological approaches in this chapter with the hopes to shed some light on the inner workings of the word formative process of borrowing.

Closer analyses of the borrowing process in West-Slavic (Czech, Polish, Slovak) and West-Germanic languages (German, Dutch) should then produce several smaller observations and some tendencies.

I will build upon my own observations in the following sections and upon studies, that come from multiple linguists who don't always necessarily follow the DM consensus. These linguists such as Svenonius, Caha, or Ziková are mostly morphologists, syntacticians, or phonologist and even though they don't just stick to the DM framework and its rules they present valuable ideas and helpful data from Slavic and Germanic languages.

To follow up on that, borrowings are sometimes examined cross-linguistically and other times they are just language or language family-specific. Thus, it is critical to emphasize that the aims of this thesis are not language universals or not even bulletproof language group universals, but rather small theories, observation, and tendencies supported by data from various West-Slavic and West-Germanic languages.

3.1 How does the borrowing process work and why is it relevant ?

The borrowing process and its manifestation are very well-known 'phenomena' even among the general public. Many new borrowings originating from English tend to stand out and there are cases when an average monolingual speaker can recognize a 'word', that probably isn't native to his/her mother tongue. Chances for borrowing recognition are even greater, if the expression is peripheral, slang or newly coined.

There are quite a few synonymous terms for morphemes generated by this word formative process, such as loans, loan words, borrowings, hybrid borrowings, etc. All

these and other similar terms stand for the same underlying mechanism, which is a very productive and well-documented word formative process called borrowing.

There are extra-linguistic as well as language-internal reasons for the process of borrowing and many borrowings enter various language systems of the world on a regular basis. They either get accepted and productively used or they stay peripheral and unproductive, depending on multiple linguistic and non-linguistic factors.

Some of the extra-linguistic factors might include globalization, prestige status of a certain language, historical events, and many other factors, that are part of the discourse. Areas like sociolinguistics, psycholinguistics, dialectology, etc. work with these discourse factors, but they play only a minor role in DM and in the generative grammar in general.

To follow up and address the needed discourse minimum, I will only briefly comment on the contemporary status of borrowings originating from English, that are entering many Slavic and Germanic languages in recent years.

Main reasons for the influx of English borrowings in the previously mentioned language families can be the high number of English-speaking bilinguals worldwide and the status of English as a lingua franca for communication, science, politics, etc. Other extra-linguistic reasons causing the influx are regular contact points between English and Slavic or Germanic languages during intercultural and interlingual exchanges. Language exchanges can happen anywhere, but they are typical for mass-media, for internet, for television or for many other places, where English is commonly and widely used. These regular exchanges then put bilingual or multilingual speakers into a language continuum, where they adapt their native language, whenever they need or want to.

These are only some of the many possible extra-linguistic reasons why the process of borrowing/hybrid borrowing can flourish and has plenty of potential room to operate within modern Slavic and Germanic languages. I could come up with a multitude of other reasons, but these reasons are only background information and I will be working with them only minimally since they provide very little empirical evidence and they cannot be mixed with the methodology of my research. These discourse data will be therefore put aside and the approach to language data analyses will be synchronic diagnostics of verbal borrowings according to the DM models and principles.

The next section begins with analyses of verbal borrowings from the West-Slavic and West-Germanic language groups and possible similarities or differences by the borrowing process and by the grammatical form adaptation are then highlighted by tree decompositions and by textual or paradigmatic analyses. Most of the following borrowings are my own collected examples, that have always been consulted with a Corpus of the given language before an actual analysis or morpheme decomposition.

When I used a Corpus of an examined language, I always looked for the most extensive version with the highest number of accumulated textual examples. When a borrowing was picked for analysis, I have always tested it in a Corpus context

beforehand so that it is clear whether the given borrowing is an attestable and productive example with a certain number of occurrences, or not. ⁴

The rest of the language data, which are not my own collected examples come from sources like linguistic articles (Belkova, 2018) or online listings of English borrowings. These online listings of English borrowings are then Czech, German, or Polish language data, which were compiled by different lexicographers or linguists. ⁵

⁴ All the used Corpora can be found in the Bibliography

⁵ These articles and websites are also listed in the Bibliography.

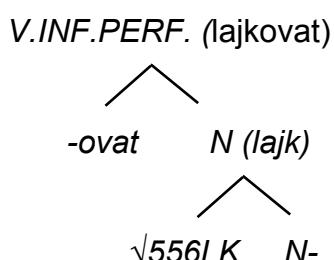
3.2 Types of English borrowings and their categorization

One can find many types of borrowings in present West-Slavic and West-Germanic languages and some of them are very productive, with an extensive usage by speakers of these languages (e.g. *management*, *jogging*, *blogger*, etc.). Borrowings such as these appear in various contexts and are used by a whole range of speakers. What connects them nevertheless is that they are always accompanied by the language generative processes of DM meaning that the Y model always generates the hierarchical structure of for every borrowing.

Many borrowings in West-Slavic and West-Germanic languages occur within the main word category group (N, V, A, P), where the frequency can be attributed to the open class nature of these word categories or to the frequent nominal, verbal, adjectival, or prepositional word category context in which a borrowed Root appears.

This word category context and the categorization during the Syntactic Derivation and during the Spell-Out is also typical for Functional Morphemes, that accompany borrowed Roots. As expected, the Functional Morphemes get an assigned word category according to their context and according to their Root, to which they attach to. ⁶ DM processes and the syntax then supply the required synsem features for all Functional Morphemes and create hierarchical structures such as the one the from example (6) below, where Czech verbal borrowing *lajkovat* is decomposed and analyzed.

(6) *lajk-ovat* (Verb, Infinitive, Imperfective) – ‘to like something on social media’



In this example, the English Root $\sqrt{556LKE}$ and its unrealized syntactic nodes are borrowed into Czech, where all further language generative proceedings take place. These syntactic nodes undergo the process of Syntactic Derivation, by which Merge and Move perform their first adjustments and then they go down to the Spell-Out on both sides of the Y model (LF and the PF side).

On the PF side, syntax generates the morphological form for its syntactic nodes and provides the Root $\sqrt{556LKE}$ with the form of *lajk*, that sends the morphosyntactic commands down the Y model. During this morphological interface, the phonological realization in the form of */laɪk/* is late inserted on the PF side and the Root gets a derived and phonologically interpretable pronunciation. The newly formed nominal borrowing *lajk* is practically a free Root and it could realize nominal features such as number, gender, and case if it would stand on its own, but in this case, the Functional Morpheme in the form of suffix *-ovat* is attached to it.

⁶ Affixes are the most common Functional Morphemes, which attach to Roots in Slavic. Therefore, the whole borrowing gets categorized as a verb and adheres to the verbal context of the suffix, which was again provided by the Y model. The LF side is also part of the borrowing process and the Encyclopedia takes care of semantics when it supplies the Root with semantic meaning in the nominal context and then the Functional Morpheme with semantic meaning in the verbal context. The suffix itself also gets the needed verbal features such as person, number, tense, mood and aspect from the Y model so that conjugation of the verb is possible in all contexts.

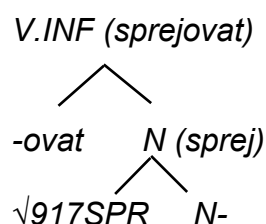
All these features are generated for one Functional Morpheme *-ovat* in the Czech example in (6), but that is not always the case and the situation can get more complicated as can be seen further in this section and in the whole chapter.

The borrowing *lajkovat* and other similar Czech verbal borrowings like *skejtovat* ('to ride a skateboard'), *shopovat* ('to go shopping, to shop extensively'), or *googlit* ('to search via google') seem quite simple and without much complexity, but when they are examined closely and with the hierarchical tree analysis, one can see, that they are not so trivial.

Closer analyses based on the DM principles show generative processes and structure formations taking place all while the origins of grammatical features are made more visible. Analyses like the one above in (6) can help linguists understand covert structures better and I can see how the adaptation of verbal borrowings happens in West-Slavic and West-Germanic languages based on these analyses.

Before continuing any further I would like to add, that the verbal examples used for tree analyses are always in the infinitive form to prevent any confusion or structural ambiguities. With that being said, let's take a closer look at other similar borrowings such as the one in example (7), where the Czech verbal borrowing *sprejovat* is analyzed.

(7) *sprej-ovat* (Verb, Infinitive, Imperfective) – 'to make graffiti on a wall, to tag'



In this example, morphosyntactic, phonological and semantic features are again provided by the Y model. The categorization processes during the Syntactic Derivation, the Spell-Out, and the Encyclopedic entry are very similar to those described by example (6) above, so I won't perform any other lengthy, textual, theoretically based analyses from this point on because they would be excessive and unnecessary. I will instead show these processes graphically with the help of tree analyses, that clearly show the background operations and solidify the DM framework as a beneficial diagnostics approach.

To follow up on that and conclude the example (7), let's focus more closely at what else the analysis shows and what happens in the Czech language system during the process of borrowing.

When the Y model performs the necessary generative operations, it realizes the Root node bundles as the noun *sprej* and then adds the Functional Morpheme *-ovat*, which changes the complex into a verb. The realized syntactic nodes of both morphemes then end up being a verb in the infinitive form. The Functional Morpheme *-ovat* is a category-derived suffix in this case and it bears the features of person, number, tense, mood, and aspect. These grammatical features help to incorporate the verbal borrowing into paradigms such as the one in example (8), where the Czech verbal borrowing *sprejovat* is conjugated in future tense, in indicative mood, and in imperfective aspect.

(8)	1.SG.FUT.IND. – <i>bud-u sprejovat</i>	1.PL.FUT.IND. – <i>bud-eme sprejovat</i>
	2.SG.FUT.IND. – <i>bud-eš sprejovat</i>	2.PL.FUT.IND. – <i>bud-ete sprejovat</i>
	3.SG.FUT.IND. – <i>bud-e sprejovat</i>	3.PL.FUT.IND. – <i>bud-ou sprejovat</i>

The paradigm in (8) shows the future tense of the verbal borrowing and one can see, that the auxiliary verb adopts all the previously mentioned grammatical features and is followed by the infinitive of the verb. That is standard behavior of Czech verbs, as well as of this adapted borrowing. What is also expected is the future tense restriction, that the aspect poses on verbs. To better see this, let's attach a Functional Morpheme in the form of the prefix *po-* to the verbal complex illustrated in (7) and then let's put it into the paradigm in (9), where all the grammatical features except the aspect remained the same.

(9)	1.SG.FUT.IND. – <i>po-sprej-uji</i>	1.PL.FUT.IND – <i>po-sprej-ujeme</i>
	2.SG.FUT.IND. – <i>po-sprej-uješ</i>	2.PL.FUT.IND – <i>po-sprej-ujete</i>
	3.SG.FUT.IND. – <i>po-sprej-uje</i>	3.PL.FUT.IND – <i>po-sprej-ují</i>

The paradigm (9) clearly shows the change of aspect polarity in Czech. Meaning that the prefix *po-* transforms the imperfective verbal borrowing *sprejovat* into a perfective one. The aspect shift then restricts tense possibilities of the prefixed verb and it can be used only in the present or past tense. The usage of the future tense with the auxiliary *bít* (*bud-*) is not possible now because it would cause an ungrammaticality. An interesting shift also happens by the present tense, which practically loses its grammatical function to denote 'here and now' and is shifted to the future instead.

The affixation on the auxiliary *bud-* and on the Root *-sprej-* in both paradigms then encapsulates the already mentioned features of person, number, tense, mood, and aspect on each respective suffix. The fact that these features can be realized on one Functional Morpheme is caused by the synthetic and fusional nature of Czech, where morphosyntactic features tend to cluster and agree with a subject or an object in a linguistic context.

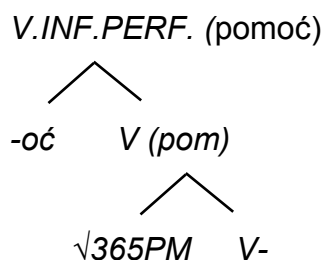
Although all these facts are true, they are not very surprising for a native Slavic language speaker and they can be attributed to language typology and to the generative processes of DM, that supply the grammatical features on all the established language layers.

What is more interesting and thought-provoking is the prefixation itself and its ability to change the polarity of aspect. The prefixation tendency of Slavic languages and the role of prefixation by aspect realization is quite well-known and linguists as for example Svenonius examine it extensively.

Svenonius even proposes that many verbs in Slavic languages “appear in perfective aspect when they take a prefix” (Svenonius, 2004a: 183) and he makes solid claims about the role of prefixes as providers of perfectivity to verbs across the whole Slavic language family in (Svenonius, 2004 a, b).

However, it is important to keep in mind that one can only speak about a tendency of prefixes to be the perfective aspect provider, not about a rigid rule. There are alternations and exceptions, which don't allow to transform this tendency into a rule such as perfective suffixation or secondary imperfective forms.⁷ One of these many possible perfective suffixes can be seen in the Polish example (10) below.

(10) *pomoć* - (Verb, Infinitive, Perfective) – ‘to help’



In (10), the Root again goes from Syntactic Derivation to LF and PF sides of the Spell-Out, where it gets categorized as a verb because of the attached suffix *-oć*. The suffix supplies the verbal context and has the same five grammatical features as in the previously mentioned Czech examples. These generated grammatical features ensure correct conjugation and agreement types. The notable feature by this Functional Morpheme is the perfective aspect feature, that is being conditioned by the suffix *-oć*, instead of by a prefix, that would manage the aspect of the whole verb. Polish, Czech, and other Slavic languages have countless analogous verbs such as the one in (10) and therefore the perfective aspect is clearly not restricted only to prefixes.

Still, even when all the previously mentioned statements are true, they offer a room for further research. To be more precise, I think that it is worth to consider the aspect

feature by borrowings. There are multiple cases in which the prefix reverses the aspect polarity and I can think of verbal borrowing examples like *vy-googl-it* ('to google'), *o-lajk-ovat* ('to like on social media'), or *na-mix-ovat* ('to mix smth.; a drink e.g.'). These and virtually all other verbal borrowings need at least one perfective and one imperfective form to be properly assimilated into West-Slavic languages. That's why I will focus on aspect realization in the following section, where mostly Czech verbal borrowing are examined and then used to form a hypothesis.

⁷ For further discussion on secondary imperfective forms in the Slavic language family see Svenonius, 2004a, 185-188. I won't focus on them in this section because they are not very relevant by borrowings and because I don't want to derail from my research purpose.

3.3 How important is the aspect feature by verbal borrowings ?

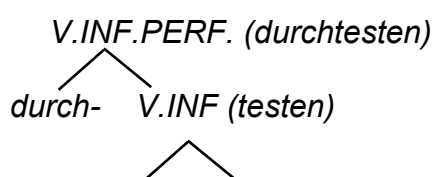
Like already mentioned in the previous section, verbal borrowings are quite common, and they must possess multiple grammatical features in order to assimilate into West-Slavic languages properly. One of these features is the aspect feature with its realization by Functional Morphemes in form of affixes. These affixes highlight the need for an element tampering the aspect by verbal borrowings and they offer one possible hypothesis.

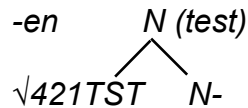
This hypothesis predicts that if a verbal borrowing gets generated as a perfective verb, it needs a mandatory imperfective form to be properly integrated into the West-Slavic host language. The hypothesis also works the other way around and if a verbal borrowing was syntactically derived and spelled out on the LF and PF as imperfective, it must have a perfective form, that acts as an aspect antithesis. Therefore, it can be said that the vast majority of verbal borrowings need to fulfill the binary requirement of West-Slavic verbs and have both a perfective and an imperfective form.

These two forms can be realized either by suffixation or by prefixation, depending on the Root and on the underlying generative processes. There are many cases, where suffixation gets to realize the aspect feature, but as already mentioned and confirmed there is a considerable prefixation tendency in West-Slavic languages and in Slavic language family in general (Svenonius,2004a, 2004b).

Furthermore, the prefixation tendency by aspect and the mandatory binary requirement of both aspect forms can be seen even beyond Slavic. To be more precise, the West-Germanic language family has some similar verbal borrowing by which the aspect feature is present in the form of a prefix. One such verbal borrowing can be seen in example (11), where the German verb *durchtesten* is decomposed and briefly analyzed.

(11) *durch-test-en* (Verb, Infinitive, Perfective) – 'to test out, to test in action'





The example above shows quite the usual pattern, that has already been described. In short, the Root is generated by the Y model and gets categorized as a noun and then it attaches the suffix *-en*, which changes it into a verb. This suffix is imperfective, as well as the default infinitive suffix by German verbal borrowings. When the prefix *durch-* gets attached, it changes the polarity of the aspect and fulfills the binary requirement as predicted by the hypothesis above.

Example (11) is one of the few possible examples showing that the prefixation tendency is not only specific to Slavic languages and other German verbal borrowings like *be-tank-en* ('to refuel'), *aus-power-n* ('to bleed dry, to use everything') or *aus-tricks-en* ('to fool, to trick, to outwit') support the tendency in German.

Still, if one would focus on the German prefix *durch-* itself and its behavior in a context, it would be clear that there is more to it than just the aspect feature realization. That is why I am going to take a closer look at German prefixation in the next section 3.4., but before that, the role of aspect and its binary requirement by verbal borrowings need to be wrapped up. Therefore, I decided to support my hypothesis further with more language data from the West-Slavic language group, namely from Czech.

Since the prefixation tendency in West-Slavic languages has already been explained from the qualitative point of view I also want to use the quantitative approach. This approach is quite straightforward, and it involves testing ten verbs, that have been borrowed from English into Czech and realized there by the Y model.

INF.IMPF. w/o prefix	INF.PRF. with prefix	Semantic meaning
googl-it – 34 listings	vy -googl-it – 186 listings	'to search via google search engine'
boot-ovat – 66 listings	na -boot-ovat – 106 listings	'to boot an electronic device'
lajk-ovat – 522 listings	o -lajk-ovat – 27 listings	'to like something on social media'
formát-ovat – 451 listings	na -formát-ovat – 289 listings	'to format a document, a device, etc.'

jam-ovat – 795 listings	za -jam-ovat – 413 listings	'to jam, to play music in a group'
sken-ovat – 2441 listings	na -sken-ovat – 2370 listings	'to scan a document, book, etc.'
filtr-ovat – 5455 listings	vy -filtr-ovat – 357 listings	'to filter smth. out, get rid of smth.'
kopír-ovat – 46 566 listings	o -kopír-ovat – 6 806 listings	'to copy something, to make a copy'
neutraliz-ovat – 4594 listing	z -neutraliz-ovat – 683 listing	'to neutralize smth. or someone'
test-ovat – 81 722 listings	o -test-ovat – 37 213 listings	'to test smth., examine'

All the ten Czech verbal borrowings have at least one imperfective and one perfective form, that is attestable in the context of the Czech national corpus. The first five verbal borrowings are more peripheral in the corpus meaning that their Lemma has less than a thousand occurrences. The other five verbal borrowings are less peripheral meaning that their Lemma has more than a thousand occurrences. The corpus version used for all the data in the table was the *syn7 Corpus* on the website of the Czech national corpus (accessed on 18.7. 2019). I have run the searches for both aspect forms by all ten verbs there and then I have put the results and the semantic meaning of each borrowing into the table below.

Table 1: Occurrence of 10 perfective and imperfective verbal borrowings in Czech
The table on the previous page shows how frequently do borrowed verbs appear in written form and which prefixes then attach to them. Prefixes such as *o-*, *na-* *za-* or *vy-* are homophonous with Czech prepositions and they can be hard to translate into English sometimes because the homophony leads to a certain degree of lexical function. The homophony and the problematic, context-bound meaning are quite acknowledged phenomena as well so it is no wonder, that prefixes can be best described as elements with spatial or idiosyncratic meaning (Svenonius, 2004a: 193), (Caha, Ziková, 2016: 334).

All ten verbs in the table have both a perfective and an imperfective form, thus fulfilling the binary aspect requirement as stated earlier in this section. The prefixation tendency of aspect is also visible in the table and the imperfective prefixes have a fairly spatial or idiosyncratic meaning. The number of occurrences for each imperfective form differs and the perfective form is more widely used, as expected. A small percentage; 2 out of the 10 borrowings appear in the imperfective form more, but the imperfective form of borrowings seems to be a secondary form with regards to frequency of usage in written text.

Then there are borrowings, that have two possible perfective prefixes such as the verb *skenovat* with either *na-* as shown in the table or with *o-* as in *o-sken-ovat*. In this case and in other cases, there are two prepositions, that are competing for a realization as an imperfective prefix. If I would include more data there would be other examples with two prepositions competing to realize the imperfective form such as the two Czech verbal borrowings *vy-tun-it* and *po-tun-it*, which both mean 'to customize, tweak and improve your car, bike or any other mean of transport'. These two competing forms show that not just suffixation and prefixation compete for the realization of the aspect but also the prefixes themselves in certain cases.

The last interesting piece of information from the table and from the corpus is how some verbal borrowings are more colloquial, peripheral, and more typical for spoken speech act, while others are already established in the 'standard' speech and get used in the written text on the internet. The peripherality and the lack of written examples in the corpus are typical for newly coined verbal, nominal and other borrowings, which are usually used in slang or by a specific group of people.

With that in mind and with all the theories and ideas presented above, let's look at phrasal verbs and at their similarity to aspect affixation in the West-Slavic and West-Germanic language groups.

3.4 Is there a similarity between prefixes and phrasal verbs ?

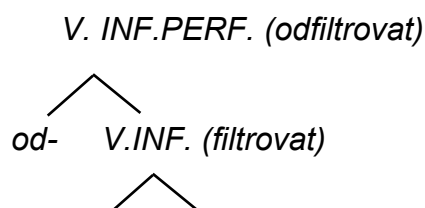
Section 3.3 already showed the covert complexity of prefixes and it hinted at cross-linguistic similarities in the way in which West-Slavic and West-Germanic languages use prefixation. The similarity of the aspect feature realization in German has already been mentioned and there is more room for research by the prefixation itself. However, before focusing on prefixation by phrasal verb borrowings in more detail, it is needed to set up at least the most basic distinction between the many prefixes of Slavic/ West-Slavic languages.

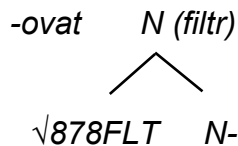
The simplest, yet most practical separation of the many Slavic affixation types is to sort them into two main prefix groups. The first group of Slavic prefixes are so-called lexical prefixes, which can be recognized by their verb phrase internal position and by their spatial or idiosyncratic meaning. The second group of prefixes are so-called superlexical prefixes, which are specific because of their verb phrase external position and because of their aspectual or quantificational meaning (Svenonius, 2004b: 205-208, 247).

The above-mentioned verb phrase internal versus verb phrase external distinction is also applicable for phrasal verbs and it can describe how PVs enter the verb phrase structure.⁸ The more basic distinction with regards to the independency of occurrence is helpful as well and thanks to it one can further separate the phrasal verb borrowing procedure in West-Slavic and West-Germanic languages.

Nearly all prefixes in sections 3.1, 3.2, and 3.3 were lexical, meaning that they were verb phrase internal with dependency on the Root, or on other Functional Morphemes attached to it. I will start with this kind of prefixation in the Czech example (12), where the prepositional part of the phrasal verb *gravitates* towards bound affixation and has verb phrase internal structure.

(12) *od-filtr-ovat* – 'to filter out'



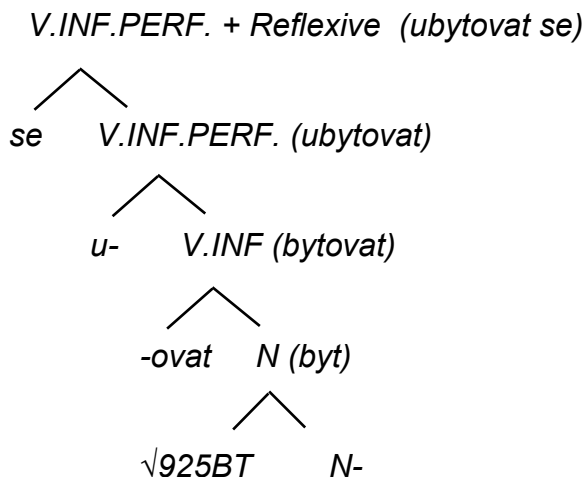


In this example, the whole VP gets borrowed into Czech and is realized by the Root *filtr*, that is surrounded by two Functional Morphemes *od-* and *-ovat*. The English free preposition *out* existing as the part of the PV changes into a bound prefix and this change then assures the VP internal structure. The prefix cannot move from the Root and no other morphemes can be placed between the Root and the prefix *od-* because they would trigger ungrammaticality.

Structures like example (12) are one possibility of how West-Slavic languages assimilate English phrasal verb borrowings, however, it is not the only possibility. There are also many other cases where the PV doesn't get borrowed and its equivalent is realized solely by the syntactically hierarchical structures of the host language. Example (13) on the next page shows this equivalent replacement in more detail.

⁸ The term verb phrase will be sometimes abbreviated to VP and term phrasal verbs will be sometimes abbreviated to PV. Nonetheless, both abbreviations and full terms will be used interchangeably throughout the rest of the thesis.

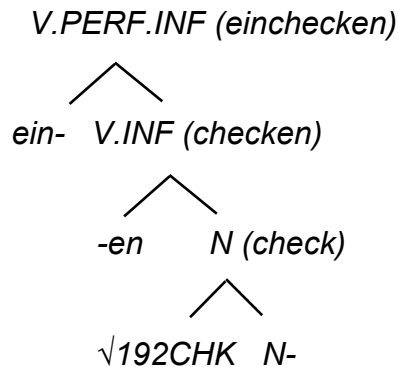
(13) *u-byt-ovat se* – ‘to check in, to check in at an airport, in a hotel, etc.’



(13) demonstrates the lack of any borrowing process and together with (12) gives away the two main ways in which Czech and possibly other West-Slavic languages handle English PVs and PV borrowing. The first possibility presented in (12) thus accounts for Root borrowing and for the transformation of the prepositional part of the PV into bound prefix with VP internal structure. By the second-mentioned alternative, there is no borrowing process and the PV gets completely replaced by the native verbal equivalent as in (13).

Both Czech adaptation options are interesting alone, but a direct comparison with German should show if there are any other tendencies by English phrasal verb borrowing in the second language group. So, let's decompose the German phrasal verb borrowing of the English PV *to check in* in example (14).

(14) *ein-check-en* – 'to check in, to check in at an airport, in a hotel, etc.'

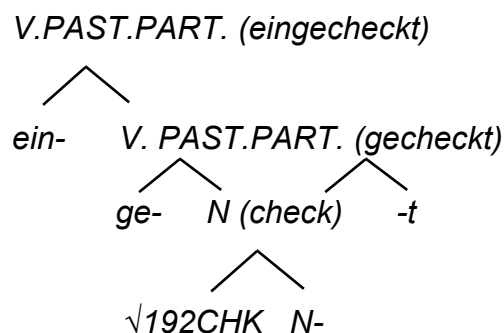


In (14), syntax and the PF and LF sides again generate the Root *check* and categorize it as a noun, which consequentially attaches the suffix *-en*. During the Y model processes, the suffix *-en* transforms the context of the Root into a verbal one and the free Functional Morpheme *in* gets transformed and categorized as the German verbal prefix *ein-*. The realization of the English preposition *in* as the prefix *ein-* gives it the status of a VP external element and assures that the prefix can move around the clause as in (15) on the next page.

(15) *Wir checken uns morgens auf der Rezeption ein.*
 We check 3.PL.PRS. ourselves next morning at the reception in
 'We will check-in at the reception in the morning'

This example proves the VP external position of the prefix well and shows its semi-free nature, by which other Functional Morphemes can stand between the Root and the prefix when the morphosyntactic context is right. Another good demonstration for a morphosyntactic context, where the Functional Morpheme insertion is possible, is the past perfect tense form of the examined verb as in example (16) below.

(16) *ein-ge-check-t* – 'checked in, to check in at the reception, at a hotel e.g.'



Here, the Root is surrounded by the past tense circumfix *ge-√192-t* and by the already familiar prefix *ein-*, which is clearly a semi-free prefix since other Functional Morphemes such as *ge-* can stand between it and between the Root.

The example above and examples (12), (13), and (14) all confirm the verb phrase external position and the semi-free nature of the prefix *ein-* by PV borrowings in German. They also show a language-specific tendency of German to adapt borrowed PVs by a certain affix and give away one cross-linguistic differentiation between PV borrowing in both examined languages.

At this point, it must be obvious that the main difference between Czech and German phrasal verb borrowing adaptation must be the VP position and the independent or dependent occurrence of the prefix.

In German, borrowed phrasal verbs can get syntactically derived and spelled out by the Y model with a semi-free prefix, that has VP external structure as in the case of the prefix *ein-* or other semi-bound prefixes like *aus-* or *auf-*. Czech, on the other hand, doesn't allow this configuration and if a PV is assimilated by affixation, the prefix must be bound and have VP internal structure like in the case of prefixes *na-*, *za-* or *od-*.

There are obviously many other cases where PVs are completely replaced by an equivalent and get realized by the native morphemes of both languages, but even if so, there is clearly a tendency of phrasal verb borrowing in both languages and possibly in both language groups.

I have again decided for the quantitative approach to further bolster these two tendencies and gathered a short language data collection. I took four English PVs, which get borrowed and adapted by Czech and by German as the tendency predicts and then contrasted them with three other English PVs that don't necessarily follow the tendency.

All the examples in the table have been tested in English, Czech and German Corpora. The English corpus version used for the searches was *COCA 2017*, the German corpus version was *deu_newscrawl_2011* and the Czech corpus version was the already mentioned *syn7 Corpus*. They have all been accessed between 12.8. and 18.8. 2019 and the various attestable examples can be seen in the table below.

English	German	Czech
to park in (to reverse park) 'a car or van e.g.'	ein-park-en	za-park-ovat
to log in 'a system, or a network e.g.'	sich ein-log-gen	na-log-ovat se při-hlás-it se
to hack in (into) 'a network or computer e.g.'	ein-hack-en	na-hack-ovat se, hack-nout se

to rock out 'to rock loudly, fiercely'	ab-rock-en	za-rock-ovat, rock-ovat, za-pař-it
to flip out 'to get angry, to react crazy'	aus-flip-pen	roz-zlob-it se, vy-šil-ovat
to pop up 'to suddenly appear, add e.g.'	auf-pop-pen	vy-sko-čit, vy-noř-it se
to call off 'to postpone, to cancel'	ab-brech-en ab-blas-en	od-vol-at z-ruš-it

Table 2: English phrasal verb borrowings in German and Czech

Examples one, two and three clearly show the ability of German prefix *ein-* to adapt English phrasal verbs as predicted by the tendency. The first four examples also confirm that Czech tends to adapt borrowed English PVs by a bound prefix with VP internal position.

The second and the third example in Czech also show, that the native reflexive *se* often tends to enter the adaptation process too. Another case of this reflexive in (13) on page 27 has also already shown how it is incorporated into the hierarchical structure of the verb phrase. These reflexives can also appear by the native equivalents as in examples five and six in the table, but that could be just a coincidence and further research would be needed to confirm or disprove this observation.

The fourth, fifth and sixth example each present how other semi-free prefixes such as *ab-* and *aus-* or *auf-* adopt PV borrowings and they prove that even other German prefixes can follow the PV borrowing tendency, with regards to semi-free prefixation and VP external position of the prefix.

Furthermore, six out of the seven German examples in the table borrow the Root from English and surround it with either *ein-* or other semi-free prefixes such as *ab-* or *aus-*. These prefixes are typically VP external in German and hint at closer morphosyntactic ties with English when compared with Czech.

Czech equivalents from three to six then prove the 'no borrowing' tendency and they could explain why some English PVs cause difficulties to Slavic learners of English. The problematic interpretation of English PVs in West-Slavic languages by English learners might be caused by the VP external position of the prepositional part of the PV and its movement possibilities, which are not usual for West-Slavic languages.

The last example in the table doesn't show any borrowing processes taking place in and it was chosen to accentuate that all the tendencies, requirements, and observation in this section as well as in this whole third chapter have limitations.

These limitations, which don't allow to form any strict rules or language group universals are often posed by the richness of the West-Slavic and West-Germanic language systems and they underline the high grade of unpredictability of many language behavioral patterns.

Subsequently, even when the formative process of borrowing was analyzed multiple times and from various points of view throughout the whole thesis, it proved to be a complex process, that doesn't always behave as one would expect. Although exactly this unpredictability and cross-linguistic variation make the borrowing process an interesting research area where many observations and covert tendencies can be found.

Other tendencies such as the apparent borrowing of the derivational suffix *-ing* in Polish (Belkova, 2018) or the blocking effect by grading of certain West-Slavic adjectival borrowings (e.g. by the Czech borrowed adjective *top*) could be further examined, but they are beyond the scope of this thesis and they are only mentioned here and to open a room for future research activities.

4 Summary and conclusions

4.1 The potential of DM as a framework for analyses

Chapters 1 and 2 offered a theoretical introduction to the framework of Distributed Morphology and set up the theoretical grounds for this thesis. The development and evolution of Distributed Morphology were shortly described and the language generative processes starting at syntax and going down through all the language layers were introduced. The Y model was also presented and explained in section 2.1., where Syntactic Derivation and Spell-Out on the LF and PF sides were described as two of the three major language generative processes.

Section 2.2 then tried to define what is a morpheme in DM but after a short consideration, it was clear that morpheme division is far more advantageous. Consequently, the two major groups of morphemes were distinguished, and the essential Root versus Functional Morpheme distinction was established. This morpheme type separation then proved to be crucial and it was later used throughout the whole thesis.

The two following sections 2.3 and 2.4 elaborated on the morpheme distinction further and provided both Roots and Functional Morphemes with characteristic properties. These properties were presented as three claims for each of the two morpheme types and they clearly defined and divided them. Section 2.3 also shortly commented on the Root identity argument and sided with Harley by claiming that Roots have no underlying phonological form.

All the six claims characterizing Functional Morphemes and Roots were explained by the end of 2.4 and at the end of the section, DM was fused with two more traditional morphological taxonomies. The two taxonomies from the end of the section then gave both Roots and Functional Morphemes the locality and dependency dimensions and they helped to better sort out morphemes by the analyses of the borrowing process in chapter 3.

After that, the last section of the theoretical part was presented in 2.5 and it briefly discussed the semantic aspect of the Y model. The Encyclopedia and its most significant characteristics were proposed, and the Encyclopedic entry description then ended the theoretical part of the thesis.

To summarize, the whole chapter 2 proved that Distributed Morphology is a complex theoretical framework, which often alters the well-established approaches to phonology, morphology, syntax, and semantics. Although when the framework was explained more closely and in-depth, it showed its considerable capacity for the characterization of language generative processes.

That is why the theoretical grounds in 2 were set up and when the DM offered a deeper insight into the word formative process of borrowing in 3., it fulfilled its main intended role. The syntactic tree analyses originating from the DM were also consistently used throughout the thesis and they ended up being highly beneficial analytic tools, which revealed covert structures and led to multiple observations and tendencies.

4.2 Summary of the language data, tendencies, and observations

Chapter 3 dealt with the word formative process of borrowing in West-Slavic and West-Germanic languages in the context of the previously defined theoretical framework.

The chapter started with the introduction of other valuable linguistic approaches and then accentuated the main aims of the practical part of the thesis. After that, the word formative process of borrowing was defined and its discourse factors such as its productivity or its real-world basis were briefly mentioned in 3.1. The method of my language data collection for the whole chapter was also explained in this section. Section 3.2 then continued the discussion on borrowing and used the accumulated theoretical knowledge to start single analyses of individual verbal borrowings.

In 3.2 the borrowing process itself has been exposed by the hierarchical tree analyses and the underlying DM principles proved to be correct and attestable by verbal borrowings in West-Slavic and West-Germanic language groups. The

categorization part of the DM model has also been made visible by analyses in 3.2 and multiple verbal borrowings were provided with the explanation of their word category origin.

After a few decomposed verbal borrowings, the grammatical features of Czech and other West-Slavic languages began to show in 3.2 and after a while, the point of focus shifted towards the aspect feature. The aspect feature showed quite a lot of room for research and the adaptation of it and of other grammatical features by Czech verbal borrowings was put into paradigms and into more tree analyses, which hinted at a possible prefixation tendency of aspect.

3.3 then continued with the research of the aspect feature and thanks to the multiple textual and graphical examples in these sections two main observations were made. Both observations were closely tied to the aspect realization on verbal borrowings in West-Slavic languages and one of them got transformed into a hypothesis.

The hypothesis in 3.3 then claimed that if a verbal borrowing enters a West-Slavic language, it needs to fulfill the binary requirement of the language system and have both a perfective and an imperfective form. The imperfective form itself was then compared with the prefixation tendency in Slavic and the qualitative, as well as the quantitative approach, confirmed the tendency of aspect feature to attach to prefixes.

Several smaller observations like the imperfective aspect prefixation tendency beyond West-Slavic, or the multiple prefix competition for the aspect feature realization were also mentioned in 3.2 and 3.3, where the behavior of West-Slavic and West-Germanic verbal borrowings was examined in depth.

While the verbal borrowings and the aspect feature in 3.3 were analyzed a research-worthy similarity to the prefixation tendency cropped up and started to build up the section 3.4.

This section then examined phrasal verb borrowing cross-linguistically and after a short comparison and multiple tree analyses, it was shown that if Czech borrows a phrasal verb from English, its prepositional part tends to be adapted by bound affixation with VP internal structure.

In German, the phrasal verb borrowing tendency was different and multiple examples in 3.4 showed that this West-Germanic language tends to adapt borrowed phrasal verbs by bound affixation with VP external structure.

Other examples, where no borrowing processes occurred were also given and they posed a restriction, which can be eventually extended to the whole second chapter.

This restriction is based on exceptions and misbehaving morphemes, which disallow any formation of strict rules or language group universals, and they confirm that this thesis was more focused on empirical observations and their following assessment, rather than on one central problematic with one clear linguistic solution.

The last segment in 3.4 then concluded that the process of borrowing showed its unpredictability and cross-linguistic variation even when it was thoroughly analyzed multiple times. It then ended with the proposition that exactly these two

characteristics make the word formative process so interesting and research-worthy. The last brief commentary then outlined two other research areas and I would just like to add that these two areas really caught my interested and I would like to examine them sometime in the future.

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